

CENSUS OF MANUFACTURES


II
INDUSTRY
STATISTICS
part 2
MAIOR GROUPS
29 to 39 and 19

## CENSUS REGIONS AND GEOGRAPHIC DIVIIION:

 c)
## F THE UNITED STATES



# 1963 CENSUS DF MANUFACTURES 

Volume II

## Industry Statistics

part 2
Major Groups 29 to 39 and 19

U.S. DEPARTMENT OF COMMERCE John T. Connor, Secretary
William H. Shaw, Asst. Secy., Economic Affairs BUREAU OF THE CENSUS
A. Ross Eckler, Director

# BUREAU OF THE CENSUS 

A. Ross Eckler, Director

Howard C. Grieves<br>Deputy Director

INDUSTRY DIVISION

Maxwell R. Conklin, Chief

## Acknowledgments

The 1963 Census of Manufactures was conducted under the direction of Maxwell R. Conklin, Chief, and Owen C. Gretton, Assistant Chief, of the Industry Division, Within the Industry Division, program responsibility along industry lines was shared by the following individuals who participated importantly in the entire census program: Willis K. Jordan, Foods, Textiles, and Apparel; Cyril M. Wildes, Lumber, Paper, and Chemicals; and Paul F. Berard and Clarence H. Olsen, Metals, Machinery, and Equipment. Edward A. Robinson was responsible for the concepts and definitions of establishment-type data, for preparation of the introductory text to the volumes, and for planning the content of the statistical tables in the area and subject reports.

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## Preface

This is one of a series of volumes presenting the final results of the 1963 Census of Manufactures. The quinquennial census for 1963 was a large-scale undertaking and its success depended upon important contributions from a large number of private and public individuals and organizations. An essential element in the census was the fine cooperation received from over 300,000 manufacturing establishments in completing the appropriate report forms.

The advice and counsel of trade associations, individual manufacturing companies, government agencies, and research organizations were most valuable in determining the content of the census reports, especially the product and materials inquiries. The Advisory Council on Federal Reports provided special assistance in determining the feasibility of collecting various types of data. Precensus exchanges of ideas with the Census advisory committees of the American Statistical Association, the American Economic Association, and the American Marketing Association contributed significantly to the planning phases of the census. Timely publicity was given the manufactures census by chambers of commerce, local newspapers, trade papers, and television and radio stations.

## Census of Manufactures

## Publication Program

Final results of the 1963 Census of Manufactures are published in three volumes, each containing a specific type of data.

## VOLUME I. SUMMARY AND SUBJECT STATISTICS

In addition to a summary chapter presenting the basic data historically for industries and geographic areas, separate chapters present data on a subject basis. Chapter titles are as follows:

1. General Summary
2. Size of Establishments
3. Type of Organization
4. Manufacturers' Inventories
5. Expenditures for Plant and Equipment
6. Power Equipment in Manufacturing Industries
7. Fuels and Electric Energy
8. Selected Materials Consumed
9. Selected Metalworking Operations
10. Water Use in Manufacturing
11. Concentration Ratios in Manufacturing Industries
Three special reports are also included in this volume: Manufacturing Activitiy in Government Establishments, Shipments of Defense Oriented Industries, and Origin of Exports of Manufactured Products. Each of the chapters in this volume was previously published as a separate report (Series MC63(1)-, numbers 1 to 10. Chapter 11 was issued as a special report for the Senate Subcommittee on Antitrust and Monopoly.)

## VOLUME II. INDUSTRY STATISTICS

This volume contains separate chapters for each of 80 groups of related industries which cover approximately 430 individual industries. Statistics are shown on detailed product shipments and materials consumption in terms of quantity and value, cost of fuels and electric energy, value added by manufacture, employment, payrolls, inventories, and capital expenditures. Selected statistics are included for earlier census years. This volume is published in two parts. Part 1 contains a general summary chapter and chapters for SIC Major Groups 20 to 28 , as well as chapters for related industries within these major groups; Part 2 contains chapters for SIC Major Groups 29 to 39 and 19 as well as chapters for related industries within these major groups. A special report, Manufacturing Activity in Government

Establishments, is included in both parts of this volume. The 80 related-industry chapters were previously published as separate reports in series MC63(2)-, 19A to 39D.

## VOLUME III. AREA STATISTICS

This volume contains separate chapters for each State and the District of Columbia. The statistics include all-manufacturing totals for the State and its standard metropolitan statistical areas, counties, and cities with populations of 10,000 or more, with industry detail for the larger areas. The volume also includes a summary chapter presenting data for each of the nine geographic divisions and a special report, Manufacturing Activity in Government Establishments. Each State chapter was previously published as a separate report in Series MC63(3)-, 1 to 51.

## OTHER REPORTS

Two series of reports have been issued showing the number of manufacturing establishments in each of the approximately 430 manufacturing industries classified according to their employment size class and the State and county within which they are located. The first series places emphasis on the industry, showing data by location (State and county). Nine separate reports present data for 20 major industry groups. The second series places emphasis on the location showing data by industry. Nine reports-one for each of the nine geographic divisions of the United States-were published in this series. The series titles are as follows:

Location of Manufacturing Plants by Industry, County, and Employment Size (MC63(S)-3, numbers 1 to 9 )
Location of Manufacturing Plants by County, Industry, and Employment Size (MC63(S)4, numbers 1 to 9 )

## The 1963 Census of Mineral Industries Publication Program

The 1963 Census of Mineral Industries was conducted jointly with the census of manufactures. This census was similar in scope and in publication program. Final results are published in two volumes, as follows:

Volume I. Summary and Industry Statistics, contains a summary chapter, 5 subjecttype chapters, and 18 chapters showing related mineral industries.

Volume II. Area Statistics, contains separate chapters for each State (Delaware, Maryland, and the District of Columbia are combined).

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The chapters of this volume were published earlier as separate reports in the 1963 Census of Manufactures series MC63(2)-, 19A to 39D.

Data in this volume include all significant corrections uncovered after publication of the separate reports. The 1958 and other historical data include all significant corrections made since the latest publication of these figures.

## TABLE COLUMN HEADS: GENERAL SUMMARY TABLES

table 1. General Statistics for Operating Manufacturing Establishments: 1963 and Earlier Years

| Year (Selected years, 1849 to 1963) | Establishments |  | Proprietors and partners <br> (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted | Capital expenditures, new | Index of industrial production |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> (number) | With 20 employees or more (number) |  | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |

table 2. Manufacturing Employment: 1963 and 1958

|  |  |  | All establishments |  | Operating manufacturing establishments |  | Administrative offices and auxiliaries |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Major industry group (2-digit major industry groups) | Year | Employees <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Employees <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Employees <br> (number) | Payroll $(\$ 1,000)$ |

TABLE 3. General Statistics for Establishments, by Industry Groups and Industries: 1963 and 1958


TABLE COLUMN HEADS: GENERAL SUMMARY TABLES--Continued
table 4. Selected Statistics on Central Administrative Offices and Auxiliaries, by Major Industry Groups of Establishments Serviced: 1963

| Code | Major industry group and central administrative offices and auxiliaries | Establishments (numter) | Employees (number) | Total payroll ( $\$ 1,000$ ) | Code | Major industry group and central administrative offices and auxiliaries | EstabJishments (number) | Employees <br> (number) | Total payroll ( $\$ 1,000$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | All industries, total......... Central administrative offices. $\qquad$ Research, development, or | 5,304 3,567 | 726,477 515,920 | $6,615,494$ $4,740,548$ | 29 | Petroleum and coal products-aCon. Storage (warehouse)................... All other functions. $\qquad$ | 20 18 | 264 243 | $\begin{aligned} & 1,585 \\ & 2,370 \end{aligned}$ |
|  | testing..................... | 551 | 160,348 | 1,504,696 | 30 | Rubber and plastics products, n.e.c. | 72 | 11,757 | 106,739 |
|  | Storage (warehouse) | 485 | 11,012 | 57,344 |  | Central administrative offices.... | 50 | 10,940 | 99,904 |
|  | All other functions | 701 | 39,197 | 312,906 |  | Research, development, or testing. | 3 | 723 | (D) |
|  | Food and kindred products............ Central administrative offices.... Research, development, or testing. Storage (warehouse). $\qquad$ All other functions.................. | 1,066 | 71,496 | 596,779 |  | Storage (warehouse).................. | 16 3 | 81 13 | (D) |
|  |  | 625 | 60,397 | 518,842 |  | All other functions................ | 3 | 13 | (D) |
|  |  | 40 113 | 4,369 | 35,017 | 31 | Leather and leather products........ | 73 | 7,582 | 50,240 |
|  |  | 113 | 2,149 | 12,097 |  | Central administrative offices.... | 51 | 6,434 | 44,901 |
|  |  | 288 | 4,581 | 30,823 |  | Research, development, or testing. | 3 | - 29 | (D) |

TABLE 5. Detailed Statistics, by Industry Groups: 1963

| (See "Data Item Guide," page xiii, for items shown) | United States total | Food and kindred products (SIC 20) | Tobacco manufactures (SIC. 21) | Textile mill oroducts (SIC 22) | Apparel and related products (SIC 23) | Lumber and wood products (SIC 24) | Furniture and fixtures (SIC 25) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |

table 6. Manufacturing Employment and Payroll for Geographic Areas: 1963, 1958, and 1954

|  | Year | All establishments |  | Operating manufacturing establishments |  | Administrative offices and auxiliaries |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Geographic area <br> (Data are showin for Divisions, States, and Standard Metropolitan Statistical Areas) |  | Employees (number) | $\begin{aligned} & \text { Payroll } \\ & \text { (S1.noo) } \end{aligned}$ | Employees <br> (number) | $\begin{aligned} & \text { Payroll } \\ & \text { (\$1,000) } \end{aligned}$ | Employees (number) | $\begin{aligned} & \text { Payroll } \\ & \text { '\$1.000 } \end{aligned}$ |

TABLE 7. General Statistics for Manufacturing Establishments by Geographic Areas: 1963 and Earlier Years

| Geographic area | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture. adjusted | Capital expenditures. new | Comparative employment indexes |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> (number) | With 20 employees or more <br> (number) | Total <br> (number) | Payroll $(\$ 1,000)$ | Total <br> (number) | Man-hours $(1.000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1.000) \\ & \hline \end{aligned}$ |  |  | Percent of U.S. employment (percent) | Index of employment change (1958-100) | U.S. index of employ- ment change (1958=100) |
| United States: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963.......... | 311,921 | 102,272 | 16,960,983 | 99,904,279 | 12,232,041 | 24,509,450 | 62,093,601 | 192,103,102 | 11,370,935 | (X) | (X) | 106 |
| 1958. | 303,387 | 97,563 | 16, 025, 219 | 78, 348,893 | 11,681,143 | 22,679,219 | 49,605,180 | 141,540,618 | 9,543,528 | (X) | (X) | 100 |
| 1954. | 286,814 | 90,470 | 16,098,653 | 65,866,573 | 12,372,002 | 24,334,082 | 44,590,545 | 117,032,326 | 7,816,752 | (x) | (X) | 100 |
| 1947. | 240,807 | (NA) | 14,293,963 | 39,695,558 | 11,917,884 | 24,316,465 | 30,243,971 | 74,290,475 | 5,998,099 | (X) | (x) | 89 |
| 1939........... | 173,802 | (NA) | 9,527,306 | 12,706,102 | 7,808,205 | (NA) | 8,997,515 | 24,487,304 | (NA) | (x) | (x) | 59 |
| 1929. | 206,663 | (NA) | 9,659,742 | 14,284,282 | 8,369,705 | (NA) | 10,884,919 | 30,591,435 | (NA) | (x) | (x) | 60 |
| 1909. | 264,810 | (NA) | 7,836,801 | $12,426,902$ $4,105,470$ | $8,464,916$ $6,261,736$ | (NA) | 9,664,009 $3,205,213$ | $23,841,624$ $8,160,075$ | (NA) | (X) | (X) | 61 44 |
| 1899. | 204,754 | (NA) | 4,850,019 | 2,258,654 | 4,501,919 | (NA) | 1,892,574 | 4,646,981 | (NA) | (X) | (X) | 30 |
| dIVISION AND STATE |  |  |  |  |  |  |  |  |  |  |  |  |

## table 1. General Statistics: 1963 and Earlier Years

| Year and item | Establishments |  | All employees |  |  |  | Production workers |  |  |  |  |  |  | Value added by manufacture. adjusted$(\$ 1,000)$ |  | Cost of materials$(\$ 1,000)$ |  | Value of shipments$(\$ 1,000)$ |  | Capital <br> expenditures, <br> new <br> $(\$ 1,000)$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total (number) | With 20 or more (number) | Total <br> (number) |  | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ |  | Man-hours <br> $(1,000)$ |  | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
| all manufacturing establishMENTS, TOTAL: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1763 . . . . | 38587 | 14549 |  |  |  | 233031 |  | 038116 |  | 228013 |  | 157 | 376 |  | 825516 |  | 784435 |  | $\begin{array}{lll}466 & 487\end{array}$ |  | 249245 |
| ${ }_{1954} 1958$. | 42843 (NA) | 15 (NA) |  | 781469 709106 |  | 064 560 5608 |  | 152762 137681 |  | 309.576 315 |  | 548 757 | 960 953 |  | 700906 766995 |  | ( (NA) | 59 | 7350310 |  | 1021204 787649 |
| ADMINISTRATIVE AND AUXILIARY UNITS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 . . . . . . . . . . . | 1066 | 436 |  | 71496 |  | 596779 |  | (x) |  | (x) |  |  | (x) |  | (x) |  | (x) |  | (x) |  | (x) |
| 1958 | 973 | 352 |  | $\begin{array}{lll}63 & 337 \\ 62 & 515\end{array}$ |  | 442096 360309 |  | $\left(\begin{array}{l}\text { (x) } \\ (x)\end{array}\right.$ |  | ( x ( x ) |  |  | $\left(\begin{array}{l}\text { ( } \\ (x) \\ \hline\end{array}\right.$ |  | ( $(x)$ |  | $(\mathrm{x})$ |  | $(\mathrm{x})$ |  | $(\mathrm{x})$ |
| 1954 | (NA) | (NA) |  | 62515 |  | 360309 |  | $(x)$ |  | $(x)$ |  |  | (x) |  | (x) |  | $(x)$ |  | $(x)$ |  | $(\mathrm{x})$ |
| operating manufacturing ESTABLISHMENTS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1958 | 41970 | 14890 |  |  |  | 622329 |  |  |  | 309576 |  |  |  |  | 700906 |  | ( NA ) |  | 785310 |  | 1021204 |
| 1954 | 42373 | 13648 | 1 | 646591 |  | 200099 |  | 137681 |  | 315312 |  | 757 | 953 |  | 13766995 |  | (NA) |  | ( NA ) |  | 787649 |
| operating manufacturing establi Shments: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1962 . . . . . . . . . | (NA) | (NA) | 1 | 682697 |  | 592490 |  | 119225 | 2 | 287220 |  | 059 | 706 | 20 | 870394 |  | 037120 | 66 | 905954 |  | 234541 |
| 1961 | (NA) | (NA) |  | 701570 |  | 362827 |  | 138207 |  | 317297 |  |  | 660 |  | 123882 | 44 | 469448 | 64 | 590841 |  | 044137 |
| 1960 | ( NA ) | (NA) | 1 | 719309 |  | 210415 |  | 154513 |  | 347651 |  |  |  |  | 753156 |  | ( NA ) |  | ( NA ) |  | 1034146 |
| 1959. | ( NA ) | (NA) | 1 | 717539 |  | 910102 |  | 154565 |  | 345 304 304 |  | 702 | 140 |  | 646181 <br> 346999 |  | (NA) |  | ( NA ) |  | 078122 |
| 1957. | (NA) | (NA) | 1 | 687615 706226 |  | 141257 963936 |  | 133212 |  | 304005 |  |  | 838 |  | 16 346999 |  | (NA) |  | ( $N A$ ) |  | 922575 |
| ${ }_{1955}^{1956}$ : . . | (NA) | (NA) | 1 | 706226 674255 |  | 963936 |  | 166898 |  | 378425 |  | 201 | 459 |  | $\begin{array}{ll}5939 & 217\end{array}$ |  | (NA) |  | ( NA) |  | 986935 |
| 1955. | (NA) | (NA) |  | 674255 |  | 543568 |  | 154115 |  | 343504 |  | 940 | 194 |  | 490062 |  | (NA) |  | ( NA ) |  | 797712 |

table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Code | Industry group and geographic area (2. and 3-digit industries shown by region, division, and State) | 1963 |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Capital expendi tures, new <br> $(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll $(\$ 1,000)$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 20 | FOOD AND KINOREO PROOUCTS, TOTAL | 37521 | 14113 | 643111 | 8637152 | 098116 | 228013 | 5159376 | 21825516 | 1249245 | 1718132 | 1770096 |
|  | NORTHEAST | 9102 | 3141 | 373163 | 2054640 | 243316 | 495740 | 1193597 | $5 \quad 147479$ | 248888 | 410225 | 4313219 |
|  | NEW ENGLAND | 2358 | 741 | 75754 | 375957 | 47876 | 96988 | 207014 | 910797 | 43160 | 85183 | 742700 |
|  | MAINE. ${ }^{\text {a }}$ - | 341 | 122 | 11657 | 45055 | 8931 | 17583 | 29579 | 109239 | 5693 | 11462 | 86209 |
|  | NEW HAMPSHIRE. | 150 | 41 | 2944 | 14092 | 1579 | 3353 | 6565 | 31474 | 1564 | 3129 | 21127 |
|  | VERMONT. - . | 132 | 37 | 2699 | 13142 | 1740 | 3644 | 7481 | 35022 | 1642 | 2876 | 34294 |
|  | MASSACHUSETTS. | 1110 | 369 | 41037 | 208802 | 26176 | 53063 | 117134 | 505007 | 22912 | 48045 | 409697 |

TABLE 3. Detailed Statistics: 1963

| Item (See "Data Item Guide," page xiii, for items shown) | Food and kindred products (SIC 20) | Meat products (SIC 201) | Dairies (SIC 202) | Canned and frozen foods (SIC 203) | Grain mills (SIC 204) | Bakery products (SiC 205) | Sugar (SIC 206) | Candy and related products (SIC 207) | Beverages (SIC 208) | Miscellaneous foods and kindred products (SIC 209) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |

## TABLE COLUMN HEADS: INDUSTRY CHAPTER TABLES

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials | Value of shipments | Capital expenditures, new | Spe-cialization ratio | Coverage ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

|  | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials | Value of shipments | Capital expenditures, new | All ent ployees | Value added by manufacture, adjusted |
| Geographic area (Divisions and States) | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> ( $\$ 1 ; 000$ ) |  |  |  |  |  |  |

TABLE 3. Detailed Statistics: 1963

| (See "Dota Item Guide," paye xili, for items shown) | Food products machinery (SIC 3551) | Textile machinery (SIC 3552) | Woodworking machinery (SIC 3553) | Paper industries machinery (SIC 3554) | Printing trades machinery (SIC 3555) | Special industry machines, n.e.c. (SIC 3559) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 2,500 \\ \text { employees } \\ \text { and over } \end{gathered}$ |
|  | INDUSTRY 3561.-PUNPS AND COMPRESSORS |  |  |  |  |  |  |  |  |  |  |
| Establishments.................number. . All employees: | 642 | 198 | 77 | 100 | 93 | 47 | 61 | 38 | 17 | 10 | 1 |
| Total......................do.... | 61,322 | 336 | 499 | 1,361 | 2,953 | 3,356 | 9,932 | 13,256 | 11,332 | 18,297 | (D) |
| Payroll. . . . . . . . . . . . . . $\$ 1,000$. . | 395,769 | 1,673 | 2,708 | 7,409 | 18,466 | 20,899 | 61,891 | 84,939 | 73,641 | 124,143 | (D) |
| Value added, adjusted.......do.... | 768,787 | 3,715 | 5,423 | 15,331 | 36,659 | 44,762 | 129,437 | 167,692 | 154,906 | 210,862 | (D) |
| Value of shipments..........do.... | 1,419,081 | 7,455 | 10,475 | 30,836 | 67,340 | 83,066 | 241,587 | 305,129 | 262,335 | 410,858 | (D) |
| Capital expenditures, new...do.... | 28,417 | 179 | 205 | 413 | 727 | 1,776 | 4,305 | 6,359 | 5,633 | 8,820 | (D) |
|  | INDUSTRY 3562. -BALL AND ROLLER BEARINGS |  |  |  |  |  |  |  |  |  |  |

## TABLE COLUMN HEADS: INDUSTRY CHAPTER TABLES--Continued

## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $\mathbf{A}$ through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

|  | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Ind. } \\ \text { code } \\ \text { (4-digit) } \end{gathered}$ |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio Col. B <br> $\overline{\mathrm{Col} . \mathrm{B}+\mathrm{C}}$ <br> (percent) | Total, made in all industries <br> $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |

## TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| Product | Product | Total production | Total shipments including interplant transfers |  | Transfer s to other plants of the same company |  | Producedandconsumedin sameestablish-ment( 1,000 pounds $)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity (1,000 pounds) | Value $(\$ 1,000)$ | $\begin{array}{\|c\|} \hline \text { Quantity } \\ (1,000 \text { pounds }) \\ \hline \end{array}$ | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |  |

(Column structure varies with the industry. Production and interplant transfers are shown if they are significant)

| Unit of measure | Production for all purposes including further manufacture (quantity) | Total shipments including interplant transfers |  | Commercial shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |


| Unit of <br> measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1963 |  | 1958 |  |
|  | Quantity | Value <br> $(\$ 1,000)$ | Quantity | Value <br> $(\$ 1,000)$ |

## TABLE COLUMN HEADS: INDUSTRY CHAPTER TABLES.-Continued

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product <br> code | Product and year | Indexes $(1954=100)$ |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |

table 6c. Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | 1962 | 1961 | 1960 | 1959 | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1 .

| Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments |
| :---: | :---: | :---: | :---: | :---: | :---: |

table 7A. Materials by Kind: 1963 and 1958

| Code | Material <br> (List of materials varies with each industry) | Basis | Unit of measure | 1963 |  |  |  | 1958 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Total consumption of materials <br> (Quantity) | Consumption of materials received from other establishments |  | Materials made and consumed in same plant <br> (Quantity) | Total consumption of materials | Consumption of materials received from other establishments |  | Materials made and consumed in same plant <br> (Quantity) |
|  |  |  |  |  | Quantity | Delivered cost $(\$ 1,000)$ |  |  | Quantity | Delivered cost <br> ( $\$ 1,000$ ) |  |

(Column structure varies. Production and consumption is shown if important in the industry)

| Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Delivered <br> cost <br> $(\$ 1,000)$ | Quantity | Delivered <br> cost <br> $(\$ 1,000)$ |

## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Concrete block and brick (SIC 3271) | Other concrete products (SIC 3272) | Ready mixed concrete (SIC 3273) | Lime (SIC 3274) | Gypsum products (SIC 3275) | Cut stone and stone products (SIC 3281) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. |  |  |  |  |  |  |
|  | Electric energy: |  |  |  |  |  |
| Total cost of purchased fuels...............................do. | Purchased: |  |  |  |  |  |
| Bituminous coal, lignite, and anthracite: 000 end | Quantity. |  |  |  |  |  |
| Quantity............................................ . . 1,000 short tons. Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | Generated less sold............................million kw, -hrs.. |  |  |  |  |  |
| Coke and breeze: | Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total........., 000 hp. . |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 000 . . . . . . . $\$ 1,000$. . |  |  |  |  |  |  |
| Fuel oil (distillate and residual): | Prime movers, total..........................................do.... |  |  |  |  |  |
| Quantity......................1,000 barrels of 42 gallons.. | Driving generators. $\qquad$ do. <br> Not driving generators. $\qquad$ |  |  |  |  |  |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1$, 000.. |  |  |  |  |  |  |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |
| Quantity.........................................million cu.ft.. | Driven by purchased energy................................ do.... |  |  |  |  |  |
| Cost.................................................... ${ }^{\text {d }}$, 000.. | Driven by energy generated at establishment..............do.... |  |  |  |  |  |
| Other fuels................................................. . do.... | Aggregate horsepower per 100 production workers................... |  |  |  |  |  |

## tABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry special ization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Appendix A for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted( $\$ 1,000$ ) | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | $\begin{gathered} \text { Capital } \\ \text { expend- } \\ \text { itures, } \\ \text { new } \\ (\$ 1,000) \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 2071 | CONFECTIONERY PRODUCTS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. | 1,211 | 63,643 | 269,680 | 52,724 | 102,402 | 193,028 | 635,393 | 824,052 | 1,454,512 | 28,094 |
|  | $90 \%$ or more specialization.. | 1,141 | 56,803 | 243,055 | 47,152 | 91,820 | 174,476 | 568,175 | 717,149 | $1,280,786$ | $25,213$ |
|  | 75-89\% specialization. . ...... | 26 | 3,199 | 10,945 | 2,762 | 5,175 | 8,357 | 27,786 | 53,429 | $81,260$ |  |
| 20711 | Bar goods (except solid chocolate bars) (primary product class of estab.). | 48 | 9,861 | 45,744 | 8,161 | 16,113 | 32,998 | 119,607 | 168,094 | 287,367 | 4,974 |
|  | Establishments with- |  |  |  |  |  |  |  |  |  |  |
|  | 90\% or more specialization.... $75-89 \%$ specialization........ | 21 | 4,103 2,546 | $\begin{aligned} & 21,438 \\ & 11,112 \end{aligned}$ | $\begin{aligned} & 3,176 \\ & 2,269 \end{aligned}$ | 6,161 | $\begin{array}{r} 14,536 \\ 8,968 \end{array}$ | $\begin{aligned} & 54,533 \\ & 31,373 \end{aligned}$ | $\begin{aligned} & 86,734 \\ & 33,400 \end{aligned}$ | $\begin{array}{r} 141,106 \\ 65,060 \end{array}$ | 2,286 767 |

(Asterisk (*) indicates historical data also shown)
A - GENERAL STATISTICS


## (Asterisk (*) indicates nistorical data also shown)

## B - PRODUCTS AND MATERIALS



## Industry Chapter Descriptions

Chapters in this volume are coded to industries as classified in the Standard Industrial Classification (SIC) system. Pages are numbered with a chapter identification prefix; for example, the chapter on Weaving Mills in Major

## PART I

Major Group 20-FOOD AND KINDRED PRODUCTS
20A Meat Products
2011 Meat slaughtering plants
2013 Meat processing plants
2015 Poultry dressing plants
20B Dairies
2021 Creamery butter
2022 Natural and process cheese
2023 Condensed and evaporated milk
2024 Ice cream and frozen desserts
2026 Fluid milk
20C Canned and Frozen Foods
2031 Canned and cured seafoods
2032 Canned specialties
2033 Canned fruits and vegetables
2034 Dehydrated foods products
2035 Pickles, sauces, salad dressings
2036 Fresh or frozen packaged fish
2037 Frozen fruits and vegetables
20D Grain Mills
2041 Flour mills
2042 Prepared animal feeds
2043 Cereal preparations
2044 Rice milling
2045 Blended and prepared flour
2046 Wet corn milling
20E Bakery Products
2051 Bread and related products
2052 Biscuit, crackers, and cookies
20F Sugar and Confectionery Products
2061 Raw cane sugar
2062 Cane sugar refining
2063 Beet sugar
2071 Confectionery products
2072 Chocolate and cocoa products
2073 Chewing gum
20G Beverages
2082 Malt liquors
2083 Malt
2084 Wines and brandy
2085 Distilled liquor, except brandy
2086 Bottled and canned soft drinks
2087 Flavorings
20H Fats and Oils
2091 Cottonseed oil mills
2092 Soybean oil mills
2093 Vegetable oil mills, n.e.c.
2094 Animal and marine fats and oils
2096 Shortening and cooking oils

Group 22 will begin on page 22A-1. The list below shows the prefix identification for each chapter and the SIC industries included under each title. Chapters for both parts of this volume are shown.

201 Miscellaneous Food Products
2095 Roasted coffee
2097 Manufactured ice
2098 Macaroni and spaghetti
2099 Food preparations, n.e.c.

## Major Group 21-TOBACCO MANUFACTURES

21A Tobacco Products
2111 Cigarettes
2121 Cigars
2131 Chewing and smoking tobacco
2141 Tobacco stemming and redrying

## Major Group 22-TEXTILE MILL PRODUCTS

22A Weaving Mills
2211 Weaving mills, cotton
2221 Weaving mills, synthetics
2231 Weaving, finishing mills, wool
2241 Narrow fabric mills
22B Knitting Mills
2251 Women's hosiery, except socks
2252 Hosiery, n.e.c.
2253 Knit outerwear mills
2254 Knit underwear mills
2256 Knit fabric mills
2259 Knitting mills, n.e.c.
22C Dyeing and Finishing Textiles, Except Wool Fabrics and Knit Goods
2261 Finishing plants, cotton
2262 Finishing plants, synthetic
2269 Finishing plants, n.e.c.
22D Floor Covering Mills
2271 Woven carpets and rugs
2272 Tufted carpets and rugs
2279 Carpets and rugs, n.e.c.
22E Yarn and Thread Mills
2281 Yarn mills, except wool
2282 Throwing and winding mills
2283 Wool yarn mills
2284 Thread mills
22F Miscellaneous Textile Goods
2291 Felt goods, n.e.c.
2292 Lace goods
2293 Padding and upholstery filling
2294 Processed textile waste
2295 Coated fabric, not rubberized
2296 Tire cord and fabric
2297 Scouring and combing plants

2298 Cordage and twine
2299 Textile goods, n.e.c.

2491 Wood preserving
2499 Wood products, n.e.c.

## Major Group 23-APPAREL AND RELATED PRODUCTS

```
23A Men's and Boys' Apparel
    2311 Men's and boys' suits and coats
    2321 Men's dress shirts and nightwear
    2322 Men's and boys' underwear
    2323 Men's and boys' neckwear
    2327 Separate trousers
    2328 Work clothing
    2329 Men's and boys' clothing, n.e.c.
23B Women's and Misses' Outerwear
    2331 Blouses
    2 3 3 5 ~ D r e s s e s
    2337 Women's suits, coats, and skirts
    2339 Women's outerwear, n.e.c.
23C Women's and Children's Underwear; Headwear;
    Children's Outerwear
    2341 Women's and children's underwear
    2342 Corsets and allied garments
    2351 Millinery
    2352 Hats and caps
    2361 Children's dresses and blouses
    2363 Children's coats and suits
    2369 Children's outerwear, n.e.c
23D Miscellaneous Apparel and Accessories
    2371 Fur goods
    2381 Fabric dress and work gloves
    2384 Robes and dressing gowns
    2385 Waterproof outergarments
    2386 Leather and sheeplined clothing
    2387 Apparel belts
    2389 Apparel, n.e.c.
23E Miscellaneous Fabricated Textile Products
    2391 Curtains and draperies
    2392 Housefurnishings, n.e.c.
    2393 Textile bags
    2394 Canvas products
    2395 Pleating and stitching
    2396 Apparel findings
    2397 Schiffli machine embroideries
    2399 Textile products, n.e.c.
```

Major Group 24 - LUMBER AND WOOD PRODUCTS
24 A Logging Camps, Sawmills and Planing Mills
2411 Logging camps and contractors
2421 Sawmills and planing mills
2426 Hardwood dimension and flooring
2429 Special product sawmills, n.e.c.
24B Millwork, Plywood and Prefabricated Structural
Wood Products
$\begin{array}{ll}2431 & \text { Millwork plants } \\ 2432 & \text { Veneer and plywood plants } \\ 2433 & \text { Prefabricated wood products }\end{array}$
24C Wooden Containers and Miscellaneous Wood
Products
2441 Nailed wooden boxes and shook
2442 Wirebound boxes and crates
2443 Veneer and plywood containers
2445 Cooperage

24C Wooden Containers and Miscellaneous Wood Products
2441 Nailed wooden boxes and shook

2443 Veneer and plywood containers
2445 Cooperage

## Major Group 25-FURNITURE AND FIXTURES

## 25A Household Furniture

2511 Wood furniture, not upholstered
2512 Wood furniture, upholstered
2514 Metal household furniture
2515 Mattresses and bedsprings
2519 Household furniture, n.e.c.

25B Office, Public Building, Office and Store Fixtures and Miscellaneous Furniture

2521 Wood office furniture
2522 Metal office furniture
2531 Public building furniture
2541 Wood partitions and fixtures
2542 Metal partitions and fixtures
2591 Venetian blinds and shades
2599 Furniture and fixtures, n.e.c.

## Major Group 26-PAPER AND ALLIED PRODUCTS

26A Pulp, Paper, and Board Mills
2611 Pulp mills
2621 Paper mills, except building
2631 Paperboard mills
2661 Building paper and board mills

26B Converted Paper and Paperboard Products, Except Containers and Boxes
2641 Paper coating and glazing
2642 Envelopes
2643 Bags, except textile bags
2644 Wallpaper
2645 Die cut paper and board
2646 Pressed and molded pulp goods
2647 Sanitary paper products
2649 Converted paper products, n.e.c.

26C Paperboard Containers and Boxes
2651 Folding paperboard boxes
2652 Set-up paperboard boxes
2653 Corrugated shipping containers
2654 Sanitary food containers
2655 Fiber cans, tubes, drums, etc.

## Major Group 27-PRINTING AND PUBLISHING

27A Newspaper, Periodicals, Books, and Miscellaneous Publishing.
2711 Newspapers
2721 Periodicals
2731 Books, publishing and printing
2732 Book printing
2741 Miscellaneous publishing

27B Commercial Printing and Manifold Business Forms
2751 Printing, except lithographic (letterpress, gravure, and screen)
2752 Printing, lithographic
2753 Engraving and plate printing
2761 Manifold business forms

27C Greeting Cards, Bookbinding, and Service Industries
$27 ் 71$ Greeting card manufacturing
2782 Blankbooks: looseleaf binders
2789 Bookbinding and related work
2791 Typesetting
2793 Photoengraving
2794 Electrotyping and stereotyping

Major Group 30-RUBBER AND PLASTICS PRODUCTS, N.E.C.

30A Rubber and Miscellaneous Plastics Products 3011 Tires and inner tubes
3021 Rubber footwear
3031 Reclaimed rubber
3069 Rubber products, n.e.c.
3079 Plastics products, n.e.c.

Major Group 28-CHEMICALS AND ALLIED PRODUCTS

| 28A | Industrial Inorganic and Organic Chemicals |
| :--- | :--- |
|  | 2812 | Alkalies and chlorine

28D Cleaning and Toilet Products
2841 Soap and other detergents
2842 Polishes and sanitation goods
2843 Surface active agents
2844 Toilet preparations
28E Paints and Allied Products and Gum and Wood Chemicals
2851 Paints and allied products
2861 Gum and wood chemicals
28F Agricultural Chemicals
2871 Fertilizers
2872 Fertilizers, mixing only
2879 Agricultural chemicals, n.e.c.
28G Miscellaneous Chemical Products
2891 Glue and gelatin
2892 Explosives
2893 Printing Ink
2895 Carbon black
2899 Chemical preparations, n.e.c.

## PART II

## Major Group 29-PETROLEUM AND COAL PRODUCTS

## 29A Petroleum Refining and Related Industries

2911 Petroleum refining
2951 Paving mixtures and blocks
2952 Asphalt felts and coatings
2992 Lubricating oils and greases
2999 Petroleum and coal products, n.e.c.

## Major Group 31-LEATHER AND LEATHER PRODUCTS

31A Tanning; Footwear; Industrial Leather Goods
3111 Leather tanning and finishing
3121 Industrial leather belting
3131 Footwear cut stock
3141 Shoes, except rubber
3142 House slippers
31B Leather Gloves; Luggage; and Miscellaneous Leather Goods
3151 Leather gloves
3161 Luggage
3171 Handbags and purses
3172 Small leather goods
3199 Leather goods, n.e.c.

Major Group 32-STONE, CLAY, AND GLASS PRODUCTS
32A Glass Products
3211 Flat glass
3221 Glass containers
3229 Pressed and blown glass, n.e.c.
3231 Products of purchased glass
32B Cement and Structural Clay Products
3241 Cement, hydraulic
3251 Brick and structural tile
3253 Ceramic wall and floor tile
3255 Clay refractories
3259 Structural clay products, n.e.c.
32C Pottery and Related Products
3261 Vitreous plumbing fixtures
3262 Vitreous china food utensils
3263 Fine earthenware food utensils
3264 Porcelain electrical supplies
3269 Pottery products, n.e.c.
32D Concrete, Plaster, and Cut Stone Products
3271 Concrete block and brick
3272 Other concrete products
3273 Ready mixed concrete
3274 Lime
3275 Gypsum products
3281 Cut stone and stone products
32E Abrasive, Asbestos, and Miscellaneous
Nonmetallic Mineral Products
3291 Abrasive products
3292 Asbestos products
3293 Gaskets and insulations
3295 Minerals, ground or treated
3296 Mineral wool
3297 Nonclay refractories
3299 Nonmetallic products, n.e.c.

## Major Group 33-PRIMARY METAL INDUSTRIES

33A Blast Furnaces, Steel Works, and Rolling and Finishing Mills
3312 Blast furnaces and steel mills
3313 Electrometallurgical products
3315 Steel wire drawing, etc.
3316 Cold finishing of steel shapes
3317 Steel pipe and tube
33B Iron and Steel Foundries
3321 Gray iron foundries
3322 Malleable iron foundries
3323 Steel foundries
33C Smelting and Refining of Nonferrous Metals and Alloys
3331 Primary copper
3332 Primary lead
3333 Primary zinc
3334 Primary aluminum
3339 Primary nonferrous metals, n.e.c.
3341 Secondary nonferrous metals
33D Nonferrous Metal Mill and Foundry Products
3351 Copper rolling and drawing
3352 Aluminum rolling and drawing
3356 Rolling and drawing, n.e.c.
3357 Nonferrous wire drawing, etc.
3361 Aluminum castings
3362 Brass, bronze, copper castings
3369 Nonferrous castings, n.e.c.
33E Forgings and Miscellaneous Primary Metal Industries
3391 Iron and steel forgings
3392 Nonferrous forgings
3399 Primary metal industries, n.e.c.

## Major Group 34-FABRICATED METAL PRODUCTS

34A Metal Cans, Cutlery, Hand Tools, and General Hardware
3411 Metal cans
3421 Cutlery
3423 Hand and edge tools
3425 Hand saws and saw blades
3429 Hardware, n.e.c.
34B Heating Apparatus, Except Electric, and Plumbing Fixtures
3431 Metal Plumbing fixtures
3432 Plumbing fittings, brass goods
3433 Heating equipment, except electric
34C Fabricated Structural Metal Products
3441 Fabricated structural steel
3442 Metal doors, sash, and trim
3443 Boiler shop products
3444 Sheet metal work
3446 Architectural metal work
3449 Miscellaneous metal work, n.e.c.
34D Screw Machine Products, Bolts, Metal Stampings, and Metal Services
3451 Screw machine products
3452 Bolts, nuts, rivets, and washers
3461 Metal stampings
3471 Plating and polishing
3479 Metal coating, engraving, etc.

34E Fabricated Metal Products, N.E.C.
3481 Fabricated wire products, n.e.c.
3491 Metal barrels, drums, and pails
3492 Safes and vaults
3493 Steel springs
3494 Valves and pipe fittings
3496 Collapsible tubes
3497 Metal foil and leaf
3498 Fabricated pipe and fittings
3499 Fabricated metal products, n.e.c.

Major Group 35-MACHINERY, EXCEPT ELECTRICAL
35A Engines and Turbines and Farm Machinery and Equipment
3511 Steam engines and turbines
3519 Internal combustion engines
3522 Farm machinery and equipment
35B Construction, Mining, and Materials Handling
Machinery and Equipment
3531 Construction machinery
3532 Mining machinery and equipment
3533 Oil field machinery
3534 Elevators and moving stairways
3535 Conveyors
3536 Hoists, cranes, and monorails
3537 Industrial trucks and tractors
35C Metalworking Machinery and Equipment
3541 Metal-cutting machine tools
3542 Metal-forming machine tools
3544 Special dies and tools
3545 Machine tool accessories
3548 Metalworking machinery, n.e.c.
35D Special Industry Machinery, Except Metalworking Machinery
3551 Food products machinery
3552 Textile machinery
3553 Woodworking machinery
3554 Paper industries machinery
3555 Printing trades machinery
3559 Special industry machines, n.e.c.
35E General Industrial Machinery and Equipment
3561 Pumps and compressors
3562 Ball and roller bearings
3564 Blowers and fans
3565 Industrial patterns
3566 Power transmission equipment
3567 Industrial furnaces and ovens
3569 General industry machines, n.e.c.
35F Office, Computing, and Accounting Machines
3571 Computing and related machines
3572 Typerwriters
3576 Scales and balances
3579 Office machines, n.e.c.
35G Service Industry Machines and Machine Shops
3581 Automatic vending machines
3582 Commercial laundry equipment
3585 Refrigeration machinery
3586 Measuring and dispensing pumps
3589 Service industry machines, n.e.c.
3599 Miscellaneous machinery

## Major Group 36 - ELECTRICAL MACHINERY

36A Electrical Transmission, Distribution, and Industrial Apparatus
3611 Electric measuring instruments
3612 Transformers
3613 Switchgear and switchboards
3621 Motors and generators
3622 Industrial controls
3623 Electric welding apparatus
3624 Carbon and graphite products
3629 Electric industrial goods, n.e.c.

36B Household Appliances
3631 Household cooking equipment
3632 Household refrigerators
3633 Household laundry equipment
3634 Electric housewares and fans
3635 Household vacuum cleaners
3636 Sewing machines
3639 Household appliances, n.e.c.
36C Electric Lighting and Wiring Equipment
3641 Electric lamps
3642 Lighting fixtures
3643 Current carrying devices
3644 Noncurrent carrying devices

36D Communication Equipment, Including Radio and TV, and Electron Components and Accessories
3651 Radio and TV receiving sets
3652 Phonograph records
3661 Telephone; telegraph apparatus
3662 Radio, TV communications equipment
3671 Electron tubes, receiving type
3672 Cathode ray picture tubes
3673 Electron tubes, transmitting
3674 Semiconductors
3679 Electronic components, n.e.c.
36E Miscellaneous Electrical Machinery, Equipment and Supplies
3691 Storage batteries
3692 Primary batteries, dry and wet
3693 X-ray apparatus and tubes
3694 Engine electrical equipment
3699 Electrical products, n.e.c.

Major Group 37-TRANSPORTATION EQUIPMENT
37A Motor Vehicles and Equipment
3713 Truck and bus bodies
3715 Truck trailers
3717 Motor vehicles and parts

37B Aircraft and Parts
3721 Aircraft
3722 Aircraft engines and parts
3723 Aircraft propellers and parts
3729 Aircraft equipment, n.e.c.
37C Ship and Boat Building, Railroad and Miscellaneous Transportation Equipment
3731 Ship building and repairing
3732 Boat building and repairing
3741 Locomotives and parts
3742 Railroad and street cars
3751 Motorcycles, bicycles, and parts
3791 Trailer coaches
3799 Transportation equipment, n.e.c.

Major Group 38-INSTRUMENTS AND RELATED PRODUCTS

38A Instruments; Surgical, Dental and Ophthalmic Goods
3811 Scientific instruments
3821 Mechanical measuring devices
3822 Automatic temperature controls
3831 Optical instruments and lenses
3841 Surgical and medical instruments
3842 Surgical appliances and supplies
3843 Dental equipment and supplies
3851 Ophthalmic goods
38B Photographic Equipment; Clocks, Watches and Watchcases
3861 Photographic equipment
3871 Watches and clocks
3872 Watchcases

## Major Group 39-MISCELLANEOUS MANUFACTURING

39A Jewelry, Silverware, and Plated Ware
3911 Jewelry, precious metal
3912 Jewelers' findings and materials
3913 Lapidary work
3914 Silverware and plated ware
39B Musical Instruments and Parts; Toys, and Sporting and Athletic Goods
3931 Musical instruments and parts
3941 Games and toys
3942 Dolls
3943 Children's vehicles
3949 Sporting and athletic goods
39C Office Supplies, Costume Jewelry and Miscellaneous Notions
3951 Pens and mechanical pencils
3952 Lead pencils and art goods
3953 Marking devices
3955 Carbon paper and inked ribbons
3961 Costume jewelry
3962 Artificial flowers
3963 Buttons
3964 Needles, pins, and fasteners
39D Miscellaneous Manufacturing Industries
3981 Brooms and brushes
3982 Hard surface floor coverings
3983 Matches
3984 Candles
3987 Lamp shades
3988 Morticians' goods
3992 Furs, dressed and dyed
3993 Signs and advertising displays
3995 Umbrellas, parasols, and canes
3999 Miscellaneous products, n.e.c.

Major Group 19-ORDNANCE AND ACCESSORIES
19A Ordnance and Accessories
1911 Guns, howitzers, and mortars
1925 Complete guided missiles
1929 Ammunition, n.e.c.
1931 Tanks and tank components
1941 Sighting and fire control equipment
1951 Small arms, 30 mm , and under
1961 Small arms ammunition
1999 Ordnance and accessories, n.e.c.


## I. General

1. Role of the Census of Manufactures
2. Economic Significance of Manufacturing Sector
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6. Establishment Basis of Reporting
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## II. EXPLANATIONS DF TERMS USED IN COLLECTION AND PUBLICATION OF DATA

11. Employment and Related Items-General
12. Employment of Operating Manufacturing Establishments
13. Payrolis of Operating Establishments
14. Man-hours of Production and Related Workers

## I. GENERAL

## 1. ROLE OF THE CENSUS OF MANUFACTURES

The census of manufactures provides a detailed profile of the largest sector of the American economy. That census obtains, from every manufacturing plant with one employee or more, information on its input of labor and materials, its output of products, its location, and the legal form of organization of the owning firm. This information is obtained in sufficient detail to permit its classification by industry, by size of plant, by the homogeneity of its output and, where desirable, by type of operation, extent of vertical integration, kind of equipment, relationship to other plants of the same firm, and other characteristics.

The census of manufactures is conducted simultaneously with the censuses of mineral industries, wholesale and retail trade and selected services, and transportation. ${ }^{1}$ This has facilitated the statistical coverage of the entire range of activities of most enterprises and a consequent improvement in the capability of the Bureau of the Census to deal effectively with the statistical problems of identifying establishments which support manufacturing activity, such as central administrative offices, auxiliaries, and sales branches; and to classify entire enterprises into industrial categories.

[^1]15. Materials
16. Products
17. Indexes of Production and Unit Value
18. Industry and Commodity Approaches to Value of Shipments
19. Duplication in Cost of Materials and Value of Products
20. Value Added
21. Inventories
22. Expenditures for Plant and Equipment
23. Fuels, Electric Energy, and Power Equipment
24. Plant Specialization Data
III. SPECIAL INQUIRIES, REPORTS, AND PROCEDURES
25. Special Inquiries
26. Special Reports Shown in Volume 1, Summary and Subject Statistics
27. Imputation of Data
28. Confidentiality of Data for Individual Companies
29. Abbreviations

General statistics information (i.e., total employment, payroll, production-worker employment, man-hours, wages, cost of materials, value of shipments, inventories, capital expenditures, and value added by manufacture) from the census of manufactures is published by industry, by area, by employment size of establishment, by degree of product specialization within plant, and by type of ownership. Information is supplied on the detailed industrial characteristics of each State and large standard metropolitan statistical area (SMSA); overall measures of manufacturing activity are shown at the county and individual city level down to cities of 10,000 or more population. This information constitutes a periodic inventory of the Nation's manufacturing economy that provides a benchmark for measuring the changes in that structure.

The census of manufactures also provides a benchmark from which more frequent surveys can be developed on a scientific sample basis. In fact, the present legislation specifying that censuses be conducted every 5 years authorizes an annual survey of manufactures on a sample basis during the intervening years. At the end of each 5 -year census, a new sample is drawn relying on the overall characteristics described by the census itself. The sample, constituting about one-fifth of the establishments but with complete coverage of all large ones, provides an annual updating of the census of manufactures in terms of broad measures of economic activity. It provides the same basic measures of economic activity of the plant such as employment, payrolls, value of shipments, value added by manufacture, as does the census of manufactures, but contains
less detailed information on products, materials consumption, and equipment. ${ }^{2}$

The census of manufactures not only is a benchmark for many of the surveys conducted by the Census Bureau itself on a more frequent basis but also is the means of updating other important indicators of the economic activity. It provides very important information on the manufacturing segment used in the national income accounts. Census data on materials consumed and product output are basic to the manufactures sector of the input-output studies of the Office of Business Economics. The information derived from the census of manufactures is also used by the Federal Reserve Board in cooperation with the Census Bureau to develop indexes of industrial production for census years. This index is used as a benchmark for the monthly Federal Reserve Index of Industrial Production-a key monthly indicator of current economic activity.

[^2]The concurrent collection of comparable data on wholesale and retail trades, selected services, manufacturing, and minerals in the censuses beginning with 1954 has permitted the Census Bureau to develop its Enterprise Statistics Program, which relates census company-level data to the establishment data. Thus, a measurement of the integration and diversification of the American enterprise system becomes available. Likewise, through the Enterprise Statistics Program, it is possible to link census establishment-based data on a modified basis to other statistical systems such as the Internal Revenue Service's "Statistics of Income" for corporations.

## 2. ECONOMIC SIGNIFICANCE OF MANUFACTURING SECTOR

Manufacturing is the largest sector in the country's economy. In 1963, manufacturing establishments employed approximately 17 million persons of a civilian labor force of 75 million. During the 35 -year period, 1929 to 1963, income originating in manufacturing has averaged 30 percent of national income (see table A). Wholesale and retail trade, the next largest sector, averaged about 15 percent.

The need for frequent and comprehensive statistics on manufactures derives as

TABLE A. National Income, Total and Amounts Originating in Durable and Nondurable Manufactures, for Selected Years
(Dollar values in billions)

| Year | National income | National income originating in-- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Manufacturing |  |  | Manufacturing as a percent of national income | Durable goods industries as a percent of total manufacturing |
|  |  | Total | Nondurable goods industries | Durable goods industries |  |  |
| 1963........... | 481.9 | 143.8 | 57.5 | 86.3 | 30 | 60 |
| 1962..... | 457.7 | 137.0 | 55.6 | 81.4 | 30 | 59 |
| 1961...... | 427.3 | 125.1 | 52.8 | 72.3 | 29 | 58 |
| 1960...... | 414.5 | 125.8 | 52.2 | 73.6 | 30 | 59 |
| 1959...... | 400.0 | 124.0 | 51.1 | 72.9 | 31 | 59 |
| 1958....... | 367.8 | 107.7 | 45.7 | 62.0 | 29 | 58 |
| 1957..... | 366.1 | 116.3 | 46.4 | 69.9 | 32 | 60 |
| 1956.... | 350.8 | 113.1 | 45.2 | 66.8 | 32 | 59 |
| 1955. | 331.0 | 107.9 | 44.0 | 63.8 | 33 | 59 |
| 1954..... | 303.1 | 94.6 | 39.7 | 54.3 | 31 | 58 |
| 1953....... | 304.7 | 100.4 | 40.2 | 60.1 | 33 | 60 |
| 1952.. | 291.4 | 92.5 | 38.2 | 54.3 | 32 | 59 |
| 1951. | 278.0 | 90.2 | 38.4 | 51.8 | 32 | 57 |
| 1950.. | 241.1 | 76.2 | 33.3 | 42.9 | 32 | 56 |
| 1949........ | 217.5 | 64.8 | 30.5 | 34.2 | 30 | 53 |
| 1947... | 199.0 | 59.5 | 28.0 | 31.5 | 30 | 53 |
| 1943.. | 170.3 | 58.3 | 19.6 | 38.6 | 34 | 66 |
| 1939.. | 72.6 | 18.1 | 9.1 | 9.0 | 25 | 50 |
| 1935.. | 57.2 | 13.4 | 7.3 | 6.1 | 23 | 46 |
| 1933.. | 40.3 | 7.7 | 4.9 | 2.8 | 19 | 36 |
| 1932. | 42.8 | 7.3 | 5.2 | 2.1 | 17 | 29 |
| 1929.. | 86.8 | 21.9 | 10.6 | 11.3 | 25 | 52 |

[^3]TABLE B. National Income by Industry Division for Selected Years

| Industry | 1929 | 1933 | 1939 | 1947 | 1954 | 1958 | 1963 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | In billions of dollars |  |  |  |  |  |  |
| All industries, total. | 86.8 | 40.3 | 72.6 | 199.0 | 303.1 | 367.8 | 481.9 |
| Manufacturing. | 21.9 | 7.7 | 18.1 | 59.5 | 94.6 | 107.8 | 143.8 |
| Nondurable goods | 10.6 | 4.9 | 9.1 | 28.0 | 39.7 | 45.7 | 57.5 |
| Durable goods... | 11.3 | 2.8 | 9.0 | 31.5 | 54.9 | 62.0 | 86.3 |
| Wholesale and retail trade. | 13.5 | 5.6 | 12.6 | 37.6 | 48.3 | 58.2 | 73.3 |
| Government and government enterprises | 5.1 | 5.3 | 8.5 | 18.7 | 36.1 | 46.9 | 64.8 |
| Services.... | 8.8 | 5.1 | 7.6 | 18.1 | 27.8 | 38.4 | 54.1 |
| Finance, insurance, and real estate. | 12.8 | 5.9 | 8.0 | 16.1 | 32.0 | 40.9 | 53.6 |
| Contract construction. | 3.8 | 0.8 | 2.3 | 8.4 | 15.6 | 19.0 | 24.1 |
| Transportation. | 6.6 | 3.0 | 4.6 | 11.6 | 14.6 | 16.6 | 20.0 |
| Agriculture, forestry, and fisheries | 8.5 | 3.9 | 6.0 | 18.9 | 16.4 | 18.0 | 18.6 |
| Electric, gas and sanitary services. | 1.6 | 1.3 | 1.8 | 2.8 | 5.9 | 7.4 | 10.3 |
| Communication. | 1.1 | 0.7 | 1.1 | 2.3 | 5.1 | 7.0 | 9.8 |
| Mining....... | 2.1 | 0.6 | 1.6 | 4.2 | 5.3 | 5.7 | 6.0 |
| Rest of the worl | 0.8 | 0.3 | 0.3 | 0.8 | 1.6 | 2.0 | 3.4 |
|  | Percent of total |  |  |  |  |  |  |
| All industries, total. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Manuf acturing.. | 25.2 | 19.1 | 24.9 | 29.8 | 31.2 | 29.2 | 29.8 |
| Nondurable goods | 12.2 | 12.2 | 12.5 | 14.0 | 13.0 | 12.4 | 12.0 |
| Durable goods.. | 13.0 | 6.8 | 12.4 | 15.8 | 18.1 | 16.8 | 17.8 |
| Wholesale and retail trade. | 15.5 | 13.9 | 17.3 | 18.8 | 15.9 | 15.8 | 15.2 |
| Government and government enterprises | 5.8 | 13.2 | 11.7 | 9.3 | 11.9 | 12.7 | 13.4 |
| Services... | 10.1 | 12.7 | 10.4 | 9.0 | 9.1 | 10.4 | 11.2 |
| Finance, insurance, and real estate. | 14.7 | 14.5 | 11.0 | 8.1 | 10.5 | 11.1 | 11.0 |
| Contract construction. | 4.4 | 1.9 | 3.2 | 4.2 | 5.1 | 5.1 | 5.0 |
| Transportation.. | 7.6 | 7.5 | 6.3 | 5.8 | 4.8 | 4.5 | 4.2 |
| Agriculture, forestry, and fisheries | 9.7 | 9.6 | 8.3 | 9.4 | 5.4 | 4.8 | 3.8 |
| Electric, gas and sanitary services. | 1.8 | 3.1 | 2.4 | 1.4 | 1.9 | 2.0 | 2.1 |
| Cormunication. | 1.2 | 1.7 | 1.4 | 1.1 | 1.6 | 1.9 | 2.0 |
| Mining... | 2.4 | 1.5 | 2.2 | 2.1 | 1.7 | 1.5 | 1.2 |
| Rest of the world. | 0.9 | 0.8 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 |

Source: Survey of Current Business, August 1965, pp. 42-45 and July 1966, p. 15.
much from its sensitivity to cyclical influences as from its relative size. Cyclical changes in income originating in manufacturing tend to be relatively larger than in the economy as a whole.

Within manufacturing, durable goods industries accounted for about 57 percent of all manufactures for that period. However, they tend to be more volatile than nondurable goods, accounting for a smaller percentage of all manufactures during periods of contraction and a larger percentage during periods of expansion. Of the census years since 1919, only 1925, 1935, 1939, 1947, and 1963 have not included some part of a period of contraction and a consequent underrepresentation of durable goods in the total. (See table B.)

Geographic Location of Manufactures.The preponderance of manufacturing in the United States is predominantly in the Northeast as is shown in table C, page 4. Over the years, however, there has been a shift to the South and West.

Size Distribution of Manufacturing Plants.-Most manufacturing establishments require a substantial amount of capital and ordinarily a considerable volume of business for efficient operation. While there are many small plants, they account for relatively little of the Nation's production. Thus, as shown in table D, half the plants have less than 10 employees but they account for only 3 percent of the value added by manufacture.

## 3. EARLIER CENSUSES

The census of manufactures for 1963 is the 27 th such census for the United States. The first census of manufactures covered 1809 and, with the exception of 1829, a census was taken at 10 -year intervals in connection with the decennial census of population up to and including 1899. It was conducted at 5 -year intervals from 1904 through 1919, and every other year from 1921 through 1939. The census was suspended during World War II, but it was resumed for 1947. Legislation enacted in 1948 provided for a census every 5 years, cov-

TABLE C．Operating Manufacturing Establishments Employment by Divisions and as a Percent of the United States Total for Selected Years

| Geographic division | Employment $(1,000)$ | Percent | Employment $(1,000)$ | Percent | Employment $(1,000)$ | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1963 |  | 1958 |  | 1947 |  |
| United States， total． | 16，234 | 100.0 | 15，423 | 100.0 | 14，294 | 100.0 |
| New England．． | 1，379 | 8.5 | 1，360 | 8.8 | 1，475 | 10.3 |
| Midale Atlantic． | 3，811 | 23.5 | 3，882 | 25.2 | 3，954 | 27.7 |
| East North Central． | 4，264 | 26.3 | 4，084 | 26.5 | 4，323 | 30.2 |
| West North Central． | 975 | 6.0 | 933 | 6.0 | 786 | 5.5 |
| South Atlantic． | 2，068 | 12.7 | 1，844 | 12.0 | 1，524 | 10.7 |
| East South Central． | 874 | 5.4 | 767 | 5.0 | 635 | 4.5 |
| West South Central． | 838 | 5.2 | 771 | 5.0 | 551 | 3.9 |
| Mountain．．． | 279 | 1.7 | 225 | 1.5 | 140 | 1.0 |
| Pacific．．．．．．．．．．．．． | 1，746 | 10.8 | 1，554 | 10.1 | 914 | 6.4 |
|  | 1939 |  | 1929 |  | 1899 |  |
| United States， total．．．．．．．．． | 9，527 | 100.0 | 10，198 | 100.0 | 5，077 | 100.0 |
| New England．．．． | 1，121 | 11.8 | 1，246 | 12.2 | 897 | 17.7 |
| Middle Atlantic．． | 2，758 | 29.0 | 3，003 | 29.4 | 1，732 | 34.1 |
| East North Central． | 2，693 | 28.3 | 2，949 | 28.9 | 1，177 | 23.2 |
| West North Central． | 491 | 5.2 | 567 | 5.6 | 297 | 5.8 |
| South Atlantic．．．．．． | 1，111 | 11.7 | 1，000 | 9.8 | 483 | 9.5 |
| East South Central． | 410 | 4.3 | 417 | 4.1 | 188 | 3.7 |
| West South Central． | 331 | 3.5 | 341 | 3.3 | 122 | 2.5 |
| Mountain． | 89 | 0.9 | 119 | 1.2 | 48 | 1.0 |
| Pacifir． | 523 | 5.5 | 556 | 5.5 | 133 | 2.6 |

Note：Detailed figures may not add to totals because of independent rounding．
ering the years ending in＂ 3 ＂and＂ 8 ，＂and authorized an annual sample survey for interim years．${ }^{3}$ An annual survey of manufactures has been conducted for the intercensal years be－ ginning with 1949 and is a continuing part of the Bureau＇s program．Table 1，General Sum－ mary，provides national totals for manufac－ tures for the censuses and annual surveys since 1849.

The census of manufactures was the public＇s only source of reliable statistical infor－ mation on manufactures during the 19th cen－ tury．During the current century，particularly since the first world war，more frequent statis－ tical series on many aspects of manufactures have been developed．However，the census of manufactures continues to play an essential

[^4]role in the Nation＇s statistical program，since it remains the only source of comprehensive in－ formation on the detailed industrial and geo－

TABLE D Cursulative Percentage of Number of Manufacturng Establishments and Value Added by Manufacture by Size Class 1963

| Size class | Number of establish－ ments | Value added by manufac－ ture |
| :---: | :---: | :---: |
| ill establis：－u：．ṫ． | 10.0 | 1x．0 |
|  ：゙ー |  |  |
| 1 こん ¢ е．．piojues | 30.5 | 1.1 |
|  | 52.3 | 2.7 |
| i．to 13 emplcyees | 67.6 | 5.9 |
| 2 tこ 49 emilizyets． | 33.5 | 13.3 |
| 5 ta 39 Emplavtė． | $x .5$ | 21.5 |
| 1 L to $2 \rightarrow$ ）a－plajees | 36.2 | 36.5 |
| 250 to 403 erfavees | 78.4 | 49.8 |
| 50 to 399 －．．jlvees | 31.4 | 63.5 |
| 1，U上 ta 2，439 miflugues． | 39.8 | 78.2 |
|  | $\therefore 0.2$ | 100． |

graphical structure of the manufacturing sector which is closely comparable over long periods of time.

## 4. DEFINITION OF MANUFACTURING

Manufacturing is the mechanical or chemical transformation of inorganic or organic substances into new products. The assembly of component parts of products is also considered to be manufacturing if the resulting product is neither a structure nor other fixed improvement. These activities are usually carried on in plants, factories, or mills, which characteristically use power-driven machines and materials-handling equipment.

Manufacturing production is usually carried on for the wholesale market, for transfer to other plants of the same company, or to the order of industrial users rather than for direct sale to the household consumer. However, some manufacturers (e.g., baking, milk bottling, etc.) sell chiefly at retail to household consumers through the mail, through house-to-house routes, or through salesmen. Some activities of a service nature (enameling, binding, platemaking, etc.) are included in manufacturing when they are performed primarily for the trade; but they are considered nonmanufacturing when they are performed primarily to the order of the household consumer. On the other hand, some manufacturing industries include business firms which do not undertake physical production but perform only the entrepreneural functions of buying the materials, designing, and marketing the product, and have the actual production done on contract (e.g., apparel jobbers).

In addition to the production of goods and manufacturing services, manufacturing plants engage in related and diverse supporting activities. These activities encompass the acquisition of materials to be processed, their movement into the manufacturing facility, their storage at the manufacturing site, the operation and maintenance of plant and equipment, the design of flow of work through the production process, and necessary arrangements for shipment of output to customers. Also included are a host of subsidiary activities associated with the conduct of the establishment as a manufacturing entity; e.g., management and policy formation, product and market orientation, engineering and quality control, recordkeeping and accounting, physical security of plant and equipment, and the like. Such subsidiary activities may be performed by personnel located at the manufacturing facility or at an auxiliary unit serving one or more manufacturing locations of the same company. Where these activities are carried on at a different physical location or are performed for more than one plant, they are excluded from the fig. ures for operating manufacturing establishments and are included in the data shown for
central administrative offices and auxiliaries (see sections 8 (form ṆC-X6) and 11 of the text).

The following types of activities, while having many of the characteristics usually found in manufacturing, are considered as nonmanufacturing and, therefore, are exclud. ed from the census:
(a) Processing on farms when the raw materials are grown on the farm and the manufacturing activities (poultry dressing, milk and butter production, logging) are on a small scale without extensive use of paid labor. Also custom milling, cotton ginning, egg hatching, and similar activities closely associated with agriculture are excluded.
(b) Mineral preparation such as the crushing, screening, and concentrating of ores. However, mining performed as a secondary activity in conjunction with manufacturing is included in the census; for example, stone and clay mining at cement, lime, and clay products plants.
(c) Custom work to the individual order of household consumers. Examples are custom tailoring, woodworking, lettering on monuments, setting of diamonds, and the making of orthopedic appliances.
(d) Repair and other service activities, except specified services performed "for the trade." Repair shops of railroads are also excluded.
(e) Production of coke for own use by establishments owned by public utility companies.
On the other hand, the census of manufactures excludes manufacturing at locations which are not primarily manufacturing plants: (1) Manufacturing by retail establishments which sell most of their products on the premises directly to household consumers, e.g., retail bakeries, ice cream stores, and feed stores; (2) manufacturing by construction contractors at the site, e.g., production of paving mixtures; and (3) manufacturing by educational, eleemosynary, and penal institutions.

Conversely, it is not unusual for manufacturing establishments to engage also in nonmanufacturing activities such as repair work, merchandising of products without further processing, and installation work. Ordinarily, these nonmanufacturing receipts are small in relation to the manufacturing activities and, therefore, it is not difficult to determine that the establishments should be included in the manufactures area. However, if the nonmanufacturing activities account for a significant proportion of total receipts of an establishment, the classification of that establishment
into the appropriate major economic sector is more difficult.

In the 1963 economic censuses, an establishment engaged in a combination of manufacturing and merchandising was assigned either to the manufacturing or the trade industries depending on which of these activities was estimated to account for the larger share of its "value added" or "income produced." This criterion, even though based on an ap. proximation, was considered preferable to reported dollar volume of receipts from each type of activity in determining the primary industry, since manufacturing requires considerably more man-hours, salaries and wages, and other inputs per dollar of receipts than either wholesaling or retailing. However, in classifying establishments engaged in manufacturing and also in mining, repair work, installation, construction or other nonmanufacturing services, dollar receipts were used as the basis of classification because these activities require substantially comparable inputs per dollar of receipts.

Data were obtained on the manufacturing activities during 1963 of establishments owned and operated by the Federal Government (military arsenals, Navy yards, etc.) and of Federal and State prisons for the purpose of presenting complete information on manufacturing operations in the United States. Statistics on the employment, value added by manufacture, and products manufactured by the Department of Defense establishments and the quantity and value of products made in Federal and State prisons are shown in a separate chapter in each manufactures volume. These data are not included in any of the individual industry or industry group totals or area statistics appearing in the census of manufactures volumes. However, information on govern-ment-owned, privately operated establishments is included throughout the statistical tables in the appropriate industry on the same basis as privately owned and operated plants.

## 5. THE STANDARD INDUSTRIAL CLASSIFICATION (SIC)

The specific industry coding and groupings in the 1963 Census of Manufactures follow the structure of the Standard Industrial Classification Manual, published by the Bureau of the Budget. This manual, which is a classification structure for the entire national economy, was first issued in 1939.4 In the

[^5]manufacturing sector, the manual built upon the Bureau of the Census manufacturing industry classifications developed over the years. The SIC was developed for use in classifying establishments by type of activity in which they are engaged in order to facilitate the collection, tabulation, and publication of data relating to establishments and to promote uniformity and comparability in the presentation of statistical data by government agencies, trade associations, research organizations, and others.

The SIC divides all activities into broad industrial divisions (manufacturing, mining, retail trade, agriculture, etc.). It further subdivides each division into major industry groups, then into industry groups, and finally into detailed industries. The numbering system provides flexibility, permitting use of classification at various levels of detail according to the specific needs and uses desired. Employing a decimal system of coding, the Major Industry Group is assigned two digits (Major Group 20 for Food and Kindred Products), the Industry Group, three digits (Group 201 for Meat Products), and the industry, four digits (Industry 2011 for Meat Packing Plants). Thus, for each 4-digit industry, it is possible to identify the Industry Group to which it belongs by the first three digits of its code and, by its first two digits, the Major Industry Group. For the manufacturing division, the 21 2-digit SIC Major Groups (19 to 39) are subdivided into 149 3 -digit SIC Groups (191 to 398) and into 427 4 -digit industries (1911 to 3999). While the SIC contains 427 industries, the Bureau of the Census combines three industries in the automotive area into one, for a total of 425 industries.

Most of the 425 manufacturing industries are defined in terms of a specific group of related products. Usually, the products are made of similar materials and by similar processes, and are competitive. In determining the boundaries of product-defined industries, ${ }^{5}$ it is essential that each industry comprise a group of establishments whose output of products defining the industry (primary products) accounts for a relatively high proportion of the total shipments of the industry as well as of the total shipments of these primary products by establishments in all manufacturing industries. Some industries are defined in terms of the processes or equipment used regardless of the final product of the establishment. A small number of industries are basically defined by material used as well as final product of the plant.

[^6]There are wide differences among industries in the extent to which the establishments classified in the industry (a) account for the total production of commodities "primary" to the industry, (b) produce products or services "belonging" to other industries (i.e., secondary products), and (c) use similar materials or processes. (See sections 15, 16, 18, and 24). While these variations are frequently construed to be shortcomings, the fact is that the limitations observed in the classification structure arise from the inherent complexity of our economic system and from the disparity in the methods of production among the individual producing units of which it is comprised. The data collected in the census of manufactures provide a statistical basis for a critical evaluation of the classification system; i.e., for assessing the boundaries between industries, the growth and decline of industries, and the impact of technological change on the classification of industries. Consequently, the census is the primary instrument for effecting revisions in the SIC manufacturing sector.'

No general-purpose system of industrial classification can hope to satisfy all users of census data. Some business users will be interested primarily in data relating only to themselves and to their competitors in the production of a narrow range of products; others will wish data relating to all products, including complementary and substitutable products, competing in a particular market; others may wish data relating to the consumers of one or more types of materials. Some may be interested only in the data for plants producing a specific product; others only for those plants producing a "full line"' of products. The large number of SIC industries provides the analyst with the "building blocks" for obtaining useful approximations, if not "clean" data, relevant to many of these problems. But, at best, a single gen-eral-purpose system of classification can satisfy these diverse needs only partially; a point is soon reached beyond which the adaptation of a system to serve one use somewhat better will reduce its ability, often disproportionately, to serve an alternative use.

Accordingly, users of data frequently regroup detailed SIC industries into broad groupings along lines different from those in the SIC 2 - and 3 -digit categories. The Federal Reserve Board for many years has made combinations to stress such criteria as durable, nondurable, consumers, producers, finished, intermediate goods, etc. Other public and private agencies also recombine the detailed classes. By and large, the 4 -digit industries are susceptible to allocation to such categories, while the 2 -digit SIC groups are not.

[^7]To increase the usefulness or improve the editing of the data, the Census Bureau frequently has further classified the basic 4 -digit SIC industries into "subindustries." This device is employed where there are wide disparities in the operating ratios of the plants in the industry because of differences in the degree of intraplant vertical integration, technology, methods of distribution, geographic location, types of materials used, etc. This technique was used for about 65 manufacturing industries for editing purposes and many were regarded as sufficiently significant to be used for publication: For example, the bakery industry (SIC 2051) is subdivided into wholesale bakeries, chain-store bakeries, home-service bakeries, and retail multi-outlet bakeries; many apparel industries (Group 23) are subclassified into manufacturers, contractors, jobbers; the lumber industry (2421) by degree of integration, etc.

To provide a further measurement of variations within 4 -digit industries, the Bureau also subclassifies establishments by the degree to which they produce the primary products or specific classes of primary products of the 4-digit industry. This is in effect a subindustry classification based on degree of product specialization. (See section 24 for a more complete discussion of product specialization data.)

## 6. ESTABLISHMENT BASIS OF REPORTING

The census of manufactures is conducted on an establishment basis. That is, a company operating establishments at more than one location is required to submit a report for each location; also, a company engaged in distinctly different lines of activity at one location is required to submit separate reports if the plant records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports, therefore, differ substantially from those prepared on a company basis; i.e., from consolidated reports which combine various types of activities at different locations (thereby yielding a net sales figure for the industry exclusive of interplant transfers but making meaningful geographic tabulations of employment and value added impossible). These consolidated reports also include nonmanufacturing activities of companies primarily engaged in manufacturing. Census figures will also differ to some extent from other tabulations based on establishment reports where the definition of an establishment, as to location and line of activity, is not applied in the same manner.

The requirement that distinct lines of activity at the same location be separately reported was selectively applied where the establishment produced and shipped significant amounts of products classified in different SIC
industries. In widely varying degrees, this product overlap exists in many manufacturing establishments. Generally, the amounts involved are not of serious proportion so that the filing of separate reports would not be warranted as a practical matter, even if feasible. However, there are a number of locations at which large numbers of employees are engaged in each of two or more distinct lines of manufacturing as defined in the SIC. Frequently, companies organize their operations and their records separately where diverse activities are large and choose to report them as separate plants. When they do not do so on their own initiative, the Census Bureau requests separate reports. For the most part, companies have responded favorably, particularly for very large operations where failure to "split out" the different activities would significantly distort the relationship of the industry and product statistics. Not infrequently, though, the two groups of products were made on the same production lines by many of the same employees and could not be distinguished sufficiently in the companies' records to provide establishment-type reporting.

SIC industry definitions take account of special situations where otherwise separately classifiable activities are frequently combined at one location. For example, in the lumber area the definition of industry 2421, Sawmills and Planing Mills, General, recognizes the situation that sawmills may include logging operations. Similarly, in the pulp and paper area, pulp mills operated in combination with paper mills are included in one report.

In 1963 and 1958, as in earlier years, a minimum size limit was set for including establishments in the census. Reports were required from all establishments employing one or more persons at any time during the census year. The same size limitation has applied since 1947 in censuses and annual surveys of manufactures. In the 1939 and earlier censuses, establishments with less than $\$ 5,000$ value of products were excluded. The change in the minimum size limit in 1947 has not appreciably affected the historical comparability of earlier census figures except for data on number of establishments for a few industries.

A special study of manufacturing plants with no employees in 1958 was made to analyze the amount of manufacturing activity conducted by these very small establishments. While there were over 50,000 manufacturing establishments in this category in that year, they had only about one-quarter of 1 percent of the total value of shipments of all manufacturing.

The SIC coding system operates in such a way that the definitions become progressively narrower with successive additions of numerical digits. At one extreme are
the 21 very broad 2 -digit groups and at the other about 10,000 individual 7 -digit products. In between are approximately 150 3-digit groups, 425 4-digit industries, and 1,100 5 -digit product classes. The 7 -digit products and 5 -digit product classes are considered the primary products of the industry with the same first four digits as the product code. Accordingly, an establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. The industry code assigned to the establishments is derived from a summation of values for 7 -digit product codes to their 4-digit industry and the selection of the largest such value as the establishment's industry classification. However as mentioned earlier, the industry classification of an establishment may be determined not only by the products it makes but also by the processes employed or materials used in making those products.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. Therefore, the general statistics (employment, payrolls, inventories, value added by manufacture, total value of shipments, capital expenditures, etc.) shown for an industry (tables 1 to 4 of the industry chapters in Volume II) reflect not only the primary activities of the establishments in that industry but also their activities of a secondary nature. The product statistics in table 6 of the industry chapters represent the total output of specific products whether they are produced by establishments classified in the same industry as the product or not. For this reason, in relating the industry statistics in the industry chapters, especially the industry total value of shipments (tables 1 to 4), to the product statistics (table 6 ), the composition of the industry's output as shown in tables $5 A$ and $5 B$ should be considered.

The extent to which industry and product statistics may be matched with each other is measured by the two ratios which are computed from these tables 5A and 5B. The first of the ratios, called the primary product specialization ratio, describes the proportion of product shipments (both primary and secondary) of the industry represented by primary products. The second, defined as the coverage ratio, is the proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

In many industries, establishments making products falling into the same industry category use a wide variety of processes and materials to produce them. Also, within the same industry classification based on end products, may be included those establishments which are vertically integrated and those
which put only the finishing touches on an already highly fabricated purchased item. For example, in the refrigeration industry, there are instances of almost complete process integration in which the production of the compressor and condensing unit, electric motor, and even the castings for those intermediate products, as well as the stamping of the case and the final assembly, are all carried on at one plant. In other plants, the condensing unit, the motor, and the case may be purchased and merely assembled into the finished product.

In some instances, nonintegrated plants have been placed in separate industry categories from the integrated plants. In many industries, the census provides separate statistics on departmental operations or on the production of intermediate commodities made and used in the producing plant. When an industry includes plants which ship a significant proportion of their output to other plants of the same company, separate figures are usually shown on the interplant transfers.

These differences in the integration of production processes, types of operations, and types of materials used should be taken into account when relating the general items (employment, payrolls, value added, etc.) to the product and materials data. For those industries where the integrated type of operations is of consequence, that fact is pointed out in the explanatory text for the industry.

In many industries, there are some large plants with a product-mix such that the value of secondary products is as large as or larger than the value of primary products. In the Annual Survey of Manufactures (ASM), these plants are prevented from shifting back and forth among industries because of only minor shifts in products by the application of a "resistance formula" in assigning industry classifications.

The formula gives approximately equal weight to the need for statistical measurement of change in an industry and the measurement of an industry's status at a point in time.

The resistance technique for large establishments was introduced for the first time in the quinquennial census in 1963 and was applied to certainty cases in the ASM panel for 1963.

The 1963 industrial classification of an ASM plant with 100 employees or more was allowed change from that assigned in 1962 where-
(1) The new primary activity constituted 60 percent or more of its total value of shipments, or
(2) The new primary activity, while less than 60 percent, was at least twice as great as the old primary activity in the current year, or
(3) The new primary activity, if it did not meet either of the first two conditions, exceeded the old primary activity by at least 20 percent in both the current and the preceding year.
Where the establishment's industry classification coded in the "annual survey" manner differed from that developed independently from the 1963 census report, the annual survey code took precedence, except where additional census tests not available in the annual survey justified the census code (e.g., type of materials consumed, type of operations, special inquiries).

## 7. GEOGRAPHIC AREAS

Census Regions, Divisions, and States.For over a century, the Census Bureau has presented data for States and major sections of the United States related not only by geographic proximity but also by similarities of agriculture, industry, and social characteristics. Since the 1909 Census of Manufactures, the present nine Census geographic divisions have been used. Beginning with the 1939 census, the nine divisions were grouped further into four broad geographic regions: Northeast, South, North Central, and West.

Not only are these State groupings convenient for the summary presentation of data below the U.S. level, but they are essential to presenting a maximum of geographic information for those individual industries in which application of the census disclosure law pre. cludes the publication of individual State data. (See the discussion in section 28, Confidentiality of Data for Individual Companies.) The relative importance of manufacturing among the States and divisions is shown in table E.

In Volume III, Area Statistics, industry detail is shown wherever possible under the rules of confidentiality at the regional, State, county, and standard metropolitan statistical area (SMSA) levels, in addition to the allmanufacturing totals. The level of industry detail shown for each area is as follows:

State-2•, 3-, and 4-digit industry detail;

County-2. and 3-digit industry totals, but only for those industry groups which have 500 em. ployees or more in the industry group in the county;

City-information only at the all-manufacturing level for cities of 10,000 or more population according to the 1960 Census of Population or later special censuses conducted by the Bureau of the Census.

Standard Metropolitan Statistical Areas.-The SMSA's for which data are shown are those defined by the Bureau of the Budget
(Value in millions of dollars)

| Division and State | 1963 |  | 1958 |  | Division and State | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value added by manufacture, adjusted | Percent | Value added by manufacture, adjusted | Percent |  | Value added by manufacture, adjusted | Percent | Value added by manufacture, adjusted | Percent |
| United States, total......... | 192,102 | 100 | 141,541 | 100 | South Atlantic-Continued <br> Virginia....... | 3,046 | 1.6 | 2,123 | 1.5 |
| New England | 13,589 | 7.1 | 10,440 | 7.4 | West Virginia. | 1,887 | 1.0 | 1,269 | 0.9 |
| Maine.. | 786 | 0.4 | 628 | 0.4 | North Carolina | 4,567 | 2.4 | 3,078 | 2.2 |
| New Hampshire | 636 | 0.3 | 491 | 0.4 | South Carolin | 2,111 | 1.1 | 1,360 | 1.0 |
| Vermont. | 309 | 0.2 | 236 | 0.2 | Georgia. | 3,254 | 1.7 | 2,102 | 1.5 |
| Massachusetts | 6,404 | 3.3 | 5,128 | 3.6 | Florida. | 2,352 | 1.2 | 1,411 | 1.0 |
| Fhode Island. | 959 | 0.5 | 756 | 0.5 |  |  |  |  |  |
| Connecticut...... | 4,496 | 2.3 | 3,200 | 2.3 | East South Central. | 9,383 | 4.9 | 6,389 | 4.5 |
|  |  |  |  |  | Kentucky. | 2,548 | 1.3 | 1,769 | 1.2 |
| Middle Atlantic | 43,560 | 22.7 | 34,814 | 24.6 | Tennessee | 3,303 | 1.7 | 2,207 | 1.6 |
| New York. | 19,559 | 10.2 | 15,892 | 11.2 | Alabama. | 2,515 | 1.3 | 1,770 | 1.3 |
| New Jersey....... | 9,957 | 5.2 | 7,500 | 5.3 | Mississippi...... | 1,017 | 0.5 | 642 | 0.5 |
| Pennsylvania..... | 14,044 | 7.3 | 11,423 | 8.1 | West South Sentral. | 10,942 | 5.7 | 7,791 | 5.5 |
| East North Central. | 56,326 | 29.3 | 40,962 | 28.9 | Arkansas......... | +961 | 0.5 | 592 | 0.4 |
| Ohio. | 15,506 | 8.1 | 11,472 | 8.1 | Louisiana | 1,916 | 1.0 | 1,430 | 1.0 |
| Indiana. | 7,727 | 3.7 | 5,502 | 3.9 | Oklahoma | 979 | 0.5 | 725 | 0.5 |
| Illinois | 14,640 | 7.6 | 11,664 | 8.2 | Texas. | 7,086 | 3.7 | 5,045 | 3.5 |
| Michigan......... | 13,090 | 6.8 | 8,364 | 5.9 |  |  |  |  |  |
| Wisconsin........ | 5,363 | 2.8 | 3,960 | 2.8 | Mountain. | 3,472 | 1.8 | 2,244 | 1.6 |
|  |  |  |  |  | Montana | 236 | 0.1 | 191 | 0.1 |
| West North Central. | 11,809 | 6.1 | 8,870 | 6.3 | Idaho. | 366 | 0.2 | 256 | 0.2 |
| Minnesota. | 2,806 | 1.5 | 2,050 | 1.4 | Wyoming . . . . . . . . | 82 | 0.1 | 63 | 0.1 |
| Iowa. . | 2,287 | 1.2 | 1,684 | 1.2 | Colorado | 1,194 | 0.6 | 782 | 0.5 |
| Missouri. | 4,296 | 2.2 | 3,251 | 2.3 | New Mexico | 150 | 0.1 | 108 | 0.1 |
| North Dakota. | 72 | 0.1 | 63 | 0.1 | Arizona. | 627 | 0.3 | 360 | 0.2 |
| South Dakota | 140 | 0.1 | 114 | 0.1 | Utah. | 711 | 0.4 | 417 | 0.3 |
| Nebraska......... | 747 | 0.4 | 536 | 0.4 | Nevada. . . . . . . . . | 106 | 0.1 | 68 | 0.1 |
| Kansas............ | 1,460 | 0.8 | 1,171 | 0.8 |  |  |  |  |  |
|  |  |  |  |  | Pacific............ | 22,112 | 11.5 | 15,666 | 11.1 |
| South Atlantic.... | 21,134 | 11.0 | 14,355 | 10.1 | Washington. . . . . . | 3,029 | 1.6 | 2,167 | 1.5 |
| Delaware. | 658 | 0.3 | 420 | 0.3 | Oregon. . . . . . . . . | 1,575 | 0.8 | 1,222 | 0.9 |
| Marryland......... | 3,001 | 1.6 | 2,394 | 1.7 | Califormia....... | 17,163 | 8.9 | 12,048 | 8.5 |
| District of |  |  |  |  | Alaska........... | 85 | 0.1 | 65 | 0.1 |
| Columbia. | 257 | 0.1 | 198 | 0.1 | Hawaii. | 261 | 0.1 | 165 | 0.1 |

Note: Detailed figures may not add to the totals because of independent rounding.
in 1964. ${ }^{7}$ An SMSA is a county or group of contiguous counties (except in New England) which contains at least one central city of 50,000 inhabitants or more or "twin cities" with a combined population of at least 50,000. In addition to the county or counties, containing such a city or cities, contiguous counties are included in an SMSA if, according to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city. In New England, towns and cities rather than counties are the units used in defining an SMSA. Thus an area may contain not only highly industrialized counties but also adjoining counties which, though primarily residential in character, con-

[^8]tribute significantly to the industrial counties' labor force and are socially and economically integrated with the central city.

Each SMSA is designated by the name of the principal city of the area. In addition to the name of the principal city, the area title may include one or two additional city names.

Industry group (2. and 3.digit) statistics as well as all-manufacturing totals are published for SMSA's with 40,000 to 190,000 manufacturing employees. Detailed industry (4-digit) statistics are published for SMSA's with more than 190,000 employees. These industry statistics for each area are presented in table 6 in the report for each State. There are 75 SMSA's with more than 40,000 employees, and 15 with more than 190,000.

Assignment of Geographic Area Codes.In the census of manufactures, as in the entire economic census, each individual establishment (plant) was assigned a geographic code that indicated the State, the county, and the city in which it was located. Most manufacturing activities require a permanent structure and fixed equipment so that the location of a plant usually can be specified with little or no ambiguity. Plants which straddle boundary lines are classified as located within the more populous of the two areas in which some part of the plant is located.

In previous censuses, the geographic code was assigned manually to every report after a clerical review of the physical location reported by the respondent. In 1963, the report form was precoded by high-speed electronic equipment prior to mailing through the use of an extensive file of addresses classified by place. Only those reports which indicated differences between the mailing address and the reported physical location were manually coded after receipt.

## 8. THE CENSUS REPORT FORMS

The diversity of manufacturing activities in the United States made it necessary to use about 200 different report forms to collect information on the products shipped and materials used by the 425 manufacturing industries. In order to obtain the data essential to the census in a manner consistent with cost considerations and reportability by the respondent, it was decided to require detail information only from larger plants. For the numerous smaller plants, typically having less detailed records and representing a very minor portion of manufacturing activity, data requirements were limited to a relatively few key items on a series of short forms. All plants in the annual survey of manufactures sample reported on standard forms irrespective of their employment size. Using the administrative records of the Social Security Administration in conjunction with existing Bureau of the Census records, it was possible to determine correctly, in most cases, the specific questionnaire each manufacturing establishment should receive.

Information was obtained on all 1963 report forms regarding the physical location, Social Security employer identification number, company affiliation, and legal form of ownership. These kinds of information were necessary to assure control over the completeness of coverage (see section 9, Development of the Mailing List), and also permitted the classification of each establishment by geographic location and type of organization. (See section 26, Special Reports.)

Standard Forms.-All ASM establishments and all of the larger non-annual survey establishments received the standard (long) form which contained the full census detail.

Each standard form called for the same general items regardless of the industry: Total employment, total payrolls, production-worker employment and man-hours by quarter, pro-duction-worker wages, material costs, value of shipments, fuel and electric energy costs, inventories by type, and capital expenditures by type. However, the forms differed in the detailed inquiries on the quantity and value of products shipped and the quantity and cost of individual materials consumed. There were also miscellaneous inquiries such as type of operation and equipment used, departmental inquiries, special details on delivery operations, etc., that were unique to an individual in. dustry or industry groups.

Information on the gross book value of total fixed assets in place (structures and equipment combined) at the end of 1962 and at the end of 1963, and on rental expenditures for buildings and for equipment during 1963 was requested of establishments in the 1963 Annual Survey of Manufactures sample panel. This special information will be published beginning with the 1964 Annual Survey of Manufactures.

Short Forms.-A short form was mailed to establishments with less than 6 em ployees except in a few industries where it was sent to those with less than 10 employees. This form required considerably less detail; e.g., total employment and payrolls without any detail on production workers, cost of materials as a grand total, and value of shipments in terms of broad classes of products. No information was requested on inventories or capital expenditures.

However, for the few industries in which small plants account for a significant proportion of the total value of shipments or employment, special modifications were made to collect some detail on the individual products shipped and less frequently on the types of materials used. These industries consisted of logging and sawmills, concrete products, dairy products, meat products, and several printing and publishing industries.

Form MA-101, Manufacturing Plants Under Construction During 1963.-This form was designed to obtain data on capital expenditures by large manufacturing firms for new plants under construction during 1963 but not yet in operation at the end of the year. It was mailed to all multiestablishment companies with 250 employees or more. It was also mailed to any other company which indicated on one of its establishment report forms, in a special check-box section, that it had a plant under construction but not yet in operation. Each such plant was coded geographically and to a 4-digit industry from the description given of its expected activity. The information obtained on form MA-101 was integrated into
new capital expenditures figures in all tables of the 1963 Census of Manufactures. (For further discussion, see section 22, Expenditures for Plant and Equipment.)

Form NC-X6, Central Administrative Offices and Auxiliary Establishments.-Separate reports were required from each multiestablishment company which indicated that it was operating a separate central administrative office or auxiliary (i.e., a warehouse, a research laboratory, a garage, a repair shop, etc.) serving one or more of its operating establishments. Each auxiliary establishment for which a report on form NC-X6 was submitted was classified as to the nature of the activity it perfortned and as to the 2-digit industry category of the establishment(s) which it primarily served. The form requested information on employment as of March 15 and payrolls for the year, as well as a percentage breakdown of its employment total, by the type of activity that the employees were performing-administrative work, research and development work, warehousing, direct selling, etc. In addition to this information, the report form also collected data on the total sales that were made for the company from the central office or auxiliary, the cost of research and development work done, value of inventories held, and the capital expenditures for structures and equipment.

The information on the central administrative offices (CAO) and auxiliaries has been tabulated separately and appears as part of the Census Bureau's report, Enterprise Statistics 1963, Part 2, Central Administrative Offices and Auxiliaries. In that publication, information will appear not only by 2-digit industry of the establishments served but also by type of function performed and industry category of owning company. In the census of manufactures, the employment and payrolls of central administrative offices and auxiliaries serving manufacturing have been added to the
figures for operating establishments into the State, county, standard metropolitan statistical area, and city all-manufacturing totals. Wherever industry detail is provided, the employment and payroll at the central administrative offices and auxiliaries appear as a separate 2-digit industry category at the end of the list of industries. In the manufacturing sertor, in 1963 , there were approximately 5,300 such establishments which accounted for 726 thousand employees with payrolls of $\$ 6.6$ billion, representing 4 percent and 7 percent, respectively, of the totals of all manufacturing employment and payrolls. It should be noted also that employment of CAO's has been increasing more rapidly than employment of operating establishments, partially the result of the tendency of larger companies to centralize operations formerly carried on a decentralized basis at each plant. (See table F.)

## Other Related Forms in the 1963 Economic Censuses:

Form NC.KL, Company Summary Report Form.-This form requested, for the consolidated company, information on payrolls, employment, sales or receipts, inventories, capital expenditures, value of assets, and rental payments. It was restricted to companies with 250 employees or more in the industries included in the economic censuses.

Based on information filed on the establishment reports of the multiestablishment companies, the entire company was classified into 1 of 179 enterprise industry categories developed by grouping the Standard Industrial Classification industries. A special report, Enterprise Statistics, 1963, Part 1, General Report on Industrial Organization, provides tables showing the characteristics and diversification of these multiestablishment companies as derived from the information on census establishment reports.

TABLE F. Comparison of Employment and Payrolls at Operating Manufacturing Establishments and Central Administrative Offices
and Other Auxiliaries Serving Them

| Period | Operating establishments |  | Central administrative offices and auxiliaries ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Employees$(1,000)$ | Payrolls <br> (billion dollars) | Employees$(1,000)$ | Payrolls <br> (billion dollars) | As a percent of total ${ }^{1}$ |  |
|  |  |  |  |  | Employees | Payrolls |
| 1963. | 16,234 | 93.3 | 726 | 6.6 | 4.3 | 6.6 |
| 1958. | 15,423 | 73.9 | 602 | 4.5 | 3.8 | 5.7 |
| 1954.. | 15,645 | 63.0 | 453 | 2.9 | 2.8 | 4.4 |
| Percentage increase: |  |  | 20 | 47 | (X) | (X) |
| 1958 to 1963...... | 6 -1 | 26 17 | 20 33 | 47 54 | (X) | (X) |

[^9]Form CB-51, Wholesale Sales Branches and Sales Offices of Manufacturing Companies.-As part of the census of business, information was collected on the sales branches and sales offices of manufacturing companies. In addition to figures on employment and payrolls, these forms requested information on inventories held at and sales, by merchandise line, from these locations. The merchandise lines in the census of business for these wholesale branches and offices are very similar to the classes of products used in the manufacturing area. The totals of the two areas cannot be directly compared inasmuch as the sales from the sales branches and offices include products which were bought and resold as well as those of the company's own manufacture.

## Special Surveys Relating to the

 1963 Census of Manufactures.-In addition to the information collected on the standard 1963 census of business, manufactures, and mineral industries forms, additional information was collected on special survey forms. The census of manufactures publications also contain the data collected in these various special but related surveys, as described below. The publications, described below, appear as chapters in Volume I, Summary and Subject Statistics.Form MC-D3, Department of Defense Establishments, and MC-D4, Penal Institutions were used to collect information on government-owned and government-operated manufacturing establishments. These forms were used to collect information on two types of establishments: (1) Manufacturing facilities owned and operated by the Department of Defense, and (2) prison industries (Federal, District of Columbia, and State). The data were prepared with the cooperation of the Department of Defense, the Department of Justice, and the District of Columbia and State prison systems. For Department of Defense installations, information is provided on employment, man-hours, payrolls, cost and value of work done, by industry group and by State. For prison industries, however, only product data is included in the census of manufactures reports. For a detailed description of the methods used to collect this information and the data presented, see the Special Report, Manufacturing Activity in Government Establishments, at the end of this volume.

Form MC-D12, Supplementary Inquiries for 1962.-In order to reduce the burden of the 1963 census on the respondent and the Census Bureau, information on horsepower rating of equipment in place by type of equipment, fuels consumed by the type of fuel, and electric energy was collected for 1962 and restricted to those establishments included in the annual survey of manufactures. In previous censuses, this information had been requested
on the standard census forms. Information is published on these items by industry, by State, and by standard metropolitan statistical area. Within State or standard metropolitan statistical area, 2 -digit industry detail is provided wherever possible. For details on this special survey, see Volume I, Summary and Subject Statistics, chapters 6 and 7.

Form MA-175, Report on Shipments to or Receipts for Work Done for the Federal Government Agencies and Their Contractors and Suppliers for 1963.-To measure the impact of government procurement on the economy and on geographic areas, form MA-175 was mailed to approximately 2,500 annual survey of manufactures establishments accounting for over 95 percent of all shipments and receipts of 30 defense-oriented industries which account for the major portion of government procurement. The survey provided information on the value of products shipped to or receipts for work done for Federal agencies, their contractors, subcontractors and sup. pliers. The information was further subdivided into shipments or receipts on government prime contracts and to other manufacturers in the ultimate performance of Federal Government contracts.

Information on employment and value of shipments by class of product and by Federal agency is provided. Likewise, information is available for States and SMSA's by broad industry groups within each geographic area wherever possible.

Special Survey Form MA-161, Origin of Exports of Manufactured Products. This report form was mailed to a special subsample of the annual survey of manufactures plants with 100 employees or more and exporting more than $\$ 25$ thousand per year. The report provides information on the value of manufacturers' exports by State, standard metropolitan statistical area, and by industry of the producing plant.

MC-D13, Industrial Water Use, 1964.-This special survey, although collecting data for the year 1964, was conducted as part of the 1963 Census of Manufactures. The form was mailed to approximately 10,000 establishments which had indicated on their census of manufactures form consumption of 20 million gallons or more of water in 1963. Information is provided on water intake and discharge by industry and by area.

## 9. DEVELOPMENT OF THE MAILING LIST

The manufacturing plants included in the census of manufactures were identified as part of the overall program to develop the mailing list for the 1963 censuses of business, manufactures, and mineral industries.

The Internal Revenue Service (IRS) maintains a comprehensive list of names and addresses of legal entities with one employee or more which are required to file quarterly tax returns under the Federal Insurance Contributions Act. To each of these legal entities, IRS has assigned a unique employer identification (EI) number. Arrangements were made to obtain this list of El numbers for the selection of those companies which were to be included in the 1963 censuses of business, manufactures, and mineral industries. Since this list contained many companies not within the scope of the economic censuses, it was matched to a similar list of El numbers maintained by the Social Security Administration (SSA). In cooperation with IRS, the SSA assigns an industry code to every El number based on information reported by the taxpayer when he applied for an El number. Only those El numbers with industry codes within scope of the economic censuses were included in the basic mailing list.

This list of El numbers provided the industry code necessary to select the current report form and a payroll size code to determine whether a standard or a short form was to be mailed. However, the list was defective in one basic respect: The El number applies to a legal entity and not to an individual establishment, the basic unit for which census data is required.

Therefore, it was necessary to supplement this list by contacting all known or possible multiestablishment companies to obtain a list of their individual plants or business locations. In January of 1963, a precanvass form (NC-X1, Listing of Establishments) was sent to all companies that had indicated in the 1958 Census of Manufactures or the 1962 Annual Survey of Manufactures that they were operating at more than one location. In addition, all "apparent" single-establishment companies in the IRS-SSA file of El numbers with sizeable employment were included in this precanvass.

For the known multiestablishment companies, the Census Bureau prelisted the establishments as they had been last reported to the Census Bureau (the 1958 census except for the manufacturing companies which had reported for their manufacturing establishments in the 1962 Annual Survey of Manufactures). The company was requested to update this list by deleting closed locations, correcting the addresses, reporting the current El numbers used for each plant, as well as adding any locations operated but not already included in the listing. The El numbers reported for these multiestablishment companies were excluded from the list of El numbers obtained from IRS-SSA prior to mailing the 1963 census report forms. Thus, the 1963 Census of Manufactures list for single-establishment companies was obtained from the IRS-SSA, but the list of plants of mul-
tiunit companies was obtained directly from those companies by a special precensus survey.

While the IRS-SSA list was generally adequate in providing sufficient industry and size information to determine the proper form for mailing, a number of the EI numbers did not have precise industry or size information associated with them. A special form (NC-X3, General Report) was mailed to all such companies in the 1963 censuses of business, manufactures, and mineral industries. Since it was assumed that these establishments were quite small, only limited statistics were required. On the basis of the information reported, these establishments were coded and included in the basic tabulations. If the NC-X3 indicated substantial activity, the company was recontacted with a standard census form.

The 1963 census was distributed and returned by mail. The very large complex multiestablishment companies were mailed their report forms in November 1963 to give them as much lead time as possible to meet the substantial demands of the 1963 census on their statistical staffs. Report forms for the smaller companies were mailed in January 1964. Collection was completed by August 1964. All mailing and receiving, including the various reminder mailings as well as routine editing, coding, and card punching, was done at the Census Bureau's Operations Office in Jeffersonville, Ind. The more difficult problem reports and all reports from very large companies were sent to Washington for review prior to punching. The punched data were transmitted to Washington through a telephone computer link-up and all computer processing, review of the tabulated data, and the preparation of the publications were performed there.

## 10. COMPLETENESS OF COVERAGE AND ACCURACY OF THE DATA

Since the 1963 mailing list was considered to be complete, no field coverage check was conducted. There was a concerted effort to assure completeness of coverage through systematic reminders at 4 - to 6 -week intervals including the use of certified mail, telegrams and, for the larger companies, telephone calls.

Considerable attention has been devoted to assuring completeness and correctness of the reporting by large companies. In the early stages of processing, the individual establishment reports of the very large companies were reviewed along with the company summary report, form NC-K1, to make certain that the company had included reports for all its establishments and subsidiaries and that there was no duplication in reporting among manufacturing, minerals, central offices, and sales branches and offices. The NC-K1 was also a vehicle for the company to report changes in ownership since the census precanvass was
conducted in the preceding year. Accurate company affiliation information is necessary, it should be noted, to enable the Census Bureau to review the tabulations to assure confidentiality of the data; to provide statistics for the "enterprise statistics" program; and, in manufacturing, to prepare the company concentration ratics by industry and product class. Part 2 of form NC-K1 required that the parent company reconcile its payroll figures by employer identification numbers filed with the Internal Revenue Service to those reported on the individual censuses of manufactures, business, and mineral reports. As a result of this comparison, omissions were detected as well as duplication of the reporting within the census establishment file.

As part of the computer edit of the data, all "annual suvey of manufactures" establishments in the census were matched to the list of establishments in the 1962 Annual Survey of Manufactures. All large unmatched establishments were reviewed to make certain that plants which changed ownership, were newly established, or had been closed down since 1962 were properly handled. Furthermore, during the review of the published data, whenever there was a significant change from the previous year in the totals for each industry or geographic area, the reports were checked out individually to make certain that there was no inadvertent omission or duplication in reporting between years, and that the change was valid.

All report forms in manufacturing were audited by the computer. The figures reported in 1963 by each of the 60,000 annual survey of manufactures establishments were compared to those reported in 1962. Establishments with significant increases or decreases in any data item or with significant changes in selected operating ratios (e.g., cost of materials per dollar of shipments, payroll per employee, production-worker wages per manhour, etc.) were identified for subsequent review by the Bureau's statisticians. Small establishments with problems were tentatively accepted or modified by the computer but annotated for subsequent examination.

The operating ratios of the 250,000 smaller establishments not in the annual survey of manufactures were edited against industry averages developed from the 1958 Census of Manufactures and brought up to date through the 1962 Annual Survey of Manufactures data. In the review of the tabulations prior to the publication of the final reports, the selected operating ratios for all establishments were analyzed and the mean ratio for all establishments in each industry determined. A frequency distribution of establishments according to operating ratio class was prepared, and those establishments whose ratios were more than two standard deviations from the industry
average were isolated as "outliers," examined and, if necessary, corrected. A similar type of analysis was made for the individual products shipped and the individual materials consumed. A unit value was calculated for each item reported by an establishment. An industry average unit value was also calculated and a frequency distribution tabulation of unit values prepared. Extreme unit-value cases were isolated and corrected during the preliminary and final table review.

## II. EXPLANATIONS OF TERMS USED IN COLLECTION AND PUBLICATION OF DATA

## 11. EMPLOYMENT AND RELATED ITEMS— GENERAL

The census of manufactures provides information on employment and payrolls at operating establishments and central administrative offices and auxiliaries. The standard form for operating establishments collected the number of production workers by quarter and all other employees as of the 15 th of March, as well as annual payrolls for production workers and other employees separately. Form NC-X6, Central Administrative Offices and Auxiliaries, collected figures on employment as of March 15 and payrolls for the year.

In presenting the data, the employment and payrolls of central administrative offices and auxiliaries which serve manufacturing plants are included in the all-industries totals in every summary table (U.S., State, standard metropolitan statistical area, county, and city). However, whereas the operating establishments were coded to a 4-digit manufacturing industry, the administrative offices and auxiliaries were coded only to the 2 -digit industry group of the establishments they served. Thus, in all tables with industry detail, the administrative offices and auxiliaries are shown as a separate industry group following the industries in Major Groups 39 and 19.

Separate statistics for all central administrative offices and auxiliaries including those of nonmanufacturing companies will be published as part of the 1963 censuses of business, manufactures, and mineral industries in Enterprise Statistics 1963, Part 2, Central Administrative Offices and Auxiliaries. In that publication, information will appear not only by 2-digit industry of the establishments served but also by type of function performed and industry category of owning company.

## 12. EMPLOYMENT OF OPERATING MANUFACTURING ESTABLISHMENTS

All Employees.-The category "all employees" comprises all full-time and part-time employees on the payrolls of operating manufacturing establishments who worked or re-
ceived pay for any part of the pay period which included the 12th and ended nearest the 15th of the months specified on the report form. At the all-industry level, the employees of central administrative offices and auxiliaries are included. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees; proprietors and partners of unincorporated firms, however, are excluded from the total.

Production and Related Workers.This category comprises workers (up through the working foreman level) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial, watchman services, product development, auxiliary production for plant's own use (e.g., power plant), recordkeeping, and other services closely associated with these production operations at the establishment covered by the report. Supervisory employees above the working foreman level are excluded from this category.

All Other Employees.-_"All other employees" are nonproduction personnel of the manufacturing establishment, including those engaged in the following activities: Factory supervision above the working foreman level, sales (including driver salesmen), sales delivery (highway truck drivers and their helpers), advertising, credit, collection, installation and servicing of own products, clerical and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria, medical, etc.), professional, and technical. Also included are employees on the payroll of the manufacturing establishment engaged in the construction of major additions or alterations to the plant and utilized as a separate work force.

Average Employment.-The 1963 Census of Manufactures report forms requested employment figures for "production and related workers" for four selected pay periods (i.e., production worker midmonth employment in March, May, August, and November). For "all other employees'" only a mid-March figure was requested. Thus, the "annual average" of operating establishments is composed of an average of the four monthly figures for the "production workers" plus the March figure for "all other employees."

This approach was initiated in the intercensal annual surveys of manufactures to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay
periods approximates very closely the average employment for the year that would be obtained from the 12 pay periods for almost all industries.

The employment figure shown for all industries in most tables is the 4 -month average.

For a few highly seasonal industries, production-worker figures were collected for all 12 months and are shown in Volume II, table 3 , for those industries.

## 13. PAYROLLS OF OPERATING MANUFAC. TURING ESTABLISHMENTS

For each industry, this total includes the gross earnings paid in the calendar year 1963 to all employees on the payroll of operating manufacturing establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. Also excluded are payments to members of Armed Forces and pensioners carried on the active payroll of manufacturing establishments.

The 1963 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budg. et, is also the same as the 1958 census definition. It should be noted that this definition does not include employers' Social Security contributions, or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment figures, the payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are not included in the totals for individual industries or industry groups.

## 14. MAN-HOURS OF PRODUCTION AND RELATED WORKERS

This total consists of all plant manhours of production and related workers as defined above. It represents all man-hours worked or paid for at the plant including actual overtime hours (not straight-time equivalent hours.) It excludes hours paid for vacations, holidays, or sick leave, when the employee was not at the plant. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Man-hours were generally well reported except in some industries, like apparel, where work is commonly performed on a piece-rate basis. However, man-hours were not collected for the very small establishments which were mailed special short forms (see section 8). Experience has shown that these small establishments have difficulty in distinguishing between production and other types of employees. Manhours were estimated for these small establishments as well as for other nonreporters. Because estimating was largely confined to small establishments, there is no significant qualification to the validity of overall industry and geographic area totals for man-hours, except for sawmills and a few other industries characterized by small establishments. However, the man-hour figures for establishments with fewer than 10 employees, shown in the size of establishment tables, should be interpreted with this factor in mind.

## 15. MATERIALS

Cost of Materials, Etc., Consumed.-A summary inquiry on the 1963 census report forms requested information on the cost of materials, supplies, semifinished goods, fuels, and electric energy, actually consumed or put into production during the year and the cost of products purchased for resale, by each manufacturing establishment, whether purchased, withdrawn from inventories, or received from other establishments of the company. Included also were the costs of materials supplied by the establishment which were processed elsewhere on contract for the establishment. (The products produced elsewhere under contract for the establishment are included in the value of shipments of the establishments; see section 16 , value of shipments).
"Cost" was defined as the direct charges actually paid or payable for items consumed or put into production during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring the materials.

To arrive at the industry total "cost of materials, etc.," separate figures were obtained for (a) the total delivered cost of all raw materials, semifinished goods, parts, components, containers, scrap, and supplies consumed or put into production in 1963; (b) the amount paid for electric energy purchased; (c) the amount paid for all fuels consumed for heat, power, or the generation of electricity; (d) the cost of work done by others on materials or parts furnished by manufacturing established (contract work); and (e) the cost of products bought and resold in the same condition.

It should be noted that the cost of fuel consumed under " $c$ " above does not include fuel used as a material in the manufacturing process; for example, coal used in the produc-
tion of coke. Such costs were included with other materials cost in category "a" above.

The total excludes the cost of services used, such as advertising, insurance, telephone, etc., and developmental, research, and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc., and it excludes materials, machinery, and equipment used in plant expansion or capitalized repairs which are chargeable to fixed assets accounts.

For materials received from other plants of the same company or from a central materials depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that reported costs equaled the value of shipments reported for the items by the company's plant which produced and transferred the goods plus the freight and other direct charges (see value of shipments, section 16).

A summation of industry cost of materials figures to industry group totals results in large and unknown amounts of duplication, owing to the addition of costs reported by related industries engaged in successive fabrication stages in the production of finished manufactured products. For this reason, cost-of-materials figures shown at the industry group ( 2 and 3 -digit) and all-industry levels must be used with caution. With some important exceptions (such as refrigeration machinery, radios and television receiving sets, and motor vehicles and parts), this duplication is not significant within individual 4 -digit industries.

Individual Materials Consumed.—In addition to the total cost of materials which every establishment was requested to report, quantity and cost information was collected on 633 specific materials.

Of these materials, 314 were "complete coverage" materials; i.e., every industry that consumed appreciable quantities of the material was canvassed so that the data would represent at least 90 percent of manufacturing consumption. For the remaining 319 "partial coverage" materials, information on consumption was obtained on a more limited basis, generally only in those industries in which the materials were important inputs. Consumption information was also collected for an additional 492 items which were produced and consumed in the same plant as part of the product sections of the report forms.

Because American industry uses an enormous variety of materials, the number of materials for which "complete coverage" consumption data ( 90 percent or higher) were ob-
tained had to be strictly limited. The selection of a particular material for such coverage was, therefore, based on the following criteria:
(1) The importance of the material as measured by the total value of U.S. consumption of the material;
(2) The percentage of total consumption accounted for by manufacturing establishments;
(3) The availability of consumption information from manufacturers' records; and
(4) In certain instances, other factors such as the strategic importance of the material or the availability of historical data on the use of the material.
The materials included on a limited coverage basis were chosen not only because they constituted important inputs for particular industries but frequently because they provided information necessary to classify plants by SIC industry.

The individual materials are shown by industry of the consuming establishment in Volume II, table 7's. In Volume I, Summary and Subject Statistics, information is shown for most of the complete-coverage materials according to industry and geographic area of consuming establishment.

The data on materials consumed relate generally to the quantity and cost of materials purchased or transferred from other plants of the same company. However, for selected materials which are also importantly produced for use within the same establishment, information was requested on such "captive" production in quantity terms only.

Some undercoverage exists in the statistics for most individual materials. The undercoverage results from the fact that:
(1) Individual materials consumption information was obtained only from establishments using one of the census of manufactures standard forms, except on industries for which the short forms were modified to request consumption of a limited number of important materials. For the most part, therefore, plants with a very small number of employees are not represented in these statistics.
(2) Establishments consuming less than a specified amount of material were not requested to report consumption of the material separately. For the majority of individual materials, the mininmum amount was $\$ 5,000$.

The use of such cutoffs, as well as the use of short forms, is not believed to have had a significant effect on the totals for most materials. However, for industries where a sizeable proportion of the activity is accounted for by small establishments or where a specified material is used in relatively small quantities, the above limitations may be of some consequence.

## 16. PRODUCTS

Value of Shipments.-Except in a few industries, the respondents were instructed to report net selling values, f.o.b. plant, after discount and allowances and excluding freight charges and excise taxes. In a few industries, specifically noted in the text of the industry chapters, Volume II, delivered prices were acceptable if delivery was included as an integral part of the plant operations, such as in the milk and bakery industries.

Manufacturers were asked to include as products shipped, not only the products made in the establishment but also those made elsewhere under contract from the materials owned by the establishment. Included were all products sold, transferred to other plants of the same company, or shipped on consignment.

In addition, manufacturers reported receipts for contract work performed for others, resales (i.e., the value of all products resold without further processing), receipts for miscellaneous activities such as sale of scrap and refuse, and the value of installation and repair work performed by the plant employees. Although the value of products bought and resold without further processing is included in the value of shipments totals for each industry, it is excluded from the figures for individual products or classes of products.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; i.e., to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

Individual Products.-In the 1963 census program, information was collected on the output of approximately 10,000 individual product items. The term "product" as used in the census of manufactures represents the finest level of detail for which output information was requested. Consequently, it is not necessarily synonymous with the term product as used in the marketing sense. In some cases it may be much more detailed and in other cases it is more aggregative. For example, "pharmaceutical preparations" was distributed
into nearly 100 items, whereas, "automotive gasoline" was reported as a single item.

Some 6,000 of the product items were listed separately on the 1963 census report forms. Data for the remaining 4,000 products were obtained in the monthly, quarterly, or annual surveys comprising the Current Industrial Reports series of the Census Bureau. ${ }^{8}$ Totals for the year 1963 for these items as derived from the commodity surveys are shown in the "products shipped" table (table 6) in the industry chapters of Volume II together with the tieline total value collected in the census for reconciliation. Appendix F contains a complete listing of the surveys in the Current Industrial Reports program with page references in Volume II where the data appear.

The list of products for which separate information was collected was prepared after consultation with industry and government representatives. Comparability with previous figures was given considerable weight in the selection of product categories so that comparable 1958 information is presented for most products.

Typically, both quantity and value of shipments information was collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected.

As mentioned earlier, shipments include both commercial shipments and transfers of products to other plants of the same company. For industries in which a considerable portion of the total shipments are transferred to other plants of the same company, separate information on interplant transfers was also collected. Moreover, for products which are used to a large degree within the same establishment as materials or components in the fabrication of other products, total production and often consumption of the item within the plant was collected. Typically, the information on production was also collected for products for which there are significant differences between total production and shipments in a given year because of wide fluctuations in finished goods inventories. Alternate measures of output of products, such as value of work done for products with long production cycles, were used as appropriate and feasible.

Classes of Products.-For the purpose of summarizing the product information, the separate products were aggregated into classes of products which were, in turn, grouped into all primary products of each industry. The code structure used is a 7-digit number for the individual product, a 5 -digit code for the class of product, and a 4 -digit code for the total pri-

[^10]mary products in an industry (see section 6 for application of coding structure to the assignment of SIC codes for establishments).

The 10,000 product items in the 1963 census (including products from the Current Industrial Reports program) were grouped into approximately 1,100 separate classes. Products were grouped into product classes to bring out significant differences in the broad types of products within a 4-digit industry. General similarity of the kind or purpose of the products or of the manufacturing processes, type of markets, or of materials used, were the basis for product combinations. The economic significance of the class was also taken into account; residual products of an industry were grouped when the products were not sufficiently significant in dollar value to warrant separate classes.

As a result of the increased number of respondents included in the product-class shipments totals, these categories lend themselves to many more cross tabulations than do the 7-digit products, without disclosing information about the operations of individual companies. In the industry chapters of Volume II, table 6D provides information on the value of shipments of product classes by State; and table 5B, by industry of the establishment producing them. The latter table is the best vehicle for showing the primary and secondary product mix of an industry, as well as the interrelationship between the 4 -digit industry value of shipments and the 4 -digit product group value of shipments. In table 8, the product class is used to provide finer industry-type general statistics by classifying establishments within an industry according to the degree to which they specialize in producing a specific class of products.

The class of product concept was incorporated by the Census Bureau into its own program with the 1947 Census of Manufactures after it developed the technique in the compilation of World War II production statistics. Product classes formed the basis of collecting product information in the annual survey of manufactures when that survey was initiated in 1949. The classes have been revised over the succeeding years to improve the balance and significance of product combinations within each industry and to keep abreast of the growth and decline of products.

## 17. INDEXES OF PRODUCTION AND UNIT VALUE.

Based on the type of quantity and value statistics shown in table 6A's of the Industry Volume, preliminary indexes of production and unit value (value of shipments divided by quantity of shipments) have been constructed for the primary products of the industry produced or shipped by all producers, including those in other industries. These indexes are shown in table 6B's of the industry
chapters. The 1958 unit values were used as weights in construction of a weighted aggregative production index. A unit-value index, weighted by quantity of production or shipments, was also constructed. The latter index was used, where necessary, to deflate value of shipments of products for which no satisfactory quantity data were available.

A special census of manufactures report will be issued, in cooperation with the Federal Reserve Board, on indexes of production, consolidating the information shown in the 6B tables into group and total indexes and discussing in some detail the objectives and methodology of the indexes and the data problems and limitations. That report will contain revisions of the table 6B indexes and will include indexes for some industries not previously published.

## 18. INDUSTRY AND COMMODITY <br> AP. PROACHES TO VALUE OF SHIPMENTS

In the census of manufactures tables, value of shipments figures are shown for 4 -digit industry and 4 -digit product groups which are primary to an industry. Both categories are identified by the same 4 -digit number and title. However, the two sets of figures must be distinguished carefully in use.

Under the industry approach, each plant is assigned to one or the other of the approximately 4254 -digit industries. This is done primarily to secure information on payrolls, man-hours, cost of materials, value added by manufacture, and other matters which relate to the operations of the entire plant. As part of this process, the entire shipments of the plant are also assigned to a particular industry. This will include its output not only of products classified in the industry (primary products) but of products classified in other industries as well (secondary products) and miscellaneous receipts and resales. The value of shipments on an industry basis appears in tables described as "General Statistics" (e.g., most tables in Volume I; and tables 1, 2, 3, 4, and 8 in Volume II).

Tables 6A through 6C in the industry chapters of Volume II are tabulated on a commodity basis and provide value-of-shipments figures for 4 -digit product groups as well as 5 -digit product classes and 7 -digit products on a wherever-made basis. The 4 -digit value figures are derived by aggregating the values of individual products (or product classes) shipped, irrespective of the industry code of the establishment shipping them. Thus, the 4 -digit product-group total avoids the complications of secondary products and miscellaneous receipts inherent in the 4 -digit industry value of ship. ments.

From census to census, the value figures for some 4 -digit product groups show
greater stability than the comparable 4 -digit industry value of shipments. The latter includes the contribution of some establishments which are highly diversified and only marginally coded to the industry. Minor and temporary shifts in product mix could reclassify such establishments from one industry to another without any substantial or permanent change in their operations. In the annual survey of manufactures and the 1963 Census of Manufactures, this erratic shifting was minimized by the application of a resistance factor which required that large establishments ( 100 employees or more) be reclassified only if there was a very substantial shift in product mix or evidence that the newer product mix remained stable over a number of years. (See also section 6 above.)

## 19. DUPLICATION IN COST OF MATERIALS AND VALUE OF PRODUCTS

The aggregate of the cost of materials and value of shipments figures for industry groups and for all manufacturing industries includes large amounts of duplication since the products of some industries are used as materials by others. With some important exceptions, such as motor vehicles and parts, this duplication is not significant within individual 4-digit industries. However, it is significant at the 2 -digit and 3 -digit industry groups because these totals often include industries which represent successive stages in the production of a finished manufactured product. Examples are the addition of flour mills to bakeries in the "Food Group" and the addition of pulp mills to paper mills in the "Paper and Allied Products Group" of industries. Estimates of the overall extent of this duplication indicate that the value of manufactured products exclusive of such duplication-the value of finished manufac-tures-tends to approximate two-thirds of the total value of products reported in the census of manufactures.

Because the amounts of duplication contained in the cost of materials and value of products figures cannot be measured with any degree of precision, these data are not shown in the geographic area tables (Volume III) and caution is urged with their use when they are provided at the 2 - and 3 -digit industry group level in Volumes I and II.

Even where no significant amount of duplication is involved, value of shipments figures are deficient as measures of the relative economic importance of individual manufacturing industries or geographic areas because of the wide variation in ratio of materials, labor, and other processing costs to value of shipments, both among industries and within the same industry.

The difference between the industry and the commodity approach can be illustrated by the example of fabricated structural steel.

While the major share of the output of these products comes from plants which are principally engaged in their production, substantial quantities are also manufactured by plants classified in other industries, such as boilershop products, sheet-metal work, and miscellaneous metal work. At the same time, plants classified in the fabricated metal products industry also manufacture products of other industries. The resultant overlapping is evident from the excerpt from table 5B in the Industry Volume, below.

Thus, it will be seen that of the total shipments of $\$ 1,916$ million by plants classified in the fabricated structural metal industry, $\$ 1,432$ million consisted of products of this industry, while $\$ 237$ million consisted of products of other industries, and $\$ 247$ million of miscellaneous receipts. Shipments of fabricated structural steel products totaled $\$ 1,604$ million, of which $\$ 172$ million was contributed by plants classified in other industries.

It should be noted that the figures shown in table $5 B$ for the total value of shipments of the 5 -digit product classes and the 4-digit product groups are the subtotals and totals of the individual products in table 6A which bear the same first 5 -digit and 4 -digit code numbers.

In order to measure the extent to which industry and product statistics may be compared, two measures have been developedthe "specialization ratio" and the "coverage ratio." The specialization ratio measures the extent to which the plants in an industry spe-
cialize in making the products primary to that industry. It is derived by dividing the total output (both primary and secondary products) of the industry's plants into their output of products primary to the industry. Thus, in the above illustration, the specialization ratio is 0.86 ; that is, shipments of fabricated structural steel products account for 86 percent of all products made and shipped by plants in that industry ( $1,432 \div 1,669=.86$ ). The coverage ratio measures the extent to which the products primary to an industry are shipped by plants classified in that industry. In the illustration, the coverage ratio is 0.89 ; that is, 89 percent of all shipments of fabricated structural steel products was made by plants primarily engaged in the manufacture of these products $(1,432 \div 1,604=.89)$. These ratios appear in tables 1 and 5 A in the industry chapters, Volume II, and in appendix B, industry descrip. tions, Volumes I and III.

In table $G$, industries are grouped by 1963 specialization and coverage ratios. In 1963, as in 1958, approximately 95 percent of manufacturing employment is included in industries with specialization of 80 percent or higher. Nine of 412 industries, for which the industry (primary product) specialization ratio was published for 1963, had ratios of 100 percent and 218, with 56 percent of the employment in all industries for which the ratios were published, had ratios between 90 and 99 percent. Only 29 of the 412 industries showed ratios below 80 percent. The higher the ratio, the smaller the output of secondary products; conversely, the lower the industry specialization

Excerpt from table 5B in Industry Chapters- INDUSTRY PRODUCT ANALYSIS-VALUE OF SHIPMENTS: $196 \overline{3}$
(Millions of dollars)

| Product class code | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Fabricated structural metal (SIC 3441) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
|  |  | (X) | 1,916 | (X) |
| 3441- | Fabricated structural steel, total. | 1,604 | 1,432 | 172 |
| 34411 | Fabricated structural metal for buildings | 984 | 894 | 190 |
| 34412 | Fabricated structural metal for bridges. | 225 | 210 | ${ }_{2}^{2} 15$ |
| 34413 | Other fabricated structural metal.. | 287 | 221 | ${ }^{3} 66$ |
| 34410 | Fabricated structural metal, n.s.k. | 108 | 107 | 1 |
| ..... | Secondary products........... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | 4237 | (X) |
| . . . . | Miscellaneous receipts (contract work, repair work, sales of scrap, resales, etc.). | (X) | 247 | (X) |

[^11]TABLE G. Frequency Distribution of Industries by 1963 Primary Product Specialization and Coverage Ratios

| Ratio class | Primary product specialization ratio |  |  | Coverage ratio |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of industries | Employees |  | Number of industries | Employees |  |
|  |  | $\begin{aligned} & \text { Number } \\ & (1,000) \end{aligned}$ | Percent of total |  | $\begin{aligned} & \text { Number } \\ & (1,000) \end{aligned}$ | Percent of total |
| Total....... | ${ }^{1} 412$ | 15,937 | 100 | ${ }^{2} 413$ | 15,494 | 100 |
| 100 percent... | 9 | 163 | 1 | 15 | 583 | 4 |
| 90 to 99 percent.. | 218 | 8,954 | 56 | 186 | 8,220 | 53 |
| 80 to 89 percent. | 156 | 5,760 | 36 | 121 | 4,021 | 26 |
| 70 to 79 percent.. | 21 | 631 | 4 | 45 | 1,436 | 9 |
| 60 to 69 percent.. | 6 | 409 | 3 | 23 | 672 | 4 |
| Under 60 percent. | 2 | 20 | (3) | 23 | 562 | 4 |

[^12]ratio, the higher the output of secondary products. Lower industry specialization ratios give evidence of diversity of output by an industry and overlap with other industries. Over time, decreasing industry specialization ratios would be a manifestation of the need for revision of the classification structure.

## 20. VALUE ADDED

Value added by manufacture is derived by subtracting the total cost of materials (including materials, supplies, fuel, electric energy, cost of resales and miscellaneous receipts) from the value of shipments (including resales) and other receipts and adjusting the resulting amount by the net change in finished products and work-in-process inventories between the beginning and end of the year. ${ }^{9}$

[^13]Value added avoids the duplication in the value of shipments figure which results from the inclusion of the shipments of establishments producing materials and components along with the shipments of establishments producing finished products. It does not exclude, as described in the paragraph below, purchased services. Nevertheless, it is considered to be the best value measure now available for comparing the relative economic importance of manufacturing among industries and geographic areas.

Value added by manufacture should not be confused with "national income originating in manufacturing," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), Department of Commerce. (See tables H and I.) The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of manufactures. "Income originating" excludes,

TABLE H. Comparison of National Income Originating in Manufacturing and Value Added by Manufacture
(In billions of dollars)

| Year | National income originating in manufacturing ${ }^{1}$ | Value added by manufacture | Col. (1) divided by col. (2) | Year | National income originating in manufacturing ${ }^{2}$ | Value added by manufacture | Col. (1) divided by col. (2) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1963. | 143.8 | 192.1 | 0.75 | 1956. | 113.1 | 144.9 | 0.78 |
| 1962. | 137.0 | 179.3 | 0.76 | 1954 | 94.6 | 117.0 | 0.81 |
| 1961. | 125.1 | 164.2 | 0.76 | 1947. | 59.5 | 274.3 | 0.80 |
| 1960. | 125.8 | 164.0 | 0.77 | 1939. | 18.1 | 24.5 | 0.74 |
| 1959. | 124.0 | 161.3 | 0.77 | 1935. | 13.4 | 18.5 | 0.72 |
| 1958. | 107.7 | 141.5 | 0.76 | 1933. | 7.7 | 14.0 | 0.55 |
| 1957. | 116.3 | 147.8 | 0.79 | 1929. | 21.9 | 30.6 | 0.72 |

[^14](In billions of dollars)

| Code | Industry group description | National income originating: | Value added by manufacturing | Col. 1 divided by col. 2 |
| :---: | :---: | :---: | :---: | :---: |
|  | Manufacturing. | 143.8 | 192.1 | 0.75 |
|  | Nondurable goocis. | 57.5 | 83.4 | 0.69 |
| 20 | Food and kindired products. | 13.4 | 21.8 | 0.61 |
| 21 | Tobacco manufactures.. | 1.2 | 1.7 | 0.71 |
| 22 | Textile mill products. | 4.7 | 6.1 | 0.77 |
| 23 | Apparel and other fabricated textile products. | 5.6 | 7.9 | 0.71 |
| 26 | Paper and allied products...................... | 5.1 | 7.4 | 0.69 |
| 27 | Printing, publishing, and allied industries. | 7.3 | 10.5 | 0.70 |
| 28 | Chemicals and allied products.. | 10.4 | 17.6 | 0.59 |
| 29 | Petroleum refining and related industries. | 4.6 | 3.7 | 1.24 |
| 30 | Rubber and miscellaneous plactics products. | 3.3 | 4.6 | 0.72 |
| 31 | Leather and leather products........... | 1.7 | 2.1 | 0.81 |
|  | Durable goods.. | 86.2 | 108.7 | 0.79 |
| 24 | Lumber and wood products, except furniture. | 3.5 | 4.0 | 0.88 |
| 25 | Furniture and fixtures.. | 2.3 | 3.1 | 0.74 |
| 32 | Stone, clay, and glass products | 5.0 | 7.0 | 0.71 |
| 33 | Primary metal industries. | 11.5 | 15.3 | 0.75 |
| 34 | Fabricated metal products. | 9.2 | 11.8 | 0.78 |
| 35 | Machinery, except electrical. | 14.0 | 17.3 | 0.81 |
| 36 | Electrical machinery. | 12.3 | 17.0 | 0.72 |
| 19 |  | 10.4 | \} 25.6 | 0.87 |
| 38 | Motor vehicles and motor vehicle equipment... | 11.8 3 3 | ) 4.0 | 0.88 |
| 39 | Miscellaneous manufacturing industries. | 2.5 | 3.6 | 0.69 |

Source: Survey of Current Business, July 1966 p. 15.
in addition to cost of materials, such other costs as depreciation charges, State and local taxes (other than corporate income taxes), allowance for bad debts, and purchases of services from nonmanufacturing enterprises, such as contract costs involved in maintenance and repair, services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by nonmanufacturing establishments of companies classified as being primarily manufacturing, and conversely, in the exclusion of some part of the net value added by manufacturing establishments of companies classified as primarily nonmanufacturing. It is believed that for manufacturing as a whole the net effect increases income originating. (In fact, in the Petroleum and Coal Products major industry group, nonmanufacturing activities of manufacturing companies are so significant that this is the one major industry group in
which OBE "income originating" exceeds Census "value added by manufacture.')

Figures are not available to permit a reconciliation of the estimates for value added in manufacturing and the national income orig. inating in manufacturing for the current period. However, in 1957, the Census Bureau conducted a special survey, MC-D11, "Selected Costs and Assets of Manufacturing Establishments," which collected information on some of the costs included in value added for services purchased from other sectors or excluded from the national income estimates. These specific costs which accounted for about $\$ 15$ billion of the $\$ 148$ billion of value added in 1957 were maintenance and repairs, $\$ 4.5$ billion; insurance, $\$ .7$ billion; property taxes, $\$ 1.5$ billion; rental payments, $\$ 1.4$ billion; and depreciation, $\$ 7.3$ billion. The residual value added, $\$ 132$ billion was approximately $\$ 16$ billion in excess of national income of $\$ 116$ billion.

Table J presents an approximate reconciliation of national income and value added figures for manutacturing in 1957. The national income estimates for payrolls and other fac-
(In billions of dollars)

tor income in that year are based on the unrevised national income figures which are somewhat lower than the revised estimates appearing in table H . It should be noted that the labor costs included in national income and value added are reasonably close despite the fact that they are computed on a slightly different basis. If the proprietary and profit incomes of the company-based national income estimates are allocated to the establishments included in the census of manufactures, value added exceeds national income by $\$ 35$ billion of which $\$ 15$ billion is attributable to costs reported on survey MC-D11. Somewhat more than half of the $\$ 35$ billion excess represents the inclusion in value added by manufacture of purchased business services arising in other economic sectors; the remainder reflects conceptual differences arising from the inclusion in value added of indirect business taxes and depreciation which are excluded by definition from national income.

## 21. INVENTORIES

The value of beginning-of-year and end-of-year inventories, respectively, held by each manufacturing establishment was obtained in the 1963 census. Separate inventory figures
were requested for (1) finished products; (2) work in process; and (3) materials, supplies, fuel, and other inventories.

Respondents were asked to report their inventories at approximate current costs, if feasible; otherwise "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the value of inventories aggregate for all establishments in an industry is not precise. The figures on change in inventory between the beginning and the end of the year are of considerably greater significance.

In using inventory data by stage of fabrication for all industries and at the 2 -digit industry level, the following should be noted: An item treated as a finished product by an establishment in one industry may be reported as a raw material by another establishment in a different industry. For example, the finished product inventories of a steel mill would be reported as raw materials by a stamping plant. Such differences are present in the inventory figures by stage of fabrication shown for individual industries, industry groups, and all manufacturing which are merely aggregates of figures reported by establishments in specified
industries. Further, the total finished goods inventory for "all manufacturing" includes items that are not finished manufactured products.

For a few industries in the food group, there are special problems in the handling of inventories by stage of fabrication. These are industries in which the production cycle is short, the products are usually stored under controlled conditions, and the products are aged. Included among such types of products are meat products, stemmed and dried tobacco, cheese, and whiskey. It is not clear whether such products should be treated as finished goods inventories or as work in process while in storage.

In the meat processing industries, establishments were allowed to report finished products and work in process combined as finished products. In the distilling industry, products stored for aging were to be reported as finished products. In all foods industries, substantial finished goods inventories have been reported. These data have been summarized in the inventory tables in a consistent manner for all of the years included in this report.

## 22. EXPENDITURES FOR PLANT AND EQUIP. MENT

In the 1963 census, manufacturers were asked to report expenditures made during the year for permanent additions and major alterations to their plants, as well as for new machinery and equipment purchases, that were chargeable to fixed asset accounts of manufacturing establishments and were of a type for which depreciation accounts are ordinarily maintained. Expenditures for machinery and equipment were to include those made for replacement purposes, as well as for additions to plant capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense; new facilities and equipment leased from nonmanufacturing concerns; new facilities owned by the Federal Government but operated under contract by private companies; and plant and equipment furnished to the manufacturer by communities and organizations.

In addition to total capital expenditures, respondents were requested to indicate the following subtotals: (a) New structures and additions to plant (including major alterations and capitalized repairs and improvements); (b) new machinery and new equipment (including capitalized repairs and improvements); and (c) expenditures for used plant and used equip. ment acquired from others (including the U.S. Government). In most tables of these publications, the statistics on capital expenditures are confined to a total of new plant and equipment (items " $a$ " and " $b$ " above). However, in table 3 of the industry chapters in Volume II, and in Expenditures for Plant and Equipment, chapter

5 in Volume I, separate figures are shown for each type of expenditure.

The figures include (a) the expenditures made at manufacturing plants that were in operation during any part of the year, plus (b) expenditures made at plants that were not as yet in production. The data on capital expenditures for plants not in production at the end of 1963 were collected on a separate report form (MA-101) requesting companies to report the value of new plant and new equip. ment put in place during the year. The form also requested description of the type of products that would be made so that the establishment could be classified into a 4 -digit industry. This form was sent to (a) the 1,500 largest manufacturing companies; (b) all other companies which indicated on the census of manufactures establishment report form or the "Listing of Establishments" Form NC-X-1 that they had one or more manufacturing plants under construction but not yet in operation at the close of 1963.

The Census Bureau estimates of capital expenditures tend to be lower than those published in the joint Office of Business Eco-nomics-Securities and Exchange Commission survey. (See table K below.) In addition to normal sampling variation, a major source of differences is to be found in the scope of the two series. Census data relate only to manufacturing establishments, whereas the OBE-SEC series cover all establishments of manufacturing companies-nonmanufacturing as well as manfacturing. This factor is particularly important in the petroleum industry where company expenditures for developing new wells and new distribution facilities are ordinarily much larger than their capital expenditures at refineries. On the other hand, manufacturing establishments of companies engaged primarily in nonmanufacturing activities are excluded from the OBE-SEC series but included in Census figures.

TABLE K. Expenditures for New Plant and Equipment for Manu-facturing-OBE-SEC and Census of Manufactures Compared
(In billions of dollars)

| Year | OBE SEC | Census | Census as percent of OBE SEC |
| :---: | :---: | :---: | :---: |
| 1963. | \$15.7 | \$11.4 | 0.73 |
| 1962. | 14.7 | 10.0 | 0.68 |
| 1961. | 13.6 | 9.8 | 0.72 |
| 1960. | 14.5 | 10.0 | 0.69 |
| 1959. | 12.1 | 9.3 | 0.77 |
| 1958. | 11.4 | 9.6 | 0.84 |
| 1954. | 11.0 | 8.2 | 0.74 |
| 1947. | 8.7 | ${ }^{1} 6.0$ | 0.69 |

Source: U.ミ. Department of Commerce, Office of Business Economics Business Statistics, 1963, and the Census of Manufactures.
${ }^{1}$ Excludes plants under construction but not yet in operation.

Both series, it should be noted, exclude expenditures for plant and equipment at establishments owned by the Federal Government but operated under lease or contract by private companies.

## 23. FUELS, ELECTRIC ENERGY, AND POWER EQUIPMENT

In industry table 7B, Volume II, and in chapter 6 , Volume I, information on the use of detailed fuels and electric energy and on the horsepower of power equipment in place is provided for the year 1962. This information was collected as part of the 1963 Census of Manufactures on a special sample survey, "MC-D-12, Supplementary Inquiries for 1962." The information was collected for the year prior to the regular census in order to reduce the reporting burden on the respondents and the tabulation burden on the Bureau of the Census during a major census year. The survey report form was mailed to all establishments included in the 1962 Annual Survey of Manufactures. Insofar as these figures are based on a sample, they must be considered approximations and subject to sampling error. A more complete discussion of the compilation and limitations of these data appear in the introductory text to chapter 6, Volume I.

Totals for prime movers and electric motors are shown separately. The horsepower ratings for "prime movers" include information for such types of power equipment as internal combustion engines, steam and hydraulic turbines, and reciprocating steam engines. The totals for prime movers are further separated between those driving electric generators and those used for other purposes. The statistics for prime movers not driving generators exclude data for automobiles, trucks, and other highway equipment.

The aggregate horsepower figure represents the unduplicated rating for total installed equipment and thus provides a measure of the mechanical power available in manufacturing establishments. The figure is derived by summing the horsepower rating of prime movers and that for electric motors driven by purchased electricity. To secure the latter figure, the total horsepower for electric motors was distributed, by establishment, into two categories: Motors driven by purchased electricity and motors driven by energy generated at the establishment. For the relatively small number of establishments which both generate and purchase electricity, the total horsepower for electric motors was prorated on the basis of the ratio of the net quantity purchased to the net total for electricity consumed.

As in past censuses, respondents were requested to report horsepower of stand-by equipment as well as equipment in operation at the end of the year, including all prime movers and motors in mobile (except automo-
biles, trucks, and other highway equipment) as well as in stationary equipment.

Separate data are shown for coal, coke, fuel oil, gas, and other fuels used for heat and power; purchased electric energy; electric energy generated by manufacturing establishments; and energy generated less sold. Total figures for purchased fuels and electric energy were published as part of the 1962 Annual Survey of Manufactures at the 2 -digit major group and selected 3 -digit industry group levels.

## 24. PLANT SPECIALIZATION DATA

As discussed above, the relationship between the product output and the statistics on employment, payrolls, cost of materials, and value of shipments for an industry can be measured by the specialization ratio and the coverage ratio for the industry. At the aggregate industry level, these data relationships are presented in tables 5A and 5B of the industry reports. For each establishment, two measures of its degree of specialization are prepared: (1) A 4-digit primary product-specialization ratio which is the sum of the values of all the plant's primary products divided by the sum of all its primary and secondary products; and (2) a 5 -digit primary product-class specialization code which is the sum of the largest 5 -digit product-class value divided by the sum of its primary and secondary products (contract work and miscellaneous receipts and resales are not included in these calculations). For example, assume that an establishment reported the following:

| Total value of shipments | \$1,000 |
| :---: | :---: |
| Miscellaneous receipts and resales | 15 |
| Total products shipped | 985 |
| 32721 Concrete pipe products | 100 |
| 32722 Precast concrete products | 785 |
| 32730 Ready mixed concrete | 100 |

This plant would be coded into the 4-digit SIC industry 3272, Concrete Products, with a primary product specialization ratio of 90 percent ( $\$ 885 \div 985$ ); it would be subclassified into the 5 -digit class 32722 , Precast Concrete, with a primary product class specialization ratio of 80 percent.

In the census of manufactures, general statistics (employment, payrolls, cost of materials, value of shipments, etc.) have been tabulated to 4 -digit industry and 5 -digit primary product-class levels on the basis of assigning the plant totals to the principal 4 - and 5 -digit codes representing its output. Table 8 of the industry chapter, Volume II, provides general statistics for those 4 - and 5 -digit industry categories with subtotals for the two largest specialization classes ( 90 percent and over, 75 to 90 percent). Not all industries and product classes can be shown in table 8 without disclosing figures for individual companies.

Certain product classes are primary to more than one industry. The industry classification of establishments primarily producing such classes of products is determined on the basis of the kind of operation performed in the establishment; e.g., making the product from purchased materials or from materials produced at the same location. In the plant specialization data (table 8), product classes primary to two or more industries are shown in each of the respective industries. For each industry, the specialization data by industry and product class include only those establishments producing the class of product in the manner defined (e.g., lubricating oils from purchased materials).

Table 8 of the Industry Volume permits analysis of an industry in terms of the differences introduced by variation among establishments in the degree of specialization in the products of the industry or a subgroup ( 5 -digit). For example, where the ratios of various statistics tend to be different for establishments specializing to different degrees in the products of the industry or in different product classes, the ratios for the industry as a whole would be significantly affected by shifts in product mix. It should be noted that for those industries in which a production process results in the manufacture of byproducts or other similarly higher correlated products which are separate product classes in the census, the degree of specialization in each of the product classes tends to be somewhat lower.

Differences in the degree of integration of production processes within establishments are often more important than the element of product mix. A partial measure of differences arising from this factor can be derived for some industries through the metalworking operations or other equipment data. For some other industries, data on the production and use of products within the same establishments may be used as an approximate measure.

## III. SPECIAL INQUIRIES, REPORTS, AND PROCEDURES

## 25. SPECIAL INQUIRIES

Selected Metalworking Operations.For all industries in SIC Major Groups 35 and 37, and for selected 4 -digit industries in Groups 19, 33, 34, 36, and 38, the 1963 census included a special inquiry on "Selected Metalworking and Related Operations'" to provide a measure of certain metalworking and related facilities in manufacturing. The following operations were included in this inquiry: foundry (iron or steel); foundry (nonferrous, except die castings); die casting (nonferrous metal only); forging-presses, hammers, or upsetters; electroplating and other plating; gal-
vanizing and other hot-dip coating; heat treating of metals for production purposes; automatic screw machine department; machine shop; tool and die shop, if separate from machine shop; pattern shop (foundry patterns on-ly-metal, wood, etc.); plate or structural fabrication; stamping, blanking, and forming of metals; painting, lacquering, and enameling of metals; plastics molding; assembly of product; and shipping department (including packing and crating).

In Volume I, Chapter 9, Selected Metalworking Operations, the number of establishments performing these operations and the number of production workers engaged in these operations classified by size of the specific operation are shown by industry in table 1 and, for selected operations, by geographic division and State in table 2. The size distribution is based on the number of production workers usually employed in the operation. In addition, for selected industries, the actual number of man-hours worked by production workers in specified operations is also shown. The metalworking operations data by industry are also presented in table 9 of the industry chapters in Volume II.

Information on selected metalworking operations was obtained for practically all industries where such operations are important. For individual industries or groups of industries, the inquiry on metalworking and related operations was tailored to fit the principal operations that were characteristic of those industries.

In many industries, however, small establishments reported on a short form that did not include the inquiry on metalworking operations. Also, a few larger establishments that filed standard forms did not report their metalworking operations. This has resulted in an understatement of the number of establishments maintaining specific operations, primarily in the smallest size class, and to a much smaller degree an understatement of the total number of production workers in the operation.

An approximation of the coverage in terms of number of production workers is provided for both industry and geographic totals. The coverage for most industries is over 90 degree an understatement of the total number larger establishments predominate.

For foundry operations, the number of plants operating foundries consists of the number reporting the operation for each industry plus the number of establishments classified in the foundries industries. For forg. ings operations, the number of plants operating forge shops consists of the number reporting the operation for each industry plus the number of establishments classified in the forgings industries. In footnotes to table 1,

1963 data are shown for the number of establishments classified in these industries. For example, in addition to establishments shown in the table as operating foundries and die casting facilities, the number of establishments classified in the foundry industries is given in the footnote. In the State table, separate columns have been included giving the number of establishments classified in these industries in each State. Similarly, the form used by respondents in industry 3471, Planting and Polishing, did not include the metalworking inquiry. Consequently, data for establishments in these latter industries were presented in the same manner as for the foundry industries.

A limited inquiry covering machine shops and pattern-shop operations was included for the foundry industries, and an inquiry covering machine shops and tool and die shops was included for the forgings industries.

Selected Equipment Data.—An inventory of textile equipment in place was obtained for a number of the important machines used in the basic textile industries. These data, grouped by type of operation or industry activity of the plant, are shown in a separate chapter in the Industry Volume. Information regarding the coverage of the inquiry is also shown.

Special Departmental Reports.-For paper plants, stone and clay plants, steel plants, aluminum rolling mills, brass mills, and nonferrous wire drawing and insulating plants, where vertically integrated activities are characteristic of establishment operations, selected employment information regarding certain departmental activities was obtained in the 1963 census, as had been done in the 1958 census. Information relating to pulping departments, printing employment, and presses in paper and paperboard converting plants, quarrying activities, and selected operations in steel plants, aluminum rolling mills, brass mills, and nonferrous wire drawing and insulating plants is shown in the chapters for these industries in the Industry Volume.

Distribution of Products or Sales.There was a series of special inquiries which collected information on the distribution of specific products; e.g., sales of packaged milk by retail and wholesale routes; the number and payroll of delivery employees engaged in the milk, bakery, soft drink, and beer industries; sale of books and storage batteries by class of customer; the circulation of periodicals by type of periodical and frequency of issue; production of shoes and slippers by type of construction.

The data resulting from these selected special inquiries on the standard census forms appear in the chapters for the industry in Volume II.

## 26. SUBJECT REPORTS SHOWN IN VOLUME I, SUMMARY AND SUBJECT STATISTICS

In Volume I, there are several summary reports on inventories, capital expenditures, size of establishments, type of organization, power equipment in place, fuels and electric energy, materials consumed, water use, shipments of defense-related products, operations of government-owned establishments, exports of manufactured products, and the degree of concentration in manufacturing.

Most of these chapters are merely summarizations or special compilations of data reported on the standard census forms and presented in the industry or area chapters. Others, however, are the result of information collected on special surveys. The introduction to each of these latter reports describes the report form used, and the sampling or compilation techniques used to assemble the data.

The following chapters which are recompilations of basic data reported on the census of manufactures report forms should be noted.

Size of Establishment.-Each establishment in the census is coded not only to an industry and geographic location but also by its size based on the average number of em. ployees for the year. These size tabulations provide significant insight into the variations in operating ratios among plants within an industry and between industries. Information on the number of establishments, employment, payrolls, value added, value of shipments, and capital expenditures is presented for 10 employment size classes in each industry in table 4, Volume II, and in chapter 2, Summary Volume I. In Volume I, size information at the 2-digit industry and all-manufacturing levels is presented.

## Type of Organization:

Multiunit, Single-Unit Estab-lishments.-Information on whether plants are independent or part of multiestablishment companies contributes importantly to our knowledge of the structure of manufactures in the United States. However, this classification is affected by the way the census of manufactures is conducted. Prior to the 1954 census, the census of manufactures was conducted independently and the multiunit classification was assigned if the company operated more than one manufacturing plant. Beginning in 1954, it has been part of the overall census of business, manufactures, and mineral industries and the multiunit classification applies to companies that may have only one manufacturing plant but also operate separate retail, wholesale, service, or minerals establishment, or a separate administrative office.

The proportion of employees and of value added by manufacture accounted for by multiunit plants has grown rapidly since 1947. (See table L.)

## TABLE L. Multiunit Plants as a Percentage of Total Manufacturing

| Year | Employees | Value added by manufacture |
| :---: | :---: | :---: |
| 1963............... | 68 | 76 |
| 1958............... | 65 | 74 |
| 1954............... | 61 | 68 |
| 1947............... | 56 | 59 |

However, some of the increase from 1947 to 1954 was a consequence of taking the censuses of manufactures, mining, trade, and services simultaneously in 1954, but not in 1947.

Legal Form of Organization.Each establishment was asked to report the forms of organization of the company which operated it; e.g., corporation, partnership, proprietorship, cooperative. In chapter 3, Volume I, selected general statistics are shown for each 4-digit industry for each of these forms of business organization. Cooperatives are combined with "other" forms of business organization because of the disclosure problems. In manufacturing, about half the plants are operated by corporations but these plants account for about 95 percent of value added by manufacture.

Concentration Ratios in Manufactur-ing.-In chapter 11 of Volume I, information is provided on the share of all manufacturing accounted for by the 50, 100, 150, and 200 largest manufacturing companies ranked by their total value added in manufacturing for 1963, 1958, 1954, and 1947. Information is also shown for the share of value of shipments in each 4 -digit industry accounted for by the 4, 8 , 20 , and 50 largest companies in each of these industries. A description of the methods used in compiling these data accompanies the tables in Volume I.

## 27. IMPUTATION OF DATA

Each "key" census total called for on the standard forms had its counterpart in the various short forms. The short forms, however, did not require the detailed distribution of such totals (see section 8, The Census Report Forms). It was necessary, therefore, to impute figures for these missing detail items in order to publish universe totals of manufacturing activity.

Imputation of missing items, which was done on an industry basis, was made feasible
by use of the Census Bureau's high-speed electronic computer. The procedures for imputa. tion were of two types: (1) Production workers, production-worker wages, and man-hours were imputed from fixed ratios specified in advance from historical relationships of these items to total employees and total payroll; (2) other items, such as capital expenditures and inventories, were imputed on the basis of their historical relationship to value of shipments. Missing detail was generally imputed on the basis of the historical relationship of the item to its respective total.

For industries characterized by establishments of some size, the percentage of imputation of general measures such as employment and payrolls, cost of materials, inventories, expenditures, and the like is negligible; for the industries in which small establishments account for a significant portion of the total, the percent may go as high as 10 or 25 , but this occurs only in a handful of industries. Of the various statistics, man-hours worked tended to have a higher degree of imputation than the other items due to difficulties in reporting those data by small and medium. size establishments.

The major exceptions to the imputation procedure for missing data were the detailed products and materials, metalworking operations, and equipment inquiries. The value of products and the cost of materials, parts, supplies and containers for establishments not reporting the detailed inquiries were treated as "unspecified" materials or products in the appropriate tables. For metalworking operations and equipment, the statistics were based on establishments reporting data, with appropriate measures of coverage shown in the tables.

## 28. CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES

The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In the 1963 census, as in previous censuses, preference was given to geographic regions and divisions over individual States in applying disclosure rules; similarly, States took precedence over standard metropolitan areas, while such areas were given preference over counties, and counties over cities. In tables showing industry detail, major industry group (2-digit) totals were given preference over industry group (3-digit) totals which, in turn, had precedence over individual (4-digit) industries. Similarly, in product tables, 4 -digit product groupings took precedence over 5-digit product classes; the latter were given precedence over individual 7-digit products.

Such order of precedence was used because (1) it was considered preferable to show
regional data for an industry, even at the cost of withholding data for some (usually the least significant) State in a region, rather than to show all publishable data for the individual States and group the disclosure States throughout the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) by giving preference to industry group statistics over individual industries within each State, the extent to which individual States can be compared within the SIC industry classification framework is increased.

For each producing State not shown separately in table 2 of the Industry Volume, a footnote gives the number of establishments and either an employment range or the actual employment figure. The employment is shown in a range if the State had less than 1,000 employees, and the employment data represented the total for only one or two companies, or if the exact figure would permit deriving (by subtraction) the number of employees in other States represented by only one or two companies. In addition, figures for States with less than 100 employees are shown only in the footnote together with the number of establishments and employment in a range.

In the Area Volume, figures are not shown for a county or for an industry within a State, metropolitan area, or principal industrial county if the publication of such statistics would disclose information for individual companies. In table 4 of that Volume, however, the number of establishments is shown for every county and the number of employees for most counties represented by three or more companies. Moreover, all counties having manufacturing establishments are included in table 7 , showing for each county, the distribution by employment size of establishments in each major industry group.

A special series of publications entitled "Location of Manufacturing Plants" was originally developed for the 1954 census and has been continued in subsequent censuses. In these publications are tables showing the number of establishments cross-classified by 4-digit industry, county, and employment size class. This is the maximum information which can be provided at such narrow industry-areasize categories without disclosing figures for individual companies. These data are designed to meet the needs of (a) those involved in economic development programs at the regional, State, and local area levels, (b) those engaged in industrial market analysis or allocation of
sales territories, and (c) those concerned with industrial dispersion, regional shifts of industry, and similar problems. For a more complete description of the content of these publıcations, see the publication statement in the introduction of this volume.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions in order to show all plants by some geographic grouping. For this purpose the following combinations of Census divisions have been used:

NORTHEAST<br>New England<br>Middle Atlantic<br>NORTH CENTRAL<br>East North Central<br>West North Central<br>SOUTH<br>South Atlantic<br>East South Central<br>West South Central<br>WEST<br>Mountain<br>Pacific

## 29. ABBREVIATIONS

The following abbreviations and symbols occur frequently in tables and footnotes:

| - | Zero |
| :--- | :--- |
| X | Not applicable |
| NA | Not available |
| n.e.c. | Not elsewhere classified |
| n.s.k. | Not specified by kind |
| lin. | Linear |
| equiv. | Equivalent |
| hp | Horsepower |
| kw.-hrs. | Kilowatt-hours <br> D |
| Withheld to avoid disclosing fig- <br> ures for individual companies |  |
| SIC | Standard Industrial Classifica- <br> tion |

Other abbreviations, such as Ib., gal., yd., doz., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 pounds; where the figures are expressed in tons of 2,240 pounds, the unit of measure is specified as "long tons" or "gross tons."

# Petroleum and Coal Products 

29A Petroleum refining and related industries

This major group includes establishments primarily engaged in petroleum refining, manufacturing paving and roofing materials, and compounding lubricating oils and greases from purchased materials. Establishments manufacturing and distributing gas (water or coke oven) to consumers are classified in public utilities industries, and those primarily engaged in producing coke and byproducts in Major Group 33. Establishments primarily engaged in producing crude petroleum, natural gas, natural gasoline, and cycle condensation are classified in mining industries.

## Petroleum and Coal Products: Major Group 29

Value Added by Manufacture by State: 1963


## table 1. General Statistics: 1963 and Earlier Years



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. Revised.
The figures for 1939 through 1963 include data for employees of manufacturing establishments who are engaged in distribution and construction work. The extent to which
ata for such employees are included in the figures for earlier years is not known. and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. For 1899 to 1933, cost of contract work was not subtracted from value of products in calculating value added by manufac ture.
${ }^{3}$ The total value of shipments and cost of materials for industry groups (2- and 3digit) include extensive duplication arising from shipments between establishments in the same industry classification. For a more complete explanation, see Introduction.
not yet in operation. not yet in operation,
shown for manufacturer's central administratishments 1954, 1958, and 1963 data are shown for manufacturer's central administrative offices and auxiliary units. Similar
data are show for the years $1949-1953$ and $1955-1957$ in annual survey of manufactures volumes. Data for these units are not available for the years prior to 1949.
${ }^{6}$ The 1957 edition of the Standard Industrial Classification classifies beehive coke ovens and byproduct coke ovens in Major Group 33. Such establishments were previously included in Major Group 29, Petroleum and Coal Products. However, this change was
reflected in the tabulations for $1955^{\circ}$ to 1957 annual surveys of manufactures. Data for 1954 were retabulated on this basis and are the source of the datude beehive and byproduct coke ovens
${ }^{7}$ Theselfigures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manuractures volumes for this period.

The 1947 figures have been revised to exclude data for by-product coke plants operated in conjunction with public utilities manufacturing and distributing gas, and to include data for establishments primerily engaged in shipping lubricants and greases made from animal and vegetable oils (classified in Industry 2899 in 1947). The figures for 1949 to 1953 can not be revised to include these greases.
${ }^{9}$ Figures for years prior to 1939 exclude byproduct coke ovens owned by city gas companies. Such ovens represent less than 2 percent of the total value of products for the petrolewn and coal products group for 1939.

## ricating oils. 1929 exis

 blocks. These industries represented 4 percent of the figure for number of production blocks. These industries represented 4 percent of the figure for number of productice petroleum and coal products group for 1929. Prior to 1929, the lubricants, n.e.c. industry is included in the series for chemical and allied products group.${ }^{12}$ Figures for years prior to 1909 exclude fuel briquets and roofing felts and coatings. For 1909, these industries represented 6 percent of the figure for mumber of production workers and 9 percent of the figure for value added by manufacture shown for the petroleum and coal products group.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{Code} \& \multirow[b]{3}{*}{Industry group and geographic area} \& \multicolumn{9}{|c|}{1963} \& \multicolumn{2}{|r|}{1958} \\
\hline \& \& \multicolumn{2}{|l|}{Establishments} \& \multicolumn{2}{|r|}{All employees} \& \multicolumn{3}{|c|}{Production workers} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)} \& \multirow[t]{2}{*}{Capital expenditures, new
\[
(\$ 1,000)
\]} \& \multirow[b]{2}{*}{\[
\begin{gathered}
\text { All } \\
\text { employees } \\
\text { (number) } \\
\hline
\end{gathered}
\]} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)} \\
\hline \& \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& With 20 employees or more (number) \& Total
(number) \& Payroll
\((\$ 1,000)\) \& Total
(number) \& Man-hours
\((1,000)\) \& \[
\begin{gathered}
\text { Wages } \\
(\$ 1,000)
\end{gathered}
\] \& \& \& \& \\
\hline \multirow[t]{58}{*}{29} \& PETROLEUM AND COAL PRODUCTS, TOTAL \& 1839 \& 689 \& 153486 \& 1133765 \& 109448 \& 216679 \& 745123 \& 3713231 \& 413681 \& 179166 \& 2518424 \\
\hline \& NORTHEAST \& 474 \& 139 \& 27690 \& 204410 \& 20233 \& 41388 \& 138059 \& 525237 \& 43030 \& 33484 \& 331030 \\
\hline \&  \& 95
4 \& (10) \& 2043
(0)
(0) \& \(\begin{array}{ll}13 \& 133 \\ (0) \\ \text { ( })\end{array}\) \& 1420
(D) \& \begin{tabular}{rr}
3117 \\
\\
\\
101 \\
\hline
\end{tabular} \& \begin{tabular}{r}
8 \\
\hline 065 \\
(1)
\end{tabular} \& \begin{tabular}{c}
32 \\
\hline 234 \\
(D) \\
(1)
\end{tabular} \& 2357

( \& 2345
(0) \& 25445
(0) <br>
\hline \& NEW HAMPSHIRE. $0 . .$. \& , \& (0) \& (0) \& (0) \& (D) \& (0) \& (1) \& (D) \& (D) \& 60 \& 680
680 <br>
\hline \& VERMONT. ${ }^{\text {a }}$ - \& , \& $(0)$ \& (0) \& (0) \& (D) \& (0) \& (D) \& $10)$ \& (10) \& 101 \& (0) <br>
\hline \& MASSACHUSETTS
RHOOE ISLANO \& 58
4 \& 16
10 \& 1413
101 \& 8770
(D) \& 987
(0) \& 2264

1 \& 5430
101 \& 21963

(0) \& $\begin{array}{r}1378 \\ \\ \\ \\ \hline\end{array}$ \& $\begin{array}{r}1582 \\ +267 \\ \hline\end{array}$ \& $\begin{array}{rr}17 & 251 \\ 3 & 016\end{array}$ <br>
\hline \& RHOOE ISLANO
CONNECTICUT. \& $\begin{array}{r}4 \\ 24 \\ \hline\end{array}$ \& (0) \& 101
385 \& (0)
2758 \& 101
246 \& 101
432 \& (101 \& [10) \& 101

672 \& | 267 |
| :--- |
| $(0)$ | \& 3016

(0) <br>
\hline \& middle atlantic \& 379 \& 116 \& 25647 \& 191277 \& 18813 \& 38271 \& 129994 \& 493203 \& 40673 \& 31139 \& 305585 <br>
\hline \& NEW YORK. \& 145 \& 29 \& 2446 \& 18257 \& 1671 \& 38471 \& 11925 \& 48895 \& 3418 \& ${ }_{31} 3021$ \& 34395 <br>
\hline \& NEW JERSEY \& 86 \& 37
50 \& 9945
14156 \& 69501
103519 \& $\begin{array}{r}6575 \\ \hline 6567\end{array}$ \& 13
21
21
704 \& 46652
71417 \& 238
206
2060 \& 11
2502

2503 \& | 11 |
| :--- |
| 16747 |
| 161 | \& 108838 <br>

\hline \& NORTH CENTRAL \& 522 \& 208 \& 37197 \& 274826 \& 26613 \& 53487 \& 179694 \& 886919 \& 67113 \& 44508 \& 681569 <br>
\hline \& EAST NORTH CENTRAL. \& 408 \& 154 \& 28845 \& 216889 \& 20542 \& 40676 \& 140863 \& 665786 \& 32935 \& 35254 \& 529158 <br>
\hline \& OHIO . \& 153 \& 50 \& 6810 \& 50384 \& 4730 \& 9545 \& 32745 \& 158706 \& 7865 \& 7672 \& 141769 <br>

\hline \& INOIANA. \& 53 \& 21 \& | 7333 |
| :--- |
| 1546 | \& 58356 \& 5419

5 \& 10458 \& 39524 \& 154522 \& 7774 \& ${ }^{9} 933$ \& 117522 <br>
\hline \& ILLINOIS \& 97 \& 50

23 \& 11346 \& 83577 \& | 8 |
| :--- | \& 15

494
444

745 \& 52572
13
814 \& 250378 \& 13989
2713 \& 14140 \& 208297 <br>
\hline \& WISCONSIN: \& 74
31 \& 23
10 \& $\begin{array}{r}1781 \\ \hline 575 \\ \hline 8\end{array}$ \& 20905
3667 \& $\begin{array}{r}1957 \\ \hline 363\end{array}$ \& 4344
735 \& 13814
2088 \& 89647
12533 \& $\begin{array}{r}2713 \\ \hline 594 \\ \hline\end{array}$ \& 2807
702 \& 50709
10861 <br>
\hline \& WEST NORTH CENTRAL. \& 114 \& 54 \& 8352 \& 57937 \& 6071 \& 12811 \& 38831 \& 221133 \& 34178 \& 9254 \& 152411 <br>
\hline \& MINNESOTA. \& 25 \& 13 \& 1474 \& 10780 \& 954 \& 2104 \& 6207 \& 42095 \& $16 \quad 031$ \& 1289 \& 27145 <br>
\hline \&  \& 13
35 \& $10)$
17 \& $1 \begin{array}{r}\text { (0) } \\ 2186\end{array}$ \& 101
14740 \& 101
1521 \& 101
3098 \& 101
9483 \& 45305
45 \& 101
$1 \quad 112$ \& 101
2769 \& 101
37560 <br>
\hline \& NORTH DAKOTA \& 3 \& (D) \& $2(0)$
(1) \& 14 (D) \& ${ }^{1}$ (0) \& (10) \& (0) \& (0) \& (1) \& 2
(D) \& 37560
10) <br>
\hline \& SOUTH DAKOTA \& 1 \& (0) \& (D) \& (0) \& (0) \& (0) \& (D) \& (0) \& (D) \& (0) \& (D) <br>
\hline \& NeBraska . \& \& 3 \& 176 \& 821 \& 117 \& 230 \& 552 \& 4721 \& 152 \& (0) \& (0) <br>
\hline \& kansas . \& 30 \& 16 \& 3954 \& 27728 \& 3083 \& 6531 \& 2D 218 \& 115621 \& 15943 \& 4448 \& 72097 <br>
\hline \& South . \& 524 \& 218 \& 62000 \& 464033 \& 43860 \& 86771 \& 302008 \& 1623797 \& 208019 \& 72810 \& 1051123 <br>
\hline \& SOUTH ATLANTIC. \& 174 \& 52 \& 5099 \& 32021 \& \& 8075 \& 20681 \& 137584 \& 7220 \& 4794 \& 82487 <br>
\hline \& DELAWARE ... \& 10 \& 101 \& (1) \& (U) \& (0) \& 101 \& (0) 51 \& 101 \& $\begin{array}{r}101 \\ \hline 1097\end{array}$ \& (D) \& (0) <br>
\hline \& MARYLAND • . \& 33 \& 12 \& 1190 \& 7685 \& 865 \& 2040 \& 5227 \& 19201 \& 1897 \& 1264 \& 18818 <br>
\hline \& VIRGINIA WEST VIRGINIA. : . \& 14
25 \& 101

6 \& | 101 |
| :--- |
| 559 | \& (0)

3010 \& (D)
467 \& 101
913 \&  \& $\begin{array}{r}101 \\ 8423 \\ \hline 4\end{array}$ \& 101
718 \& 101
709 \& (0)
6663 <br>
\hline \& NORTH CAROLINA \& 13 \& (0) \& (0) \& (0) \& (D) \& (0) \& (D) \& 101 \& (0) \& 177 \& 589 <br>
\hline \& SOUTH CAROLINA \& 12 \& 101 \& (D) \& (0) \& (0) \& (0) \& (0) \& (0) \& (0) \& (0) \& (0) <br>
\hline \& GEORGIA. \& 27 \& 10 \& 743 \& 4124 \& 538 \& 1152 \& 2779 \& 11436 \& 402 \& 646 \& 7199 <br>
\hline \& FLORIDA. \& 40 \& 14 \& 795 \& 3777 \& 572 \& 1267 \& 2394 \& 8432 \& 660 \& 701 \& 6405 <br>
\hline \& EAST SOUTH CENTRAL. \& 95 \& 24 \& 2761 \& 18096 \& 2017 \& 4161 \& 12639 \& 67761 \& 54384 \& 2655 \& 46822 <br>
\hline \& KENTUCKY. \& 18 \& (0) \& (0) \& \& \& (D) \& (0) \& (0) \& (0) \& 1060 \& 25756 <br>
\hline \& TENNESSEE. \& 26 \& (0) \& 101 \& (D) \& (0) \& $(0)$ \& (D) \& (1) \& 101 \& (0) \& (0) <br>
\hline \& alasama. . \& 32 \& 10 \& 785 \& 4499 \& 589 \& 1210 \& 3057 \& 14109 \& 677 \& 764 \& <br>
\hline \& MISSISSIPPI. \& 19 \& 7 \& 630 \& 4810 \& 476 \& 1004 \& 3834 \& 14575 \& (1) \& (0) \& (0) <br>
\hline \& WEST SOUTH CENTRAL. \& 255 \& 142 \& 54140 \& 413916 \& 38183 \& 74535 \& 268688 \& 1418452 \& 146415 \& 65361 \& 921814 <br>
\hline \& ARKANSAS ${ }^{\text {- }}$ \& 18 \& 10 \& 1445 \& 9717 \& 1115 \& 2384 \& 6761 \& 25517 \& 945 \& $1{ }^{1} 582$ \& 18777 <br>
\hline \& LOUISIANA. \& 45 \& \& 11126 \& \& \& 13578 \& 48721 \& 273562 \& 27902 \& 14287 \& 201867 <br>
\hline \& OKLAHOMA. \& 41 \& 19
84 \& 5606
35963 \& $\begin{array}{r}36 \\ \hline 806\end{array}$ \& 4501 \& 8829 \& 28945 \& 113718 \& 4430 \& 6547 \& 108447 <br>
\hline \& TEXAS. - \& 151 \& 84 \& 35963 \& 280097 \& 25680 \& 49744 \& 184260 \& 1005655 \& 113138 \& 42945 \& 592723 <br>
\hline \& WEST. \& 319 \& 124 \& 26611 \& 190499 \& 18755 \& 35075 \& 125390 \& 676087 \& 95545 \& 28364 \& 454702 <br>
\hline \& MOUNTAIN. - \& 73 \& 40 \& 5505 \& 39863 \& 3814 \& 7651 \& 26903 \& 117801 \& 22150 \& 6096 \& 103067 <br>
\hline \& MDNTANA. \& 10 \& (0) \& (D) \& (10) \& (D) \& $(0)$ \& (0) \& (0) \& (0) \& 1065 \& 24081 <br>
\hline \& IOAHD. ${ }^{\circ}$ \& 1 \& (0) \& (D) \& (0) \& (0) \& (D) \& (D) \& (0) \& (D) \& (D) \& 101) <br>
\hline \& WYDMING. - \& 12 \& 9 \& 2127 \& 15546 \& 1324 \& 2514 \& 9606 \& 37222 \& 11072 \& 2421 \& 31931 <br>
\hline \& CDLORAOO. \& 18 \& 10 \& 925 \& 6748 \& 674 \& 1375 \& 4689 \& 16732 \& 1500 \& 8D8 \& 13887 <br>
\hline \& NEW MEXICO \& 8 \& 6 \& 504 \& 3225 \& 391 \& 795 \& 2282 \& 10351 \& 318 \& 661 \& 9380 <br>
\hline \& arizona. . . . . . . \& 8 \& 1 \& 69 \& - 349 \& 28 \& 71 \& 152 \& 1249 \& 97 \& (0) \& (0) <br>
\hline \&  \& 14 \& (0) ${ }^{7}$ \& \& 7120 \& 722 \& 1526 \& 5141 \& 25238 \& 1426 \& 1080 \& 23162 <br>
\hline \& nevada . . . . . . \& 2 \& (0) \& (D) \& (0) \& (D) \& (D) \& (D) \& (D) \& (D) \& (D) \& (0) <br>
\hline \& PACIFIC. . \& 246 \& 84 \& 21106 \& 150636 \& 14941 \& 27424 \& 98487 \& 558286 \& 73395 \& 22328 \& 351635 <br>
\hline \& WASHINGTON \& 25 \& 9 \& 1391 \& 10486 \& 897 \& 1835 \& 6259 \& 63956 \& 5899 \& 1305 \& 33345 <br>
\hline \& DREGON. \& 17 \& (0) \& (D) \& (0) \& (D) \& $\begin{array}{r}101 \\ \hline 644 \\ \hline\end{array}$ \& (10) \& (10) \& (1)
57 \& 279
744 \& $\begin{array}{r}4 \\ 489 \\ \hline 1381\end{array}$ <br>
\hline \& CALIFDRNIA \& 200 \& 65 \& 19 O 17 \& 135366 \& 13561 \& 24644 \& 89174 \& 476756 \& $57 \quad 55$ \& 20744 \& 313801 <br>
\hline \& Alaska . \& 2 \& (0) \& (D) \& (0) \& \& (0) \& $(0)$ \& (D) \& (D) \& (D) \& (D) <br>
\hline \& hawail . \& 2 \& (0) \& (D) \& (0) \& (D) \& (D) \& (0) \& (0) \& (0) \& (D) \& (D) <br>
\hline \multirow[b]{2}{*}{91} \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline \& PETRDLEUM REFINING, TDTAL ${ }^{1}$ \& 427 \& 297 \& 119297 \& 922319 \& 85929 \& 166409 \& 614318 \& 3137603 \& 385126 \& 146025 \& 2119402 <br>
\hline
\end{tabular}

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{Code} \& \multirow[b]{3}{*}{Industry group and geographic area} \& \multicolumn{9}{|c|}{1963} \& \multicolumn{2}{|c|}{1958} \\
\hline \& \& \multicolumn{2}{|l|}{Establishments} \& \multicolumn{2}{|c|}{All empioyees} \& \multicolumn{3}{|c|}{Production workers} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)} \& \multirow[t]{2}{*}{Capital expenditures, new \((\$ 1,000)\)} \& \multirow[b]{2}{*}{\begin{tabular}{l}
All employees \\
(number)
\end{tabular}} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)} \\
\hline \& \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& \[
\begin{array}{|l}
\text { With } 20 \\
\text { employees } \\
\text { or more } \\
\text { (number) } \\
\hline
\end{array}
\] \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& \[
\begin{aligned}
\& \text { Payroll } \\
\& (\$ 1,000)
\end{aligned}
\] \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& Man-hours
\[
(1,000)
\] \& \[
\begin{aligned}
\& \text { Wages } \\
\& (\$ 1,000)
\end{aligned}
\] \& \& \& \& \\
\hline \multirow[t]{36}{*}{295} \& PAVING ANO ROOFING MATERIALS, TOTAL. \& 992 \& 267 \& 24261 \& 144542 \& 17640 \& 38122 \& 97342 \& 355565 \& 22009 \& 23317 \& 269035 \\
\hline \& NORTHEAST \& 308 \& 65 \& 5877 \& 37724 \& 4323 \& 9486 \& 25641 \& 91850 \& 7440 \& 5888 \& 72760 \\
\hline \& NEW ENGLANO \& 73 \& 17 \& 1564 \& 9841 \& 1163 \& 2596 \& 6234 \& 22369 \& 2000 \& 1436 \& 15673 \\
\hline \& MIOOLE ATLANTIC
NEW YORK \& 235 \& 48 \& \(\begin{array}{ll}4 \& 313 \\ 1 \& 124\end{array}\) \& 27
888 \& 3160 \& 6890 \& 19407 \& 69481 \& 5440 \& 4452 \& 57087 \\
\hline \& NEW YORK \(\begin{aligned} \& \text { NEW JERSEY . . . . . . . . . }\end{aligned}\) \& 107
47 \& 18
15 \& 1
1
1
1 124 \& 8293
12255 \& 755
1452 \& \(\begin{array}{ll}1 \& 611 \\ 3 \& 150\end{array}\) \& \begin{tabular}{l}
51296 \\
9 \\
\hline
\end{tabular} \& 22712
28681 \& 1
1
2 981 \& \(\begin{array}{ll}1 \& 203 \\ 1 \& 877\end{array}\) \& 19334
21686 \\
\hline \& PENNSYLVANIA . . . . \& 81 \& 15 \& 1333 \& 7
7 \& - 953 \& 2129 \& 5000 \& 18088 \& 271 \& 1
1
1 372 \& 16
16 \\
\hline \& NORTH CENTRAL \& 260 \& 76 \& 7747 \& 48413 \& 5897 \& 12634 \& 33788 \& 114852 \& 5824 \& 8341 \& 90353 \\
\hline \& EAST NORTH CENTRAL. . . . . \& 214 \& 63 \& 6458 \& 40535 \& 4872 \& 10355 \& 28012 \& \& \& \& \\
\hline \&  \& 914
92
32 \& 63
8
8 \& 2200
633 \& 13834
4296 \& 4624
164
463 \& 10355
3490
1024 \& 28012
9
264
2 \& 97
36
10 202 \& 4
2
2 231 \& 6909
2055 \& 75
27
2731 \\
\hline \&  \& \begin{tabular}{l}
32 \\
45 \\
\hline
\end{tabular} \& 8
23 \& 633
3040 \& 4296
18740 \& 463
2326 \& 1024
4028 \& 2722
13 \& 10650
41344 \& \(\begin{array}{r}692 \\ 1458 \\ \hline\end{array}\) \& 611
\(3 \quad 719\) \& 6654
34416 \\
\hline \& MICHIGAN . . . . . \& 31 \& 8 \& 515 \& 3250 \& \(\begin{array}{r}2310 \\ \hline 1\end{array}\) \& 824 \& 1357 \& 1
8113 \& 1 542 \& 3719
477 \& \(\begin{array}{r}34 \\ 6 \\ \hline 17\end{array}\) \\
\hline \& WEST NORTH CENTRAL. - \& 46 \& 13 \& 1289 \& 7878 \& 1025 \& 2279 \& 5776 \& 17793 \& 870 \& 1432 \& 15114 \\
\hline \& MINNESOTA • • • • \& 12 \& 5 \& 514 \& 3111 \& 384 \& 830 \& 2008 \& 6389 \& 324 \& -452 \& 5043 \\
\hline \& MISSOURI . . . . . \& 15 \& 7 \& 628 \& 3830 \& 527 \& 1163 \& 3088 \& 8652 \& 296 \& (D) \& (D) \\
\hline \& SOUTH . . \& 276 \& 82 \& 7348 \& 36487 \& 5144 \& 11240 \& 23430 \& 92707 \& 5302 \& 5926 \& 60653 \\
\hline \& SOUTH ATLANTIC.
DELAWARE.\(: .0\). \& 132
7 \& 34 \& 2879
166 \& 15173
920 \& \(\begin{array}{r}2206 \\ 123 \\ \hline\end{array}\) \& 5056
251

3 \& 10859
608 \& 39327
1 \& 3157 \& 2143 \& 26050 <br>
\hline \& VIRGINIA ${ }^{\text {b }}$, ! ! . . . . . \& 10 \& 1 \& 165 \& 920
927 \& 123
136 \& 251
344 \& 608
724 \& 1501
2883 \& 226 \& 109 \& 904
(D) <br>
\hline \& WEST VIRGINIA . . . . . \& 20 \& 3 \& 248 \& 1237 \& 197 \& 359 \& 724
942 \& 2883
2797 \& 161
233 \& (D) \& (D) <br>
\hline \& NORTH CAROLINA . . . \& 11 \& 2 \& 174 \& 798 \& 147 \& 319 \& 635 \& 2096 \& 159 \& 156 \& 1496 <br>
\hline \& GEORGIA • • . . . . \& 16 \& ${ }^{7}$ \& 531 \& 2814 \& 398 \& 860 \& 2018 \& 8339 \& 221 \& 404 \& 4719 <br>
\hline \& FLORIDA • • • • • • \& 34 \& 12 \& 673 \& 3215 \& 487 \& 1089 \& 2043 \& 7214 \& 585 \& 473 \& 5038 <br>
\hline \& EAST SOUTH CENTRAL. \& 66 \& 13 \& 1162 \& 5572 \& 828 \& 1758 \& 3550 \& 16085 \& 1101 \& 979 \& 10194 <br>
\hline \& KENTUCKY • • • • \& 13 \& 1 \& 105 \& -489 \& 80 \& 171 \& 329 \& 1286 \& - 222 \& (D) \& 10 (D) <br>
\hline \& TENNESSEE . . . . . . . . \& 20 \& 3 \& 275 \& 1355 \& 203 \& 444 \& +898 \& 4854 \& 356 \& (D) \& (D) <br>
\hline \& ALABAMA. ${ }_{\text {MISSISSIPPI }}$ : ! : ! : \& 24
9 \& 6
3 \& 529 \& 2800 \& 371
174 \& 764
379 \& 1734 \& 8395 \& 388 \& (D) \& (D) <br>
\hline \& MISSISSIPPI. . . . . . \& \& \& 253 \& 928 \& 174 \& 379 \& 589 \& 1550 \& 135 \& (D) \& (D) <br>
\hline \& WEST SOUTH CENTRAL.
LOUISIANA. \& \& \& 3307
710 \& 15742
3551 \& 2110 \& 4426 \& 9
9 \& 37295 \& 1044 \& 2804 \& 24409 <br>
\hline \& TEXAS . . . . . . . . . . \& 19
41 \& r 80 \& 710
1932 \& 3551
9288 \& 582
985 \& 1
1
2 1930 \& 2748
4244 \& 7870
22436 \& 235 \& 769 \& 6293 <br>
\hline \& TEXAS. . . . . . . . . . \& 41 \& \& 1932 \& \& 985 \& 2032 \& 4244 \& 22436 \& 611 \& (D) \& (D) <br>
\hline \& WEST. \& 148 \& 44 \& 3301 \& 21921 \& 2289 \& 4804 \& 14511 \& 56703 \& 3470 \& 3162 \& 45269 <br>
\hline \& MOUNTAIN. . . . . . . . . . \& 24 \& 9 \& 542 \& $\begin{array}{ll}3 & 184\end{array}$ \& 327 \& 694 \& 1809 \& 6285 \& 420 \& 317 \& 4010 <br>
\hline \& COLORAOO
ARIZONA \& 6
5 \& 3 \& 217 \& 1477 \& 120 \& 252 \& - 694 \& 2364 \& 169 \& (D) \& (D) <br>
\hline \& ARIZONA. . . . . . . . . . . . \& 5 \& 1 \& 57 \& 306 \& 19 \& 53 \& 118 \& 1194 \& 82 \& (D) \& (D) <br>
\hline \& PACIFIC ${ }_{\text {OREGON }}$ - \& 124 \& 35 \& \& \& \& 4110 \& 12702 \& 50418 \& 3050 \& \& 41259 <br>
\hline \& OREGON • . . . . . . . \& 12 \& 6 \& 298 \& 1795 \& 225 \& 467 \& 1255 \& 4374 \& 113 \& (0) \& (D) <br>
\hline \& CALIF ORNIA . . . . . . . \& 101 \& 24 \& 2128 \& 15023 \& 1536 \& 3196 \& 10231 \& 40675 \& 2371 \& (D) \& (D) <br>
\hline \multirow[t]{21}{*}{299} \& PETROLEUM \& COAL PRODUCTS, NEC.TOTAL \& 420 \& 125 \& 9928 \& 66904 \& 5879 \& 12148 \& 33463 \& 220063 \& 6546 \& 9824 \& 129987 <br>
\hline \&  \& 113 \& 39 \& 3289 \& 23427 \& 1995 \& \& \& \& \& 3104 \& 41321 <br>
\hline \& NEW JERSEY - \& 25 \& 12 \& 1346 \& 8762 \& 964 \& 1827 \& 11
5 \& 33260 \& 1456 \& 1309 \& 18234 <br>
\hline \& PENNSYLVANIA • . . . \& 43 \& 18 \& 1394 \& 10982 \& 740 \& 1577 \& 4396 \& 22600 \& 637 \& 1257 \& 17517 <br>
\hline \& NORTH CENTRAL . . . . . . . . . \& 165 \& 60 \& 4603 \& 30787 \& 2554 \& 5212 \& 14319 \& 109292 \& 2583 \& 4341 \& 59691 <br>
\hline \& OHIO . . . . . . . . . . \& 40 \& 16 \& 1051 \& 7341 \& 496 \& 960 \& 3078 \& 18686 \& 503 \& 1022 \& 12958 <br>
\hline \& INOIANA. . . . . . . . . . \& ${ }^{6}$ \& 1 \& 134 \& 1630 \& 46 \& 103 \& 247 \& 5690 \& 90 \& 166 \& 2520 <br>
\hline \& ILLINOIS . . . . . . . . . . \& 36 \& 15 \& 1282 \& 8975 \& 725 \& 1538 \& 4093 \& 29735 \& 1177 \& 1044 \& 16672 <br>
\hline \& MICHIGAN
WISCONSIN. \& 28 \& 5
5 \& 306 \& 2189 \& 166 \& 365 \& 1052 \& 9879 \& 108 \& 348 \& 4569 <br>
\hline \& WISCONSIN.
MINNESOTA. \& 16 \& 5
3 \& 248
136 \& 1544
825 \& 140
85 \& 277
182 \& 852
503 \& 6
6
5 \& 45 \& 418 \& 7322 <br>
\hline \& MINNESOTA • . . . . . . . . \& \& \& 136 \& 825 \& 85 \& 182 \& 503 \& 5382 \& 80 \& (D) \& (D) <br>
\hline \& SOLTH . . . . . . . . . . . . . . \& 80 \& 14 \& 1332 \& 7888 \& 862 \& 1926 \& 4795 \& 22049 \& 1719 \& (D) \& (D) <br>
\hline \& SOUTH ATLANTIC. . . . . . . . \& 23 \& 6 \& 320 \& 1735 \& 179 \& 393 \& 917 \& 5050 \& (0) \& 518 \& 4504 <br>
\hline \& EAST SOUTH CENTRAL. . . . . . . . \& 13 \& - \& 86 \& 521 \& 60 \& 140 \& 344 \& 986 \& (0) \& (0) \& (D) <br>
\hline \& WEST SOUTH CENTRAL. - \& 44 \& 8 \& 926 \& 5632 \& 623 \& 1393 \& 3534 \& 16013 \& 1191 \& 1020 \& 12174 <br>
\hline \& LOUISIANA. \& 7 \& 4 \& 412 \& 2713 \& 294 \& 658 \& 1779 \& 7238 \& 989 \& 395 \& 4593 <br>
\hline \& TEXAS. . . . \& 27 \& 3 \& 331 \& 2138 \& 226 \& 518 \& 1413 \& 6864 \& 162 \& (D) \& (D) <br>
\hline \& WEST. . . . . . . . . . . . . . \& 62 \& 12 \& 704 \& 4802 \& 468 \& 954 \& 2688 \& 21645 \& 680 \& 750 \& 11446 <br>
\hline \& mountain. . . . . . . . . . \& 5 \& 1 \& 29 \& 173 \& 23 \& 49 \& 142 \& 287 \& 21 \& 110 \& 1269 <br>
\hline \& PACIFIC . . . . . . . . . . \& 57 \& 11 \& 675 \& 4629 \& 445 \& 905 \& 2546 \& 21358 \& 659 \& 640 \& 10177 <br>
\hline \& CALIFORNIA • . . . . . . . \& 49 \& 10 \& 627 \& 4241 \& 414 \& 839 \& 2354 \& 18725 \& 605 \& (D) \& <br>
\hline
\end{tabular}

## TABLE 3. Detailed Statistics: 1963



[^15]
## PETROLEUM REFINING AND RELATED INDUSTRIES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SlC Code and Title<br>2911-Petroleum Refining<br>2951 -Paving Mixtures and Blocks<br>2952-Asphalt Felts and Coatings<br>2992-Lubricating Oils and Greases<br>2999-Products of Petroleum and Coal, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 2911-PETROLEUM REFINING

This industry comprises establishments primarily engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, and other products from crude petroleum, and its fractionation products either through straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes. Establishments primarily engaged in producing natural gasoline from natural gas are classified in mining industries. Those manufacturing lubricating oils and greases by blending and compounding purchased materials are included in industry 2992. For a detailed list of products of industry 2911 , refer to table 6A, product codes 2911011 to 2911951.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Petroleum Refining Industry totaled $\$ 16,497$ million. This amount included shipments of refined petroleum products (primary products) valued at $\$ 15,479$ million, shipments of other products (secondary products) valued at $\$ 341$ million, and miscellaneous receipts (mainly contract work on materials owned by others) at $\$ 677$ million.

This industry's shipments of refined petroleum products represented 98 percent of its total product shipments. The industry specialization ratio in 1958 was also 98 percent. Secondary products shipped by this industry in 1963 consisted mainly of miscellaneous acyclic chemicals and chemical products ( $\$ 123$ million), and cyclic intermediates ( $\$ 41$ million).

Shipments of refined petroleum products by this industry represented 97 percent of all shipments of these products ( $\$ 15,983$ million) by all industries. In 1958 the coverage ratio was 98 percent.

Lubricating oils, lubricating oil base stocks,and lubricating greases are not only produced by petroleum refineries but are also produced from purchased materials by plants blending and compounding lubricants and classified in industry 2992, Lubricating Oils and Greases. Plants classified in industries 2911 and 2992 shipped substantially all of the lubricating oils and greases valued at $\$ 1,210$ million, with industry 2911 accounting for 65 percent.

Oils are frequently transferred from one refinery to another for further processing and blending. This introduces some duplications in the "Value of products shipped" by the Petroleum Refining lndustry, as shown in tables 1, 2, and 5. To eliminate duplication in the statistics for individual products, figures were collected on the amount of oil received by refineries during the year. Net (unduplicated) shipments were calculated, for the United States as a whole, by subtracting "Receipts" from the quantity shipped (see table 6A). These net shipments represent the quantity of petroleum products made available for consumption by the "Petroleum Refining" and "Lubricating Oils and Greases" Industries.

Industry 2911 also includes establishments primarily engaged in the production of petroleum based chemicals (petrochemicals). In 1963 there were 22 establishments with total shipments of $\$ 455$ million producing liquefied refinery gases and aromatics (see table 3 ).

Detailed product statistics for liquefied gases used as chemical raw material were not collected since these data are reported to the United States Tariff Commission and published in the report "Synthetic Organic Chemicals, United States Production and Sales."

Unlike most manufacturing industries where the receipts for contract work are reported as such, plants in industry 2911 processing oil on a contract basis for other companies were requested to report the commercial cost of all materials received and the market values, f.o.b. plant, for the products shipped.

Petroleum product statistics shown in this report are not directly comparable with the Bureau of Mines figures published in the Minerals Yearbook. The census of manufactures collects data on shipments, whereas the Bureau of Mines figures are in terms of "output" (production).

Data showing net shipments of gas liquids and related products covered in the 1963 economic censuses appear in the reports for the 1963 Census of Mineral Industries. Table 7 A contains data showing the consumption of selected materials. Other data relating to "inputs" of materials appear as "receipts" in table 6A. Because fuel is an important item and furnishes a supply of material for alternative uses at the refinery, data showing United States totals consumed in the refineries appear in table 7 E .

The production index for the primary products of the industry increased to 138 in 1963 from the 1958 level of 115 . The unit value index for 1963 was 96 compared to 104 in 1958. Both indexes were computed on a basis of $1954=100$.

## 2951 -PAVING MIXTURES AND BLOCKS

This industry comprises establishments primarily engaged in manufacturing asphalt and tar paving mixtures, and paving blocks made of asphalt, creosoted wood, and various compositions of asphalt or tar with other materials. Establishments primarily engaged in manufacturing brick, concrete, granite, and stone paving blocks are classified in Major Group 32. For a detailed list of products of industry 2951, refer to table 6A, product codes 2951011 to 2951098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Paving Mixtures and Blocks Industry totaled $\$ 427$ million. This amount included shipments of paving mixtures and blocks (primary products) valued at $\$ 359$ million, shipments of other products (secondary products) valued at $\$ 31$ million, and miscellaneous receipts at $\$ 38$ million.

This industry's shipments of paving mixtures and blocks represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent. Secondary products shipped by this industry in 1963 consisted mainly of crushed and broken miscellaneous stone ( $\$ 9$ million) and ready-mixed concrete ( $\$ 7$ million).

Shipments of paving mixtures and blocks by this industry represented 89 percent of all shipments of these products ( $\$ 403$ million) by all industries. In 1958 the coverage ratio was 85 percent. Other industries shipping paving mixtures and blocks consisted mainly of industry 3273, Ready Mixed Concrete, $\$ 15$ million; and industry 2952, Asphalt Felts and Coatings, $\$ 8$ million.

## 2952-ASPHALT FELTS AND COATINGS

This industry comprises establishments primarily engaged in manufacturing asphalt and other saturated roofing felts in roll or shingle form, either smooth or faced with grit, and in manufacturing roofing cements and coatings. Establishments primarily engaged in manufacturing paint are classified in industry 2851. For a detailed list of products of industry 2952, refer to table 6A, product codes 2952111 to 2952398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Asphalt Felts and Coatings Industry totaled $\$ 528$ million. This amount included shipments of asphalt felts and coatings (primary products) valued at $\$ 424$ million, shipments of other products (secondary products) valued at $\$ 48$ million, and miscellaneous receipts (mainly resales) at $\$ 56$ million.

This industry's shipments of asphalt felts and coatings represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was also 90 percent. Secondary products shipped by this industry in 1963 included asbestos textiles and other asbestos and asbestos cement products ( $\$ 15$ million), and paving mixtures and blocks ( $\$ 8$ million).

Shipments of asphalt felts and coatings by this industry represented 92 percent of all shipments of these products ( $\$ 459$ million) by all industries. In 1958 the coverage ratio was also 92 percent. Other industries shipping asphalt felts and coatings includes industry 2851, Paints and Allied Products, $\$ 5$ million; and industry 2951, Paving Mixtures and Blocks, \$3 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 2952, e.g., asphalt and tar saturated felts and boards for nonbuilding use, 75 percent; and asphalt and tar coatings, cements, and pitches, 81 percent.

Monthly data on the quantity of asphalt and tar roofing and siding products are available from Current Industrial Reports Series M29A, "Asphalt and Tar Roofing and Siding Products."

The production index for the primary products of the industry increased to 118 in 1963 from the 1958 level of 105 . The unit value index for 1963 was 102 compared to 101 in 1958. Both indexes were computed on a basis of $1954=100$.

## 2992-LUBRICATING OILS AND GREASES

This industry comprises establishments primarily engaged in blending and compounding lubricating oils and greases from purchased mineral, animal, and vegetable materials. Petroleum refineries engaged in the production of lubricating oils and greases are classified in industry 2911. For a detailed list of products of industry 2992, refer to table 6A, product codes 2992611 to 2992751.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Lubricating Oils and Greases Industry totaled $\$ 471$ million. This amount included shipments of lubricating oils and greases (primary products) valued at $\$ 399$ million, shipments of other products (secondary products) valued at $\$ 40$ million, and miscellaneous receipts (mainly resales) at $\$ 32$ million.

This industry's shipments of lubricating oils and greases represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent.

Shipments of lubricating oils and greases by this industry represented 33 percent of all shipments of these products ( $\$ 1,210$ million) by all industries. In 1958 the coverage ratio was 35 percent. However, lubricating oils and greases are also primary to industry 2911, Petroleum Refining. A coverage ratio computed on the basis of including both industries to which lubricating oils and greases are primary would total 98 percent in 1963. Lubricating oils and greases (primary products) shipped by industry 2911, Petroleum Refining, totaled $\$ 782$ million. Other industries shipping lubricating oils and greases consisted mainly of industry 2842, Polishes and Sanitation Goods, $\$ 3$ million; and industry 2899, Chemical Preparations, N.E.C., $\$ 3$ million.

The production index for the primary products of the industry increased to 163 in 1963 from the 1958 level of 103 . The unit value index for 1963 was 124 compared to 119 in 1958. Both indexes were computed on a basis of $1954=100$.

## 2999-PRODUCTS OF PETROLEUM AND COAL, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing fuel briquets, boulets, packaged fuel, powdered fuel, and other products of petroleum and coal, n.e.c. Wood charcoal briquets are classified in industry 2861 . For a detailed list of products of industry 2999 , refer to table 6A, product codes 2999015 to 2999098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Petroleum and Coal Products, N.E.C., Industry totaled $\$ 72$ million. This amount included shipments of products of petroleum and coal, n.e.c., (primary products) valued at $\$ 63$ million, shipments of other products (secondary products) valued at $\$ 3$ million, and miscellaneous receipts (mainly resales) at $\$ 6$ million.

This industry's shipments of products of petroleum and coal, n.e.c., represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent.

Shipments of petroleum and coal products, n.e.c., by this industry represented 91 percent of all shipments of these products ( $\$ 69$ million) by all industries. In 1958 the coverage ratio was 96 percent.

The figures for fuel briquets and packaged fuel appearing in this report exclude the quantities and amounts shipped by establishments producing wood charcoal briquets (industry 2861) as well as establishments classified in nonmanufacturing industries. They, therefore, differ from the figures published by the Bureau of Mines, United States Department of Interior, in the Minerals Yearbook which includes data for nonmanufacturing establishments such as retail or wholesale coal yards and public utilities which produce some fuel briquets as a secondary activity. The census figures for fuel briquets also include information for briquets made from charcoal and sawdust, data for which are omitted by the Bureau of Mines.



## PETROLEUM AND COAL PRODUCTS, N.E.C.: SIC 299


table 1. General Statistics: 1963 and Earlier Years

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 2911. -PETROLEUM REFINING |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 266 | 427 | 297 | 119,297 | 922,319 | 85,929 | 166,409 | 614,318 | 3,137,603 | 13,367,328 | 16,496,896 | 385,126 | 98 | 7 |
| 1962 | (NA) | (NA) | (NA) | 122,946 | 906,561 | 87,804 | 173,348 | 603,032 | 2,965,537 | 12,979,535 | 15,914,146 | 433,315 | ( NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 128,707 | 937,130 | 92,389 | 182,211 | 629,634 | 2,929,207 | 12, 734,155 | 15,618,609 | 459,298 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 134,868 | 935,836 | 97, 267 | 192,379 | 635,211 | 2,773,430 | 12,713,407 | 15,505,100 | 455,453 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 137,133 | 944,313 | 100,064 | 195,984 | 645,068 | 2,458,208 | 12,621,902 | 15,090,067 | 407,716 | (NA) | (NA) |
| 1958. | 289 | 446 | 313 | 146,025 | 944,332 | 106,898 | 207,609 | 648,278 | 2,119,402 | 12,249,44, | 14,539,055 | 656,788 | 98 | 98 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 153,920 | 979,262 | 112,546 | 222,399 | 665,245 | 2,868,179 | 12,271,740 | 14,920,173 | 876,523 | 98 | 98 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 153,786 | 931,107 | 114,231 | 225,734 | 645,072 | 2,960,559 | 11, 421,680 | 14,185,451 | 686,780 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 150,821 | 849,095 | 112,080 | 221,241 | 591,642 | 2,434,720 | 10,490,971 | 12,866,470 | 533,297 | (NA) | (NA) |
| 1954. | 253 | 409 | 316 | 153,072 | 816,120 | 113,829 | 223,116 | 570,791 | 1,918,020 | 10,258,714 | 12,182,245 | 656,033 | 99 | 98 |
| $1953{ }^{1}$. | (NA) | (NA) | (NA) | 159,542 | 830,424 | 119,149 | 234,486 | 585,111 | 1,997,160 | 9,557,286 | 11,554,446 | 641,096 | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 153,190 | 757,079 | 114,711 | 228,904 | 537,463 | 1,959,465 | 8,945,456 | 10,904,921 | 446,004 | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 151,434 | 702,104 | 114,306 | 232,367 | 504,075 | 1,990,147 | 8,548,832 | 10,538,979 | 338,808 | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 139,125 | 607,744 | 105,611 | 215,458 | 435,796 | 1,484,441 | 6,925,986 | 8,410,427 | 254,402 | (NA) | (NA) |
| $1949{ }^{\text {² }}$ | (NA) | (NA) | (NA) | 144,155 | 599,686 | 113,709 | 229,388 | 447,598 | 1,210,876 | 6,470, 702 | 7,681,578 | 403,455 | (NA) | (NA) |
| 1947. | 277 | 437 | (NA) | 145,806 | 535,781 | 113,847 | 237,506 | 396,236 | 1,494,474 | 5,129,234 | 6,623,708 | 316,370 | 99 | 97 |
| $1939{ }^{2}$ | (NA) | 518 | (NA) | (NA) | (NA) | 72,982 | (NA) | 128,420 | 528,575 | 1,933,921 | 2,462,496 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 365 | (NA) | 98,450 | 176,808 | 83,182 | (NA) | 140,415 | 482,439 | 2,064,307 | 2,546,746 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 395 | (NA) | 92,111 | 143,452 | 77,402 | (NA) | 109,611 | 356,686 | 1,481,936 | 1,838,622 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 389 | (NA) | 78,862 | 111,361 | 69,047 | (NA) | 89,793 | 314,200 | 1,064,437 | 1,378,637 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 376 | (NA) | (NA) | (NA) | 68,824 | (NA) | 107,474 | 313,768 | 1,210,517 | 1,524,285 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 390 | (NA) | 94,393 | 164,755 | 80,596 | (NA) | 131,177 | 608,324 | 2,031,341 | 2,639,665 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 354 | (NA) | 83,293 | 144,617 | 71,234 | (NA) | 113,717 | 389,652 | 1,752,997 | 2,142,649 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 359 | (NA) | 76,527 | 132,286 | 65,324 | (NA) | 104,645 | 486,979 | 1,889,678 | 2,376,657 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 382 | (NA) | 82,759 | 138,402 | 66,717 | (NA) | 103,834 | 368,647 | 1,425,053 | 1,793,700 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 366 | (NA) | 74,228 | 130,197 | 63,189 | (NA) | 102,294 | 345,270 | 1,382,170 | 1,727,440 | (NA) | (NA) | (NA) |
| 1919. | (NA) | 320 | (NA) | 73,414 | 116,369 | 58,889 | (NA) | 89,750 | 384,625 | 1,247,908 | 1,632,533 | (NA) | (NA) | (NA) |
| 1914 | (NA) | 176 | (NA) | 31, 025 | 27,290 | 25,366 | (NA) | 19,397 | 71,096 | 325, 265 | 396,361 | (NA) | (NA) | (NA) |
| 19 | (NA) | 147 | (NA) | 16,598 | 13,759 | 13,929 | (NA) | 9,830 | 37,725 | 199,273 | 236,998 | (NA) | (NA) | (NA) |
| $\begin{aligned} & 1904 . \\ & 1899 . \end{aligned}$ | (NA) | 98 | (NA) | 18,744 | 12,713 | 16,770 | (NA) | 9,989 | 35,618 | 139,387 | 175,005 | (NA) | (NA) | (NA) |
|  | (NA) | 67 | (NA) | 13,400 | 8,528 | 12,199 | (NA) | 6,717 | 21,070 | 102,859 | 123,929 | (NA) | (NA) | (NA) |
|  | INDUSTRY 2951. -PAVING MIXTURES AND BLOCKS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 528 | 762 | 127 | 9,680 | 62,065 | 6,746 | 15,076 | 40,014 | 165,584 | 261,789 | 427,460 | 15,055 | 92 | 89 |
| $1962^{1}$ | (NA) | (NA) | (NA) | $(8,262)$ | (52,157) | $(6,179)$ | $(13,985)$ | $(34,928)$ | (144,985) | $(199,181)$ | (344,757) | $(17,086)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | (8.222) | $(49,771)$ | $(6,240)$ | $(13,790)$ | $(34,552)$ | $(124,706)$ | $(187,104)$ | $(314,880)$ | $(13,215)$ | (NA) | (NA) |
| $1960{ }^{1}$. | (NA) | (NA) | (NA) | $(7,931)$ | $(46,503)$ | $(6,032)$ | $(13,065)$ | $(32,279)$ | $(131,396)$ | $(172,512)$ | $(303,973)$ | $(11,726)$ | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | $(8,115)$ | $(44,380)$ | (5,977) | (12,147) | $(28,459)$ | (112,921) | $(150,955)$ | $(265,742)$ | $(10,673)$ | (NA) | (NA) |
| 1958 | 415 | 563 | 89 | 7,797 | 42,028 | 5,823 | 11,708 | 28,130 | 112,548 | 154,949 | 267,676 | 9,856 | 94 | 85 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 5,763 | 26,376 | 4,237 | 9,105 | 16,947 | 77,713 | 86,264 | 158,078 | (S) | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 5,093 | 23,388 | 3,763 | 7,646 | 14,858 | 59,746 | 81,192 | 138,637 | (S) | (NA) | (NA) |
| 1954. | 252 | 326 | 47 | 4,367 | 20,092 | 3,260 | 6,688 | 12,508 | 52,145 | 81,334 | 133,178 | 5,367 | 97 | 94 |
| 1947. | 182 | 264 | (NA) | 2,785 | 8,565 | 2,042 | (NA) | 5,618 | 23,249 | 27,728 | 50,977 | (NA) | 99 | 88 |
| 1939. | (NA) | 231 | (NA) | 3,193 | 4,494 | 2,437 | (NA) | 2,681 | 13,728 | 19,026 | 32,754 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 148 | (NA) | 2,456 | 3,407 | 1,946 | (NA) | 2,419 | 10,684 | 14,605 | 25,289 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 132 | (NA) | 2,660 | 3,570 | 2,231 | (NA) | 2,514 | 7,901 | 9,984 | 17,885 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 93 | (NA) | 1,348 | 1,569 | 1,151 | (NA) | 1,215 | 4,663 | 6,287 | 10,950 | (NA) | (NA) | (NA) |
| ${ }_{19291 .}{ }^{193}$. | (NA) | 97 | (NA) | (NA) | (NA) | 1,081 | (NA) | 1,556 | 7,416 | 8,587 | 16,003 | (NA) | (NA) | (NA) |
|  | (NA) | 77 | (NA) | (NA) | (NA) | 1,376 | (NA) | 2,187 | 10,062 | 11,998 | 22,060 | (NA) | (NA) | (NA) |
|  | INDUSTRY 2952. -ASPHAIT FELTS AND COATINGS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 126 | 230 |  |  |  |  | 23,046 | 57,328 |  | 339,006 | 527,632 | 6,954 | 90 | 92 |
| $1962^{1}$ | (NA) | (NA) | (NA) | $(13,301)$ | $(78,468)$ | (9,514) | $(20,379)$ | $(54,459)$ | (180,128) | $(313,794)$ | (494,070) | $(21,850)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | $(13,099)$ | $(73,969)$ | $(9,439)$ | $(19,632)$ | (51,080) | $(183,983)$ | $(296,278)$ | $(474,882)$ | $(7,786)$ | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | $(17,331)$ | $(97,871)$ | $(13,633)$ | $(27,874)$ | $(70,399)$ | $(242,791)$ | $(310,629)$ | $(555,622)$ | $(13,086)$ | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | $(15,221)$ | $(80,357)$ | (11,409) | $(24,296)$ | $(56,926)$ | $(178,816)$ | $(316,974)$ | $(495,251)$ | $(6,789)$ | (NA) | (NA) |
| 1958. | 119 | 209 | 128 | 15,520 | 77,444 | 11,541 | 24,009 | 54,007 | 156,487 | 304,421 | 460,104 | 6,613 | 90 | 92 |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 16,692 | 74,506 | 13,548 | 28,966 | 57,082 | 176,499 | 278,450 | 447, 881 | (S) | (NA) | (NA) |
| $1954$ | 108 | 197 | 120 | 15,730 | 68,054 | 12,507 | 26,950 | 50,863 | 155,607 | 276,808 | 431,607 | 7,787 | 91 | 94 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 17,537 | 72,873 | 13,516 | 29,091 | 53,024 | 155,790 | 256,088 | 411,878 | (NA) | (NA) | (NA) |
| $1952^{2}$. | (NA) | (NA) | (NA) |  |  |  | 31,329 |  | 161,439 |  | 425,209 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 18,235 | 72,751 | 14,845 | 32,677 | 53,927 | 164,079 | 278,015 | 442, 094 | (NA) | (NA) | (NA) |
| 19501 | (NA) | (NA) | (NA) | 17,549 | 65,221 | 14,255 | 32,231 | 48,676 | 173,814 | 239,681 | 413,495 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 15,213 | 50,843 | 12,149 | 25,609 | 36,814 | 123,458 | 200, 266 | 323,724 | (NA) | (NA) | (NA) |
| 1947. | 104 | 174 | (NA) | 16,506 | 49,552 | 13,761 | (NA) | 38,435 | 132,565 | 205,654 | 338,219 | (NA) | 95 | 95 |
| 1939. | (NA) | 135 | (NA) | (NA) | (NA) | 8,187 | (NA) | 10,032 | 48,079 | 62,359 | 110,438 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 111 | (NA) | 8,520 | 11,831 | 7,418 | (NA) | 9,520 | 39,918 | 62,644 | 102,562 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 74 | (NA) | 5,053 | 5,547 | 4,418 | (NA) | 4,436 | 20,940 | 23,893 | 44,833 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 83 | (NA) | (NA) | (NA) | 4,123 | (NA) | 5,331 | 26,257 | 32,706 | 58,963 | (NA) | (NA) | (NA) |

[^16]TABLE 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establi shments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |

INDUSTRY 2952. -ASPHALT FELTS AND COATINGS-Continued


InduStry 2992. -LUBRICATING OILS AND GREASES

|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 533 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (NA) | ( $\begin{array}{r}353 \\ \text { (NA) }\end{array}$ | ( 108 ) | 8,433 | 57,946 $(45,722)$ | ( $\begin{array}{r}4,701 \\ (4,000)\end{array}$ | (8,772) | 27,007 $(21,724)$ | ${ }_{(114,569)}^{199}$ | 273,833 $(222,635)$ | 471,229 $(336,360)$ | 4,703 $(2,550)$ | (NA) | (NA) |
| $1961{ }^{1}$, | (NA) | (NA) | (NA) | $(6,555)$ | ( $4.4,014$ ) | $(3,829)$ | $(8,791)$ | $(20,366)$ | (106.982) | $(207,712)$ | (316, 296) | $(10,025)$ | (na) | (NA) |
| $1960{ }^{2}$ | (NA) | (NA) | (NA) | $(7,829)$ | (50,451) | $(4,776)$ | $(10,341)$ | (24,414) | $(128,444)$ | $(220,978)$ | $(349,106)$ | 3,256 | ( NA ) | (NA) |
| $1959{ }^{\text {² }}$ | ( NA ) | (NA) | (NA) | (7,907) | ( 47,942 ) | $(4,685)$ | $(10,160)$ | (22,807) | (115, 061) | (215, 039) | $(328,969)$ | $(4,859)$ | ( NA ) | ( NA ) |
| 1958. | 284 | 306 | 90 | 7,568 | 42,349 | 4,484 | 8,588 | 20,441 | 103,084 | 177,521 | 281,377 | 7,230 | 86 | ${ }_{5}^{5} 35$ |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 8,472 | 45,672 | 4,832 | 9,183 | 22,113 | 105,415 | 166,791 | 262,368 | 3,338 | 84 | 517 |
| $1956{ }^{1}$. | (NA) | (NA) | (NA) | 8,584 | 4,919 | 4,971 | 9,610 | 22,255 | 110,652 | 164,347 | 264,966 | 5,286 | ( NA ) | (NA) |
| $1955{ }^{1}$. | (NA) | (NA) | (NA) | 8,427 | 43,323 | 4,944 | 9,770 | 21,065 | 106,079 | 154,719 | 251,717 | 4,808 | (NA) | (nA) |
| 1954 | 265 | 283 | 84 | 8,159 | 40,062 | 4,702 | 9,414 | 18,912 | 90,661 | 172,639 | 265,111 | 4,314 | 87 | ${ }^{5} 18$ |
| 19476 | 205 | 275 | (NA) | 8,002 | 26,263 | 5,070 | (NA) | 13,421 | 80, 289 | 119,068 | 199,357 | ( NA ) | 89 | ${ }^{519}$ |
| 19392 | (NA) | 199 | (NA) | (NA) | (NA) | 1,986 | (NA) | 2,507 | 19,414 | 28,274 | 47,688 | (NA) | ( NA ) | (NA) |
| 19377 | (NA) | 195 | (NA) | 3,260 | 5,309 | 2,231 | (NA) | 2,839 | 18,726 | 25,387 | 44,113 | (NA) | ( NA ) | (NA) |
| 1933. | (NA) | 158 | (NA) | 2,414 | 3,184 | 1,794 | (NA) | 2,087 | 11,928 | 16,774 | 28,702 | (NA) | (NA) | (NA) |
| 1931.. | (NA) | 168 | (NA) | (NA) | (NA) | 2,115 | (NA) | 2,960 | 18,895 | 22,809 | 41,704 | (NA) | ( NA ) | (NA) |
| 1929 ? | (NA) | 177 | (NA) | 4,059 | 7,906 | 2,577 | (NA) | 3,739 | 30,013 | 39,571 | 69,584 | (NA) | ( Na ) | (NA) |
|  | INDUSTRY 2999. -PETROLEUM AND COAL PRODUCTS, N. E.C. ${ }^{8}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 6,456 | 20,989 | 49,570 | 71,525 |  |  |  |
| $1962{ }^{1}$. | (nA) | (NA) | (NA) | (2,988) | (13,976) | $(2,488)$ | $(4,799)$ | (10, 096) | (33, 822) | $(71,328)$ | $(103,208)$ | $(4,612)$ | ( NA ) | (NA) |
| $1961{ }^{1}$. | (NA) | (NA) | (NA) | $(3,021)$ | $(13,218)$ | $(2,483)$ | $(4,528)$ | $(9,439)$ | $(37,232)$ | $(68,117)$ | $(102,633)$ | $(4,645)$ | ( NA ) | (NA) |
| $1960{ }^{1}$. | (NA) | (NA) | (NA) | $(3,103)$ | $(15,277)$ | $(2,476)$ | $(6,106)$ | (10,947) | $(32,459)$ | $(68,090)$ | $(99,714)$ | $(1,258)$ | ( NA ) | (NA) |
| 19591. | (NA) | (NA) | (ma) | $(2,516)$ | $(11,022)$ |  |  | $(8,108)$ | $(29,202)$ | $(49,914)$ | $(78,583)$ | $(1,946)$ | ( Na ) |  |
| 1958. | 74 | 84 | 33 | 2,256 | 10,520 | 1,762 | 3,446 | 7,566 | 26,903 | 48,715 | 74,855 | 1,318 | 95 | 96 |
| 1954. |  | 47 |  | 2,009 | 8,905 | 1,544 | 3,141 | 6,167 | 24,437 | 39,572 | 63,496 | (2) | 94 | 89 |
| 1947 | (NA) | 112 | (NA) | 1,697 | 4,808 | 1,453 | (NA) | 4,042 | 17,354 | 30,137 | 47,491 | (NA) | (na) | (NA) |

Note: See appendix A for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustrnent is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.
Standard
(z) Less than $\$ 500$ thousand
(D) Withheld to avoid disclosing figures for individual companies
(NA) Not available.
(X) Not
applicable. (Z) Less than $\$ 500$ thousand. n.e.c. Not elsewhere classified.
basis of a consistency review.
These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufacturcs. These estinates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishonts. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures show in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
"Beginning with the year 1939 establishments engaged in re-refining crankease drainings and other used oils have been included in the figures for "Petroleum refining;" for earlier years, such establishments were included under "Lubricating oils and greases".
${ }^{3}$ The figures for "Paving mixtures and blocks" prior to 1929 are not sufficiently comparable with those for later years to be shown in this table because they include data for quarrying and crushing stone which is classified in mineral industries.

4Data for certain asbestos products are included in the figures for 1909.
${ }^{5}$ Included in the coverage ratio shown for this industry are lubricating oils and greases which are also primary to Industry 291l, Petroleum Refining. A 1963 coverage ratio computed on the basis of including both industries to which lubricating oils and greases are primary would total 98 percent: 65 percent by industry 2911, and 33 percent by industry 2992. The remaining 2 percent was shipped by establishments in other industries. computed on the basis of excluding industry 2911, the 1963 coverage ratio is 93 percent for industry 2992. (Also see tables 5A and 5B.)
${ }^{6}$ The 1947 data have been revised for comparability with 1954 by including data for establishments primarily engaged in shipping lubricants and greases made from animal and animal and vegetable oils (classified in industry 2899 in 1947). The figures for $1929-1939$ are comparable with those for 1947 and 1954.
${ }^{7}$ The figures for 1935 and years prior to 1929 include only lubricating greases and, therefore, are not sufficiently comparable with other years to be given in this table.
${ }^{8}$ Includes fuel briquets and packaged fuel (except wood charcoal briquets). Comparable figures are not available prior to 1947.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 2911. -PETROLEUM REFINING |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 427 | 297 | 119,297 | 922,319 | 85,929 | 166,409 | 614,318 | 3,137,603 | 13,367,328 | 16,496,896 | 385,126 | 146,025 | 2,119,402 |
| Northeast. | 53 | 35 | 18,524 | 143,259 | 13,915 | 27,846 | 100,757 | 366,310 | 1,954,933 | 2,329,204 | 34,027 | 24,492 | 216,959 |
| New Jersey....... | 14 | 10 | 5,843 | 48,484 | 4,159 | 8,117 | 31,912 | 176,307 | 871,251 | 1,056,480 | 8,308 | 8,191 | 68,918 |
| Pennsylvania..... | 24 | 17 | 11,429 | 85,202 | 8,874 | 18,000 | 62,021 | 165,372 | 896,773 | 1,061,124 | 24,395 | 14,112 | 128,768 |
| East North Central. | 68 | 49 | 19,366 | 154,675 | 14,097 | 27,078 | 103,529 | 498,142 | 2,215,184 | 2,712,341 | 26,058 | 25,347 | 409,878 |
| Ohio............. | 15 | 11 | 3,559 | 29,209 | 2,610 | 5,095 | 20,303 | 103,818 | 591,450 | 697,620 | 5,131 | 4,595 | 101,480 |
| Indiana........... | 15 | 12 | 6,566 | 52,430 | 4,910 | 9,331 | 36,555 | 138,182 | 602,003 | 744, 355 | 6,992 | 9,156 | 108,348 |
| tllinois.. | 16 | 12 | 7,024 | 55,862 | 5,022 | 9,128 | 35,144 | 179,299 | 795,867 | 969,882 | 11,354 | 9,377 | 157, 209 |
| Michigan. | 15 | 10 | 1,960 | 15,466 | 1,381 | 3,155 | 10,405 | 71,655 | 199,045 | 268,864 | 2,063 | 1,982 | 39,823 |
| Wisconsin........ | 7 | 4 | 257 | 1,708 | 174 | 369 | 1,122 | 5,188 | 26,819 | 31,620 | 518 | 237 | 3,018 |
| West North Central. | 29 | 23 | 5,481 | 40,951 | 4,065 | 8,563 | 28,058 | 164,633 | 663,836 | 821,186 | 32,648 | 6,479 | 121,647 |
| Kansas........... | 17 | 14 | 3,698 | 26,143 | 2,918 | 6,173 | 19,358 | 107,248 | 432,902 | 533,712 | 15,797 | 4,169 | 69,595 |
| South Atlantic..... | 19 | 12 | 1,900 | 15,113 | 1,275 | 2,626 | 8,905 | 93,207 | 328,820 | 421,490 | (D) | 2,133 | 51,933 |
| East South Central. | 16 | 11 | 1,513 | 12,003 | 1,129 | 2,263 | 8,745 | 50,690 | 262,083 | 296,243 |  | 1,585 | 35,777 |
| Mississippi...... | 5 | 4 | 344 | 3,722 | 279 | 567 | 3,133 | 12,704 | 70,019 | 68,309 | (D) | (2) | (2) |
| West South Central. | 133 | 99 | 49,907 | 392,542 | 35,450 | 68,716 | 256,133 | 1,365,144 | 5,682,662 | 7,047, 217 | 144,180 | 61,537 | 885,231 |
| Arkansas......... | 8 | 6 | 1,005 | 7,456 | 767 | 1,562 | 5,456 | 20,556 | 92,467 | 112,025 | 834 | 1,154 | 15,622 |
| Louisiana. | 19 | 17 | 10,004 | 81,342 | 6,011 | 11,730 | 44,194 | 258,454 | 1,140,321 | 1,410,157 | 26,678 | 13,123 | 190,981 |
| Oklahoma. | 23 | 15 | 5,198 | 35,073 | 4,203 | 8,230 | 27,880 | 109,779 | 538,254 | 640,620 | 4,303 | 6,136 | 106,606 |
| Texas.. | 83 | 61 | 33,700 | 268,671 | 24,469 | 47,194 | 178,603 | 976,355 | 3,911,620 | 4,884,415 | 112,365 | 41,124 | 572,022 |
| Mountain. | 4 | 30 | 4,934 | 36,506 | 3,464 | 6,908 | 24,952 | 111,229 | 418,141 | 534,004 | 21,709 | 5,669 | 97,788 |
| Colorado | 12 | 7 | 708 | 5,271 | 554 | 1,123 | 3,995 | 14,368 | 52,091 | 65,825 | 1,331 | 591 | 10,609 |
| Utah. | 5 | 4 | 880 | 6,560 | 647 | 1,367 | 4,783 | 24,203 | 109,955 | 135,956 | 1,359 | 1,075 | 28,275 |
| Pacific............. Califormia....... | 65 | 38 | 17,672 | 127,270 | 12,534 | 22,409 | 83,239 | 488,248 | 1,841,669 | 2,335,211 | 69,686 | 18,783 | 300,199 |
|  | 50 | 31 | 16,262 | 116,102 | 11,611 | 20,609 | 76,589 | 417,094 | 1,592,429 | 2,018,888 | 54,079 | 17,633 | 269,563 |
|  | INDUSTRY 2951. -PAVING MIXTURES AND BLOCKS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 762 | 127 | 9,680 | 62,065 | 6,746 | 15,076 | 40,014 | 165,584 | 261,789 | 427,460 | 15,055 | 7,797 | 112,548 |
| New England. | 64 | 12 | 945 | 6,314 | 662 | 1,487 | 3,580 | 15,243 | 25,313 | 40,457 | 1,688 | 771 | 9,468 |
| Massachusetts.... | 35 | 9 | 606 | 3,978 | 414 | 1,018 | 2,329 | 9,901 | 15,249 | 25,217 | 942 | 391 | 5,722 |
| Connecticut...... | 19 | 1 | 214 | 1,528 | 150 | 230 | 716 | 3,490 | 6,941 | 10,258 | 500 | ${ }^{2}$ ) | $\left(^{2}\right)$ |
| Middle Atlantic.... | 198 | 27 | 2,078 | 14,251 | 1,396 | 3,136 | 9,193 | 39,494 | 63,771 | 103,291 | 3,524 | 1,697 | 29,976 |
| New York. ........ | 101 | 15 | 997 | 7,550 | 673 | 1,443 | 4,871 | 21,124 | 33,715 | 54,818 | 1,973 | 899 | 17,365 |
| New Jersey....... | 31 | 4 | 446 | 3,456 | 319 | 748 | 2,358 | 10,044 | 13,724 | 23,803 | 840 | 218 | 4,320 |
| Pennsylvania..... | 66 | 8 | 635 | 3,245 | 404 | 945 | 1,964 | 8,326 | 16,332 | 24,670 | 711 | 580 | 8,291 |
| East North Central. | 159 | 29 | 2,062 | 14,106 | 1,463 | 3,159 | 8,716 | 36,564 | 55,586 | 91,965 | 2,724 | 1,632 | 22,025 |
| Ohio.............. | 81 | 12 | 834 | 5,414 | 576 | 1,271 | 3,344 | 14,672 | 24,419 | 38,894 | 1,088 | 497 | 7,724 |
| Indiana... | 24 | 4 | 265 | 2,076 | 193 | 434 | 1,257 | 6,197 | 6,283 | 12,476 | 447 | 241 | 3,311 |
| Illinois......... | 21 | 5 | 462 | 3,404 | 299 | 677 | 1,865 | 7,792 | 11,147 | 18,946 | 643 | 473 | 4,990 |
| Michigan......... | 25 | 7 | 431 | 2,797 | 346 | 688 | 2,016 | 7,153 | 12,640 | 19,798 | 515 | 374 | 5,479 |
| West North Central. | 32 | 4 | 353 | 2,354 | 275 | 652 | 1,788 | 7,289 | 8,291 | 15,642 | 475 | 471 | 5,869 |
| Missouri. | 7 | 2 | 121 | 877 | 103 | 236 | 751 | 3,254 | 1,983 | 5,235 | 135 | $\left.{ }^{2}\right)$ | $\left({ }^{2}\right)$ |
| South Atlantic..... | 103 | 18 | 1,677 | 8,888 | 1,252 | 2,974 | 6,190 | 20,946 | 44, 284 | 65,479 | 2,610 | 1,060 | 14,458 |
| Maryland.. | 22 | 4 | 591 | 3,566 | 451 | 1,214 | 2,572 | 8,037 | 17,134 | 25,162 | 1,298 | 407 | 7,050 |
| Florida.. | 24 | 8 | 485 | 2,404 | 331 | 793 | 1,491 | 5,158 | 8,870 | 14,153 | 547 | 266 | 2,820 |
| East South Central. | 53 | 5 | 466 | 2,328 | 295 | 684 | 1,319 | 9,469 | 14,734 | 24,254 | 746 | 451 | 5,998 |
| Alabama.. | 20 | 3 | 248 | 1,255 | 155 | 364 | 668 | 5,032 | 5,784 | 10,845 | 322 | 297 | 3,184 |
| West South Central. | 42 | 7 | 508 | 2,125 | 403 | 922 | 1,632 | 5,291 | 9,004 | 14,296 | 419 | 302 | 3,040 |
| Louisiana. . | 12 | 2 | 119 | 432 | 95 | 193 | 333 | 1,373 | 2,169 | 3,542 | 120 | 112 |  |
| Texas.. | 19 | 5 | 298 | 1,302 | 233 | 558 | 1,001 | 2,477 | 3,821 | 6,299 | 244 | $\left({ }^{2}\right)$ | $\left(^{2}\right)$ |
| Mountain...... | 17 | 6 | 309 | 2,122 | 156 | 324 | 1,114 | 3,638 | 6,725 | 10,331 | 304 | 193 | 2,940 |
| Pacific... | 94 | 19 | 1,282 | 9,577 | 844 | 1,738 | 6,482 | 27,650 | 34,081 | 61,745 | 2,565 | 1,220 | 18,774 |
| Washington....... | 7 | 3 | 165 | 1,010 | 94 | 240 | 629 | 2,709 | 2,196 | 4,904 | 565 | (2) | (2) |
| California....... | 81 | 13 | 983 | 7,743 | 667 | 1,326 | 5,334 | 23,761 | 29,539 | 53,315 | 1,942 | $\left({ }^{2}\right)$ | $\left.{ }^{2}\right)$ |

[^17]
# TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued 

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \begin{array}{c} \text { Man- } \\ \text { hours } \end{array} \\ (1,000) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 2952. -ASPHALT FELTS AND COATINGS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 230 | 140 | 14,581 | 82,477 | 10,894 | 23,046 | 57,328 | 189,981 | 339,006 | 527,632 | 6,954 | 15,520 | 156,487 |
| New England. ....... | 9 | 5 | 619 | 3,527 | 501 | 1,109 | 2,654 | 7,126 | 13,293 | 20,289 | 312 | 665 | 6,205 |
| Middle Atlantic.... New York | 37 | 21 | 2,235 | 13,632 | 1,764 | 3,754 | 10,214 | 29,021 1,588 | 61,348 2,656 | 90,197 4,226 | 1,916 8 | 2,755 | 27,111 |
| New Jersey....... | 16 | 11 | 1,410 | 8,799 | 1,133 | 2,402 | 6,753 | 18,637 | 38,964 | 57,564 | 1,748 | 1,659 | 17,366 |
| Pennsylvania..... | 15 | 7 | 698 | 4,090 | 549 | 1,184 | 3,036 | 8,796 | 19,728 | 28,407 | 160 | 792 | 7,776 |
| East North Central. | 56 | 35 | 4,431 | 26,658 | 3,430 | 7,240 | 19,414 | 61,355 | 95,085 | 156,431 | 2,235 | 5,277 | 53,214 |
| Ohio............. | 17 | 11 | 1,366 | 8,420 | 1,048 | 2,219 | 6,020 | 21,530 | 21,161 | 42,828 | 1,143 | 1,558 | 19,607 |
| Indiana.......... | 8 | 4 | 368 | 2,220 | 270 | 590 | 1,465 | 4,453 | 7,353 | 11,890 | 245 | 370 | 3,343 |
| Illinois........ | 24 | 18 | 2,578 | 15,336 | 2,027 | 4,251 | 11,470 | 33,552 | 63,244 | 96,570 | 815 | 3,246 | 29,426 |
| Michigan......... | 7 | 2 | 119 | 682 | 85 | 180 | 459 | 1,820 | 3,327 | 5,143 | 32 | 103 | 838 |
| West North Central. Missouri.......... | 14 8 | 9 | 936 507 | 5,524 2,953 | 750 424 | 1,627 927 | 3,988 2,337 | 10,504 5,398 | 22,663 12,047 | 32,962 17,349 | 402 | 961 $(2)$ | 9,245 $(2)$ |
| South Atlantic..... | 29 | 16 | 1,202 | 6,285 | 954 | 2,082 | 4,669 | 18,381 | 39,627 | 57,570 | 547 | 1,083 | 11,592 |
| Georgia... | 7 | 6 | 457 | 2,336 | 360 | 780 | 1,785 | 7,386 | 16,684 | 23,627 | 95 | 349 | 4,178 |
| Florida.......... | 10 | 4 | 188 | 811 | 156 | 296 | 552 | 2,056 | 5,152 | 7,162 | 38 | 207 | 2,218 |
| East South Central. | 13 | 8 | 696 | 3,244 | 533 | 1,074 | 2,230 | 6,617 | 13,049 | 19,831 | 355 | 528 | 4,196 |
| Alabama.......... | 4 | 3 | 281 | 1,545 | 216 | 400 | 1,065 | 3,364 | 6,309 | 9,742 | 66 | $\left({ }^{2}\right)$ | ${ }^{2}$ ) |
| West South Central. | 35 | 27 | 2,752 | 13,385 | 1,667 | 3,418 | 7,205 | 31,562 | 47,902 | 79,492 | 586 | 2,502 | 21,369 |
| Louisiana........ | 7 | 6 | 591 | 3,119 | 487 | 997 | 2,415 | 6,497 | 15,043 | 21,696 | 115 | 657 | 5,406 |
| Texas... | 22 | 15 | 1,634 | 7,986 | 752 | 1,474 | 3,243 | 19,959 | 24,501 | 44,403 | 367 | 1,458 | 13,590 |
| Mountain. | 7 | 3 | 233 | 1,062 | 177 | 370 | 734 | 2,647 | 4,877 | 7,514 | 116 | 124 | 1,070 |
| Pacific..............California....... | 30 | 16 | 1,477 | 9,160 | 1,118 | 2,372 | 6,220 | 22,768 | 41,162 | 63,346 | 485 | 1,625 | 22,485 |
|  | 20 | 11 | 1,145 | 7,280 | 869 | 1,870 | 4,897 | 16,914 | 30,789 | 47,140 | 429 | 1,338 | 18,556 |
|  | INDUSTRY 2992.-LUBRICATING OILS AND GREASES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 353 | 108 | 8,433 | 57,946 | 4,701 | 9,778 | 27,007 | 199,074 | 273,833 | 471,229 | 4,703 | 7,568 | 103,084 |
| New England........ | 14 | 3 | 199 | 1,395 | 102 | 231 | 577 | 4,885 | 4,095 | 8,842 | 182 | 192 | 2,428 |
| Middle Atlantic.... Pennsylvania..... | 89 | 34 | 2,965 | 21,389 | 1,796 | 3,636 | 10,615 | 61,524 | 85,030 | 144,997 | 1,346 | 2,675 | 37,151 |
|  | 37 | 16 | 1,277 | 10,369 | 649 | 1,400 | 3,951 | 21,962 | 30,523 | 52,020 | 606 | 1,098 | 16,327 |
| North Central...... | 140 | 53 | 3,742 | 25,733 | 1,871 | 3,843 | 10,711 | 100,696 | 124,787 | 225,655 | 2,167 | 3,194 | 47,493 |
| Wisconsin. ....... | 11 | 4 | 178 | 1,111 | 85 | 178 | 551 | 5,774 | 4,806 | 10,781 | (D) | 294 | 6,287 |
| Missouri......... | 14 | 8 | 514 | 3,143 | 235 | 461 | 1,281 | 16,364 | 17,436 | 33,846 | 91 | 346 | 6,242 |
| South. . | 58 | 11 | 1,028 | 5,881 | 617 | 1,415 | 3,262 | 14,155 | 40,862 | 54,835 | 610 | 999 | 8,666 |
| West............... | 52 | 7 | 499 | 3,548 | 315 | 653 | 1,842 | 17,814 | 19,059 | 36,900 | 398 | 508 | 7,352 |
|  | INDUSTRY 2999. -PETROLEUM AND COAL PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 67 | 17 | 1,495 | 8,958 | 1,178 | 2,370 | 6,456 | 20,989 | 49,570 | 71,525 | 1,843 | 2,256 | 26,903 |
| Northeast. $\qquad$ Pennsylvania..... | 106 | 22 | $\begin{aligned} & 125 \\ & 117 \end{aligned}$ | $\begin{aligned} & 643 \\ & 613 \end{aligned}$ | $\begin{aligned} & 97 \\ & 91 \end{aligned}$ | $\begin{aligned} & 189 \\ & 177 \end{aligned}$ | 469 | 668 | 1,680 | 2,515 | 35 | 237 | 1,748 |
|  |  |  |  |  |  |  | 445 | 638 |  | 2,389 | 31 | 159 | 1,190 |
| North Central...... | 25 | 7 | 861 | 5,054 | 683 | 1,369 | 3,608 | 8,596 | 23,115 | 32,300 | 417 | 1,147 | 12,198 |
| South.............. | 22 | 3 | 304 | 2,007 | 245 | 511 | 1,533 | 7,894 | 16,486 | 24,601 | 1,109 | 630 | $\begin{aligned} & 8,863 \\ & 4,094 \end{aligned}$ |
| West............... | 10 | 5 | 205 | 1,254 | 153 | 301 | 846 | 3,831 | 8,197 | 12,109 | 282 | 242 |  |

[^18] appljcable.

General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 2911, Petroleum Refining: New England-New Hampshire, 1 (1-19); Massachusetts, 3 (122); Rhode Island, 1 (100-249); Connecticut, 2 (20-99); Middle Atlantic-New York, 8 (975); West North Central-Minnesota, 6 (824); Missouri, 2 (500-999); North Dakota, 2 (250-499); Nebraska, 2 (20-99); South Atlantic-Delaware, 2 (500-999); Maryland, 3 (332); Virginia, 3 ( $250-499$ ); West Virginia, 2 (250-499); South Carolina, l (20-99); Georgia, 4 (131); Florida, 4 (20-99); East South Central-Kentucky, 4 (744); Tennessee, l (100-249); Alabama, 6 (100-249); Mountain-Montana, 9 (500-999); Wyoming, 10 (1000-2499); Colorado, 4 (100-249); New Mexico, 6 (250-499); Arizona, 2 (1-19); Pacific-Washington, 9 (1108); Oregon, 3 (20-99); Alaska, 2 (20-99); Hawaii, 1 (100-249).

## TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

## Footnotes for Table 2-29A-Continued

IC 2951, Paving Mixtures and Blocks: New England-Maine, 3 (20-99); New Hampshire, 3 (20-99); Vermont, 1 (1-19); Rhode Island, 3 (1-19); East North Central-Wisconsin, 8 (20-99); West North Central-Minnesota, 7 (20-99); Iowa, 9 (20-99); North Dakota, 1 (1-19); South Dakota, 1 (1-19); Nebraska, 2 (1-19); Kansas, 5 (20-99); South Atlantic-Delaware, 5 (20-99); Virginia, 9 (100-249); West Virginia, 18 (100-249); North Carolina, 8 (20-99); South Carolina, 8 (20-99); Georgia, 9 (20-99); East South Central-Kentucky, 11 (20-99); Tennessee, 14 (20-99); Mississippi, 8 (20-99); West South Central-Arkansas, 4 (20-99); Oklahoma, 7 (20-99); Mountain-Montana, l (1-19); Idaho, l (1-19); Arizona, 4 (20-99); Utah, 5 (20-99); Nevada, 2 (20-99); Pacific-Oregon, 5 (20-99); Hawaii, 1 (20-99).
IC 2952, Asphalt Felts and Coatings: New England-Massachusetts, 7 (500-999); Connecticut, 2 (20-99); West North Central-Minnesota, 5 (250-499); Kansas, 1 (1-19); South Atlantic-Delaware, 2 (20-99); Maryland, 3 (119); Virginia, 1 (1-19); West Virginia, 2 (100-249); North Carolina, 3 (20-99); South Carolina, 1 (100-249); East South Central-Kentucky, 2 (20-99); Tennessee, 6 ( 213 ); Mississippi, 1 (100-249); West South Central-Arkansas, 4 (250-499); Oklahoma, 2 (100-249); Mountain-Colorado, 2 (20-99); New Mexico, 2 (100-249); Arizona, i (1-19); Utah, 2 (20-99); Pacific-Washington, 3 (20-99); Oregon, 7 (248).
IC 2992, Lubricating Oils and Greases: New England-Massachusetts, 13 (100-249); Connecticut, l (20-99); Middle Atlantic-New York, 29 (250-499); New Jersey, 23 (1000-2499); East North Central-Ohio, 36 (1001); Indiana, 4 (100-249); Illinois, 31 (1091); Michigan, 25 (274); West North CentralMinnesota, 6 (100-249); Iowa, 4 (20-99); Nebraska, 2 (100-249); Kansas, 7 (100-249); South Atlantic—Delaware, 1 (1-19); Maryland, 5 (100-249); Virginia, 1 (1-19); North Carolina, 1 (1-19); South Carolina, 1 (1-19); Georgia, 5 (20-99); Florida, 2 (20-99); East South Central-Kentucky, 1 (1-19); Tennessee, 3 (1-19); Alabama, 2 (1-19); Mississippi, 2 (20-99); West South Central-Arkansas, 1 (1-19); Louisiana, 6 (250-499); Oklahoma, 6 (100-249); Texas, 21 (142); Mountain-Wyoming, 1 (1-19); Utah, 1 (1-19); Pacific-Washington, 6 (20-99); Oregon, 1 (1-19); California, 43 (445). IC 2999, Petroleum and Coal Products, N.E.C.: New England-Maine, l (1-19); Middle Atlantic-New York, 1 (1-19); New Jersey, 2 (1-19); East North Central-Ohio, 4 (20-99); Indiana, 2 (1-19); Tllinois, 5 (191); Michigan, 3 (20-99); Wisconsin, 5 (20-99); West North Central-Minnesota, 1 (l-19); Missouri, 4 (417); North Dakota, 1 (20-99); South Atlantic-West Virginia, 3 (20-99); North Carolina, 1 (1-19); South Carolina, 1 (1-19); Georgia, 2 (1-19); East South Central-Tennessee, 2 (1-19); Mississippi, 3 (1-19); West South Central-Arkansas, 1 (1-19); Louisiana, 1 (20-99); Oklahoma, 2 (1-19); Texas, 6 (189); Mountain-Wyoming, 1 (20-99); Arizona, 1 (1-19); Utah, 1 (1-19); Pacific -Oregon, 1 (1-19); California, 6 (182). ${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 eport showed the number of establishments and total employment (either actual or in size ranges) for such States.

# TABLE 3. Detailed Statistics: 1963 

| Item | Petroleum refining (SIC 2911) |  |  |  | Paving mixtures and blocks (SIC 2951) | Asphalt felts and coatings (SIC 2952) | Lubricating oils and greases (SIC 2992) | Petroleum and coal products, ก.e.c. (SIC 2999) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { All } \\ & \text { establish- } \\ & \text { ments } \end{aligned}$ | Subindustry |  |  |  |  |  |  |
|  |  | Establishments refining petroleum | Establishments producing petrochemicals | Other establishments ${ }^{1}$ |  |  |  |  |
| Primary product specialization ratio ${ }^{2}$. | . 98 | (NA) | (NA) | (NA) | . 92 | . 90 | . 91 | . 96 |
| Coverage ratio ${ }^{3}$.................. | . 97 | (NA) | (NA) | (NA) | . 89 | . 92 | 4.33 | . 91 |
| Establishments, total..................................... . | 427 | 290 | 22 | 115 | 762 | 230 | 353 | 67 |
| With 1 to 19 employees.................................... . . . . | 130 | 31 | 2 | 97 | 635 | 90 | 245 | 50 |
| With 20 to 99 employees................. . . . . . . . . . . . . . . do. | 103 | 83 | 4 | 16 | 119 | 96 | 93 | 14 |
| With 100 employees or more...............................do... | 194 | 176 | 16 | 2 | 8 | 44 | 15 | 3 |
| Proprietors and working partners.........................do. | 71 | (NA) | (NA) | (NA) | 108 | 29 | 86 | 24 |
| All employees (average for the year).....................do. | 119,297 | 112,673 | 5,309 | 1,315 | 9,680 | 14,581 | 8,433 | 1,495 |
| Payroll (all employees), total for year................\$1,000.. | 922,319 | 872,319 | 41,857 | 8,143 | 62,065 | 82,477 | 57,946 | 8,958 |
| Production workers: |  |  |  |  |  |  |  |  |
| Average for the year..................................number.. | 85,929 | 81,768 | 3,302 | 859 | 6,746 | 10,894 | 4,701 | 1,178 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 85,879 | 81,774 | 3,255 | 850 | 4,852 | 9,421 | 4,570 | 1,099 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 85,902 | 81,764 | 3,291 | 847 | 7,039 | 11,414 | 4,634 | 1,193 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 87,094 | 82,858 | 3,350 | 886 | 7,954 | 12,131 | 4,874 | 1,163 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 84,799 | 80,631 | 3,312 | 856 | 7,129 | 10,598 | 4,714 | 1,273 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 166,409 | 157,841 | 6,688 | 1,880 | 15,076 | 23,046 | 9,778 | 2,370 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 41,639 | 39,518 | 1,663 | 458 | 2,515 | 4,785 | 2,380 | 539 |
| April-June . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 42,059 | 39,911 | 1,682 | 466 | 3,983 | 6,110 | 2,500 | 583 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 41,452 | 39,313 | 1,665 | 474 | 4,654 | 6,661 | 2,473 | 606 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 41,259 | 39,099 | 1,678 | 482 | 3,924 | 5,490 | 2,425 | 642 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | 614,318 | 585,271 | 23,983 | 5,064 | 40,014 | 57,328 | 27,007 | 6,456 |
| Cost of materials, etc., total...........................do. | 13,367,328 | 13,075,851 | 259,672 | 31,805 | 261,789 | 339,006 | 273,833 | 49,570 |
| Materials, parts, containers, and supplies consumed..do. | 12,383,982 | 12,158,554 | 197,320 | 28,108 | 223,461 | 285,050 | 250,535 | 42,592 |
| Cost of resales............................................ . ${ }^{\text {do }}$ | 588,224 | 575,005 | 11,175 | 2,044 | 15,492 | 43,501 | 19,568 | 3,701 |
| Fuels consumed............................................ . do. | 267,291 | 230,297 | 35,855 | 1,139 | 11,608 | 7,290 | 1,890 | 1,396 |
| Electric energy: |  |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |  |
| Quantity...............................million kw.-hrs.. | 13,416 | 12,083 | 1,303 | 30 | 232 | 237 | 60 | 36 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 103,361 | 94,277 | 8,652 | 432 | 4,527 | 3,094 | 1,101 | 557 |
| Generated less sold......................million kw.-hrs.. | 3,780 | (D) | (D) | - | (D) | (D) | - | - |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 24,450 | 17,698 | 6,670 | 82 | 6,701 | 71 | 739 | 1,324 |
| Value of shipments (including resales), total...........do.... | 16,496,896 | 15,991,955 | 454,747 | 50,194 | 427,460 | 527,632 | 471,229 |  |
| Value of resales........................................................... | 628,458 | 614,734 | 11,055 | 2,669 | 17,903 | 53,755 | 29,757 | 5,448 |
| Value added by manufacture, adjusted.....................do. | 3,137,603 | 2,918,930 | 200,251 | 18,422 | 165,584 | 189,981 | 199,074 | 20,989 |
| Manufacturers' inventories: |  |  |  |  |  |  |  |  |
| Beginning of year, total................................do. | 1,708,184 | 1,672,874 | 29,589 | 5,721 | 11,869 | 41,863 | 49,092 | 18,294 |
| Finished products............... . . . . . . . . . . . . . . . . . .do. | 1,023,117 | 1,005,789 | 13,927 | 3,401 | 4,932 | 22,673 | 25,375 | 3,412 |
| Work-in-process......................... . . . . . . . . . . . .do | 366,217 | 362,625 | 3,226 | 366 | 360 | 1,569 | 3,429 | 138 |
| Materials, supplies, fuel, etc........................do | 318,850 | 304,460 | 12,436 | 1,954 | 6,577 | 17,621 | 20,288 | 14,744 |
| End of year, total....................................... . do. | 1,695,549 | 1,654,384 | 35,160 | 6,005 | 12,108 | 43,050 | 52,046 | 15,267 |
|  | 1,054,403 | 1,032, 884 | 18,108 | 3,411 | 4,719 | 24,102 | 27,025 | 2,418 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 342,966 | 338,356 | 4,221 | 389 | 486 | 1,495 | 3,457 | 166 |
| Materials, supplies, fuel, etc.......................do. | 298,180 | 283,144 | 12,831 | 2,205 | 6,903 | 17,453 | 21,564 | 12,683 |
| Expenditures for plant and equipment, total............do. | 391,177 | 349,156 | 36,906 | 5,115 | 17,190 | 7,280 | 4,920 | 1,924 |
| New, total...................................... . . . . . . . .do. | 385,126 | 343,571 | 36,771 | 4,784 | 15,055 | 6,954 | 4,703 | 1,843 |
| New structures and additions to plant...............do.... | 275,279 | 250,231 | 22,192 | 2,856 | 4,965 | 1,630 | 1,598 | 307 |
| New machinery and equipment..........................do. | 109,847 | 93,340 | 14,579 | 1,928 | 10,090 | 5,324 | 3,105 | 1,536 |
| Used plant and equipment................................do. | 6,051 | 5,585 | 135 | 331 | 2,135 | 326 | 217 | 81 |
| Selected operating ratios: |  |  |  |  |  |  |  |  |
| Payroll/Total employment....... | 7,731 | 7,742 | 7,884 | 6,192 | 6,412 | 5,656 | 6,871 | 5,992 |
| Production workers/Total employment. | . 72 | . 73 | . 62 | . 65 | . 70 | . 75 | . 56 | . 79 |
| Man-hours/Production workers...... | 1,935 | 1,929 | 2,025 | 2,189 | 2,235 | 2,115 | 2,080 | 2,012 |
| Production worker wages/Man-hours............................ | 3.69 | 3.71 | 3.59 | 2.69 | 2.65 | 2.49 | 2.76 | 2.72 |
| Cost of materials and payrolls/Total value of shipments.... | . 87 | . 87 | . 66 | . 80 | . 76 | . 80 | . 70 | . 82 |
| Cost of materials/Total value of shipments. | . 81 | . 82 | . 57 | . 63 | . 61 | . 64 | . 58 | . 69 |
| Adjusted value added/Total employment....................... | 26,301 | 25,906 | 37,719 | 14,009 | 7,105 | 13,029 | 23,607 | 14,039 |
| Salaries and wages/Adjusted value added..................... | . 29 | . 30 | . 21 | . 44 | . 37 | . 43 | . 29 | . 43 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies
(NA) Not available.
(x) Not
applicable.
${ }^{1}$ Includes establishments primarily engaged in re-refining or reclaiming used oils by a distillation process; blending or re-refining petroleum naxes, etc.
${ }^{2}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{3}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.
${ }^{4}$ See footnote 5, table 1.
table 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | 5 to 9 employees | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 2,500 \\ \text { employees } \\ \text { and over } \end{gathered}$ |
|  | INDUSTRY 2911. -PETROLEUM REFINING |  |  |  |  |  |  |  |  |  |  |
| Establishments. . . . . . . . . . . number. . | 427 | 57 | 35 | 38 | 59 | 4.4 | 83 | 55 | 30 | 16 | 10 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 119,297 | 88 | 225 | 515 | 1,881 | 3,104 | 13,941 | 40,322 | (D) | 23,245 | 35,976 |
| Payroll................. . $\$ 1,000 .$. | 922,319 | 538 | 1,374 | 3,281 | 13,761 | 21,769 | 101,017 | 314,939 | (D) | 184, 817 | 280,823 |
| Value added, adjusted.......do.... | 3,137,603 | 8,398 | 3,025 | 6,543 | 39,317 | 64,518 | 379,574 | 1,083,759 | (D) | 845,532 | 706,937 |
| Value of shipments...........do.... | 16,496,896 | 12,136 | 10,660 | 30,264 | 190,670 | 387,494 | 2,100,066 | 1, $6,164,468$ | (D) | 3,735,893 | 3,865,245 |
| Capital expenditures, new...do.... | 385,126 | 13,290 | 608 | 1,434 | 71,655 | 6,223 | 55,051 | 113,869 | (D) | 67,159 | 65,837 |
|  | INDUSTRY 2951. -PAVING MIXTURES AND BLOCKS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number.. | 762 | 246 | 237 | 152 | 94 | 25 | 7 | 1 | - | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 9,680 | 618 | 1,563 | 2,067 | 5,432 | (D) | (D) | (D) | - | - | - |
| Payroll. . . . . . . . . . . . . . $\$ 1,000 .$. | 62,065 | 3,864 | 10,396 | 13,100 | 34,705 | (D) | (D) | (D) | - | - |  |
| Value added, adjusted.......do.... | 165,584 | 14,943 | 34,431 | 37,895 | 78,315 | (D) | (D) | (D) | - | - | - |
| Value of shipments..........do.... | 427,460 | 45,799 | 107,783 | 97,686 | 1776,192 | (D) | (D) | (D) | - | - |  |
| Capital expenditures, new...do.... | 15,055 | 1,612 | 3,856 | 3,476 | 6,111 | (D) | (D) | (D) | - | - | - |
|  | INDUSTRY 2952. -ASPHALT FELTS AND COATINGS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 230 | 35 | 24 | 31 | 38 | 58 | 35 | 8 | 1 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total........................do.... | 14,581 | 81 | 159 | 415 | 1,266 | 4,133 | 5,040 | 3,487 | (D) | - | - |
| Payroll. . . . . . . . . . . . . . $\$ 1,000 .$. | 82,477 | 411 | 736 | 2,139 | 6,570 | 22,698 | 29,721 | 20,202 | (D) | - | - |
| Value added, adjusted.......do.... | 189,981 | 1,805 | 2,368 | 6,126 | 14,117 | 48,926 | 69,572 | 47,067 | (D) | - | - |
| Value of shipments.......... do.... | 527,632 | 3,366 | 6,474 | 23,290 | 41,687 | 148,816 | 197,681 | 106,318 | (D) | - | - |
| Capital expenditures, new...do.... | 6,954 | 23 | 300 | 246 | 430 | 2,469 | 2,361 | 1,125 | (D) | - | - |
|  | INDUSTRY 2992. - LUBRICATING OITS AND GREASES |  |  |  |  |  |  |  |  |  |  |
| Establishments. . . . . . . . . . number. . | 353 | 120 | 68 | 57 | 67 | 26 | 12 | 2 | - | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total..................... .do.... | 8,433 | 172 | 432 | 842 | 2,213 | 1,935 | 2,839 | (D) | - | (D) | - |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 57,946 | 1,197 | 2,702 | 5,636 | 14,944 | 13,688 | 19,779 | (D) | - | (D) | - |
| Value added, adjusted. ......d.do... | 199,074 | 5,655 | 7,280 | 17,950 | 67,425 | 47,578 | 53,186 | (D) | - | (D) | - |
| Value of shipments..........do.... | 471,229 | 13,439 | 20,942 | 46,989 | 141,812 | 113,647 | 134,400 | (D) | - | (D) | - |
| Capital expenditures, new...do... | 4,703 | 494 | 362 | 363 | 1,270 | 1,209 | 1,005 | (D) | - | (D) | - |
|  | INDUSTRY 2999. -PETROLEUM AND COAL PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 67 | 30 | 10 | 10 | 11 | 3 | 2 | - | 1 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 1,495 | 57 | 66 336 | 138 | $\frac{1,234}{7,645}$ | (D) | (D) | - | (D) | - | - |
| Payroll................. \$1,000. . | $\begin{array}{r}8,958 \\ 20,989 \\ \hline\end{array}$ | 247 565 | 336 704 | 730 2,881 | - $\frac{7,645}{6,839}$ | (D) | (D) | - | (D) | - | - |
| Value added, adjusted.......do.... Value of shipments........do... | 20,989 71,525 | 565 1,844 | 704 1,777 | 2,881 7,698 | $\frac{16,839}{60,206}$ | (D) | (D) | - | (D) | - | - |
| Value of shipments..........dd.... Capital expenditures, new...do... | 71,525 1,843 | 1,844 | $\begin{array}{r}1,777 \\ \hline 38\end{array}$ | 7,698 89 | $\frac{60,206}{3,340}$ | (D) | (D) | - | (D) | - | - |

[^19]
## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958


#### Abstract

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such


as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\text { Col. B }}{\text { Col. B+C }} \text { (percent) }$ | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio $\frac{\mathrm{Col} . \mathrm{B}}{\mathrm{Col} . \mathrm{F}}$ <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 2911 | Petroleum refining. . . . . . . . . . . . . $1963 .$. | $\begin{aligned} & 16,496,896 \\ & 14,539,055 \end{aligned}$ | $\begin{aligned} & 15,479,138 \\ & 13,825,227 \end{aligned}$ | $\begin{aligned} & 340,614 \\ & 242,769 \end{aligned}$ | $\begin{aligned} & 677,144 \\ & 471,059 \end{aligned}$ | $\begin{aligned} & 98 \\ & 98 \end{aligned}$ | $\begin{aligned} & 1_{15}, 983,265 \\ & 1_{14}, 133,967 \end{aligned}$ | $\begin{aligned} & 15,479,138 \\ & 13,825,227 \end{aligned}$ | $\begin{aligned} & 1_{504}, 127 \\ & 1_{308,740} \end{aligned}$ | $\begin{aligned} & 197 \\ & 1_{98} \end{aligned}$ |
| 2951 | Paving mixtures and blocks....... 1963.. 1958. | $\begin{aligned} & 427,460 \\ & 267,676 \end{aligned}$ | $\begin{aligned} & 358,961 \\ & 225,766 \end{aligned}$ | $\begin{aligned} & 30,528 \\ & 13,644 \end{aligned}$ | $\begin{aligned} & 37,971 \\ & 28,266 \end{aligned}$ | $\begin{aligned} & 92 \\ & 94 \end{aligned}$ | $\begin{aligned} & 402,906 \\ & 265,902 \end{aligned}$ | $\begin{aligned} & 358,961 \\ & 225,766 \end{aligned}$ | $\begin{aligned} & 43,945 \\ & 40,136 \end{aligned}$ | $\begin{aligned} & 89 \\ & 85 \end{aligned}$ |
| 2952 | Asphalt ielts and coatings.......1963.. | $\begin{aligned} & 527,632 \\ & 460,104 \end{aligned}$ | $\begin{aligned} & 423,936 \\ & 376,289 \end{aligned}$ | $\begin{aligned} & 47,594 \\ & 41,903 \end{aligned}$ | $\begin{aligned} & 56,102 \\ & 41,912 \end{aligned}$ | $\begin{aligned} & 90 \\ & 90 \end{aligned}$ | $\begin{aligned} & 459,482 \\ & 408,130 \end{aligned}$ | $\begin{aligned} & 423,936 \\ & 376,289 \end{aligned}$ | $\begin{aligned} & 35,546 \\ & 31,841 \end{aligned}$ | $\begin{aligned} & 92 \\ & 92 \end{aligned}$ |
| 2992 | Lubricating oils and greases..... | $\begin{aligned} & 471,229 \\ & 281,377 \end{aligned}$ | $\begin{aligned} & 399,110 \\ & 223,588 \end{aligned}$ | $\begin{aligned} & 39,738 \\ & 34,908 \end{aligned}$ | $\begin{aligned} & 32,381 \\ & 22,881 \end{aligned}$ | $\begin{aligned} & 91 \\ & 86 \end{aligned}$ | $\begin{array}{r} 2 \\ 2 \\ 2882,210, \\ 2853 \end{array}$ | $\begin{aligned} & 399,110 \\ & 223,588 \end{aligned}$ | $\begin{aligned} & 2811,038 \\ & { }^{2} 658,965 \end{aligned}$ | $\begin{aligned} & 233 \\ & 225 \end{aligned}$ |
| 2999 | Petroleum and coal products, n.e.c................................... 1963.. | $\begin{aligned} & 71,525 \\ & 74,855 \end{aligned}$ | $\begin{aligned} & 63,258 \\ & 64,414 \end{aligned}$ | $\begin{aligned} & 2,810 \\ & 3,061 \end{aligned}$ | $\begin{aligned} & 5,457 \\ & 7,380 \end{aligned}$ | $\begin{aligned} & 96 \\ & 95 \end{aligned}$ | $\begin{aligned} & 69,257 \\ & 66,976 \end{aligned}$ | $\begin{aligned} & 63,258 \\ & 64,414 \end{aligned}$ | $\begin{aligned} & 5,999 \\ & 2,562 \end{aligned}$ | $\begin{aligned} & 91 \\ & 96 \end{aligned}$ |

Note: See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
n.e.c. Not elsewhere classified.
${ }^{1}$ Includes lubricating oils and greases which are also primary to industry 2992, Lubricating Oils and Greases.
${ }^{2}$ Included in the figures shown for this industry are lubricating oils and greases which are also primary to industry 2911 , Petroleum Refining.

 on the basis of excluding industry 2911, the 1963 coverage ratio is 93 percent for industry 2992.

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (nrimary nroducts). (b) products classified in other industries (secondary products). and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


[^20]table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Product class codes 29118, 29119, and 29110 are not primary to industry 2992 and are therefore excluded from the total for primary products of industry 2992 and are included in the total for "Other industries."
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


[^21]
## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



See footnotes at end of table.

TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


[^22]
# table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 

## Footnotes for Table 6A-29A-Continued

${ }^{5}$ Includes all finished gasolines (other than aviation and automotive gasoline), finished base stocks, and blending agents such as alkylate, polymers (dimer, codimer, etc.), hydropolymers (hydrodimer, hydrocodimer, etc.), cumene, isopetane, isohexane, neohexane, isoheptane, iso-octane, motor benzol (benzene), and other blending agents derived from petroleum (excludes natural gasoline).
${ }^{6}$ Includes range oils, signal oil, mineral seal oil, mineral colza oil, longtime burning oil, $300^{\circ}$ oil, and insecticide base.
${ }^{7}$ Product code 2911400 included with 2911451 for 1963.
${ }^{8}$ Includes ethane, propane, propene, butane, butene, propane-butane mixtures, pentane, butadiene, and other liquefied hydrocarban gases. Receipts and shipments exclude liquef ied petroleum gases from natural gasoline plants.
${ }^{9} 1963$ figures are not directly comparable with those for 1958 because liquefied refinery gases and aromatics for 1963 (formerly defined as liquefied petroleun gases), product class code 29115, include undetermined amounts previously reported as other finished petroleum products, product class code 29110.
${ }^{10}$ product code 2911511, included in code 2911598 for 1963.
${ }^{11}$ Detailed product statistics for liquefied gases used as chemical raw material are published by the United States Tariff Commission in the report "Synthetic Organic Chemicals, United States Production and Sales."
${ }_{12}$ Although respondents were requested to report receipts in the same manner as billed by the shipper, the figures indicate that items billed as other oils by the shipper were sometimes reported as receipts of "umfinished oils" or "lubricating oil base stock" for the refinery receiving these oils.
${ }^{13}$ Includes such products as cracking stock, unfinished gasoline, requiring further distillation, naphtha stocks, soaps, wax distillate, and other unfinished petroleum oils. Excludes lubricating oil base stocks, natural gasoline and cycle condensates.
${ }^{14}$ Includes light, medium, neutral, heavy neutral, and residual stocks.
${ }^{15}$ Includes flux for paving, roofing, waterproofing, mastic, and other purposes; cut-back asphalt, emulsified asphalt and fluxes made in petroleum refineries, and other liquid asphaltic products except road oil and fuel oil used for heating purposes.
${ }^{16}$ Includes asphalt for paving, roofing, waterproofing, briquetting, mastic, pipe coating, molding composition, and other heavy asphalt products.
${ }^{17}$ Product code 2911000, "Products of petroleum refining, n.s.k.," included in figure for code 29110, "Other finished petroleum products, including waxes."
${ }^{18} 1958$ figure, which was previously published in quantities of thousand pounds, has been converted to thousand barrels on the basis of 280 pounds per barrel.
${ }^{19}$ Represents residual asphaltic oil used for surface treatment of roads and highways.
${ }^{2}{ }^{\circ}$ Includes petroleum ether, rubber solvent, mineral spirits (petroleum spirits), varmish makers' and painters' naphtha, high-solvency naphtha, benzol diluent, lacquer diluent, cleaners' naphtha, stoddard solvent, extraction solvents, and other petroleum distillates shipped as solvents.
${ }^{21}$ Represents amorphous paraffin of melting point not under $145^{\circ}$.
${ }^{22}$ Includes oils for lubricating purposes and such nonlubrication purposes as transformer oil, hydraulic oil, processing oil, quenching oil, and liquid rust preventative.
${ }^{23}$ For 1963, lubricants and similar oils containing animal and vegetable oils made in petroleum refineries, product code 2911651 , valued at less than $\$ 1$ million, are included in lubricants and similar oils containing petroleum oils made in petroleum refineries, code 2911611. The exact figure is withheld to avoid disclosing figures of individual companies. For 1958, code 2911651 is included with code 2992651.
${ }^{24}$ Includes greases for aviation, automotive, industrial, and railroad uses; launching grease, and cutting, drawing, and grinding compounds and paste. Also includes paste rust-preventative compounds and thread compounds. See also footnote 22.
${ }^{25} 1958$ figure, which was previously published in quantities of thousand pounds, has been converted to thousand barrels an the basis of 315 pounds per barrel.
${ }^{2}{ }^{6}$ Product code 2992700 included with code 2992751 for 1963.
${ }^{27}$ Excludes data for quantities produced in petroleum refineries, which are included in the statistics for code 2911911 , asphalt of 200 penetration and over, in industry 2911, Petroleum Refining.
${ }^{2}{ }^{8}$ Product code 2952231 included with code 2952200 for 1958.

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  | Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |  |  | Production | Unit value |
| 291-- | Petroleum refining ${ }^{1}$..............1963.. ${ }^{\text {1958. }}$ | 138 115 | $\begin{array}{r} 96 \\ 104 \end{array}$ | 295-- | Paving and roofing materials.....1963.. ${ }^{1958 . .}$ | $(2)$ <br> $(2)$ <br> 2 | $(2)$ $(2)$ |
| 2911- | Petroleum products made in petrolem refineries ${ }^{1}$..................1963.. 1958. | 138 115 | $\begin{array}{r} 96 \\ 104 \end{array}$ | 2951- | Paving mixtures and blocks...........1963.. 1958. | $(2)$ $(2)$ | $(2)$ $(2)$ |
| 29111 | Gasoline and jet fuel............. $1963 .$. | 133 | 96 101 | 2952- | Asphalt felts and coating............1963.. | $\begin{aligned} & 118 \\ & 105 \end{aligned}$ | 102 |
| 29112 | Kerosene............................ .1963.. 1958. . | $\begin{array}{r}154 \\ 93 \\ \hline\end{array}$ | $\begin{array}{r}98 \\ 101 \\ \hline 98\end{array}$ | 29522 | Asphalt and tar coatings, |  |  |
| 29113 | Distillate fuel oil............... 1963.. | 143 118 | 98 102 108 |  | cements and pitches...............1963.. 1958. . | 170 125 | 133 130 |
| 29114 | Residual fuel oil.................. 1963. 1958.. | $\begin{array}{r}73 \\ 88 \\ \hline\end{array}$ | 108118 | 29523 | Asphalt and tar roofing and siding products..........................1963.. | 102 | 100 |
| 29115 | Liquefied refinery gases and aromatics, including feed stocks.................................... 1963.. | 1 317 134 | 77 106 | 2992- | Lubricating oils and greases......... 1963.1958. | 96 163 103 | 98 124 119 |
| 29116 | Lubricants and similar oils made in petroleum refineries........... 1963.. 1958.. | 120 | 112 | 29926 | Lubricants and similar oils not made in petroleum refineries.......1963.. | 183 | 125 |
| 29118 | Unfinished oils, and lubricating oil base stock.......................... 1963.. | 174 133 | 106 103 113 | 29927 | Lubricating greases not made in <br> petroleur refineries . .......... 1963 | 108 142 | 115 112 |
| 29119 | Asphalt.............................. 1963. . | 154 | 106 |  | 1958.. | 73 | 133 |
| 29110 | Other finished petroleum products including waxes.......................1963.. $1958 .$. | $\begin{aligned} & 140 \\ & 118 \end{aligned}$ | $\begin{array}{r} 95 \\ 111 \end{array}$ | 2999- | Products of petroleum and coal, n.e.c......................................... $1963 .$. | $(2)$ $(2)$ | $(2)$ $(2)$ |

## n.e.c. Not elsewhere classified.

${ }^{1}$ Adjusted to include lubricating greases made petroleum refineries (product class 29117).
${ }^{2}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.

# table 6c. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963 

| (in thousands of dollars) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Product class | 1963 | $1962^{1}$ | $1961{ }^{1}$ | $1960^{1}$ | $1959{ }^{\text {² }}$ | 1958 | 1954 | 1947 |
| 2911- | Petroleum refining | 15,557,654 | 15,218, 340 | 14,890,250 | 14,774,624 | 14,497,058 | 13,889,449 | 11,666,867 | (NA) |
| 29111 | Gasoline and jet fuel. | 8,328,428 | 8,469,402 | 8,374,999 | 8,413,110 | 8,152,180 | 7,825,021 | 6,548,701 | 3,136,709 |
| 29112 | Kerosene.. | 656,271 | $(485,637)$ | $(451,825)$ | (471,561) | (433,081) | 411,720 | 434,852 | 342,997 |
| 29113 | Distillate fuel oil. | 2,896,298 | 2,636,432 | 2,638,346 | 2,478,056 | 2,595,986 | 2,490,886 | 2,064,298 | 918,291 |
| 29114 | Residual fuel oil... | 621,775 | $(726,861)$ | $(737,895)$ | $(777,635)$ | $(800,150)$ | 817,184 | 787,783 | 899,581 |
| 29115 | Liquefied petroleum gases, (made in refineries). | 957,020 | 751,159 | 727,995 | 712,738 | 683,945 | 560,029 | 394,826 | 118,871 |
| 29116 | Lubricating oils (made in refineries) (See also code 29926). | 728,718 | 740,461 | 675,323 | 662,532 | 624,423 | 583,679 | 546,051 | (NA) |
| 29117 | Lubricating greases (made in refineries) (See also code 29927). | 55,819 | 57,958 | 55,557 | 57,540 | 58,130 | 54,356 | 52,966 | (NA) |
| 29118 | Unfinished oils and lubricating oils base stock. | 526,218 | 545,572 | 494,542 | 468,559 | 423,298 | 440,885 | 294,875 | 214,666 |
| 29119 | Asphalt............................................. | 360,509 | 364,508 | 335,296 | 313,619 | 295,479 | 284,629 | 221,681 | 130,344 |
| 29110 | Other finished petroleum products,including waxes. $\qquad$ | 2426,598 | 440,350 | 398,472 | 419,274 | 430,386 | 421,060 | 320,834 | 234,904 |
| 29510 | Paving mixtures and blocks | 402,906 | $(353,418)$ | $(321,511)$ | $(318,077)$ | $(273,774)$ | 265,902 | 120,717 | 57,066 |
| 2952- | Asphalt felts and coatings. | 459,482 | 460,926 | 448,097 | 489,821 | 445,914 | 408,130 | 388,237 | 333,947 |
| 29521 | Asphalt and tar saturated felts and boards for nonbuilding use. | 21,086 | 20,500 | 20,051 | 20,104 | 22,293 | 21,526 | (NA) | (NA) |
| 29522 | Asphalt and tar coatings, cements, and pitches. $\qquad$ | 94,402 | $(82,525)$ | (S) | (S) | 79,939 | 67,931 | 41,928 | 28,100 |
| 29523 | Asphalt and tar roofing and siding products. | 338,637 | 357,901 | 346,165 | 328,325 | 337,632 | 313,554 | (NA) | (NA) |
| 29520 | Asphalt felts and coatings, n.s.k............ | 5,357 | (S) | (S) | (S) | (S) | 5,119 | (NA) | (NA) |
| 2992- | Lubricating oils and greases.................... | 425,611 | $(287,996)$ | $(275,781)$ | $(296,501)$ | $(278,356)$ | 244,518 | 198,300 | (NA) |
| 29926 | Lubricating oils (made from purchased materials) (See also code 29116)............. | 348,641 | $(223,548)$ | $(214,690)$ | $(234,472)$ | $(217,412)$ | 188,683 | (NA) | (NA) |
| 29927 | Lubricating greases (made from purchased materials) (See also code 29117)............ | 72,803 | $(52,208)$ | $(52,105)$ | $(53,486)$ | $(52,228)$ | 45,991 | 47,338 | (NA) |
| 29920 | Lubricating oils and greases (made from purchased materials), n.s.k...................... | 4,167 | $(12,240)$ | $(8,986)$ | $(8,543)$ | $(8,716)$ | 9,884 | (NA) | (NA) |
| 29990 | Products of petroleum and coal, n.e.c......... | 69,257 | 74,261 | (S) | (S) | 70,704 | 66,976 | 61,241 | 47,231 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ Includes $\$ 12,845$ thousand of "products of petroleum refining not specified by kind."

# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 


#### Abstract

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are


listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OTHER FINISHED PETROLETM PRODUCTS, INCLUDING WAXES (29110) | $1963{ }^{1}$ | 1958 | KEROSENE (29112)Continued | $1963{ }^{1}$ | 1958 | LIQUEFIED REFINERY GASES (MADE IN REFINERIES)(29115) | $1963{ }^{1}$ | 1958 |
|  |  |  |  | 378,726 | 248,769 |  |  |  |
| United States, total..... | 426,598 | 421,060 | Louisiana <br> Oklahoma | 102,761 | 64,517 6,385 | United States, total... | 957,020 | 560,029 |
| Northeast. | 84,338 | 85,535 | Texas. | 239,796 | 154,292 | Northeas | 48,748 | 41,098 |
| New Jersey. | 21,897 | 28,759 |  |  |  | Pennsylvania. | 23,274 | 30,616 |
| Pennsylvania................ | 49,497 | 50,734 | Mountain <br> Pacific | 2,459 100,033 | $\begin{array}{r} 2,865 \\ 15,065 \end{array}$ | East North Central | 70,819 | 45,767 |
| East North Central............ | 58,247 | 65,915 |  |  |  | Ohio..... | 16,211 | 13,615 |
| Ohio......................... | 11,211 | 11, 725 | DISTILLATE FUEL OIL $(29113)$ |  |  | Illinois | 17,310 | 20,776 |
| Indiana.. | 15,264 | 20,861 |  |  |  | West North Central. | 8,172 | 5,173 |
| Michigan | 4,017 | 7,082 | United States, total.. | 2,896,298 | 2,490,886 | Kansas. | 6,470 | (2) |
| Wisconsin. | 4,591 | $\left({ }^{2}\right)$ |  |  |  | South. . . . . . <br> Louisiana | 760,441 | 410,265 |
| West North Central.. | 17,581 | 16,563 | Northeast.................. New Jersey............. | 459,543 214,190 | 434,518 158,194 | Louisiana Oklahona | 125,656 13,021 | $\begin{array}{r} 66,723 \\ \left({ }^{2}\right) \end{array}$ |
| South Atlantic...... | 7,682 | 5,223 | New Jersey | 214,190 | 158,194 | Texas. | 570,919 | 299,773 |
| East South Central. | 6,181 | 3,463 | East North Central......... | 512,297 | 462,926 |  |  |  |
| West South Central. | 193,888 | 172,387 | Ohio... | 112,745 | 103,034 | Mountain. | 3,342 | 6,833 |
| Arkansas. Louisiana | 1,458 31,928 | 2,787 <br> 27 <br> 224 | Indiana. Illinois | 177,458 | 154,828 150,157 | Pacífic | 65,502 | $\text { , } 893$ |
| Oklahoma. | 35,226 | 27,324 |  |  |  | Californ | 62,218 | ${ }^{(2)}$ |
| Texas.. | 125,276 | 113,538 | West North Central Kansas. $\qquad$ | $\begin{aligned} & 191,756 \\ & 119,136 \end{aligned}$ | $\begin{aligned} & 167,538 \\ & 102,983 \end{aligned}$ | LUBRICATING OILS (MADE IN |  |  |
| Mountain. | 12,023 | 11,281 |  |  |  | REFINERIES) (29116) |  |  |
| Wyoming | 5,881 | 6,936 | South Atlantic. | 77,567 | 67,036 | United States, total... |  | 728,718 |
| Pacific.. | 46,658 | 60,293 | East South Central......... Alabama. | $\begin{array}{r} 57,331 \\ 4,077 \end{array}$ | 38,073 2,647 | Northeas |  |  |
| GASOLINE AND JET FUEL (29111) |  |  | West South Central Louisiana. | 1,212,317 | 989,126 | East North Central. Illinois........... |  | $\begin{aligned} & 91,691 \\ & 25,561 \end{aligned}$ |
| United States, total. | 8,328,428 | 7,825,021 | Texas. | 833,018 | 670,453 | West North Central. Kansas. $\qquad$ |  | $\begin{aligned} & 32,499 \\ & 31,959 \end{aligned}$ |
| Northeast. | 962,945 | 922,517 | Mountain. | 100,086 | 95,148 | South.... |  | 349,685 |
| Pennsylvania | 497,665 | 500,615 | Montana. | 24,160 28,337 | 24,968 28,400 | Arkansas |  | 7,124 |
|  |  |  | Colorado. | 28,307 | 28,400 | Oklahoma |  | 46,003 |
| Fast North Central............. | $1,562,609$ | 1,457,269 | New Mexic | 11,570 | 7, ${ }_{(2)}$ | Texas |  | 253,694 |
| Ohio... | $443,217$ | $\begin{aligned} & 450,870 \\ & 378,76 \end{aligned}$ | Utah... | 30,212 | (2) | West |  | 88,872 |
| Indiana.. | $\text { 392, } 343$ | 378,786 | Utah. |  |  | Califor |  | 85,109 |
| Illinois. | 583,635 | 565,410 | Pacific. | 285,401 | 236,521 | Califoria. |  | 8,109 |
| West North Central. | 503,698 324,026 | $462,548$ | California | 231,411 | 212,012 | LUBRICATING GREASES (MADE IN REFINERIES) (29117) |  |  |
| Kansas............ | 324,026 | 289,549 | RESIDUAL FUEL OIL (29114) |  |  |  |  |  |
| South. | 3,679,899 | 3,508,705 |  |  |  | United States, total.. |  | 55,819 |
| Iouisiana | 672,515 | 709,571 | United States, total.. | 621,775 | 817,184 | Middle Atlantic. |  | 5,132 |
| Oklahoma | 379,843 | 397,837 | Northeast.. | 70,589 | 138,618 | North Central |  | 8,115 |
| Texas. | 2,275,655 | 2,082,605 | Pennsy | 35,379 | 83,174 | South. |  | 32,872 |
|  |  |  | East North Central. | 129,320 | 141,433 | Texas |  | 125,225 |
| Mountain. | 338,903 | ${ }^{2}$ ) | Ohio. | 28,320 | 3c, 234 |  |  |  |
| Montana | 69,800 | 61,898 | Indiana | 49,331 | 48,755 | West. |  | 9,700 |
| Wyoming . . . . . . . . . . . . . . . . . . | 105,564 | 91,327 | Illinois | 29,852 | 32,243 |  | $1963{ }^{1}$ | 1958 |
| Utah......................... | 90,586 | 91,249 | West North Central. | 14,838 | 16,561 | UNFINISHED OILS AND |  |  |
| Pacific. | 1,280,374 | ${ }^{2}$ ) | Minnesota <br> Kansas... | 8,724 3,394 | 16,561 8,83 5,978 | LUBRICATING OIL BASE STOCK (291.18) |  |  |
| Calif | 1,071,866 | 1,066,363 |  |  |  |  |  |  |
| KEROSENE (29112) |  |  | South Atlantic Maryland.... | $\begin{aligned} & 9,349 \\ & 1,803 \end{aligned}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 1,789 \end{array}$ | United States, total... | 526,218 | 440,885 |
|  |  |  | East South Central. | 20,076 | (2) | Northeast. . . . . . . . . . . . . . . . | 71,917 | 62,245 |
| United States, total..... | 656,271 | 411,720 | Alabama..... | 2,589 | 1,683 | New Jersey................ | 40,107 |  |
| Northeast. . . . . . . . . . . . . . . . . |  |  | West South Central. | 152,963 | ${ }^{2}$ ) | East North Central. | 28,068 | 16,598 |
| New Jersey.................. | 33,295 | 15,184 | Louisiana. | 26,804 | 39,100 | Illinois | 19,557 | ${ }^{2}$ ) |
|  |  |  | Teras. | 116,959 | 187,852 | West North Central. | 7,207 | 9,738 |
| East North Central........... | 101,799 | 91,409 | Mountain... | 19,630 | 23,109 |  |  |  |
| Ohio | 22,062 | 20,827 | Montana. | 2,543 | (2) | Louisian | 281,466 | 216,012 |
| Indiana. | 15,290 | 18,563 | Wyoming. . . . . . . . . . . . . . . . . | 4,458 | 6,405 | Oklahoma | 10,260 | 12,141 |
| Illinois................... . | 55,887 8,560 | 35, 180 | Colorado................. | 4,372 | 6,470 | Texas... | 188,791 | 136,017 |
|  |  |  | Pacific. | 205,010 | 229,436 | West. | 137,560 |  |
| West North Central. | 6,238 | 5,157 | California | 188,085 | 222,316 | California................ . | 118,854 | ${ }^{(2)}$ |

See footnotes at end of table.

# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued 

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASPHALT (29119) | $1963{ }^{1}$ | 1958 | asphalt and tar coatings, CEVENTS, AND PITCHES (29522) - Continued | $1963{ }^{1}$ | 1958 | LUBRICATING OILS (MADE FROM PURCHASED MATERIALS) (29926) -Continued | $1963{ }^{1}$ |
| United States, total... | 360,509 | 284,629 |  |  |  |  |  |
| Northeast. . . . . . . . . . . . ....... . <br> New Jersey. | $\begin{aligned} & 55,933 \\ & 11,241 \end{aligned}$ | 42,50913,205 | South Atlantic.............. | $\begin{aligned} & 8,828 \\ & 1,287 \end{aligned}$ | 7,3231,029 | Middle Atlantic............. | 98,309 |
|  |  |  | Maryland $\qquad$ |  |  | New York. | 9,883 |
|  |  |  |  | 2,302 | 1,968 | Pennsylvani | $\begin{aligned} & 54,531 \\ & 33,895 \end{aligned}$ |
| East North. Central.......... | 26,368 | $\begin{aligned} & 66,663 \\ & 22,245 \end{aligned}$ | West South Central. Louisiana. Texas. | $\begin{array}{r} 14,636 \\ 2,528 \\ 11,347 \end{array}$ | 9,311 |  |  |
| Ohio......................... |  |  |  |  | (Z) | East North Central. | 107,711 |
| Indiana................... Illinois............... | 16,27225,552 | $\begin{aligned} & 10,816 \\ & 25,299 \end{aligned}$ |  |  | 8,112 | Ohio. | 29,08050,519 |
|  |  |  | Texas <br> West. | $\begin{array}{r} 11,347 \\ 6,516 \\ 4,091 \end{array}$ |  | Michigan.................... |  |
| West North Central.......... | 25,161 | 18,715 | $\qquad$ |  | 3,325 |  | 15,061 |
| South Atlantic............... Maryland. | $\begin{aligned} & 38,762 \\ & 23,663 \end{aligned}$ | $\begin{aligned} & 26,564 \\ & 11,382 \end{aligned}$ | ASPHALT AND TAR ROOFING AND SIDING PRODUCTS (29523) United States, total.... |  |  | West North Central.......... Minnesota. $\qquad$ Missouri. $\qquad$ | 48,811 |
|  |  |  |  |  |  |  | $24,786$ |
| East South Central........... | 26,289 | 16,888 |  | 338,637 | 313,554 | South Atlantic............... Maryland | $\begin{array}{r} 19,648 \\ 2,870 \end{array}$ |
| West South Central........... Oklahoma. | $\begin{aligned} & 65,512 \\ & 11,258 \\ & 32,097 \end{aligned}$ | $\begin{array}{r} 56,350 \\ 8,151 \\ 30,770 \end{array}$ | New England.................. | 14,559 | 14,741 |  |  |
|  |  |  | Middle Atlantic. | 58,577 | 59,088 | East South Central......... | 2,866 |
| Texas...................... |  |  | New Jersey. | 37,163 | 36,727 |  |  |
| Mountain.................... | $\begin{array}{r} 21,002 \\ 6,593 \\ 7,856 \end{array}$ | $\begin{array}{r} 19,229 \\ 6,130 \\ 7,097 \end{array}$ | East North Central........... Ohio.. Illinois. | $\begin{aligned} & 83,736 \\ & 14,540 \\ & 59,112 \end{aligned}$ | $\begin{aligned} & 85,165 \\ & 13,732 \\ & 60,467 \end{aligned}$ | West South Central......... |  |
| Montana. . . . . . . . . . . . . . . . . . |  |  |  |  |  |  | $\begin{array}{r} 25,257 \\ 3,671 \end{array}$ |
| Wyoming. . . . . . . . . . . . . . . . . . . |  |  |  |  |  |  |  |
| Pacific. $\qquad$ <br> California. $\qquad$ <br> ASPHALT AND TAR COATINGS, CEMENTS, AND PITCHES (29522) | $7,856$ | 7,097 | West North Central............ Missouri | $\begin{aligned} & 27,064 \\ & 14,149 \end{aligned}$ | $\begin{aligned} & 22,793 \\ & 11,048 \end{aligned}$ | West......................... | $\begin{aligned} & 32,086 \\ & 27,105 \end{aligned}$ |
|  | $\begin{array}{r} 49,836 \\ 40,099 \end{array}$ | 37,711 ${ }^{(2)}$ | South Atlantic................. Georgia.. | $\begin{aligned} & 38,216 \\ & 17,792 \end{aligned}$ | $\begin{aligned} & 29,949 \\ & 11,427 \end{aligned}$ | California. |  |
|  |  |  |  |  |  | LUBRICATING GREASES (MADE FROM PURCHASED MATERIALS) (29927) |  |
|  |  |  | East South Central............ <br> Alabama. | $\begin{array}{r} 17,471 \\ 9,837 \end{array}$ | $\begin{aligned} & 15,651 \\ & 10,634 \end{aligned}$ |  |  |
| United States, total.... | 94,402 | 67,931 | West South Central............ Arkansas. | $\begin{aligned} & 46,713 \\ & 10,635 \end{aligned}$ | $\begin{array}{r} 38,503 \\ (2) \end{array}$ | United States, total... | 72,803 |
| New England.................. | 2,473 | 2,066 | Lovisiana. <br> Oklahoma. <br> Texas. | $\begin{array}{r} 14,719 \\ 2,295 \end{array}$ | $\begin{array}{r} 14,492 \\ (2) \end{array}$ | Northeast. . . . . . . . . . . . . . . . . <br> New Jersey. | $\begin{array}{r} 23,877 \\ 7,215 \end{array}$ |
|  |  |  |  |  |  |  |  |
| Middle Atlantic. | $\begin{array}{r} 16,281 \\ 1,124 \\ 8,703 \\ 6,454 \end{array}$ | $\begin{array}{r} 14,975 \\ 1,016 \\ 6,070 \\ 7,889 \end{array}$ |  | 19,064 | 16,752 | Pennsylvania............. | 10,355 |
| New York. |  |  |  | $\begin{array}{r} 52,307 \\ 8,484 \\ 33,944 \end{array}$ | $\begin{array}{r} 47,664 \\ 6,103 \\ 36,398 \end{array}$ | East North Central. Ohio. Illinois. $\qquad$ Michigan. $\qquad$ |  |
| New Jersey... |  |  |  |  |  |  | 16,547 7,892 |
| Pennsylvania. |  |  |  |  |  |  | 7,892 6,358 |
| East North Central. | 37,726 | $\begin{array}{r} 23,315 \\ 11,182 \\ (Z) \\ 10,096 \end{array}$ | LUBRICATING OILS (MADE FROM PURCHASED MATERIALS)(29926) | $1963{ }^{1}$ |  |  | 1,443 |
| Ohio... | 17,472 |  |  |  |  | West North Central......... |  |
| Indiana.. | 2,527 15,478 |  |  | 348,641 |  | West North Central.......... | 5,861 |
|  |  |  | United States, total. |  |  |  |  |  |
| Missouri. . | $\begin{aligned} & 5,640 \\ & 4,161 \end{aligned}$ | $\begin{gathered} 4,417 \\ \left({ }^{2}\right) \end{gathered}$ | New England.................. | 7,404 |  | South. | 4,870 |

[^23]TABLE 6E. Selected Petroleum Products, by Geographic Areas: 1963


TABLE 6E. Selected Petroleum Products, by Geographic Areas: 1963-Continued

| Product class and geographic area | Shipments including interplant transfers |  | Product class and geographic area | Shipments including interplant transfers |  | Product class and geographic area | Shipments including interplant transfers |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Quantity } \\ (1,000 \text { bbls. }) \end{gathered}$ | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |  | $\begin{gathered} \text { Quantity } \\ (1,000 \text { bbls. }) \end{gathered}$ | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |  | Quantity | Vaiue |
| AROMATICS (INCLUDING BENZENE, TOLUENE, XYTENES, ETC.) (2911588) <br> United States, total..... | 33,502 | 254,144 | UNFINISHED OILS, INCLUDING CRACKING STOCK, AND TOPPED AND ENRICHED PETROLEUM (2911812) <br> United States, total.... | 101,060 | 323,716 | ASPHAIT, 200 PENETRATION AND OVER (INCLUDING EMULSIFIED ASPHALT PRODUCED AT THE REFINERY) (2911911) Continued | (1,000 bbls.) | $(\$ 1,000)$ |
| Northeast. | 1,746 | 14,516 | United States, total.... <br> Northeast. | $\begin{aligned} & 8,566 \\ & 3,428 \end{aligned}$ | $\begin{aligned} & 30,923 \\ & 12,380 \end{aligned}$ | South....................... | 11,834 4,574 | 41,395 13,106 |
| North Central. | 4,2022,714 | $\begin{aligned} & 21,729 \\ & 10,561 \end{aligned}$ | East North Central. |  |  | West. . . . . . . . . . . . . . . . . . . . . M | 8,587 1,782 | 28,503 4,845 |
| Michigan. |  |  | South. . Texas | 43,869 36,450 | $\begin{aligned} & 157,835 \\ & 130,885 \end{aligned}$ | Californi | 4,539 | 14,777 |
| South. | $\begin{aligned} & 24,410 \\ & 17,592 \end{aligned}$ | $\begin{aligned} & 197,979 \\ & 152,324 \end{aligned}$ | West. <br> California. | $\begin{aligned} & 43,757 \\ & 36,820 \end{aligned}$ | $\begin{array}{r} 118,591 \\ 99,885 \end{array}$ | ASPHALT, LESS THAN 200 PENETRATION (2911951) | (1,000 tons) | $(\$ 1,000)$ |
|  | $\begin{aligned} & 3,144 \\ & 3,144 \end{aligned}$ | $\begin{aligned} & 19,920 \\ & 19,920 \end{aligned}$ | LUBRICATING-OIL PETROLEUM BASE STOCKS (FOR BLENDING, COMPOUNDING, AND GREASE MANUFACTURE) (2911851) | 24,997 | 202,502 | United States, total... | 13,727 | 248,387 |
| West........ Californi |  |  |  |  |  | Northeast. . . . . . . . . . . . . . . . . | 2,472 | 46,969 |
| OTHER LIQUEFIED GASES (2911511 and 2911598) |  |  |  |  |  | North Central. Ohio. Illinois. Kansas. | 3,721 716 997 838 | $\begin{aligned} & 69,916 \\ & 16,598 \\ & 16,154 \\ & 14,589 \end{aligned}$ |
| United States, total. | 127,849 | 227, 374 | Northeast. . . . . . . . . . . . . . . . . . <br> East North Central........... | $\begin{aligned} & 4,971 \\ & 1,697 \end{aligned}$ | $\begin{aligned} & 40,994 \\ & 15,688 \end{aligned}$ | South. $\qquad$ Texas. $\qquad$ | 5,067 1,160 | $\begin{aligned} & 89,219 \\ & 18,991 \end{aligned}$ |
| Middle Atlantic. | $\begin{aligned} & 7,948 \\ & 3,705 \end{aligned}$ | $\begin{array}{r} 20,125 \\ 9,823 \end{array}$ | South. <br> Texas. | $\begin{array}{r} 15,232 \\ 5,601 \end{array}$ | $\begin{array}{r} 123,631 \\ 57,906 \end{array}$ | West. . . . . . . . . . . . . . . . . . . . | 2,467 | 42,283 |
| Pennsylvania. |  |  |  |  |  | Montana California. | 108 1,579 | 1,748 25,322 |
| East North Central. | 13,036 4,374 | $\begin{aligned} & 27,029 \\ & 11,076 \end{aligned}$ | Pacific. California. | $\begin{aligned} & 2,614 \\ & 2,614 \end{aligned}$ | $\begin{aligned} & 18,969 \\ & 18,969 \end{aligned}$ | NAPHTHA SOLVENTS (2911051) | (1,000 bbls.) | $(\$ 1,000)$ |
| Indiana. | $\begin{aligned} & 4,260 \\ & 3,422 \end{aligned}$ | 7,579 |  |  |  |  |  |  |
| Illinois. |  | 5,526 ASPHALT, 200 PENETRATION AND <br> OVER (INCLUDING EMULSIFIED  |  |  |  | United States, total.... | 20,766 | 124,909 |
|  | $\begin{aligned} & 2,894 \\ & 2,050 \end{aligned}$ |  |  |  |  | Middle Atlanti | 911 | 5,884 |
| West North Central |  | $\begin{aligned} & 5,474 \\ & 3,772 \end{aligned}$ | ASPHALT PRODUCED AT THE REFINERY) (2911911) |  |  |  |  |  |
| Kansas.. |  |  |  |  |  | North Central. Illinois. | $\begin{aligned} & 3,762 \\ & 1,436 \end{aligned}$ | $\begin{array}{r} 23,083 \\ 9,715 \end{array}$ |
| South.. | 93,831 | 152,944 | United States, total... | 33,324 | 112,122 | South. <br> Louisiana. | 12,8421,075 | 72,291 |
| Louisiana. | 6,847 4,359 | 10,224 | Northeast. |  | 8,964 |  |  | 5,670 |
| Texas. | 78,5648,383 | 127,113 | North Central. | $\begin{array}{r} 10,291 \\ 2,695 \end{array}$ | 33,260 | Oklahoma | 9,584 | 56,058 |
|  |  |  |  |  | 9,770 | Texas. |  |  |
| Pacific.. |  | 18,51315,229 | Illinois. <br> Kansas. | $\begin{aligned} & 3,482 \\ & 1,005 \end{aligned}$ | $\begin{array}{r} 9,398 \\ 3,268 \\ \hline \end{array}$ | West. California. | 3,251 | 23,651 |
| California.............. | 6,835 |  |  |  |  |  | 3,083 | 22,908 |

## table 7A. Materials by Kind: 1963 and 1958



## table 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | $\begin{aligned} & \text { Delivered } \\ & \text { cost } \\ & (\$ 1,000) \\ & \hline \end{aligned}$ | Quantity | Delivered cost $(\$ 1,000)$ |
|  | Containers: <br> Metal. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . <br> Paper and paperboard. $\qquad$ <br> Cans, bodies with combinations of fiber and other materials <br> (foil, plastic, etc.) with metal ends...................................... |  | INDUSTRY 2992. -LJBRICATING OILS AND GREASES-Continued |  |  |  |
|  |  |  |  |  |  |  |
| 340001 |  | . . . . . . . | (X) | 29,940 | (X) | 18,638 |
| 260091 |  | . . . . . . . . . . . . | (X) | 2,376 | (X) | 1,449 |
| 265522 |  | . | (X) | 9,265 |  |  |
| 970089 | Cost of materials received from petroleum refineries and lube manufacturers (represents cost of materials for which quantities are shown in the "Receipts" column of table 6A)........................ |  | (X) | 110,118 | $\} \quad(x)$ | 101,220 |
| 970099 | All other materials, containers, components, parts and supplies consumed. |  | (X) | $47,497$ | , |  |
| 973000 | Materials, containers and supplies, n.s.k.4........................... |  | (X) | 23,023 |  | 17,293 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
applicable. n.s.k. Not specified by kind.
${ }^{1}$ Represents liquefied petroleum gases from natural gasoline plants only.
${ }^{2}$ Separate data not collected to code 265522 in 1958 . Included in figure for code 970099 for industry 2911.
${ }^{3}$ Data for code 970089 , included in figure for code 970099 for 1958 for industry 2911.

 forms."

## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Petroleum refining (SIC 2911) | Paving mixtures and blocks (SIC 2951) | Asphalt felts and coatings (SIC 2952) | Lubricating oils and greases (SIC 2992) | Petroleum and coal products, n.e.c. <br> (SIC 2999) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. | 336,916 | 14,543 | 9,897 | 1,666 | 2,123 |
| Total cost of purchased fuels...............................do.... | 242,997 | 10,618 | 6,930 | 965 | 1,464 |
| Bituminous coal, lignite, and anthracite: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ., 000 short tons. <br> Cost. <br> . . . . . . . . . . . $\$ 1,000$. | $\begin{array}{r} 789 \\ 4,101 \end{array}$ | (S) | 93 656 | (S) | 17 166 |
| Coke and breeze: <br> Quantity............................................. 1,000 short tons. <br> Cost. <br> . $\$ 1,000$. | - | (S) <br> (S) | 4 72 | - | (S) |
| Fuel oil (distillate and residual): <br> Quantity............................ 1,000 barrels of 42 gallons. <br> Cost. $\qquad$ . ................. . $\$ 1,000$. | 7,334 16,806 | 1,391 5,558 | 878 2,493 | 138 428 | (S) |
| Gas (natural, manufactured, still, blast furnace, and coke oven): $\qquad$ million cu.ft.. <br> cost. | 942,488 210,880 | 6,502 3,320 | 8,432 3,120 | 557 248 | 2,556 851 |
| Other fuels..................................................... ${ }^{\text {do.... }}$ | 11,210 | 1,686 | 589 | 89 | 116 |
| Electric energy: <br> Purchased: |  |  |  |  |  |
| Quantity. $\qquad$ .million kw. -hrs.. |  |  |  | 40 701 | 38 659 |
| Cost. $\qquad$ .\$1,000.. | 93,919 | 3,925 | 2,967 | 701 | 659 |
| Generated less sold.............................million kw.-hrs.. | 4,313 | (S) | 12 | - | - |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.........1,000 hp.. | 9,385 | 257 | 194 | 47 | 33 |
| Prime movers, total..........................................do.... | 5,999 | 48 | 42 | 9 | 4 |
| Driving generators...........................................do.... | 1,021 | 13 | 20 | 6 | 1 |
| Not driving generators..................................... . do.... | 4,978 | 35 | 22 | 3 | 3 |
| Electric motors, total.......................................... do. | 4,569 | 211 | 160 | 38 | 29 |
| Driven by purchased energy..................................do.... | 3,386 | 209 | 152 | 38 | 29 |
| Driven by energy generated at establishment..............do.... | 1,183 | 2 | 7 | - | - |
| Aggregate horsepower per 100 production workers................... | 10,688 | 4,159 | 2,039 | 1,175 | 1,326 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, there fore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: the standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the bais of a general consistency review.

## TABLE 7C. Selected Materials Consumed by Industries 2911, Petroleum Refining, and 2992, Lubricating Oils and Greases, by Geographic Areas: 1963 and 1958



TABLE 7C. Selected Materials Consumed by Industries 2911, Petroleum Refining, and 2992, Lubricating Oils and Greases, by Geographic Areas: 1963 and 1958-Continued


TABLE 7D. Fuels Produced and Consumed by Industry 2911, Petroleum Refining: 1963 and 1958

| Industry and year |
| :--- |

[^24]
# table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for estabishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 2911- | PETROLEUM REFINING |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. | 427 | 119,297 | 922,319 | 85,929 | 166,409 | 614,318 | 3,137,603 | 13,367,328 | 16,496,896 | 385,126 |
|  | $90 \%$ or more specialization.. 75-89\% specialization. ...... | 403 8 | 112,911 4,445 | 871,972 35,694 | 81,500 3,112 | 157,353 6,192 | 581,806 23,236 | $2,947,468$ 129,922 | $12,749,196$ 527,716 | $\begin{array}{r} 15,686,613 \\ 660,926 \end{array}$ | $\begin{array}{r} 368,111 \\ 6,895 \end{array}$ |
| 29111 | Gasoline and jet fuel (primary product class of estab.).......... Establishments with- | 210 | 104,828 | 818,299 | 75,952 | 146,215 | 548,053 | 2,773,647 | 12,374,339 | 15,142,412 | 325,291 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | 9 31 | 383 7,270 | $\begin{array}{r} 2,629 \\ 54,606 \end{array}$ | $\begin{array}{r} 307 \\ 5,231 \end{array}$ | 618 10,431 | $\begin{array}{r} 1,858 \\ 38,077 \end{array}$ | $\begin{array}{r} 5,646 \\ 187,006 \end{array}$ | $\begin{array}{r} 19,897 \\ 904,061 \end{array}$ | $\begin{array}{r} 25,671 \\ 1,108,859 \end{array}$ | $\begin{array}{r} 1,164 \\ 20,308 \end{array}$ |
| 29113 | Distillate fuel oil (primary product class of estab.).......... | 9 | 412 | 3,092 | 326 | 685 | 2,307 | 2,291 | 54,228 | 58,822 | (D) |
| 29114 | Residual fuel oil (primary <br> product class of estab.).......... | 5 | 175 | 1,416 | 114 | 231 | 794 | 3,688 | 25,957 | 29,153 | 68 |
| 29115 | ```Liquefied petroleum gases (made in refineries) (primary product class of estab.). Establishments with-``` | 23 | 5,611 | 44,143 | 3,511 | 7,128 | 25,416 | 212,359 | 279,095 | 487,590 | 35,708 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization......... | 11 | 3,093 423 | 24,094 2,933 | $\begin{array}{r}1,987 \\ \hline 256\end{array}$ | 3,854 533 | 13,985 1,756 | 103,587 11,735 | 113,587 $.11,845$ | $\begin{array}{r} 215,934 \\ 23,218 \end{array}$ | $\begin{array}{r} 11,976 \\ (D) \end{array}$ |
| 29116 | Lubricating oils made in refineries (primary product class of estab.). Establishments with- | 86 | 3,026 | 19,607 | 2,112 | 4,414 | 12,875 | 62,557 | 206,187 | 269,916 | 5,018 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization. ........ | 69 3 | $\begin{aligned} & 568 \\ & 140 \end{aligned}$ | 3,422 749 | 372 116 | 845 298 | 2,077 544 | 13,950 1,476 | 12,084 1,734 | 25,831 3,193 | 1,498 382 |
| 29118 | Unfinished oils and lubricating oil base stock (primary product class of estab.)...................... | 9 | 1,318 | 9,710 | 961 | 1,880 | 6,636 | 13,647 | 119,425 | 131,159 | (D) |
| 29119 | ```Asphalt (primary product class of estab.).......................... Establishments with-``` | 31 | 2,069 | 14,001 | 1,510 | 2,786 | 9,416 | 41,702 | 250,060 | 292,017 | 2,608 |
|  | 75-89\% specialization... | 9 | 624 | 4,676 | 477 | 920 | 3,342 | 17,126 | 49,704 | 67,050 | 463 |
| 2952- | ASPHALT FELTS AND COATINGS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 230 | 14,581 | 82,477 | 10,894 | 23,046 | 57,328 | 189,981 | 339,006 | 527,632 | 6,954 |
|  | 90\% or more specialization.. 75-89\% specialization....... | $\begin{array}{r} 183 \\ 14 \end{array}$ | 10,229 1,179 | 56,203 7,758 | 8,054 863 | 17,043 1,931 | $\begin{array}{r} 40,692 \\ 5,298 \end{array}$ | 126,498 15,154 | 252,928 29,843 | $\begin{array}{r} 378,575 \\ 44,973 \end{array}$ | $\begin{array}{r} 5,004 \\ 661 \end{array}$ |
| 29521 | Asphalt and tar saturated felts and boards for nonbuilding use (primary product class of estab.) | 13 | 371 | 2,273 | 267 | 574 | 1,480 | 4,754 | 6,882 | 11,669 | 192 |
| 29522 | ```Asphalt and tar coatings, cements, and pitches (primary product class of estab.)................... Establishments with-``` | 78 | 2,299 | 12,450 | 1,123 | 2,304 | 5,351 | 33,233 | 48,870 | 81,955 | 1,305 |
|  | 90\% or more specialization.... 75-89\% specialization. ......... | 43 5 | $\begin{aligned} & 712 \\ & 128 \end{aligned}$ | $\begin{array}{r} 3,935 \\ 771 \end{array}$ | $\begin{array}{r} 486 \\ 88 \end{array}$ | 1,026 168 | 2,328 428 | 11,561 1,763 | $\begin{array}{r} 24,133 \\ 2,816 \end{array}$ | $\begin{array}{r} 35,663 \\ 4,584 \end{array}$ | 607 |
| 29523 | ```Asphalt and tar roofing and siding products (primary product class of estab.)......................... Establishments with-``` | 113 | 11,770 | 67,042 | 9,402 | 19,963 | 50,058 | 150,666 | 280,348 | 429,767 | 5,399 |
|  | 90\% or more specialization.... <br> 75-89\% specialization. ......... | $\begin{aligned} & 89 \\ & 12 \end{aligned}$ | 7,191 1,904 | 39,108 11,194 | 5,676 1,515 | 12,160 3,051 | $\begin{array}{r} 28,454 \\ 8,539 \end{array}$ | 90,736 21,054 | 178,980 48,279 | $\begin{array}{r} 268,034 \\ 69,993 \end{array}$ | 3,453 628 |
| 2992- | LUBRICATING OIIS AND GREASES |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................. <br> Establishments with- | 353 | 8,433 | 57,946 | 4,701 | 9,778 | 27,007 | 199,074 | 273,833 | 471,229 | 4,703 |
|  | $90 \%$ or more specialization. . 75-89\% specialization. ...... | $\begin{array}{r} 311 \\ 21 \end{array}$ | 5,4,42 1,116 | $\begin{array}{r} 37,760 \\ 7,226 \end{array}$ | $\begin{array}{r} 3,025 \\ 621 \end{array}$ | $\begin{aligned} & 6,556 \\ & 1,149 \end{aligned}$ | $\begin{array}{r} 17,637 \\ 3,509 \end{array}$ | $\begin{array}{r} 138,576 \\ 34,895 \end{array}$ | $\begin{array}{r} 188,220 \\ 51,358 \end{array}$ | $\begin{array}{r} 326,376 \\ 84,978 \end{array}$ | $\begin{array}{r} 3,421 \\ 853 \end{array}$ |
| 29926 | ```Lubricating oils (made from purchased materials) (primary product class of estab.)......... Establishments with-``` | 281 | 6,536 | 45,011 | 3,710 | 7,766 | 21,304 | 169,319 | 236,832 | 404,356 | 3,964 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | $\begin{array}{r} 209 \\ 42 \end{array}$ | 2,812 1,535 | 19,670 10,476 | $\begin{array}{r}1,497 \\ \hline 954\end{array}$ | $\begin{aligned} & 3,394 \\ & 1,825 \end{aligned}$ | $\begin{aligned} & 8,625 \\ & 5,672 \end{aligned}$ | $\begin{aligned} & 77,752 \\ & 54,329 \end{aligned}$ | $\begin{array}{r} 104,787 \\ 78,619 \end{array}$ | $\begin{aligned} & 182,010 \\ & 132,389 \end{aligned}$ | $\begin{aligned} & 1,618 \\ & 1,320 \end{aligned}$ |
| 29927 | ```Lubricating greases (made from purchased materials) (primary product class of estab.)......... Establishments with-``` | 35 | 1,584 | 11,030 | 838 | 1,645 | 4,817 | 27,162 | 33,928 | 60,619 | 619 |
|  | 90\% or more specialization.... | 20 | 672 | 4,347 | 378 | 770 | 2,056 | 10,193 | 14,395 | 24,606 | 342 |
|  | 75-8\%\% specialization........ | 7 | 299 | 2,097 | 136 | 263 | 781 | 5,222 | 4,778 | 9,572 | 117 |

# Rubber and Plastics Products, N.E.C. 

30 A Rubber and miscellaneous plastics products

This major group includes establishments manufacturing from natural, synthetic, or reclaimed rubber, gutta percha, balata, or gutta siak rubber products such as tires, rubber footwear, mechanical rubber goods, heels and soles, flooring, and rubber sundries. Automobile tire repair shops engaged in recapping and retreading automobile tires are classified in services. Major Group 30 also includes establishments engaged in molding plastics products for the trade and fabricating miscellaneous finished plastics products. The manufacture of elastic webbing is classified in Major Group 22; products made of elastic webbing and garments made from rubberized fabrics in Major Group 23; synthetic rubber in lndustry 2822; and plastics materials in the forms of sheets, rods, tubes, granules, powders, and liquids in Industry 2821.


## table 1. General Statistics: 1963 and Earlier Years



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

The figures for 1939 to 1963 include data for employees at manufacturing establishments who were engaged in distribution and in construction work. The extent to which
ata for such employees were included in the figures for earlier years is not known.
and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the rials, supplies, fuel, electric energy and contract work, plus the net change in the of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. For 1899 to 1933, cost of contract work was not subtracted from value of products in calculating value added by manufacture.
${ }^{3}$ The total value of shipments and cost of materials for industry groups (2- and 3digit) include extensive duplication arising from shipments between establishments in the same industry classification. For a more complete explanation, see Introduction.

The figures for 1958 to 1963 include expenditures for plants under construction and
not yet in operation.
${ }^{5}$ Based upon the 1957 revisions of the Standard Industrial Classification Mamal, establishments engaged in molding plastics products for the trade and fabricating miscellaneous finished plastics products were reclassified from Major Group 39, Miscelladata for plastic products. ata for plastic products.
${ }^{6}$ In addition to data for operating establishments 1954, 1958, and 1963 figures are shown for manufacturer ${ }^{\dagger}$ 's central administrative offices and auxiliary units. Similar tures volumes. Data for these units are not available for the years prior to 1949 .
${ }^{7}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
${ }^{6}$ The figures for 1925 to 1963, but not for earlier years, include data for establishments primarily engaged in manufacture of rubber cement and rubber toy ballons. Value added by manufacture for 1925, excluding data for these establishments and on a basis comparable with earlier years, was $\$ 536.6$ million.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958


[^25]
## table 3. Detailed Statistics: 1963

\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Item \& Rubber and plastics products, n.e.c. (SIC 30 ) \& Tires and inner tubes (SIC 301) \& Rubber tootwear (SIC 302) \& Reclaimed rubber (SIC 303) \& Rubber products, n.e.c. (SIC 306) \& Plastics products, n.e.c. (SIC 307) <br>
\hline ESTABLISHMENTS, TOTAL . . . . . . . . . . . . . . . NUMEER. \& 5728 \& 155 \& 53 \& 13 \& \& <br>
\hline WITH 1 TU 19 EMPLOYEES. . . . . . . . . . . . . . . DO. . \& 3279 \& 59 \& 7 \& 13 \& + 553 \& 2660 <br>
\hline WITH 20 TU 99 EMPLOYEES . . . . . . . . . . . . . DO. . \& 1695 \& 35 \& 8 \& 6 \& 369 \& 1277 <br>
\hline WITH 100 EMPLOYEES UR MORE. . . . . . . . . . . DO. . \& 754 \& 61 \& 38 \& 7 \& 251 \& - 397 <br>
\hline PRUPRIETORS AND WURKING PARTNERS. . . . . . . . . . . . DO. . \& 1651 \& 37 \& 4 \& 2 \& 300 \& 1308 <br>
\hline ALL EMPLUYEES (AVERAGE FOR THE YEAR). . . . . . . . . DO. . \& 414959 \& 85259 \& 29147 \& 2010 \& 132228 \& 166315 <br>
\hline HAYROLL (ALL EMPLOYEES), TUTAL FOR YEAR . . . . . ${ }^{\text {a }}$, 0 , 000. . \& 2364033 \& 621741 \& 130361 \& 13598 \& 760761 \& 837572 <br>
\hline PRODUCTIUN WURKERS: \& \& \& \& \& \& <br>
\hline AVERAGE FUR THE YEAR. . . . . . . . . . . . NUMBER. \& 328785 \& 66268 \& 25951 \& 1658 \& 100581 \& 134327 <br>
\hline MARCH . . . . . . . . . . . . . . . . . . . . DO. \& 323388 \& 68381 \& 23657 \& 1667 \& 100635 \& 129048 <br>
\hline MAY . . . . . . . . . . . . . . . . . . . . . DO. \& 328667 \& 66972 \& $27 \quad 314$ \& 1674 \& 100914 \& 131793 <br>
\hline AUGUST. . . . . . . . . . . . . . . . . . . . . 00. \& 329729 \& 64695 \& 26494 \& 1666 \& 99913 \& 136961 <br>
\hline NOVEMBER . . . . . . . . . . . . . . . . . . . . . DO. \& 333356 \& 65024 \& 26339 \& 1625 \& 100862 \& 139506 <br>
\hline MAN-HOURS . . . . . . . . . . . . . . . . . $1,0 \mathrm{OCO}$ \& 658464 \& 131783 \& 48168 \& 3145 \& 203392 \& 271976 <br>
\hline JANUARY-MARCH . . . . . . . . . . . . . . . DO. \& 164278 \& 34876 \& 12671 \& 803 \& 51323 \& 64605 <br>
\hline APRIL-JUNE. . . . . . . . . . . . . . . . . . DO. \& 166217 \& 34018 \& 12676 \& 803 \& 51273 \& 67447 <br>
\hline JULY-SEPTEMBER . . . . . . . . . . . . . . . . DO. \& 158937 \& 30286 \& 10687 \& 760 \& 48488 \& 68716 <br>
\hline OCTU日ER-DECEM日ER . . . . . . . . . . . . . . . 00. \& 169032 \& 32603 \& 12134 \& 779 \& 52308 \& 171208 <br>
\hline WAGES . . . . . . . . . . . . . . . . . . $\$ 1,000$. \& 1672376 \& $460 \quad 145$ \& 105763 \& 10413 \& 516065 \& 579990 <br>
\hline CUST UF MATERIALS, ETC. , TOTAL ${ }^{1}$. . . . . . . . . . . . DO. \& ${ }^{1} 44880104$ \& 1623090 \& 141115 \& 21669 \& 1171331 \& 1522899 <br>
\hline MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED. DO. \& 3844319 \& 1324820 \& 113771 \& 17190 \& 1008067 \& 1380471 <br>
\hline CUST OF RESALES . . . . . . . . . . . . . . . . OU \& 462615 \& 263603 \& 22727 \& 1804 \& 117868 \& 56613 <br>
\hline fuels Cunsumed. . . . . . . . . . . . . . . . . . . . DO. . \& 44858 \& 13979 \& 981 \& 552 \& 16108 \& 13238 <br>
\hline ELECTRIC ENERGY: PURCHASED: \& \& \& \& \& \& <br>
\hline OUANTITY. . . . . . . . . . . . .MILLION KW. -hrs. \& 6805 \& 1949 \& 230 \& 242 \& 1833 \& 2551 <br>
\hline COST. . . . . . . . . . . . . . . . . . . $\$ 1,000$. \& 83474 \& 20097 \& 2587 \& 2103 \& 22657 \& 36030 <br>
\hline generated less suld . . . . . . . . . .million kw. -hrs . . \& 1162 \& 745 \& (0) \& - \& (D) \& 13 <br>
\hline CONTRACT WORK . . . . . . . . . . . . . . . . . $\$ 1,000$. . \& 44838 \& 591 \& 1049 \& 20 \& 6631 \& 36547 <br>
\hline Value uf Shipments (including resales), total ${ }^{1}$. . . . . do. . \& 19116230 \& 2949673 \& \& 48879 \& 2597999 \& 3165440 <br>
\hline Value of resales. . . . . . . . . . . . . . . . DO. \& 584329 \& (D) \& 25050 \& (D) \& 152300 \& 68599 <br>
\hline Value added by manufacture, adjusted. . . . . . . . . . DO. . \& 4653953 \& 1321712 \& 216959 \& 27378 \& 1427022 \& 1660882 <br>
\hline MANUFACTURERS' INVENTORIES: \& \& \& \& \& \& <br>
\hline BEGINNING OF YEAR, TOTAL. . . . . . . . . . . . . DO. \& 1159641 \& 411351 \& 82969 \& 5232 \& 325907 \& 334182 <br>
\hline FINISHED PRODUCTS . . . . . . . . . . . . . . DO. \& 613572 \& 260563 \& 61975 \& 2422 \& 148319 \& 140293 <br>
\hline WORK-IN-PROCESS . . . . . . . . . . . . . . DO. \& 186790 \& 47892 \& 6412 \& 259 \& 70567 \& 61660 <br>
\hline MATERIALS, SUPPLIES, FUEL, ETC. . . . . . . . . DO. \& 359279 \& 102896 \& 14582 \& 2551 \& 107021 \& 132229 <br>
\hline END OF YEAR, TOTAL. . . . . . . . . . . . . . . . . . DO. . \& 1189924 \& 413217 \& \& \& 323446 \& 361048 <br>
\hline FINISHED PRODUCTS . . . . . . . . . . . . . . . DO. . \& 625088 \& 255291 \& 65074 \& 2514 \& 148782 \& 153427 <br>
\hline WORK-IN-PROCESS . . . . . . . . . . . . . . . OO. . \& 193101 \& 48293 \& 7148 \& 335 \& 70458 \& 66867 <br>
\hline MATERIALS, SUPPLIES, FUEL, ETC. . . . . . . . . 00. \& 371735 \& 109633 \& 14168 \& 2974 \& 104206 \& 140754 <br>
\hline EXPENDITURES FOR PLANT AND EOUIPMENT, TOTAL . . . . . . 00. \& $\begin{array}{ll}359 & 586 \\ 343 & 466\end{array}$ \& 113759 \& \& $\begin{array}{ll}1314 \\ 1 & 309\end{array}$ \& 68343
64 \& <br>
\hline  \& 343
58
5864 \& 112783
14640 \& 6903
822 \& 1309
53 \& 64955
12 \& 157516
30297 <br>
\hline NEW STRUCTURES AND ADDITIONS TO PLANT . . . . . . . DO.
NEW MACHINERY AND EQUIPMENT. \& 58564
284902 \& 14640
98143 \& 822
6081 \& 53
1256 \& 12752
52203 \& 30297
$127 \quad 219$ <br>
\hline NEW MACHINERY AND EQUIPMENT . . . . . . . . . . . DO. . \& 284902 \& $98 \quad 143$ \& 6081 \& 1256 \& 52203 \& 127219 <br>
\hline used plant ano eouipment. . . . . . . . . . . . . . . DO. . \& 16120 \& 976 \& 286 \& 5 \& 3388 \& 11465 <br>
\hline SELECTED OPERATING RATIOS: \& \& \& \& \& \& <br>
\hline PAYROLL/TOTAL EMPLOYMENT. . . \& 5697 \& 7292 \& 4473 \& 6765 \& 5753 \& 5036 <br>
\hline PRODUCTION WURKERS/TOTAL EMPLOYMENT . . . . . . . . . \& . 79 \& . 78 \& . 89 \& . 82 \& . 76 \& . 81 <br>
\hline MAN-HUURS/PRUDUCTION WORKERS. . . . . . . . . . . . \& 2003 \& 1989 \& 1856 \& 1897 \& 2022 \& 2025 <br>
\hline HRUDUCT ION WORKER WAGES/MAN-HOURS . . . . . . . . . . . \& 2.54 \& 3.49 \& 2.20 \& 3.31 \& 2.54 \& 2.13 <br>
\hline COST OF MATERIALS ANO PAYROLLS/TOTAL VALUE OF SHIPMENTS . - \& . 75 \& . 76 \& .77 \& . 72 \& . 74 \& . 75 <br>
\hline COST UF MATERIALS/TOTAL VALUE OF SHIPMENTS. . . . . . . . . \& $\begin{array}{r}.49 \\ \hline 11215\end{array}$ \& 15.55 \& 7.440 \& 13.44 \& $\begin{array}{r}.45 \\ \hline 10 \\ \hline 92\end{array}$ \& .48
988 <br>
\hline ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT . . . . . . . . . . . \& 11215

.51 \& $15 \begin{array}{r}502 \\ .47\end{array}$ \& $7 \quad 444$
.60 \& 13621
.50 \& $10 \quad 792$
.53 \& 9986
.50 <br>
\hline SALARIES AND WAGES/ADJUSTED VALUE AOOED . . . . . . . . . \& . 51 \& . 47 \& . 60 \& . 50 \& . 53 \& . 50 <br>
\hline
\end{tabular}

Standara Notes: - Represents zero. (D) Witilheld to avoid disclosing figures for individual companies.
1 The value of shipments
(NA) Not available.
(X) Not applicable. industry. For a more complete explanation, see Introduction.

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## RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title
3011-Tires and lnner Tubes
3021-Rubber Footwear
3031 -Reclaimed Rubber
3069-Fabricated Rubber Products, Not Elsewhere Classified
3079-Miscellaneous Plastics Products
The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3011-TIRES AND INNER TUBES

This industry comprises establishments primarily engaged in the manufacture of pneumatic casings, inner tubes, and solid and cushion tires for all types of vehicles, airplanes, farm equipment, and children's vehicles, as well as tire repair and tire retreading (camelback) materials. For a detailed list of products of industry 3011 , refer to table 6 A , product codes 3011111 to 3011539 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Tires and lnner Tubes lndustry totaled $\$ 2,950$ million. This amount included shipments of tires and inner tubes (primary products) valued at $\$ 2,399$ million, and shipments of other products (secondary products) and miscellaneous receipts (mainly resales) valued at $\$ 551$ million.

Shipments of tires and inner tubes by this industry represented 99 percent of all shipments of these products ( $\$ 2,420$ million) by all industries. In 1958 the coverage ratio was also 99 percent. Other industries shipping tires and inner tubes consisted mainly of industry 3069, Rubber Products, N.E.C.; and industry 3949, Sporting and Athletic Goods.

The production index for the primary products of the industry increased to 145 in 1963 from the 1958 level of 110 . The unit value index for 1963 was 96 compared to 113 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3021—RUBBER FOOTWEAR

This industry comprises establishments primarily engaged in the manufacture of all rubber footwear, waterproof fabric upper footwear, and other fabric upper footwear having rubber soles vulcanized to the uppers. For a detailed list of products of industry 3021, refer to table 6A, product codes 3021011 to 3021098 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Rubber Footwear Industry totaled $\$ 354$ million. This amount included shipments of rubber footwear (primary products) valued at $\$ 305$ million, shipments of other products (secondary products) valued at $\$ 23$ million, and miscellaneous receipts (mainly resales) at $\$ 26$ million.

This industry's shipments of rubber footwear represented 93 percent of its total product shipments. Secondary products shipped by this industry in 1963 consisted mainly of rubber products, n.e.c. ( $\$ 9$ million), and boot and shoe cut stock and findings.

Shipments of rubber footwear by this industry represented 90 percent of all shipments of these products ( $\$ 340$ million) by all industries. Other industries shipping rubber footwear consisted mainly of industry 3142, House Slippers.

The production index for the primary products of the industry increased to 203 in 1963 from the 1958 level of 127 . The unit value index for 1963 was 101 compared to 103 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3031 -RECLAIMED RUBBER

This industry comprises establishments primarily engaged in reclaiming rubber from used tires, scrap, and miscellaneous waste rubber articles by processes which result in a devulcanized, depolymerized, or regenerated, replasticized product containing added ingredients. This product is sold for use as a raw material in the manufacture of rubber goods with or without a mixture with natural or synthetic rubber.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Reclaimed Rubber Industry totaled $\$ 49$ million. This amount included shipments of reclaimed rubber (primary products) valued at $\$ 43$ million, and shipments of other products (secondary products) and miscellaneous receipts valued at $\$ 6$ million.

Secondary products shipped by this industry in 1963 consisted mainly of rubber products, n.e.c.

Shipments of reclaimed rubber by this industry represented 77 percent of all shipments of these products ( $\$ 55$ million) by all industries. In 1958 the coverage ratio was 72 percent. Other industries shipping reclaimed rubber consisted mainly of industry 2818, Organic Chemicals, N.E.C., and industry 3011, Tires and Inner Tubes.

The production index for the primary products of the industry increased to 107 in 1963 from the 1958 level of 100 . The unit value index for 1963 was 117 compared to 107 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3069—FABRICATED RUBBER PRODUCTS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in the manufacture of industrial and mechanical rubber goods, rubberized fabrics and vulcanized rubber clothing, and miscellaneous rubber specialties and sundries. For a detailed list of products of industry 3069, refer to table 6A, product codes 3069000 to 3069898.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Rubber Products, N.E.C., Industry totaled $\$ 2,598$ million. This amount included shipments of rubber products, n.e.c., (primary products) valued at $\$ 2,085$ million, shipments of other products (secondary products) valued at $\$ 343$ million, and miscellaneous receipts (mainly resales) at $\$ 170$ million.

This industry's shipments of rubber products, n.e.c., represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was also 86 percent. Secondary products shipped by this industry in 1963 consisted mainly of consumer and commercial plastics products, n.e.c. ( $\$ 29$ million), foamed plastics products ( $\$ 28$ million), and rubber footwear.

Shipments of rubber products, n.e.c., by this industry represented 89 percent of all shipments of these products ( $\$ 2,356$ million) by all industries. In 1958 the coverage ratio was 86 percent. Other industries shipping rubber products, n.e.c., consisted mainly of industry 3011, Tires and Inner Tubes, $\$ 115$ million; and industry 3079, Plastics Products, N.E.C., \$25 million.

The production index for the primary products of the industry increased to 143 in 1963 from the 1958 level of 106 . The unit value index for 1963 was 102 compared to 104 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3079-MISCELLANEOUS PLASTICS PRODUCTS

This industry comprises establishments primarily engaged in molding primary plastics for the trade, in manufacturing film, sheets, sheeting, rods, tubes, and other stock shapes from purchased resins, and in fabricating miscellaneous finished plastics products. For a detailed list of products of industry 3079 , refer to table 6A, product codes 3079000 to 3079898.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Plastics Products, N.E.C., Industry totaled $\$ 3,165$ million. This amount included shipments of plastics products, n.e.c. (primary products) valued at $\$ 2,812$ million, shipments of other products (secondary products) valued at $\$ 251$ million, and miscellaneous receipts (mainly products bought and resold without further manufacture) at $\$ 102$ million.

This industry's shipments of plastics products, n.e.c., represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 consisted mainly of custom compounded purchased resins ( $\$ 24$ million), and games and toys, except dolls and children's vehicles ( $\$ 17$ million).

Shipments of plastics products, n.e.c., by this industry represented 80 percent of all shipments of these products ( $\$ 3,495$ million) by all industries. In 1958 the coverage ratio was 85 percent.


TIRES AND INNER TUBES: SIC 301
Value Added by Manufacture by State: 1963

U.S. DEPARTMENT OF COMMERCE

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{aligned} & \text { Total } \\ & \text { (number) } \end{aligned}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3011. -TIRES AND INNER TUBES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 105 | 155 | 96 | 85,259 | 621,741 | 66,268 | 131,783 | 460,145 | 1,321,712 | 1,623,090 | 2,949,673 | 112,783 | (D) | 99 |
| $1962^{1}$ | (NA) | (NA) | (NA) | 86,316 | 618,809 | 67,559 | 137,576 | 463,107 | 1,278,062 | 1,602,273 | 2,883,654 | 123,271 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 86,234 | 568,998 | 66,356 | 129,463 | 419,094 | 1,260,845 | 1,443,557 | 2,722,958 | 113,836 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 92,003 | 589,556 | 72,168 | 140,191 | 438,538 | 1,271,606 | 1,607,879 | 2,844,255 | 133,443 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 94,603 | 596,411 | 75,313 | 146,993 | 451,954 | 1,313,383 | 1,660,643 | 2,947,089 | 73,944 | (NA) | (NA) |
| 1958 (new SIC) | 94 | 123 | 86 | 89,395 | 521,855 | 69,959 | 133,268 | 388,702 | 1,179,957 | 1,386,694 | 2,577,788 | 72,269 | 91 | 99 |
| 1958 (old SIC) ${ }^{2}$ | (NA) | 62 | 55 | 87,246 | 510,786 | 68,268 | 129,888 | 382,181 | 1,155,205 | 1,353,178 | 2,519,765 | 70,611 | 87 | 99 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 96,889 | 556,893 | 76,643 | 148,666 | 419,829 | 1,118,060 | 1,228,367 | 2,295,173 | 91,029 | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 98,280 | 528,580 | 78,218 | 150,226 | 403,639 | 1,093,034 | 1,262,269 | 2,286,823 | 86,452 | (NA) | (NA) |
| $1955{ }^{1}$. | (NA) | (NA) | (NA) | 98,653 | 547,517 | 79,421 | 166,985 | 427,948 | 1,096,390 | 1,316,427 | 2,336,963 | 69,056 | (NA) | (NA) |
| 1954. | 27 | 49 | 46 | 92,748 | 441,607 | 73,976 | 137,981 | 334,104 | 877,771 | 1,115, 813 | 1,997,399 | 67,430 | 88 | 99 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 97,026 | 462,653 | 79,187 | 154,833 | 367,545 | 904,973 | 1,167,765 | 2,072,738 | 79,733 | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 97,911 | 452,458 | 79,933 | 157,868 | 355,853 | 762,369 | 1,232,793 | 1,995,162 | 72,897 | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 92,244 | 402,966 | 75,732 | 151,418 | 315,752 | 753,633 | 1,313,559 | 2,067,192 | 58,008 | (NA) | (NA) |
| 1950 | (NA) | (NA) | (NA) | 89,520 | 357,291 | 73,899 | 146,074 | 283,109 | 763,787. | 960,917 | 1,724,704 | 42,229 | (NA) | (NA) |
| 1949 | (NA) | (NA) | (NA) | 87,042 | 300,663 | 70,992 | 130,052 | 233,429 | 518,968 | 752,665 | 1,271,633 | 25,899 | (NA) | (NA) |
| 1947. | 35 | 57 | 49 | 1115,657 | 390,841 | 93,916 | 185,392 | 311,276 | 650,165 | 944,215 | 1,547,040 | 54,883 | 90 | 95 |
| 1939. | (NA) | 53 | (NA) | 67,169 | 122,164 | 54,115 | (NA) | 89,774 | 231,372 | 349,557 | 580,929 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 46 | (NA) | 74,242 | 122,031 | 63,290 | (NA) | 96,707 | 209,002 | 366,858 | 575,860 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 42 | (NA) | 65,715 | 97,061 | 57,128 | (NA) | 78,253 | 180,577 | 265,515 | 446,092 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 4 | (NA) | 61,227 | 70,648 | 52,976 | (NA) | 54,737 | 159,921 | 139,392 | 299,313 | (NA) | (NA) | (NA) |
| 1931 | (NA) | 48 | (NA) | (NA) | (NA) | 49,159 | (NA) | 63,089 | 232,679 | 173,604 | 406,283 | (NA) | (NA) | (NA) |
| 1929 | (NA) | 91 | (NA) | 96,244 | 158,180 | 83,263 | (NA) | 127,082 | 340,570 | 429,607 | 770,177 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 109 | (NA) | 95,418 | 160,494 | 78,256 | (NA) | 120,064 | 370,467 | 499,221 | 869,688 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 126 | (NA) | 96,063 | 152,964 | 81,640 | (NA) | 120,614 | 365,062 | 559,940 | 925,002 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 160 | (NA) | 87,059 | 139,711 | 73,963 | (NA) | 108,623 | 279,029 | 365,165 | 644,194 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 178 | (NA) | 68,864 | 107,119 | 55,496 | (NA) | 75,054 | 204,569 | 291,554 | 496,123 | (NA) | (NA) | (NA) |

INDUSTRY 3021. -RUBBER FOOTWEAR


See footnotes at end of table.

# table 1. General Statistics: 1963 and Earlier Years-Continued 

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total (number) | With 20 <br> employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3031.-RECIAIMED RUBBER-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1954 | 15 | 20 | 18 | 2,953 | 12,697 | 2,460 | 4,602 | 9,671 | 23,454 | 40,149 | 63,599 | 2,834 |  |  |
| $1953{ }^{1}$. | (NA) | (NA) | (NA) | 2,368 | 10,403 | 2,013 | 3,871 | 8,127 | 16,172 | 14,100 | 30,272 | 2,834 | (NA) | (NA) |
| $1952^{1}$. | (NA) | (NA) | (NA) | 2,259 | 9,503 | 1,932 | 3,769 | 7,539 | 16,534 | 14,138 | 30,673 | 1,334 | (NA) | (NA) |
| 1951 ${ }^{1}$. | (NA) | (NA) | (NA) | 2,696 | 11,623 | 2,367 | 5,079 | 9,713 | 18,025 | 23,442 | 41,467 | 2,151 | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 2,365 | 9,312 | 2,097 | 4,485 | 7,834 | 16,707 | 14,980 | 31,687 | 535 | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 2,153 | 7,070 | 1,868 | 4,249 | 5,763 | 9,280 | 10,460 | 19,740 | 705 | (NA) | (NA) |
| 1947. | 14 | 15 | 11 | 2,070 | 6,849 | 1,855 | 4,015 | 5,826 | 9,604 | 8,049 | 17,263 | 2,864 | 95 | 44 |
| 1939. | (NA) | 10 | (NA) | 1,282 | 1,970 | 1,072 | (NA) | 1,477 | 3,902 | 2,992 | 6,894 | (NA) | (NA) | (NA) |
| 1937. | (NA) | $9$ | (NA) | (NA) | (NA) | 1,258 | (NA) | 1,830 | 3,771 | 4,172 | 7,943 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3069. -RUBBER PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 1,046 | 1,173 | 620 | 132,228 | 760,761 | 100,581 | 203,392 | 516,065 | 1,427,022 | 1,171,331 | 2,597,999 | 64,955 | 86 | 89 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 128,814 | 725,763 | 96,874 | 197,250 | 489,305 | 1,330,558 | 1,117,981 | 2,435,970 | $(78,776)$ | (NA) | (NA) |
| $1961{ }^{1}$. | (NA) | (NA) | (NA) | 121,610 | 664,187 | 90,828 | 182,360 | 438,508 | 1,192,781 | 1,019,419 | 2,212,536 | 49,994 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 127,687 | 670,121 | 96,379 | 192,940 | 449,225 | 1,161,778 | 1,057,851 | 2,225,520 | 52,301 | (NA) | (NA) |
| $1959{ }^{+}$........ | (NA) | (NA) | (NA) | 130,740 | 678,294 | 100,380 | 202,445 | 464,003 | 1,199,032 | 1,029,100 | 2,204,951 | 48,418 | (NA) | (NA) |
| 1958 (new SIC) | 976 (NA) | 1,074 | 558 590 | 119,565 | 592,964 | 89,158 | 176,994 | 396,129 | 1997,254 | 881,321 | 1,885,274 | 43,603 | 86 | 86 |
| 1958 (old SIC) ${ }^{2}$ | (NA) | 1,138 | 590 | 122,114 | 606,033 | 91,209 | 181,124 | 404,250 | 1,026,006 | 917,837 | 1,950,297 | 45,365 | 86 | 80 |
| $1957^{1}$......... | (NA) | (NA) | (NA) | 140,084 | 657,358 | 108,927 | 215,725 | 457,521 | 1,174,066 | 951,847 | 2,094,765 | 52,153 | (NA) | (NA) |
|  | (NA) | (NA) (NA) | (NA) | 141,696 142,885 | 632,612 620,298 | 111, 314 | 221,991 | 447,038 | 1,156,676 | 927,766 | 2,039,972 | 64,047 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 142,885 | 620,298 | 113,681 | 230,243 | 446,517 | 1,133,591 | 939,729 | 2,036,622 | 55,984 | (NA) | (NA) |
| 1954.......... | 1,152 | 1, 315 | (NA) | 132,503 | 541,011 | 104,028 | 204, 513 | 380,427 | 946,407 | 830,253 | 1,777,331 |  | 88 | 78 |
| 19531. | (NA) | (NA) | (NA) | 145,002 | 579,414 | 115,968 | 231,115 | 420,949 | 971,638 | 840,417 | 1,812,055 | 41,536 | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 131,635 | 500,579 | 104,363 | 207, 315 | 358,975 | 840,396 | 803,594 | 1,643,605 | 49,457 | (NA) | (NA) |
| $1951{ }^{19}{ }^{1}$ | (NA) | (NA) | (NA) | 134,039 | 474,680 | 108,243 | 217,865 | 351,278 | 843,894 | 826,147 | 1,669,655 | 48,253 | (NA) | (NA) |
| $1950^{1} 1949^{1}$. | (NA) | (NA) | (NA) | 127,656 | 417,115 | 104,593 | 210,466 | 312,709 | 753,310 | 589,830 | 1,342,755 | 33,374 | (NA) | (NA) |
| 1949¹............. | (NA) | (NA) | (NA) | 108,842 | 337,468 | 87,092 | 168,440 | 240,811 | 559,087 | 438,100 | 1,000,005 | 34,491 | (NA) | (NA) |
| 1947........... | 733 | 774 | (NA) | 112,385 | 311,022 | 94,100 | 185,306 | 237,625 | 518,682 | 436,410 | 945,257 | 47,054 | 85 | 81 |
| 1939.......... . | (NA) | 519 | (NA) | 63,189 | 80,733 | 50,692 | (NA) | 53,358 | 141,650 | 122,875 | 264,525 | (NA) | (NA) | (NA) |
| 1937.......... | (NA) | 411 | (NA) | (NA) | (NA) | 46,914 | (NA) | 52,346 | 119,019 | 115,755 | 234,774 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3079.-PLASTICS PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 4,101 | 4,334 | 1,674 | 166,315 | 837,572 | 134,327 | 271,976 | 579,990 | 1,660,882 | 1,522,899 | 3,165,440 | 157,516 | 92 | 80 |
| $1962{ }^{1}$. | (NA) | (NA) | (NA) | 153,796 | 765,068 | 123,380 | 252,194 | 517,667 | 1,466,695 | 1,381,944 | 2,819,573 | 143,555 | (NA) | (NA) |
| $1961{ }^{1}$. | (NA) | (NA) | (NA) | 136,811 | 665,080 | 107,965 | 221,135 | 446,751 | 1,254,266 | 1,235,021 | 2,473,155 | 112,901 | (NA) | (NA) |
| $1960^{1}$. | (NA) | (NA) | (NA) | 134,024 | 627,526 | 106,241 | 216,218 | 423,998 | 1,147,939 | 1,172,146 | 2,303,178 | 105,716 | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 129,523 | 583,799 | 103,149 | 209,492 | 401,550 | 1,093,738 | 1,129,811 | 2,217,655 | 86,730 | (NA) | (NA) |
| 1958 (new SIC) | 3,093 | 3,222 | 1,143 | 116,308 | 511,207 | 91,988 | 183,253 | 348,892 | 928,950 | 948,283 | 1,867,877 | 77,193 | 91 | 85 |
| 1958 (old SIC) | (NA) | 3,208 | 1,136 | 113,066 | 492,436 | 89,905 | 178,812 | 337,510 | 894,440 | 935,142 | 1,822,087 | 75,229 | 89 | 79 |
| 1954........... | 2,377 | 2,439 | 829 | 91,967 | 350,227 | 75,689 | 152,179 | 248,975 | 598,388 | 632,976 | 1,227,116 | 45,290 | 90 | 84 |
| 1947. ......... | (NA) | 1,362 | (NA) | 58,400 | 156,369 | 49,502 | 102,331 | 119,455 | 258,917 | 214,040 | 472,957 | 27,042 | 91 | 89 |
| 1939........... | (NA) | 216 | (NA) | 17,953 | 24,289 | 15,094 | (NA) | 17,688 | 40,157 | 31,747 | 71,904 | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustrnent is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results, that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so the industry is not comparable. The 1957 and earlier figures are on the old SIC definition of the industry.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3011. -TIRES AND INNER TUBES |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 155 | 96 | 85,259 | 621,741 | 66,268 | 131,783 | 460,145 | 1,321,712 | 1,623,090 | 2,949,673 | 112,783 | 89,395 | 1,179,957 |
| Northeast $\qquad$ Pennsylvania..... | 25 12 | 16 8 | 10,155 5,543 | 73,189 40,934 | 7,901 4,525 | 15,865 9,264 | 54,062 32,014 | 165,194 101,358 | 205,192 | 373,674 214,267 | 6,829 4,376 | 12,048 5,352 | $\begin{array}{r} 178,970 \\ 91,995 \end{array}$ |
| East North Central. Ohio. $\qquad$ | 38 22 | 24 | 41,456 30,983 | 308,649 235,041 | 31,418 23,237 | 60,477 <br> 45,538 | 219,566 164,967 | 609,256 437,658 | 726,242 550,291 | 1,348,674 | $\begin{aligned} & 63,620 \\ & 32,557 \end{aligned}$ | $\left({ }^{2}\right)$ 35,887 | $\begin{array}{r} \left({ }^{2}\right) \\ 384,119 \end{array}$ |
| West North Central. | 15 | 7 | 6,158 | 46,749 | 5,087 | 10,745 | 38,046 | 113,950 | 147,025 | 258,429 | 4,981 | $\left.{ }^{2}\right)$ | $\left.{ }^{2}\right)$ |
| South Atlantic..... | 13 | 8 | 3,237 | 22,099 | 2,536 | 5,456 | 16,403 | 43,450 | 57,598 | 101,397 | (D) |  |  |
| East South Central. | 18 | 14 | 10,376 | 74,030 | 8,815 | 18,086 | 61,539 | 168,690 | 240,997 | 407,364 | (D) | \} 15,020 | 257,588 |
| West South Central. | 16 | 8 | 4,570 | 31,150 | 3,893 | 8,133 | 25,973 | 103,710 | 98,522 | 198,614 | (D) |  |  |
| West............... | 30 | 19 | 9,307 | 65,875 | 6,618 | 13,021 | 44,556 | 117,462 | 147,514 | 261,521 | 20,165 | 10,365 | 135,018 |
|  | INDUSTRY 3021. -RUBBER FOOTVEAR |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 53 | 46 | 29,147 | 130,361 | 25,951 | 48,168 | 105,763 | 216,959 | 141,115 | 354,239 | 6,903 | 20,359 | 149,608 |
| Northeast. . . . . ..... . <br> Maine. $\qquad$ | 37 | 33 3 | 22,225 763 | 103,282 2,202 | 19,841 684 | 36,845 1,255 | 84,224 1,654 | 178,461 1,305 | 107,522 4,216 | 281,795 5,326 | 4,974 (D) | 15,181 $\left({ }^{2}\right)$ | 119, $4 \frac{17}{}{ }^{2}$ ) |
| South Atlantic..... | 7 | 5 | 3,890 | 14,379 | 3,481 | 6,610 | 11,814 | 21,230 | 22,168 | 43,878 | 1,296 | ${ }^{2}$ ) | (2) |
| All other divisions. | 9 | 8 | 3,032 | 12,700 | 2,629 | 4,713 | 9,725 | 17,268 | 11,425 | 28,566 | 633 | (2) | ${ }^{2}$ ) |
|  | INDUSTRY 3031. -RECLAIMED RUBBER |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 13 | 13 | 2,010 | 13,598 | 1,658 | 3,145 | 10,413 | 27,378 | 21,669 | 48,879 | 1,309 | 2,215 | 20,843 |
| Middle Atlantic.... | 4 | 4 | 350 | 2,106 | 273 | 520 | 1,475 | 3,839 | 2,436 | 6,280 | 99 | 429 | 16,845 |
| North Central, South and West.... | 9 | 9 | 1,660 | 11,492 | 1,385 | 2,625 | 8,938 | 23,539 | 19,233 | 42,599 | 1,210 | 1,786 | 16,845 |
|  | INDUSTRY 3069.-RUBBER PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 1,173 | 620 | 132,228 | 760,761 | 100,581 | 203,392 | 516,065 | 1,427,022 | 1,171,331 | 2,597,999 | 64,955 | 119,565 | 997,254 |
| New England. . . . . . | 158 | 90 | 21,162 | 123,559 | 15,457 | 31,551 | 78,944 | 229,333 | 200,049 | 431,769 | 9,672 | 23,748 | 200,971 |
| Massachusetts. | 85 | 50 | 11,991 | 71,337 | 8,613 | 17,675 | 44,998 | 138,350 | 124,524 | 265,162 | 4,122 | 13,945 | 120,155 |
| Rhode Island. | 20 | 11 | 3,085 | 17,276 | 2,421 | 4,953 | 12,102 | 29,343 | 23,115 | 52,413 | 976 | ${ }^{(2)}$ | ${ }^{2}$ ) |
| Middle Atlantic.... | 252 | 121 | 23,606 | 131,655 | 17,883 | 35,414 | 90,687 | 247,511 | 172,647 | 420,549 | 9,227 | 23,504 | 191,567 |
| New York... | 84 | 29 | 5,846 | 28,607 | 4,438 | 8,367 | 18,990 | 56,270 | 40,118 | 97,142 | 1,811 | 5,738 | 42,855 |
| New Jersey....... | 105 | 57 | 10,828 | 62,649 | 8,177 | 16,375 | 43,989 | 111,266 | 77,926 | 189,736 | 4,642 | 12,172 | 103,940 |
| Pennsylvania..... | 63 | 35 | 6,932 | 40,399 | 5,268 | 10,672 | 27,708 | 79,975 | 54,603 | 133,671 | 2,774 | 5,594 | 44,772 |
| East North Central. | 380 | 215 | 57,014 | 347,421 | 43,274 | 87,820 | 237,048 | 599,516 | 526,081 | 1,128,606 | 28,514 | ${ }^{(2)}$ | ${ }^{2}$ ) |
| Ohio...... | 159 | 99 | 31,961 | 201,841 | 23,440 | 46,868 | 132,123 | 327,571 | 298,906 | 630,112 | 17,255 |  |  |
| Illinois. | 80 | 41 | 6,973 | 39,573 | 5,276 | 10,648 | 25,804 | 82,599 | 61,713 | 144,820 | 4,712 | ${ }^{(2)}$ | ( ${ }^{2}$ ) |
| West North Central. | 52 | 22 | 3,779 | 20,497 | 3,019 | 6,234 | 15,168 | 44,541 | 28,939 | 73,541 | 2,236 | (2) | ${ }^{2}$ ) |
| South Atlantic..... | 83 | 50 | 9,455 | 42,785 | 7,872 | 15,891 | 31,493 | 88,012 | 88,611 | 174,604 | 3,272 | 7,777 | 58,748 |
| Maryland......... | 12 | 10 | 1,826 | 7,724 | 1,546 | 3,099 | 5,740 | 12,929 | 11,914 | 24,168 | 376 | 2,099 | 14,148 |
| Virginia......... | 12 | 8 | 2,537 | 10,610 | 2,059 | 4,188 | 7,441 | 21,116 | 19,444 | 40,518 | 745 | 1,834 | 11,108 |
| North Carolina... | 14 | 5 | 1,593 | 7,595 | 1,272 | 2,512 | 5,627 | 19,297 | 15,743 | 34,876 | 450 | 1,548 | 14,740 |
| Georgia.......... | 27 | 16 | 1,408 | 5,319 | 1,203 | 2,515 | 3,670 | 12,849 | 25,442 | 38,006 | 356 35 | (2) | 5,788 |
| Florida.......... | 10 | 4 | 178 | 600 | 150 | 288 | 421 | 1,151 | 1,142 | 2,157 | 35 | $\left.{ }^{2}\right)$ | ${ }^{2}$ ) |
| East South Central. | 30 | 24 | 3,266 | 14,476 | 2,690 | 5,664 | 10,358 | 29,590 | 31,879 | 60,891 | 2,916 | 1,568 | 14,624 |
| Ternessee......... | 16 | 15 | 1,934 | 8,985 | $\begin{array}{r}1,585 \\ \hline 379\end{array}$ | 3,250 | 6,186 | 16,890 3,413 | 23,195 3,607 | 39,938 | 2,507 | ${ }_{(229}^{92}$ | 7,966 |
| Mississippi...... | 5 | 3 | 456 | 1,595 | 379 | 813 | 1,187 | 3,413 | 3,607 | 6,721 | 138 | $\left.{ }^{2}\right)$ | ${ }^{2}$ ) |
| West South Central. Arkansas.......... | 42 7 | 19 | 2,172 733 | $\begin{array}{r} 10,066 \\ 2,608 \end{array}$ | 1,836 641 | $\begin{aligned} & 3,874 \\ & 1,348 \end{aligned}$ | $\begin{aligned} & 7,978 \\ & 2,143 \end{aligned}$ | $\begin{array}{r} 19,368 \\ 5,629 \end{array}$ | $\begin{array}{r} 15,734 \\ 5,720 \end{array}$ | $\begin{aligned} & 35,227 \\ & 11,435 \end{aligned}$ | $\begin{aligned} & 1,824 \\ & 1,038 \end{aligned}$ | $1,721$ | $\frac{13,204}{\left({ }^{2}\right)}$ |
| West................ California...... | 176 148 | 79 | 11,774 7,398 | 70,302 42,709 | 8,550 5,544 | 16,944 11,227 | 44,389 27,747 | 169,151 88,319 | 107,391 71,753 | 272,812 159,185 | $\begin{aligned} & 7,294 \\ & 3,961 \end{aligned}$ | 10,124 ${ }_{(2)}$ | 115,479 $(2)$ |

See footnotes at end of table.
table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of material s$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total (number) | With $२ 0$ employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man- <br> hours $(1,000)$ | Wages <br> ( $\$ 1,000$ ) |  |  |  |  |  |  |
|  | INDUSTRY 3079.-PLASTICS PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 4,334 | 1,674 | 166,315 | 837,572 | 134,327 | 271,976 | 579,990 | 1,660,882 | 1,522,899 | 3,165,440 | 157,516 | 116,308 | 928,950 |
| New England........ | 458 | 225 | 21,869 | 101,664 | 17,910 | 35,358 | 71,169 | 191,722 | 165,541 | 356,447 | 16,507 | ${ }^{2}{ }^{2}$ | (2) |
| Maine............ | 15 | 7 | 1,056 | 4,649 | . 888 | 1,817 | 3,263 | 9,731 | 10,821 | 20,488 | (D) | 1,017 | 7,723 |
| New Hampshire.... | 17 | 12 | 1,564 | 6,729 | 1,328 | 2,616 | 4,802 | 11,028 | 12,371 | 23,430 | 959 | 343 | 1,690 |
| Massachusetts.... | 269 96 | 136 44 | 11,972 4,555 | 55,715 23,690 | 9,705 3,704 | 19,137 7,361 | 38,097 17,219 | 100,910 37,417 | 86,946 34,081 | 187,525 71,755 | (D) 4,855 | 11,083 3,920 | 72,119 30,813 |
| Connecticut...... | 96 | 44 | 4,555 | 23,690 | 3,704 | 7,361 | 17,219 | 37,417 | 34,081 | 71,755 | 4,855 | 3,920 | 30.813 |
| Middle Atlantic.... | 1,265 | 492 | 45,015 | 225,655 | 36,805 | 74,372 | 157,044 | 417,797 | 399,021 | 811,965 | 42,482 | (2) | (2) |
| New York......... | 664 | 233 | 19,160 | 92,212 | 15,900 | 31,816 | 64,121 | 171,545 | 152,290 | 320,471 | 14,393 | (2) | (2) |
| New Jersey....... | 382. | 172 | 16,793 | 88,622 | 13,534 | 27,862 | 60,755 | 168,035 | 172,008 | 338,869 | 19,394 | $\left.{ }^{2}\right)$ | (2) |
| Pemnsylvania..... | 219 | 87 | 9,062 | 44,821 | 7,371 | 14,694 | 32,168 | 78,217 | 74,723 | 152,625 | 8,695 | 8,320 | 63,729 |
| East North Central. | 1,114 | 501 | 55,468 | 297,545 | 44,830 | 92,679 | 208,012 | 584,961 | 529,554 | 1,109,985 | 54,123 | 38,756 | 331,257 |
| Ohio.. | 293 | 153 | 16,480 | 91,668 | 13,461 | 28,830 | 66,276 | 189,226 | 174,095 | 360,943 | 14,604 | 10,336 | 92,564 |
| Indiana. | 114 | 48 | 7,621 | 38,399 | 6,195 | 12,476 | 27,316 | 72,486 | 77,918 | 150,340 | 7,375 | 4,993 | 38,853 |
| Illinois. | 379 | 175 | 19,665 | 108,825 | 15,723 | 32,015 | 73,959 | 209,395 | 163,367 | 371,453 | 22,803 | 16,311 | 140,440 |
| Michigan......... | 227 | 86 | 8,108 | 41,237 | 6,548 | 13,513 | 28,595 | 81,501 | 78,981 | 159,995 | 7,450 | 4,302 | 35,588 |
| Wisconsin........ | 101 | 39 | 3,594 | 17,416 | 2,903 | 5,845 | 11,866 | 32,353 | 35,193 | 67,254 | 1,891 | 2,814 | 23,812 |
| West North Central. | 251 | 89 | 8,419 | 41,491 | 6,536 | 12,881 | 27,640 | 76,380 | 72,787 | 148,938 | 5,975 | 4,205 | 29,685 |
| Minnesota. | 90 | 23 | 2,425 | 12,613 | 1,832 | 3,755 | 8,065 | 24,715 | 17,737 | 42,876 | 1,758 | 1,122 | 7,584 |
| Iowa.... | 29 | 11 | 1,711 | 8,145 | 1,411 | 2,702 | 6,078 | 14,437 | 14,261 | 28,721 | 1,373 | 890 | 4,358 |
| Missouri.......... | 93 | 44 | 3,473 | 16,979 | 2,653 | 5,276 | 11,330 | 30,938 | 35,025 | 65,412 | 2,180 | 1,687 | 14,213 |
| Kansas........... | 26 | 6 | 415 | 1,872 | 340 | 610 | 1,100 | 3,221 | 3,130 | 6,271 | 327 | 225 | 1,251 |
| South Atlantic. | 273 | 88 | 11,508 | 54,265 | 8,905 | 18,232 | 35,373 | 114,124 | 116,587 | 227,901 | (D) | (2) | $\left({ }^{2}\right)$ |
| Delaware. | 12 | 7 | 1,549 | 8,448 | 1,101 | 2,247 | 5,248 | 11,707 | 14,032 | 25,501 | 2,647 | (2) | (2) |
| Maryland......... | 34 | 19 | 2,640 | 13,215 | 1,984 | 4,180 | 8,031 | 21,974 | 22,153 | 43,330 | 6,343 | 1,489 | 11,837 |
| Virginia......... | 20 | 10 | 2,134 | 8,860 | 1,801 | 3,524 | 6,446 | 19,589 | 18,217 | 37,301 | 2,284 | 671 | 4,486 |
| South Carolina... | 15 | 7 | 1,838 | 9,911 | 1,294 | 2,725 | 5,811 | 31,318 | 18,070 | 48,961 | 952 | (2) | ${ }^{(2)}$ |
| Georgia. | 32 | 8 | 615 | 2,756 | 518 | 1,058 | 2,025 | 6,377 | 9,808 | 16,436 | 1,161 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| Florida. | 111 | 18 | 1,149 | 4,941 | 922 | 1,794 | 3,430 | 10,374 | 9,554 | 19,483 | 923 | 531 | 3,049 |
| East South Central. | 69 | 31 | 4,690 | 20,062 | 3,839 | 7,804 | 14,285 |  |  | 133,409 19,917 |  |  |  |
| Mississippi. | 9 | 5 | 628 | 2,190 | 567 | 1,131 | 1,739 | 9,891 | 10,730 | 19,917 | 1,035 | ${ }^{2}$ ) | $\left.{ }^{2}\right)$ |
| West South Central. | 173 | 50 | 4,260 | 19,559 | 3,364 | 6,904 | 12,893 | 44,059 | 44,785 | 88,295 | (D) |  |  |
| Louisiana. | 13 | 4 | 189 | 730 | 156 | 309 | 510 | 3,168 | 1,267 | 4,503 | 194 | $(2)$ | (2) |
| Texas. | 123 | 33 | 3,053 | 14,618 | 2,412 | 4,955 | 9,602 | 31,868 | 35,679 | 67,222 | 2,346 | $\left({ }^{2}\right)$ | (2) |
| West.. | 731 | 198 | 15,086 | 77,331 | 12,138 | 23,746 | 53,574 | 153,184 | 137,081 | 288,500 | 15,792 | 539 | 2,883 |
| Colorado. | 27 | 2 | 195 | 862 | 153 | 288 | 592 | 1,530 | 1,079 | 2,604 | 154 | (2) | (2) |
| Arizona. | 21 | 4 | 255 | 1,164 | 206 | 385 | 802 | 2,060 | 1,987 | 4,030 | 270 | (2) | ${ }^{2}$ ) |
| Washington. | 41 | 5 | 359 | 1,939 | 278 | 534 | 1,301 | 3,607 | 3,158 | 6,740 | 400 | 254 | 1,927 |
| Oregon........... | 27 | 3 | 166 | - 762 | 127 | 233 | 488 | 1,309 | 1,145 | 2,443 | 69 | 122 | 839 |
| California...... | 591 | 181 | 13,894 | 71,711 | 11,194 | 21,966 | 49,734 | 142,562 | 128,074 | 268,947 | 14,691 | 8,400 | 72,179 |

Standard Notes: - Represents Zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3011, Tires and Inner Tubes: New England-Maine, 3 (20-99); Massachusetts, 3(2,042); Connecticut, 2(1,000-2, 499); Midale Atlantic -New York, 2 (500-999); New Jersey, 3 (20-99); East North Central-Indiana, 5(1,000-2,499); Illinois, 6 (250-499); Michigan, 3(6,354); Wisconsin, 2
(1,000-2,499); West North'Central-Minnesota, 4 (100-249); Iowa, 4 (3,529); Missouri, 5 ( $250-499$ ); Kansas, 2(1,000-2,499); South Atlantic-
Maryland, 2(2,500-4,999); West Virginia, 1 (1-19); North Carolina, 2 (1-19); South Carolina, 1 (20-99); Georgia, 5 (250-499); Florida, 2 (1-19); East South Central-Kentucky, 1 (500-999); Tennessee, 7(3,729); Alabama, 6(2,500-4,999); Mississippi, 4(1,000-2,499); West South CentralArkansas, 1 (500-999); Oklahoma 4(1,000-2,499); Texas, 11 ( 2,299 ) Mountain-Colorado, 1 ( $1,000-2,499$ ); Pacific -Washington, 1 (20-99); Oregon, 2 (20-99); California, $26(7,173)$.
SIC 3021, Rubber Footwear: New England-New Hampshire, 3(1,032); Massachusetts, 8(7,591); Rhode Island, 6(2,500-4,999); Connecticut, 2(5,000-9,999); Middle Atlantic-New York, 7(1,965); New Jersey, 1 (200-249); Pennsylvania, 7(1,000-2,499); East North Central-Ohio, 1 (20-99); Indiana, 1 (100-249); Illinois, l(1,000-2,499); Wisconsin, 1 (500-999); West North Central-Missouri, 1 (100-249); South Atlantic-Maryland, 2(2,500-4,999); North Carolina, 1 (250-499); Georgia, 2 (100-249); Florida, 2 (100-249); East South Central-Tennessee, 1 (100-249); Pacific-Oregon, 1 (1-19); Califormia, 2 (500-999).
SIC 3031, Reclaimed Rubber: Middle Atlantic-New York, 2 (250-499); New Jersey, 1 (20-99); Pennsylvania, 1 (20-99); East North Central-Ohio, 4 (500-999); Illinois, 1 (250-499); East South Central-Tennessee, 1 (100-249); Mississippi, 1 (20-99); Pacific-Califormia, 2 (100-249).
SIC 3069, Rubber Products, n.e.c.: New England-Maine, 4 (20-99); New Harmpshire, 6 (705); Vermont, 1 (500-999); Connecticut, 42, (2,500-4,999); East North Central-Indiana, 48(12,636); Michigan, 66(4,543); Wisconsin, 27 (901); West North Central-Minnesota, 22 (500-999); Iowa, 3 (20-99); Missouri, 19 (1,474); South Dakota, 1 (1-19); Nebraska, 5(1,000-2,499); Kansas, 2 (20-99); South Atlantic-Delaware, 2(2,500-4,999); West Virginia, 2 (250-499); South Carolinä, 4 (250-499); East South Central-Kentucky, 4 (679); Alabama, 5 (197); West South Central-0klahoma, 3 (20-99); Texas, $32(1,405)$; Mountain-Colorado, $6(2,500-4,999)$; New Mexico, 1 (100-249); Arizona, 4 (20-99); Utah, 5 (250-499); Pacific -Washington, 7 (20-99); Oregon, 5 (100-249).
SIC 3079, Plastics Products, n.e.c.: New England-Vermont, 11 (500-999); Rhode Island, 50(1,000-2,499); West North Central-South Dakota, 2 (100-249); Nebraska, 11 (100-249); South Atlantic—District of Columbia, 2 (1-19); West Virginia, 5 (20-99); North Carolina, 42 (1549); East South Central-Kentucky, 17 (500-999); Tennessee, 29 (1,000-2,499); Alabama, 14(1,599); West South Central-Arkansas, 16 (250-499); Oklahoma, 21 (500-999); Mountain-Montana, 2 (1-19); Idaho, 2 (1-19); Wyoming, 1 (1-19); New Mexico, 2 (20-99); Utah, 8 (20-99); Pacific-Alaska, 1 (1-19); Hawaii, 8 (20-99).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

| Item | Tires and inner tubes (SIC 3011) | Rubber footwear (SIC 3021) | Reclaimed rubber (SIC 3031) | Rubber products, n.e.c. (SIC 3069) | Plastics products, n.e.c. (SIC 3079) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratiol. | (D) | . 93 | (D) | . 86 | . 92 |
| Coverage ratio.......................... | . 99 | . 90 | . 77 | . 89 | . 80 |
| Establishnents, total.....................................number. . | 155 | 53 | 13 | 1,173 | 4,334 |
| With 1 to 19 employees.......................... . . . . . . . .do. . . | 59 | 7 | - | 553 | 2,660 |
| With 20 to 99 employees. . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 35 | 8 | 6 | 369 | 1,277 |
| With 100 employees or more...............................do.... | 61 | 38 | 7 | 251 | 397 |
| Proprietors and working partners.......................do.... | 37 | 4 | 2 | 300 | 1,308 |
| All employees (average for the year)....................do.... | 85,259 | 29,147 | 2,010 | 132,228 | 166,315 |
| Payroll (all employees), total for year............... \$1,000.. | 621,741 | 130,361 | 13,598 | 760,761 | 837,572 |
| Production workers: |  |  |  |  |  |
| Average for the year..................................number.. | 66,268 | 25,951 | 1,658 | 100,581 | 134,327 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . | 68,381 | 23,657 | 1,667 | 100,635 | 129,048 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 66,972 | 27,314 | 1,674 | 100,914 99 | 131,793 |
| August.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 64,695 65,024 | 26,494 26,339 | 1,666 | 99,913 100,862 | 136,961 139,506 |
|  |  |  |  |  |  |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 131,783 | 48,168 | 3,145 | 203,392 | 271,976 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . | 34,876 | 12,671 | 803 | 51,323 | 64,605 |
| April-June . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 34,018 | 12,676 | 803 | 51,273 | 67,447 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 30,286 | 10,687 | 760 | 48,488 | 68,716 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 32,603 | 12,134 | 779 | 52,308 | 71,208 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 460,145 | 105,763 | 10,413 | 516,065 | 579,990 |
| Cost of materials, etc., total..........................do.. | 1,623,090 | 141,115 | 21,669 | 1,171,331 | 1,522,899 |
| Materials, parts, containers, and supplies consumed..do. | 1,324,820 | 113,771 | 17,190 | 1,008,067 | 1,380,471 |
| Cost of resales...........................................do. | 263,603 | 22,727 | 1,804 | 117,868 | 56,613 |
| Fuels consumed............................................ . ${ }^{\text {do. }}$ | 13,979 | 981 | 552 | 16,108 | 13,238 |
| Electric energy: |  |  |  |  |  |
| Purchased: Quantity...............................million kw.-hrs. . |  |  |  |  |  |
| Cuantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$$ \$1,000. . | 20,097 | 2,587 | 2,103 | 22,657 | 36,030 |
| Generated less sold......................million kw.-hrs.. | 745 | (D) | - | 76 | 13 |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 591 | 1,049 | 20 | 6,631 | 36,547 |
| Value of shipments (including resales), total............do.... Value of resales. $\qquad$ | 2,949, 673 | 354,239 25,050 | 48,879 | $2,597,999$ 152,300 | $3,165,440$ 68,599 |
| Value added by manufacture, adjusted.....................do. | 1,321,712 | 216,959 | 27,378 | 1,427,022 | 1,660,882 |
| Manufacturers' inventories: |  |  |  |  |  |
| Beginning of year, total..............................do.... | 411,351 | 82,969 | 5,232 | 325,907 | 334,182 |
| Finished products..................................... .do.... | 260,563 | 61,975 | 2,422 | 148,319 | 140,293 |
| Work-in-process........................................ . . . . . . . | 47,892 | 6,412 | 259 | 70,567 | 61,660 |
| Materials, supplies, fuel, etc......................do.... | 102,896 | 14,582 | 2,551 | 107,021 | 132,229 |
| End of year, total.......................................do.. | 413,217 | 86,390 | 5,823 | 323,446 | 361,048 |
| Finished products. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.. . . | 255,291 | 65,074 | 2,514 | 148,782 | 153,427 |
| Work-in-process........................................ .do. . . . | 48,293 | 7,148 | 335 | 70,458 | 66,867 |
| Materials, supplies, fuel, etc........................do.... | 109,633 | 14,168 | 2,974 | 104,206 | 140,754 |
| Expenditures for plant and equipment, total............do. | 113,759 | 7,189 | 1,314 | 68,343 | 168,981 |
| New, total................. . . . . . . . . . . . . . . . . . . . . . . . . . do. | 112,783 | 6,903 | 1,309 | 64,955 | 157,516 |
| New structures and additions to plant...............do. | 14,640 | 822 | 53 | 12,752 | 30,297 |
| New machinery and equipment.......................... do. | 98,143 | 6,081 | 1,256 | 52,203 | 127,219 |
| Used plant and equipment...............................do.... | 976 | 286 | 5 | 3,388 | 11,465 |
| Selected operating ratios: |  |  |  |  |  |
| Payroll/Total employment. | 7,292 | 4,473 | 6,765 | 5,753 | 5,036 |
| Production workers/Total employment. | . 78 | . 89 | . 82 | . 76 | . 81 |
| Man-hours/Production workers. | 1,989 | 1,856 | 1,897 | 2,022 | 2,025 |
| Production worker wages/Man-hours. | 3.49 | 2.20 | 3.31 | 2.54 | 2.13 |
| Cost of materials and payrolls/Total value of shipments.... | . 76 | . 77 | . 72 | . 74 | . 75 |
| Cost of materials/Total value of shipments.................. | . 55 | . 40 | . 44 | . 45 | . 48 |
| Adjusted value added/Total employment.. | 15,502 | 7,444 | 13,621 | 10,792 | 9,986 |
| Salaries and wages/Adjusted value added..................... | . 47 | . 60 | . 50 | . 53 | . 50 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of tiousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n,e.c. Not elsewhere classified.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

## TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{gathered} 5 \text { to } 9 \\ \text { employees } \end{gathered}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3011. -TIRES AND INNER TUBES |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 155 | 32 | 13 | 14 | 22 | 13 | 12 | 12 | 9 | 22 | 6 |
| Total....... . . . . . . . . . . . . . do. . | 85,259 | 46 | 91 | 194 | 711 | 965 | 2,087 | 4,372 | 6,846 | 36,855 | 33,092 |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 621,741 | 268 | 450 | 1,023 | 4,550 | 5,908 | 10,274 | 31,082 | 46,101 | 272,955 | 249,130 |
| Value added, adjusted.......do.... | 1,321,712 | 519 | 1,031 | 2,517 | 14,526 | 12,400 | 21,745 | 53,607 | 121,608 | 633,844 | 459,915 |
| Value of shipments..........do.... | 2,949,673 | 1,189 | 1,839 | 4,983 | 35,042 | 34,973 | 45,152 | 138,173 | 251,621 | 1,415,756 | 1,020,945 |
| Capital expenditures, new...do.... | 112,783 | ${ }^{1} \underline{\underline{24,733}}$ | (D) | (D) | (D) | (D) | (D) | 18,270 | 4,029 | 1, 33,195 | 1, 32,556 |
|  | INDUSTRY 3021. -RUBBER FOOTWEAR |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 53 | 7 | - | - | 3 | 5 | 14 | 10 | 6 | 5 | 3 |
| All employees: <br> Total. do | 29,147 | 7 | - | - | 544 | (D) | 2,212 | 3,880 | 4,099 | 6,258 | 12,147 |
| Payroll................ . . . $\$ 1,000$. . | 130,361 | 36 | - | - | 2, $\overline{172}$ | (D) | 7,834 | 12,852 | 16,020 | 29,356 | 62,091 |
| Value added, adjusted.......do.... | 216,959 | 90 | - | - | 3,531 | (D) | 14,831 | 18,258 | 20,411 | 49,846 | 109,992 |
| Value of shipments..........do.... | 354,239 | 160 | - | - | 6,020 | (D) | 25,983 | 35,797 | 41,863 | 85,872 | 158,544 |
| Capital expenditures, new...do... | 6,903 | ${ }^{2} 2,429$ | - | - | (D) | (D) | (D) | (D) | 498 | 1,366 | 2,610 |
|  | INDUSTRY 3031. -RECLAIMED RUBBER |  |  |  |  |  |  |  |  |  |  |
| Establishments..................... <br> All employees: <br> Total......................... . . do <br> Payroll. . . . . . . . . . . . . . . $\$ 1,000 .$. <br> Value added, adjusted........do.... <br> Value of shipments...........do.... <br> Capital expenditures, new...do.... | 13 | - | - | - | 4 | 2 | 4 | 3 | - | - | - |
|  | 2,010 | - | - | - |  | (D) | 709 | 1,024 | - | - | - |
|  | 13,598 | - | - | - | 1, $\overline{494}$ | (D) | 4,813 | 7,291 | - | - | - |
|  | 27,378 | - | - | - | 3,804 | (D) | 10,231 | 13,343 | - | - | - |
|  | 48,879 | - | - | - | 6,390 | (D) | 17,200 | 25, 289 | - | - | - |
|  | 1,309 | - | - | - | 186 | (D) | 1,123 | (D) | - | - | - |
|  | INDUSTRY 3069. -RUBBER PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | 1,173 | 265 | 130 | 158 | 230 | 139 | 125 | 69 | 34 | 19 | 4 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | 132,228 | 492 | 876 | 2,225 | 7,503 | 9,579 | 19,499 | 23,709 | 23,614 | 24,417 | 20,314 |
| Payroll. . . . . . . . . . . . . . $\$ 1,000$. . | 760,761 | 2,716 | 4,258 | 11,581 | 37,118 | 50,540 | 105,777 | 130, 227 | 134, 374 | 146,463 | 137,707 |
| Value added, adjusted.......do... | 1,427,022 | 6,252 | 9,806 | 24,895 | 84,536 | 109,326 | 199,296 | 242,787 | 254, 534 | 266,046 | 229,544 |
| Value of shipments.........d.do... | 2,597,999 | 12,777 | 21,190 | 51,910 | 172,197 | 211,510 | 365,188 | 422,370 | 446,723 | 483, 294 | 410,840 |
| Capital expenditures, new...do.... | 64,955 | 12,770 | 2,158 | (D) | 4,010 | 3,898 | 11,193 | 12,588 | 9,977 | 10,240 | 9,121 |
|  | INDUSTRY 3079. -PIASTICS PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments..................... All employees: | 4,334 | 1,365 | 618 | 677 | 854 | 423 | 294 | 78 | 20 | 5 | - |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total do. $\square$ | 166,315 | 2,640 | 4,142 | 9,538 | 27.019 | 29,662 | 45,523 | 27,561 | 13,238 | 6,992 | - |
| Payroll................. $\$ 1,000 .$. | 837,572 | 11,492 | 18,421 | 43,688 | 123,603 | 145,799 | 230,913 | 144,020 | 74,985 | 44,651 | - |
| Value added, adjusted.......do.... | 1,660,882 | 26,839 | 34,974 | 89,623 | 244,761 | 291,099 | 456,933 | 277,512 | 149,854 | 89, 287 | - |
| Value of shipments..........do.... | 3,165,440 | 51,611 | 70,927 | 170,629 | 469,091 | 576,070 | 893,354 | 513,247 | 279,615 | 140,896 | - |
| Capital expenditures, new...do.... | 157,516 | 36,291 | 3,580 | 7,552 | 22,847 | 26,786 | 48,390 | 25,759 | 10,069 | 6,242 | - |

[^26]
## table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958



| Ind. <br> code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\text { Col. B }}{\text { Col. } B+C}$ (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio $\frac{\mathrm{Col} . \mathrm{B}}{\mathrm{Col} . \mathrm{F}}$ <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3011 | Tires and inner tubes............. 1963.. | $\begin{aligned} & 2,949,673 \\ & 2,577,788 \end{aligned}$ | $\begin{aligned} & 2,398,549 \\ & 2,122,024 \end{aligned}$ | $\begin{array}{r} \text { (D) } \\ 197,273 \end{array}$ | $\begin{array}{r} \text { (D) } \\ 258,491 \end{array}$ | $\begin{array}{r} \text { (D) } \\ 91 \end{array}$ | $\begin{aligned} & 2,419,789 \\ & 2,145,326 \end{aligned}$ | $\begin{aligned} & 2,398,549 \\ & 2,122,024 \end{aligned}$ | $\begin{aligned} & 21,240 \\ & 23,302 \end{aligned}$ | $\begin{aligned} & 99 \\ & 99 \end{aligned}$ |
| 3021 | Rubber footwear. . . . . . . . . . . . . . . 1963. . | $\begin{aligned} & 354,239 \\ & 229,439 \end{aligned}$ | $305,475$ <br> (D) | $23,085$ <br> (D) | $\begin{aligned} & 25,679 \\ & 10,929 \end{aligned}$ | $\begin{array}{r} 93 \\ \text { (D) } \end{array}$ | $\begin{aligned} & 339,584 \\ & 213,684 \end{aligned}$ | $305,475$ <br> (D) | $\begin{array}{r} 34,109 \\ \text { (D) } \end{array}$ | $\begin{array}{r} 90 \\ \text { (D) } \end{array}$ |
| 3031 | Reclaimed rubber. . . . . . . . . . . . . . 1963. 1958. | $\begin{aligned} & 48,879 \\ & 39,260 \end{aligned}$ | $\begin{aligned} & 42,720 \\ & 34,137 \end{aligned}$ | $\begin{array}{r} \text { (D) } \\ 2,181 \end{array}$ | $\begin{array}{r} (D) \\ 2,942 \end{array}$ | $\begin{aligned} & \text { (D) } \\ & 94 \end{aligned}$ | $\begin{aligned} & 55,249 \\ & 47,646 \end{aligned}$ | $\begin{aligned} & 42,720 \\ & 34,137 \end{aligned}$ | $\begin{aligned} & 12,529 \\ & 13,509 \end{aligned}$ | $\begin{aligned} & 77 \\ & 72 \end{aligned}$ |
| 3069 | Rubber products, n.e.c........... $\begin{array}{r}\text { 1963.. } \\ 1958 . .\end{array}$ | $\begin{aligned} & 2,597,999 \\ & 1,885,274 \end{aligned}$ | $\begin{aligned} & 2,084,965 \\ & 1,508,525 \end{aligned}$ | $\begin{aligned} & 342,829 \\ & 253,280 \end{aligned}$ | $\begin{aligned} & 170,205 \\ & 123,469 \end{aligned}$ | $\begin{aligned} & 86 \\ & 86 \end{aligned}$ | $\begin{aligned} & 2,355,614 \\ & 1,759,077 \end{aligned}$ | $\begin{aligned} & 2,084,965 \\ & 1,508,525 \end{aligned}$ | $\begin{aligned} & 270,649 \\ & 250,552 \end{aligned}$ | $\begin{aligned} & 89 \\ & 86 \end{aligned}$ |
| 3079 | Plastics products, n.e.c......... $1963 .$. | $\begin{aligned} & 3,165,440 \\ & 1,867,877 \end{aligned}$ | $\begin{aligned} & 2,812,355 \\ & 1,631,533 \end{aligned}$ | $\begin{aligned} & 250,615 \\ & 159,708 \end{aligned}$ | $\begin{array}{r} 102,470 \\ 76,636 \end{array}$ | $\begin{aligned} & 92 \\ & 91 \end{aligned}$ | $\begin{aligned} & 3,494,584 \\ & 1,914,467 \end{aligned}$ | $\begin{aligned} & 2,812,355 \\ & 1,631,533 \end{aligned}$ | $\begin{aligned} & 682,229 \\ & 282,934 \end{aligned}$ | $\begin{aligned} & 80 \\ & 85 \end{aligned}$ |

Note: See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
n.e.c. Not elsewhere classified.

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products). (b) products classified in other industries (secondary products), and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


[^27]TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 -Continued

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Includes $\$ 2$ million or more shipped by establishments classified in industry 3949, Sporting and Athletic Goods, but exact data are withheld to avoid disclosing individual company figures.
${ }^{2}$ Includes $\$ 2$ million or more shipped by establishments classified in industry 3142, House Slippers, but exact data are withheld to avoid disclosing individual company figures.
${ }^{3}$ Includes $\$ 2$ million or more shipped by establishments classified in industry 2818, Organic Chemicals, N.E.C., and in industry 3633, Household Laundry Equipment, but exact data are withheld to avoid disclosing individual company figures.
${ }^{4}$ Includes \$2 million or more shipped by establishments classified in each of the following industries: 3079, Plastics Products, N.E.C.; 3494, Valves and Pipe Fittings; 3561, Pumps and Compressors; and 3644, Noncurrent Carrying Devices. Exact data are withheld to avoid disclosing individual company figures.
${ }^{5}$ Includes $\$ 3,166$ thousand shipped by establishments classified in industry 2291, Felt Goods, N.E.C., and $\$ 8,415$ thousand shipped by establishments classified in industry 3079, Plastics Products, N.E.C.
${ }^{6}$ Includes $\$ 3,848$ thousand shipped by establishments classified in industry 3079, Plastics Products, N.E.C.
${ }^{7}$ Includes $\$ 4,306$ thousand shipped by establishments classified in industry 3121, Industrial Leather Belting, $\$ 12$, 480 thousand shipped by establishments classified in Industry 3293, Gaskets and Insulations, and $\$ 12,831$ thousand shipped by establishments classified in industry 3555 , Printing Trades Machinery. In addition, $\$ 2$ million or more was shipped by establishments classified in industry 3842, Surgical Appliances and Supplies, but exact data are withheld to avoid disclosing individual company figures.
${ }^{8}$ Includes $\$ 7,326$ thousand shipped by establishments classified in industry 3131, Footwear Cut Stock. In addition, $\$ 2$ million or more was shipped by establishments classified in industry 2821, Phastics Materials and Resins, but exact data are withheld to avoid disclosing individual company figures.
${ }^{9}$ Includes $\$ 2$ million or more shipped by establishments classified in industry 2342, Corsets and Allied Garments, but exact data are withheld to avoid disclosing individual company figures.
${ }^{10}$ Includes $\$ 2,871$ thousand shipped by establishments classified in industry 2295, Coated Fabric, Not Rubberized, $\$ 2,373$ thousand shipped by establishments classified in industry 2821, Plastics Materials and Resins, and $\$ 2,907$ thousand shipped by establishments classified in industry 3079 , Plastics Products, N.E.C. In addition, shipments of $\$ 2$ million or more were made by establishments classified in the following industries, but exact data are withheld to avoid disclosing individual company figures: 2291, Felt Goods, N.E.C.; 2641, Paper Coating and Glazing; 2818, Organic Chemicals, N.E.C.; and 2891, Glue and Gelatin.
${ }^{11}$ Includes shipments of $\$ 2$ million or more in product class 31310, Boot and shoe cut stock and findings, but exact data are withheld to avoid disclosing individual company figures.
${ }^{12}$ Includes shipments of $\$ 2$ million or more in each of the following product classes, but exact data are withheld to avoid disclosing individual company figures: 22562, Circular knit fabrics; 22952, Resin-coated fabrics; 26414, Pressure sensitive tape; 26495, Other converted paper and board products; 28430, Surface active and finishing agents; 28993, Essential oils, fireworks, and pyrotechnics, and chemicals and chemical preparations, n.e.c.; 31210 , Industrial leather belting and packing; 32926, Vinyl asbestos floor tile; 32933, Packing, except leather, rubber, and metal, and asbestos insulations; 34612, Job stampings, except automotive; 34942, Fittings and unions for piping systems; 37175, Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers; 37291, Other aircraft parts and auxiliary equipment; 37292, Guided missile components and subassemblies, n.e.c.; 38421, Surgical, orthopedic, and prosthetic appliances and supplies; and 38423, Personal industrial safety devices.

TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| Product code | Product | Unit of measure | 1963 |  |  | 1958 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Production for all purposes (quantity) | Total shipments, including interplant transfers |  | Production for all purposes (quantity) | Total shipments, including interplant transfers |  |
|  |  |  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3011- -- | TIRES AND INNER TUBES, TOTAL. |  | (X) | (x) | 2,419,789 | (x) | (x) | 2,145,326 |
| 3011111 | Passenger car and motorcycle pneumatic tires (casings)..................................................... | 1,000 tires.. | 123,549 | 121,921 | 1,285,885 | 84,675 | 84,188 | 1,076,828 |
| 3011211 | Truck and bus (and off-the-highway) pneumatic tires. | ...do.. | 16,957 | 16,535 | 659,516 | 12,999 | 13,804 | 601,952 |
| 30113 -- | Other pneumatic tires and solid tires. |  | (X) | (x) | 186,792 | (X) | (X) | 185,455 |
| 3011311 | Aircraft. | 1,000 tires.. | 570 | 575 | 31,388 | 477 | 463 | 43,715 |
| 3011313 | Tractor and implement (farm, garden, and industrial) | ..do. | 3,616 | 3,498 | 90,186 | 3,636 | 3,474 | 94,969 |
| 3011315 | Industrial............. | do | 3,152 | 3,068 | 21,888 | 1,782 | 1,838 | 12,994 |
| 3011317 | Bicycle casings and single tube tires | do | 9,609 | 9,706 | 10,167 | 8,243 | 8,152 | 9,352 |
|  | Solid tires: |  |  |  |  |  |  |  |
| $\begin{aligned} & 3011333 \\ & 3011335 \end{aligned}$ | Industrial and highway........... Bogie, idler, and support rollers. | 1,0.do........ | (s) | (s) | 17,096 | (NA) 270 | (NA) 222 | $\begin{aligned} & 8,254 \\ & 1,789 \end{aligned}$ |
| 3011341 | Other solid and semipneunatic: 2.00" and larger, except hand lawn mower, baby carriage, tricycle, juvenile, etc....... | 1,000 tires.. | (S) | (S) | 5,235 | (S) | (s) | 2,908 |
| 3011351 | Less than 2.00", including hand lawn mower, baby carriage, tricycle, juvenile, etc....... | .do. | (S) | (s) | 10,832 | (s) | (S) | 11,474 |
| 30114 -- | All inner tubes. |  | (x) | (x) | 95,065 | (x) | (x) | 100,185 |
| 3011421 | Passenger car and motor vehicle. | 1,000 tubes.. | 28,397 | 28,826 | 39,672 | 33,737 | 33,027 | 48,575 |
| 3011423 | Truck and bus, including off-the-highway | ...do. | 11,431 | 11,488 | 36,285 | 8,572 | 8,813 | 32,780 |
| 3011424 | Aircraft................... | . . do. | 281 | 284 | 1,885 | 278 | 276 | 2,705 |
| 3011425 | Tractor and implement (farm, garden, and industrial). | ...do......... | 2,767 | 2,798 | 8,159 | 2,721 | 2,694 | 8,916 |
| 3011426 | Industrial. | . do. | 2,621 | 2,552 | 2,885 | 1,991 | 1,888 | 2,077 |
| 3011427 | Bicycle.. | .do | 9,808 | 10,057 | 6,179 | 8,746 | 8,451 | 5,132 |
| 30115 -- | Tread rubber, tire sundries, and repair materials, total. |  | (X) | (X) | 192,531 | (x) | (X) | 180,906 |
| 3011511 | Tread rubber (camelback), including slab rubber for use in automatic tread rubber extruding machines.. | 1,000 lbs.... | 515,372 | 518,433 | 140,729 | 489,993 | 487,211 | 138,442 |
| 3011531 | Tire flaps............................................ | 1,000 units.. | 12,218 | 9,142 | 12,578 | 11,152 | 10,866 | 8,116 |
| 3011539 | Other tire sundries, repair materials and tiring.. | 1,000 lbs.... | (S) | (s) | 35,894 | (S) | (S) | 30,147 |
| 3011500 | Tread rubber, tire sundries, and repair materials, n.s.k.. |  | (X) | (X) | 3,330 | (X) | (X) | 4,201 |
| 3021- -- | RUBBER FOOTWEAR, TOTAL |  | (X) | (X) | 339,584 | (X) | (X) | 213,684 |
|  | Canvas footwear, total | 1,000 pairs.. | 152,885 | 148,335 | 268,216 | 71,409 | 70,001 | 135,274 |
| 3021011 | Bals. | . .do. | 23,943 | 24,125 | 48,786 | 20,392 | 19,855 | 42,821 |
| 3021013 | Oxfords | ..do........ | 102,011 | 97,585 | 179,618 | 40,717 | 39,999 | 72,114 |
| 3021015 | Specialty shoes. | ..do........ | 26,931 | 26,625 | 39,812 | 10,300 | 10,147 | 20,339 |
|  | Waterproof footwear, total. | .do. | 20,869 | 21,314 | 65,526 | 25,437 | 26,469 | 76,750 |
| 3021021 | Boots. | .do | 1,475 | 1,540 | 9,653 | 3,014 | 3,009 | 14,347 |
| 3021031 | Lumberman and pacs. | .do........ | 1,060 | 1,139 | 8,260 | 1,691 | 1,672 | 10,277 |
|  | Arctics and gaiters: |  |  |  |  |  |  |  |
| 3021041 | Buckle and automatic, except style. | . . do. | 4,602 | 4,840 | 16,705 | 6,500 6,011 | 6,914 | $24,004$ |
| 3021045 | Style, rubber and cloth.. | ..do........ | 6,115 | 6,190 | 18,526 | 6,011 | 6,503 | $15,124$ |
| 3021051 | Light and heavy rubbers. | do | 7,617 | 7,605 | 12,382 | 8,221 | 8,371 | 12,998 |
| 3021098 | Other rubber footwear and rubber footwear, n.s.k.. |  | (NA) | (NA) | 5,842 | (NA) | (NA) | 1,660 |
| 3031- -- | RECLATMED RUBBER. |  | (X) | (x) | 55,249 | (x) | (x) | ${ }^{147,646}$ |
| 3031011 | Reclaimed rubber (any vulcanizable material, except reclaimed residue or "mud," derived from processing or treatment of natural or synthetic (chemical) vulcanized scrap rubber).................................... | 1,000 lbs.... | 632,872 | 533,044 | 55,249 | 582,568 | 501,963 | 47,123 |
| 3031051 | Crumb or ground rubber.................................. | \|. . .do........ | (1) | (1) | (1) | 14,197 | 10,030 | 523 |

See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


[^28]
## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



[^29]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
$\begin{array}{ll}\text { TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All } \\ & \text { Manufacturing Establishments: } 1963 \text { and 1958-Continued }\end{array}$


See footnotes at end of table.
$\begin{array}{ll}\text { TABLE 6A. } & \begin{array}{l}\text { Products and Product Classes-Quantity and Value Shipped by All } \\ \text { Manufacturing Establishments: } 1963 \text { and 1958-Continued }\end{array}\end{array}$


See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Value of shipments including interplant transfers $(\$ 1,000)$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 | 1958 |  |
| 3079- -- | PLASTICS PRODUCTS, N.E.C.-Continued <br> Consumer and commercial plastics products, n.e.c.-Continued |  |  |  |
| 30798 -- |  |  |  |  |
| 3079000 | Plastics products, n.s.k: |  |  |  |
|  | As reported in census of manufactures........... As reported in Current Industrial Reports M3OD. | $\begin{aligned} & 138,068 \\ & 113,897 \end{aligned}$ |  | $\begin{array}{r} 79,400 \\ (\mathrm{NA}) \end{array}$ |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
$(S)$ Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ Includes crumb or ground rubber (grindings of scrap not devulcanized by the pan or digester process) in 1958 . Crumb or ground rubber data were not collected in 1963.
${ }^{2}$ For 1958, quantity in 1,000 pounds.
${ }^{3}$ Because of changes in classification, 1963 and 1958 product lines are, for the most part, not comparable. In 1958 the only unsupported film, sheet, and sheeting separately classified were vinyl and polyethylene; other unsupported film, sheets, sheeting, rods, tubes, and other stock shapes made from purchased resins were reported in other classifications. For quantities of resins consumed in producing individual product lines see current Industrial Reports Series MBOD, "Shipments of Selected Plastics Products."
${ }^{4}$ The difference between the value of shipments reported in the census of manufactures and the value reported in the Current Industrial Reports Series M3OD is accounted for in part by plastics products reported in the census of manufactures as products of.industry 3079, Plastics Products, N.E.C., without sufficient description to recode properly into a more correct product code in other industries and by new producers reporting in the census of manufactures but not included in the 1963 Current Industrial Reports.

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes ( $1954=100)$ |  | Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production | Unit vatue |  |  | Production | Unit value |
| 3011- | Tires and inner tubes............... $1963 .$. 1958.. | 145 110 | 96 113 | 3031- | Reclaimed rubber..................... ${ }^{\text {. } 1963 . .} 19$ 1958.. | $\begin{aligned} & 107 \\ & 100 \end{aligned}$ | 117 107 |
| 30111 | Passenger car and motorcycle pneumatic tires (casings)...........1963.. | 159 | 95 | 3069- | Fabricated rubber products, n.e.c. ${ }^{1}$. $\begin{array}{r}\text { 1963.. } \\ 1958 . .\end{array}$ | 143 106 | 102 104 |
| 30112 | Truck and bus (and off-the-highway) tires...................................... . 1963. . | 110 132 | 115 96 | 30691 | Rubber belts and belting........... $1963 .$. | 114 85 | 124 127 |
|  | $\qquad$ <br> Other pneumatic tires and solid | 104 | 111 | 30692 | Rubber hose and tubing............. 1963.. | 178 | 112 109 |
| 30113 | Other pneumatic tires and solid $\text { tires....................................... . } 1963 . \text {. }$ | 144 120 | $\begin{aligned} & 102 \\ & 122 \end{aligned}$ | 30693 | Sponge and foam rubber goods........ $1963 .$. 1958.. | 111 | 109 93 |
| 30114 | All inner tubes..................... . $1963 .$. | 83 | 95 | 30696 | Rubber heels and soles..............1963.. | 108 | 111 |
|  | 1958.. | 78 | 106 |  | 1958.. | 107 | 111 |
| 30115 | Tread rubber, tire, sundries, and repair materials.................. 1963.. | 163 | 108 | 30697 | Druggist and medical sundries......1963.. | 162 107 | 105 |
|  | 1958.. | 157 | 106 |  |  |  |  |
| 3021- | Rubber footwear. . . . . . . . . . . . . . . . . . . $19.1963 .$. | 203 127 | 101 103 | 3079 - | Plastics products, n.e.c.............1963.. | $(2)$ $(2)$ | $(2)$ $(2)$ |

[^30]table 6c. Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962^{1}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3011 - | Tires and inner tubes................\$1,000.. | 2,419,789 | 2,367,283 | 2,254,218 | 2,365,350 | 2,424,345 | 2,145,326 | 1,729,912 | 1,512,980 |
| 30111 | Passenger car and motorcycle pneumatic tires................................... | 1,285,885 | 1,276,358 | 1,213,101 | 1,256,751 | 1,215,574 | 1,076,828 | 854,244 | 671,404 |
| 30112 | Truck and bus (and off-the-road) pneumatic tires................................... | 659,516 | 639,957 | 589,494 | 639,648 | 695,763 | 601,952 | 520,169 | 536,708 |
| 30113 | Other pneumatic tires and solid tires..........................................do.. | 186,792 | 173,328 | 179,848 | 195,896 | 211,565 | 185,455 | 127,143 | 105,244 |
| 30114 | All inner tubes..........................do. ${ }^{\text {d }}$ | 95,065 | 97,588 | 92,969 | 98,056 | 112,763 | 100,185 | 120,361 | 150,001 |
| 30115 | Tread rubber, tire sundries, and repair materials.....................do.. | 192,531 | 180,052 | 178,806 | 174,999 | 188,680 | 180,906 | 107,995 | 49,623 |
| 3021- | Rubber footwear: <br> Quantity......................... 1,000 pairs.. <br> Value. $\qquad$ | $\begin{aligned} & 169,531 \\ & 339,584 \end{aligned}$ | $\begin{aligned} & 163,983 \\ & 314,993 \end{aligned}$ | $\begin{aligned} & 131,552 \\ & 274,747 \end{aligned}$ | $\begin{aligned} & 115,565 \\ & 252,061 \end{aligned}$ | $\begin{aligned} & 104,511 \\ & 232,948 \end{aligned}$ | $\begin{array}{r} 96,597 \\ 213,684 \end{array}$ | $\begin{array}{r} 75,761 \\ 163,730 \end{array}$ | $\begin{array}{r} 79,358 \\ 159,190 \end{array}$ |
| 3031- | Reclaimed rubber...........................do.. | 55,249 | 57,100 | 53,329 | 57,476 | 56,156 | 47,646 | 44,542 | 36,040 |
| 3069- | Rubber products, n.e.c. ................do.. | 2,355,614 | 2,217,523 | 2,036,292 | 2,021,341 | 2,035,801 | 1,759,077 | 1,610,268 | 936,121 |
| 30691 | Rubber belts and belting: <br> Quantity............................ 1,000 lbs. <br> Value.................................... . $\$ 1,000$. | $\begin{array}{r} \text { (S) } \\ 179,016 \end{array}$ | $\begin{aligned} & 113,293 \\ & 160,866 \end{aligned}$ | $\begin{aligned} & 102,762 \\ & 147,489 \end{aligned}$ | $\begin{aligned} & 105,028 \\ & 146,501 \end{aligned}$ | 111,468 159,614 | $\begin{aligned} & 102,805 \\ & 137,930 \end{aligned}$ | $\begin{aligned} & 113,423 \\ & 126,932 \end{aligned}$ | $\begin{aligned} & 140,732 \\ & 128,782 \end{aligned}$ |
| 30692 | Rubber hose and tubing.................do.. | 297,365 | 249,035 | 225,502 | 220, 575 | 231,750 | 180,655 | 148,509 | 122,784 |
| 30693 | Sponge and foam rubber goods..........do.. | 226,433 | 240,842 | 214,377 | 220,013 | 223,704 | 200,751 | 178,924 | 50,559 |
| 30694 | Rubber floor and wall covering........do.. | 93,238 | 82,889 | 83,910 | 107,057 | 111,177 | 99,376 | 92,444 | 49,204 |
| 30695 | Mechanical rubber goods, n.e.c. .......d.do.. | 850,747 | 756,443 | 649,438 | 647,750 | 623,865 | 534,671 | 556,276 | 255,826 |
| 30696 | Rubber heels and soles.................do.. | 136,213 | 140,753 | 133,008 | 132,398 | 144,283 | 134,856 | 113,088 | 72,175 |
| 30697 | Druggist and medical sundries.........do.. | 79,232 | '14,302 | 71,946 | 65,262 | 65,002 | 56,953 | 46,776 | 35,133 |
| 30698 | Other rubber goods, n.e.c..............do. | 450,956 | 481,064 | 485,363 | 456,895 | 453,085 | 392,308 | 343,100 | 215,854 |
| 30690 | Rubber products, n.e.c., n.s.k........do.. | 42,414 | (S) | (S) | (S) | (S) | 21,577 | 4,219 | 5,804 |
| $\begin{aligned} & 3079- \\ & 28211 \end{aligned}$ | \}Plastics products, n.e.c.................do.. | 3,494,584 | 23,061,104 | ${ }^{2} 2,613,779$ | 22,397,923 | 22,312,170 | ${ }^{2} 1,914,467$ | ${ }^{2} 1,285,603$ | ${ }^{2}$ 480,680 |
| $\begin{aligned} & 30791 \\ & 28211 \end{aligned}$ | \} Unsupported plastics film, sheets, f rods, tubes, and other stock shapes..do.. | 688,090 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 30792 | Foamed plastics products...............do.. | 261,210 | 187,675 | 169,980 | 111,943 | 91,224 | 54,040 | 17,746 | (NA) |
| 30793 | Laminated sheets, rods, and tubes.....do.. | 244,138 | 252,636 | 219,092 | 211,025 | 200,434 | 162,924 | 102,401 | 48,340 |
| 30794 | Packaging and shipping containers, plastics............................................ | 441,841 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 30795 | Industrial plastics products..........do.. | 832,761 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 30796 | Construction plastics products........do.. | 283,832 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 30797 | Plastics, dinnerware, tableware, and kitchenware............................do.. | 147,580 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 30798 | Consumer and conmercial plastics products, n.e.c................................... | 457,064 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 30790 | Plastics products, n.e.c., n.s.k......do.. | 138,068 | (S) | (S) | (S) | (S) | 79,400 | 23,123 | 17,147 |

[^31]TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.


# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued 



## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued



TABLE 7A. Materials by Kind: 1963 and 1958


## table 7A. Materials by Kind: 1963 and 1958-Continued

\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Code} \& \multirow[b]{2}{*}{Material} \& \multirow[b]{2}{*}{Unit of measure} \& \multicolumn{2}{|c|}{1963} \& \multicolumn{2}{|c|}{1958} \\
\hline \& \& \& Quantity \& \begin{tabular}{l}
Delivered cost \\
\((\$ 1,000)\)
\end{tabular} \& Quantity \& \begin{tabular}{l}
Delivered cost \\
\((\$ 1,000)\)
\end{tabular} \\
\hline \multirow{5}{*}{\[
\begin{aligned}
\& 086113 \\
\& 086115
\end{aligned}
\]} \& \multirow[b]{2}{*}{Materials, containers, and supplies, total........................} \& \multirow[b]{2}{*}{.} \& \multicolumn{4}{|l|}{INDUSTRY 3031 and 3069.-RECLAIMED EUBBER, AND RUBBER PRODUCTS, N.E.C.} \\
\hline \& \& \& (X) \& \({ }^{5} 1,025,257\) \& (X) \& \({ }^{6} 765,081\) \\
\hline \& \multicolumn{2}{|l|}{Natural rubber:} \& 37,920 \& 29,750 \& \multirow[b]{2}{*}{\[
\begin{aligned}
\& 54,036 \\
\& 75,313
\end{aligned}
\]} \& \multirow[b]{2}{*}{\[
\begin{aligned}
\& 44,181 \\
\& 46,784
\end{aligned}
\]} \\
\hline \& Dry. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \& ...do............ \& 78,244 \& 49,318 \& \& \\
\hline \& \multicolumn{2}{|l|}{Synthetic mubber:} \& \multirow[b]{2}{*}{239,967} \& \multirow[b]{2}{*}{116,798} \& \multirow[b]{2}{*}{161,624} \& \multirow[b]{2}{*}{84,580} \\
\hline 282203 \& Butadiene-styrene type. \& ...do............ \& \& \& \& \\
\hline 282204 \& Butyl type.. \& . . .do. \& 16,663 \& 9,442 \& 7,145 \& 3,864 \\
\hline 282205 \& Neoprene... \& . . .do. \& 53,042 \& 49,172 \& 37,733 \& 34,218 \\
\hline 282206 \& N-type (butadiene-acrylonitrile) \& . . .do......... \& 25,462 \& 25,745 \& 10,504 \& \multirow[t]{2}{*}{12,137} \\
\hline 282207 \& Stereo elastomers. \& ...do. \& 6,717 \& 3,874 \& \multirow[t]{2}{*}{4,828} \& \\
\hline 282208 \& Polyurethane.... \& ...do. \& \multirow[t]{2}{*}{11,327} \& \multirow[t]{2}{*}{15,433} \& \& 7,132 \\
\hline 282209 \& Other elastomers. \& ...do. \& \& \& 4,828 \& \\
\hline 303101 \& Reclaimed rubber (excluding "mud"and crumb or ground scrap). \& . . .do. \& 181,493 \& 12,837 \& 293,214 \& 14,370 \\
\hline 306980 \& Rubber compounds and mixtures purchased. \& . . do. \& 26,592 \& 18,443 \& \multirow[t]{2}{*}{\[
\left(\begin{array}{c}
\mathrm{NA}) \\
\left(\begin{array}{l}
3
\end{array}\right)
\end{array}\right.
\]} \& 15,900 \\
\hline 281833 \& Rubber processing chemicals.. \& \& (X) \& 45,947 \& \& (3) \\
\hline 281835 \& Plasticizers... \& 1,000 pounds.... \& 159,396 \& 21,374 \& \multirow[t]{2}{*}{\(\left(\begin{array}{l}3 \\ (3) \\ (3)\end{array}\right.\)} \& \multirow[t]{2}{*}{\((3)\)
\((3)\)} \\
\hline 289501 \& Carbon black. . . . . . . \& . . .do............ \& 235,919 \& 18,559 \& \& \\
\hline 281600 \& Inorganic pignents....... \& ...do............ \& 403,712 \& 20,138 \& (3) \& \multirow[t]{2}{*}{\((3)\)
23,877} \\
\hline 282130 \& Thermaplastic resins including modified resins \& ...do. \& 139,712 \& \multirow[t]{2}{*}{\[
\begin{array}{r}
29,734 \\
7,517
\end{array}
\]} \& 72,793 \& \\
\hline 282140 \& Thermosetting resins............................ \& . . do. \& \({ }^{120,196}\) \& \& 9,373 \& 2,088 \\
\hline \& \multicolumn{6}{|l|}{Tire cord and tire fabric:} \\
\hline 229601 \& Cotton cord. \& ...do............ \& \multirow[t]{2}{*}{804
2,376} \& \multirow[t]{2}{*}{\[
\begin{array}{r}
370 \\
1,603
\end{array}
\]} \& \multirow[t]{2}{*}{1,398
2,901} \& 1,067 \\
\hline 229602 \& Rayon cord. \& ...do \& \& \& \& 1,905 \\
\hline 229603 \& Nylon cord. . . . . . . . . . \& . .do \& 2,376
(D) \& \multirow[t]{2}{*}{(D)
838} \& \multirow[t]{2}{*}{605
531} \& \multirow[t]{2}{*}{867
496} \\
\hline 229609 \& Chafer and other tire fabri \& .do \& 1,146 \& \& \& \\
\hline \& \multicolumn{6}{|l|}{Other fabrics:} \\
\hline 220311 \& Cotton \& ...do. \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& 64,969 \\
\& 17,511
\end{aligned}
\]} \& 49,028 \& 59,001 \& 42,550 \\
\hline 220312 \& Rayon. \& ...do \& \& \multirow[t]{2}{*}{\[
\begin{array}{r}
9,164 \\
11,079
\end{array}
\]} \& \multirow[t]{2}{*}{7,560
(NA)} \& 5,435 \\
\hline 220313 \& Nylon. \& .do \& \[
\begin{array}{r}
17,511 \\
7,044
\end{array}
\] \& \& \& 5,230 \\
\hline 220319 \& Other. \& . .do \& 7,0270 \& 7,945 \& (NA) \& 12,963 \\
\hline \multirow[t]{3}{*}{\[
\begin{aligned}
\& 342956 \\
\& 331017 \\
\& 970099
\end{aligned}
\]} \& \multirow[t]{3}{*}{Hose fittings and couplings Steel wire. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . All other materials, and components, parts, containers, and supplies consumned.} \& \multirow[b]{2}{*}{Short tons.....} \& \multirow[t]{2}{*}{\[
\begin{array}{r}
(x) \\
24,427
\end{array}
\]} \& \multirow[t]{2}{*}{\[
\begin{array}{r}
6,782 \\
12,292
\end{array}
\]} \& \multirow[t]{2}{*}{\(\left(\begin{array}{l}(3) \\ (3)\end{array}\right.\)} \& \multirow[t]{2}{*}{\((3)\)
\((3)\)} \\
\hline \& \& \& \& \& \& \\
\hline \& \& \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& (X) \\
\& (X)
\end{aligned}
\]} \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& 386,482 \\
\& 464,285
\end{aligned}
\]} \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& (X) \\
\& (X)
\end{aligned}
\]} \& \multirow[t]{2}{*}{356,894
448,543} \\
\hline \multirow[t]{3}{*}{973000} \& \multirow[t]{3}{*}{Materials, containers, supplies, n.s.k................................

Materials, containers, supplies, total...........................} \& \multirow[t]{2}{*}{} \& \& \& \& <br>
\hline \& \& \& \multicolumn{4}{|l|}{INDUSTRY 3079.-PIASTICS PRODUCTS, N.E.C.} <br>
\hline \& \& \& (X) \& 1,380,471 \& (X) \& 861,827 <br>
\hline 282130 \& Thermoplastic resins including modified resins........................ \& \multirow[t]{2}{*}{1,000 pounds....} \& \multirow[t]{2}{*}{$2,143,520$

485,223} \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 503,286 \\
& 157,789
\end{aligned}
$$} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 824,331 \\
& 254,848
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
284,657 \\
80,786
\end{array}
$$
\]} <br>

\hline 282140 \& Thermosetting resins..................................................... \& \& \& \& \& <br>
\hline 307911 \& Unsupported plastics film and sheeting................................. \& ...do........... \& \multirow[t]{2}{*}{(NA)

(NA)} \& \multirow[t]{2}{*}{43,308} \& \multirow[t]{2}{*}{\[
$$
\begin{aligned}
& (3) \\
& (3)
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{| $\left({ }^{3}\right)$ |
| :--- |
| (3) |} <br>

\hline 307912 \& Plastics rods, tubes, and other shapes. \& . . .do \& \& \& \& <br>
\hline 281835 \& Plasticizers........ \& . do \& \multirow[t]{2}{*}{90,027
38,426} \& 17,913 \& (3) \& \multirow[t]{2}{*}{$(3)$
$(3)$} <br>
\hline 322931 \& Glass fiber, roving, mats, etc. \& ...do. \& \& 19,591 \& (3) \& <br>

\hline 220234 \& Cotton fabrics. \& 1,000 lin. yds.. \& \multirow[t]{2}{*}{$$
\begin{array}{r}
37,598 \\
(\mathrm{NA})
\end{array}
$$} \& 13,946 \& 30,584 \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 8,018 \\
& 8,512
\end{aligned}
$$
\]} <br>

\hline 220239 \& Other textile fabrics.................................................... \& . ..do. \& \& 15,874 \& 13,385 \& <br>

\hline 970099 \& \multirow[t]{2}{*}{All other materials, and components, parts, containers, and supplies consunned. Materials, containers, supplies, n.s.k.} \& \& \multirow[t]{2}{*}{$$
\begin{aligned}
& (X) \\
& (X)
\end{aligned}
$$} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
382,278 \\
4201,770 \\
\hline
\end{array}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& (\mathrm{X}) \\
& (\mathrm{X}) \\
& \hline
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
307,751 \\
4172,103
\end{array}
$$
\]} <br>

\hline 973000 \& \& \& \& \& \& <br>
\hline
\end{tabular}

[^32]
## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962


Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes:

- Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.


## Table 7C. Rubber Consumed in the Rubber Products Industries, by Geographic Areas: 1963

| Geographic Area | Natural rubber |  | Synthetic rubber |  | Reclaimed rubber |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity (long tons) | Delivered cost $(\$ 1,000)$ | Quantity (long tons) | $\begin{aligned} & \text { Delivered cost } \\ & (\$ 1,000) \end{aligned}$ | Quantity (long tons) | Delivered cost $(\$ 1,000)$ |
| United States, total. | 432,225 | 259,798 | ${ }^{2} 1,161,121$ | 1589,885 | 2258,252 | ${ }^{2} 49,419$ |
| New England.... | 50,660 | 33,857 | 108,689 1,885 | 62,437 1,187 | 18,123 | 2,898 |
| New Hampshire. | 24,671 | 17,337 | 1,885 | 34,389 | 12,100 | 1,501 |
| Rhode Island. | 6,604 | 5,161 | 3,807 | 2,914 | (D) | (D) |
| Connecticut. | 18,487 | 10,820 | 38,960 | 21,681 | (D) | (D) |
| Middle Atlantic. | 43,152 | 26,286 | 122,692 | 66,606 | 26,471 | 6,175 |
| New York. | 7,817 | 4,933 | 16,545 | 9,499 | 2,933 | 670 |
| New Jersey. | 9,888 | 6,419 | 16,651 | 12,504 | 3,222 | 862 |
| Pennsylvania. | 25,447 | 14,934 | 89,496 | 44,603 | 20,316 | 4,643 |
| East North Central. | 175,638 | 103,793 | 408,236 | 205,972 | 105,963 | 19,994 |
| Ohio. | 127,442 | 75,636 | 240,056 | 119,751 | 71,109 | 12,111 |
| Indiana. | 13,204 | 7,725 | 51,160 | 26,697 | 17,383 | 2,988 |
| Illinois. |  | (D) | 16,646 | 11,037 | (D) | (D) |
| Michigan.. | (D) | (D) | 74,688 | 36,080 | 10,969 | 3,105 |
| Wisconsin. | 6,779 | 3,916 | 25,686 | 12,407 | (D) | (D) |
| West North Central. | 35,612 | 20,612 | 87,192 | 42,167 | 23,278 | 5,357 |
| Minnesota. | (D) | (D) | 1,348 | 1,215 | (D) | (D) |
| Missouri. | 879 | 576 | 6,477 | 4,488 | 1,528 | 365 |
| Nebraska. | 159 | 111 | 254 | 182 | (D) | (D) |
| South Atlantic. | 22,635 | 14,118 | 82,505 | 41,952 | 7,467 | 1,684 |
| Maryland. | 11,862 | 6,578 | 32,364 | 14,473 | 4,647 | 999 |
| Virginia.. | 1,359 | 995 | 3,893 | 3,207 | (D) | (D) |
| North Carolina. | 978 | 600 | 8,200 | 4,783 | (D) | (D) |
| Georgia.. | 7,740 | 5,517 | 26,213 | 13,605 | (D) | (D) |
| East South Central. | 48,105 | 28,132 | 165,228 | 78,656 | 35,575 | 6,486 |
| Tennessee. | 23,452 | 13,867 | 59,688 | 29,222 | 12,742 | 3,355 |
| Alabama... | (D) | (D) | (D) | (D) | 16,389 | 1,593 |
| Mississippi. | (D) | (D) | 17,466 | 9,129 | (D) | (D) |
| West South Central. | 26,269 | 15,207 | 68,067 | 32,119 | 14,228 | 3,126 |
| West. . | 30,154 | 17,793 | 118,512 | 59,976 | 27,147 | 3,699 |
| California. | 23,923 | 13,845 | 96,417 | 47,945 | 15,889 | 3,528 |

[^33]TABLE 7D. Rubber Consumed in the Rubber Products Industries, by Type of Rubber and Class of Product: 1963 and 1958

| Code | Class of product | 1963 |  |  | 1958 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Natural rubber | Synthetic rubber | Reclaimed rubber | Natural rubber | Synthetic rubber | Reclaimed rubber |
|  | Total rubber reported consumed by rubber products industries (3011-3069)............ | 432,225 | 1,161,121 | 258,252 | 464,115 | 781,028 | 247,833 |
| 161 | Tires and tire products: <br> Passenger car tires. | 106,718 | 462,698 | 103,378 | 99.813 | 315,097 | 91.781 |
| 162 | Truck and bus tires (including off-the-highway).. | 152,140 | 123,769 | 20,797 | 164,178 | 66,312 | 20,939 |
| 163 | All other pneumatic and solid tires............... | 15,238 | 38,912 | 34,917 | 16,896 | 33,252 | 21,883 |
| 164 | Inner tubes... | 2,413 | 37,146 | 4,302 | 3,077 | 39,418 | 5.988 |
| 165 | Tread rubber, tire sundries and repair materials. | 16,215 | 130,738 | 6,658 | 18,340 | 103,160 | 7,730 |
|  | Mechanical rubber goods: |  |  |  |  |  |  |
| 166 | Flooring (mats, matting, tile, etc.). | 1,451 | 26,366 | 26,841 | 3,641 | 15,064 | 40,389 |
| 167 | Belting, hoses, and packing. | 12,725 | 56,996 | 19,938 | 15,543 | 31,137 | 15,161 |
| 168 | Foam and sponge rubber...... | 18,869 | 66,525 | 793 | 52,969 | 29,775 | 943 |
| 169 | Other, including flotation equipment, tank tracks, etc. | 34,896 | 105,450 | 20,932 | 23,819 | 64,651 | 24,434 |
| 170 | Tread and cements. | 13,036 | 7,365 | 2,452 | 14,751 | 10,876 | 1,906 |
| 171 | Footwear. ..... | 20,050 | 15,169 | 1,257 | 18,995 | 5,013 | 1,410 |
| 172 | Shoe products (heels, soles and findings). | 2,696 | 49,821 | 6,067 | 8,038 | 46,778 | 9,369 |
| 173 | Druggist and medical sundries ........................ | 5,601 | 1,333 | 15 | 4,259 | 736 | 5 |
| 174 | Compounds and mixtures (produced for sale as such) ${ }^{1}$ | 10,190 | 18,214 | 6,915 | 5,841 | 4,318 | 1,659 |
| 175 | All other rubber products, including proofed goods. | 19,984 | 20,619 | 2,990 | 13,955 | 15,441 | 4,236 |

${ }^{1}$ Respondents were requested to include in this table the rubber reported in table 7A under code 306980. Since this involves some duplication of rubber reported above under code 174, the quantities in code 174 were reduced so that total rubber consumed would equal the totals reported in tables 7A for codes 086113-15, 282203-09, and 303101.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


See footnotes at end of table.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued


# Leather and Leather Products 

31A Tanning; shoes; industrial leather goods
31B Leather gloves; luggage; and misc. leather goods

This major group includes establishments engaged in tanning, currying, and finishing hides and skins; and establishments manufacturing finished leather and artificial leather products and some similar products made of other materials. Leather "converters" who assign hides and skins to contractors for tanning and finishing are included in Industry 3111, Leather Tanning and Finishing.

## Leather and Leather Products: Major Group 31

Value Added by Manufacture by State: 1963


## table 1. General Statistics: 1963 and Earlier Years

| Year and item | Establishments |  | All employees ${ }^{\text {2 }}$ |  | Production workers |  |  | Value added by manufacture,adjusted$(\$ 1,000)$ | Cost of ${ }^{3}$ materials ${ }^{3}$ <br> $(\$ 1,000)$ | Value of shipmets $^{3}$ <br> shipments ${ }^{3}$ $(\$ 1,000)$ | $\begin{gathered} \begin{array}{c} \text { Capital } \\ \text { expenditures, } \\ \text { new } \end{array} \\ (\$ 1,000) \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Total } \\ & \text { (number) } \end{aligned}$ | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll $(\$ 1,000)$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| all manufacturing establishMENTS, TOTAL: |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 4120 | 2114 | 335071 | 1278064 | 292339 | 543094 | 982096 | 2078572 | 2127776 | 4209614 | 34566 |
| 1958 . . . . . | 4617 | 2259 | $\begin{array}{llll}358 & 484 \\ 365 & 3\end{array}$ | 1192168 | 310145 | 566033 |  | 1898007 | ( NA ) | 3896165 | 31825 |
| 1954. | (NA) | (NA) | 365334 | 1065196 | 321161 | 586857 | 833694 | 1640804 | (NA) | (NA) | 28053 |
| administrative and auxiliary units: |  |  |  |  |  |  |  |  |  |  |  |
| 19635. . . . | 73 | 41 | 7582 | 50240 | (x) | (x) | $(\mathrm{x})$ | (x) | (x) | $(x)$ | (x) |
| $1958{ }^{5}$. | 68 | 32 | 9319 | 46203 | (x) | (x) | (x) | (x) | (x) | $(x)$ | $(x)$ |
| 19545. | (NA) | (NA) | 8756 | 37882 | (x) | (x) | (x) | $(x)$ | (x) | (x) | (x) |
| operating manufacturing ESTABLISHMENTS: |  |  |  |  |  |  |  |  |  |  |  |
| 1963.... | 4047 | 2 2 073 | 327489 | 1227824 | 292339 | 543094 | 982096 | 2078572 | 2127776 | 4209614 | 34566 |
| 1958 | 4 4 4 4 | $\begin{array}{ll}2 & 227 \\ 2 & 267\end{array}$ | $\begin{array}{lll}349 & 165 \\ 356 & 578\end{array}$ | $\begin{array}{lllll}1 & 145 & 965 \\ 1 & 0 & 27 & 314\end{array}$ | 310145 | 566033 | 912256 | 1  <br> 1 8980 | (NA) | 3896165 | 31825 28053 |
| 1954 | 4845 | 2267 | 356578 | 1027314 | 321161 | 586857 | 833694 | 1640804 | (NA) | (NA) | 28053 |
| OPERATING MANUFACTURING <br> ESTABLI SHMENTS: |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $19616^{6}$. | (NA) | (NA) | 350680 | 1224517 | 311664 | 567950 | 969566 | 2040786 | 2135975 | 4186276 | 34743 |
| $1960{ }^{6}$. | (NA) | (NA) | 357682 | 1227298 | 317267 | 581528 | 971626 | 2043601 | (NA) | ( NA ) | 34677 |
| $1959{ }^{6}$. | ( NA) | (NA) | 363340 | 1246215 | 323665 | 601045 | 992570 | 2120655 | (NA) | ( NA ) | 34102 |
| $1957{ }^{6}$. | (NA) | (NA) | 361945 | 1 1 1 1 1566661 | 322 3288 | 589507 | 938535 <br> 938 <br> 864 | 1 1 1 891636 | (NA) | (NA) | 31733 |
| ${ }_{1955}^{1956}{ }^{\circ} \times . . . . . . .$. | (NA) | (NA) | 3668221 366204 | 1 1 1 1 102222929 | 328 <br> 32985 | 606690 613 | 938564 895596 | 1 881 <br> 1 778 | (NA) | (NA) (NA) | 36813 37433 |
| $1955{ }^{6}$. | ( NA ) | (NA) | 366204 | 1102212 | 329533 | 613385 | 895596 | 1778079 | (NA) | (NA) | 37433 |
| $1953{ }^{6}$. | (NA) | (NA) | $\begin{array}{llll}375 & 364 \\ 361\end{array}$ | 1098806 | $\begin{array}{lll}338 & 355 \\ 324 & \end{array}$ | 629498 | 896502 | 1 711 | ( NA) | (NA) | 24678 18 745 |
| $1952^{6}$. | 5012 | (NA) | 361373 | 1015535 | 324008 | 605356 | 834103 | 1597377 | (NA) | (NA) | 18745 |
| $19511^{\circ} 6^{\circ}$ | 4883 4983 4 | (NA) | 353 <br> 35750 <br> 123 | 944582 | $\begin{array}{llll}317 & 604 \\ 341\end{array}$ | 575635 | 767982 | $\begin{array}{lllll}1 & 475 & 451 \\ 1 & 498 & 811\end{array}$ | (NA) | (NA) | 22385 |
| $1950{ }^{1949}{ }^{6}$. | 4903 | (NA) | 385 123 <br> 75  | 949271 | 341733 | 629260 | 773381 | $\begin{array}{ll}1 & 498811 \\ 1 & 396\end{array}$ | (NA) | (NA) | 25791 |
| $1949{ }^{6}{ }^{\circ}$. | (NA) | (NA) | $\begin{array}{llll}375 & 246 \\ 393\end{array}$ | 891734 | 337483 | 609556 | 721888 | $1 \begin{array}{ll}1 & 386550\end{array}$ | (NA) | (NA) | 29618 |
| 1947 | $\begin{array}{ll}5 & 308 \\ 3 & 505\end{array}$ | (NA) | 383264 | 873746 | 348615 | 677001 | 725308 | 1533028 | (NA) | (NA) | 31301 |
| 1939 | 3505 | (NA) | (NA) | ( NA) | 327189 <br> 2851 | ( NA) | 293922 | 582915 | ( NA) | (NA) | (NA) |
| 1937 | 3249 | (NA) | (NA) | (NA) | 328551 | ( NA ) | 308027 | 583780 | (NA) | (NA) | (NA) |
| 1935 | 3506 | (NA) | 336112 | 333427 | 310755 | ( NA) | 279740 | 530138 | ( NA) | ( NA) | ( NA ) |
| 1933 | 3265 | (NA) | 301951 | 254071 | 282000 | (NA) | 222487 | 452036 | ( NA) | (NA) | ( NA ) |
| 1931 | 3702 | (NA) | ( NA ) | (NA) | 272757 | ( $N A$ ) | 262130 | 523676 | ( NA) | ( NA) | ( NA ) |
| 1929 | 4285 | (NA) | $\begin{array}{lll}351 & 224 \\ 350\end{array}$ | 443827 | 318472 | ( NA) | $\begin{array}{ll}359 & 461\end{array}$ | 774179 | (NA) | ( NA) | (NA) |
| 1927 | 4272 | (NA) | $350 \quad 380$ | 443832 | $\begin{array}{llll}316 & 081 \\ 314 & 128\end{array}$ | (NA) | 364537 <br> 355 | 780799 | ( NA) | (NA) | (NA) |
| 1925. | 4252 | (NA) | (NA) | ( NA ) | 314 128 <br> 345  <br> 150  | (NA) | $\begin{array}{llll}355 & 419\end{array}$ | 751004 | ( NA) | ( NA) | (NA) |
| 1923 | 4881 | (NA) | (NA) | (NA) | $\begin{array}{llll}345 & 650 \\ 280 & 363\end{array}$ | (NA) | 388677 | 797259 | (NA) | (NA) | (NA) |
| 1921 | 4827 | (NA) | 313877 | 385184 | 280363 | ( $N A$ ) | 314652 | 610382 | (NA) | (NA) | ( NA ) |
| 1919 | 6423 | (NA) | 394104 | 469321 | $\begin{array}{lll}350 & 079\end{array}$ | ( NA) | 364036 | 898313 | (NA) | ( NA) | (NA) |
| 1914 | 6798 | (NA) | 340741 | 213331 | 308223 | ( $N A$ ) | 169917 | 353280 | ( NA ) | ( NA) | ( NA ) |
| 1909 | 5 | (NA) | 339 992 | 190969 | 311312 | (NA) | 155814 | 325203 | (NA) | (NA) | (NA) |
| 1904. | 5376 | (NA) | 284300 | 141004 | $\begin{array}{llll}266 & 013 \\ 246 & 9\end{array}$ | (NA) | 121436 | 246064 | ( NA) | ( NA) | (NA) |
| 1899 . . . . . . . . . . | 5685 | (NA) | 265218 | 117404 | 249913 | ( NA) | 101982 | 186870 | ( NA ) | (NA) | (NA) |

Standard Notes: - Represents zero, (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
${ }^{1}$ The figures for 1939 through 1963 include data for employees of manufacturing establishments who were engaged in disbribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known. ${ }^{\text {F For }}$ the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, madjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the of the year, without adjustment for price changes. For industries reporting the value of production, the adjustment for the change in finished products inventories was not made Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. For 1899 to 1933 , cost of contract work was not subtracted from value of products in calculating value added by manufacture. See Introduction, "Value
${ }^{3}$ The cost of materials and value of shipments figures ( $2-$ and 3 - digit) include unlishments within the same industry classification. For a more complete explanation, see Introduction.
${ }^{4}$ For 1958 to 1963 , includes expenditures for establishments under construction but not in operation.

FIn addition to data for operating establishments, 1954, 1958, and 1963 data are shown for manufacturers' central administrative orfices and auxiliary units. Similar data are shown for the years 1949-1953 in the annual survey of manufactures volumes. Data for these establishments are not available for the years 1955 to 1957, 1959 to 1962, or prior to 1949.

These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete estimates are published in the mnual survey of menufecures volumes for this period

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958


[^34]TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

(X) Not applicable

[^35]table 3. Detailed Statistics: 1963

| Item | Leather and leather products (SIC 31) | Leather tanning and finishing (SIC 311) | Industrial leather belting (SIC 312) | Footwear cut stock (SIC 313) | Footwear, except rubber (SIC 314) | Leather gloves (SIC 315) | $\begin{array}{r} \text { Luggage } \\ (\text { SIC } 316) \end{array}$ | Purses and small leather goods (SIC 317) | Leather goods, n.e.c. ( $\operatorname{Sif}, 319)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ESTABL ISHMENTS, TOTAL . . . . . . . . . NUMBER. | 4047 | 525 | 83 | 446 | 1193 | 166 | 379 | 885 | 370 |
| WITH 1 TO 19 EMPLOYEES. . . . . . . . . . DO. | 1974 | 269 | 60 | 242 | 281 | 79 | 234 | 506 | 303 |
| WITH 20 TO 99 EMPLOYEES . . . . . . . . . DO. | 1135 | 166 | 18 | 169 | 274 | 66 | 102 | 278 | 62 |
| WIth 100 EMPLOYEES OR MORE. . . . . . . . DU. | 938 | 90 | 5 | 35 | 638 | 21 | 43 | 101 | 5 |
| PROPRIETORS AND WORKING PARTNERS. . . . . . DO. | 2345 | 328 | 63 | 376 | 570 | 92 | 202 | 449 | 265 |
| ALL EMPLOYEES (aVERage for the year). . . . DO. | 327489 | 31417 | 2870 | 14339 | 212767 | 7718 | 16409 | 36980 | 4989 |
| PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR \$1,0C0. | 1227824 | 163307 | 15897 | 53420 | 753359 | 24439 | 62853 | 135807 | 18742 |
| PRODUCTION WORKERS: |  |  |  |  |  |  |  |  |  |
| average for the year. . . . . . . . . number. | 292339 | 27282 | 2099 | 12600 | 192795 | 6899 | 14134 | 32321 | 4209 |
| MARCH . . . . . . . . . . . . . . . . DO. | 293655 | 26749 | 2074 | 12971 | 195218 | 6394 | 13184 | 32944 | 4121 |
| MAY . . . . . . . . . . . . . . . . . DO. | 284735 | 26959 | 2128 | 12353 | 190247 | 6707 | 14092 | 28054 | 4195 |
| AUGUST. . . . . . . . . . . . . . . . DO. | 297039 | 27284 | 2129 | 12464 | 195131 | 7259 | 14877 | 33638 | 4257 |
| NOVEMBER . . . . . . . . . . . . . . . . DO. | 293935 | 28136 | 2065 | 12620 | 190584 | 7236 | 14383 | 34648 | 4263 |
| MAN-HOURS . . . . . . . . . . . . 1,000. | 543094 | 54556 | 4198 | 23694 | 352223 | 12244 | 26340 | 61332 | 8507 |
| JANUARY-MARCH . . . . . . . . . . . DO. | 135951 | 13436 | 1033 | 6056 | 89290 | 2752 | 6070 | 15305 | 2009 |
| APRIL-JUNE. . . . . . . . . . . . . . . DO. | 132994 | 13871 | 1082 | 5914 | 86776 | 3000 | 6739 | 13510 | 2102 |
| JULY-SEPTEMGER, . . . . . . . . . . . . DO. | 135835 | 13275 13 | 1030 | 5740 | 87854 | 3276 | 6819 | 15733 | 2108 |
| OCtuber-december. . . . . . . . . . . . DO. | 138314 | 13974 | 1053 | 5984 | 88303 | 3216 | 6712 | 16784 | 2288 |
| WAGES . . . . . . . . . . . . . . . \$1,000. | 982096 | 129756 | 9723 | 40867 | 619751 | 19481 | 46715 | 102135 | 13668 |
| COST OF MATERIALS, ETC., TOTAL ${ }^{1}$. . . . . . DO. | 2127776 | 480507 | 18954 | 138225 | 1094496 | 46694 | 100363 | 213710 | 34827 |
| MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED. . . . . . . . . . DO. . | 1924011 | 397655 | 15591 | 129045 | 1038099 | 34295 | 93531 | 185991 |  |
| COST OF RESALES . . . . . . . . . . . . . DO. | 67554 | 8177 | 2697 | 6310 | 24858 | 7502 | 4405 | 9183 | 4422 |
| FUELS CONSUMEO. . . . . . . . . . . . . . DO. | 12787 | 8350 | 139 | 543 | 2865 | 138 | 276 | 389 | 87 |
| ELECTRIC ENERGY: <br> PURCHASED: |  |  |  |  |  |  |  |  |  |
| OUANTITY. . . . . . . . .MILLION KW. -HRS. | 880 |  | 16 | 54 | 387 | 7 | 48 | 67 | 10 |
| COST. . . . . . . . . . . . . . . $\$ 1,000$. | 15904 | 4694 | 227 | 1027 | 7570 | 146 | 781 | 1278 | 181 |
| generated less solo . . . .Million kw. -hrs. | 621 | 78 | - | (D) | 122 | - | (D) | (D) | (D) |
| CONTRACT WORK . . . . . . . . . . . . \$1,C00. | 107520 | 61631 | 300 | 1300 | 21104 | 4613 | 1370 | 16869 | 333 |
| VALUE OF SHIPMENTS (INCLUDING RESALES), . DO. |  |  |  |  |  |  |  |  |  |
| TOTAL ${ }^{\text {P }}$ - ${ }^{\text {c }}$ - . . . . . . . . . . DO. | 4209614 |  |  |  | 2372727 |  | 210303 | 439356 | 67058 |
| Value uf resales. . . . . . . . . . . . . DO. | 86733 | 9095 | 3783 | 7972 | 30668 | 9201 | 6297 | 13076 | 6641 |
| VALUE ADDED By manufacture, adjusted. . . . DO. | 2078572 | 273092 | 32915 | 90611 | 1279295 | 32194 | 112796 | 224939 | 32730 |
| MANUFACTURERS' INVENTORIES: |  |  |  |  |  |  |  |  |  |
| BEGINNING OF YEAR, TOTAL. . . . . . . . . DO. . | 566439 | 149201 | 7667 | 24310 | 285248 | 16532 | 33312 | 40824 | 9345 |
| FINISHED PROOUCTS . . . . . . . . . . . DO. . | 216925 | 146085 | 3489 | 9596 | 111492 | 8370 | 14745 | 18799 | 4349 |
| WORK-IN-PROCESS . . . . . . . . . . DO. . | 136184 | 63404 | 1839 | 3319 | 52409 | 3347 | 4386 | 6641 | 839 |
| MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. . | 213329 | 39712 | 1 2339 | 11395 | 121347 | 4815 | 14180 | 15384 | 4157 |
| END OF YEAR, TOTAL. . . . . . . . . . . . DO. | 551861 | 140301 | 7726 | 22980 | 280454 | 14858 | 36292 | 39723 | 9527 |
| FINISHED PRODUCTS . . . . . . . . . . . DO. | 215783 | 43839 | 3566 | 8831 | 112218 | 6828 | 17731 | 18129 | 4641 |
| WORK-IN-PROCESS . . . . . . . . . . . DO. | 134060 | 60841 | 1762 | 3667 | 52747 | 3137 | 4256 | 6604 | 1046 |
| MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. | 202018 | 35621 | 2398 | 10482 | 115489 | 4893 | 14305 | 14990 | 3840 |
| EXPENDITURES FOR PLANT AND EOUIPMENT, TOTAL DO. | 38462 | 7003 | 771 | 1953 |  | 370 |  |  | 798 |
|  | 34566 | 6480 | 742 | 1620 | 19570 | 328 | 1908 | 3152 | 766 |
| NEW STRUCTURES AND ADDITIONS TO PLANT . DO. NEW MACHINERY AND EOUIPMENT. | 6257 | -756 | 75 | 184 | 4386 | 96 | 139 | 412 | 209 |
| NEW MACHINERY AND EOUIPMENT . . . . . . DO. | 28309 | 5724 | 667 | 1436 | 15184 | 232 | 1769 | 2740 | 557 |
| USED Plant and eouipment . . . . . . . . . DO. | 3896 | 523 | 29 | 333 | 2453 | 42 | 251 | 233 | 32 |
| SELECTED OPERATING RATIOS: |  |  |  |  |  |  |  |  |  |
| PAYROLL/TOTAL EMPLOYMENT, EMOLIOCT WORKERS/TOTAL EMPLONT . . . . | 3749 | 5198 | 5539 | 3726 | 3541 | 3166 | 3830 | 3672 | 3757 |
| PRODUCT ION WORKERS/TOTAL EMPLOYMENT . . . . . | . 89 | . 87 | . 73 | . 88 | . 91 | . 89 | . 86 | . 87 | . 84 |
| MAN-HOURS/PRODUCTION WORKERS PRODUCTION WORKER WAGES/MAN-HOURS . . . . . . . | $1 \begin{array}{ll}1858\end{array}$ | 2000 | 1984 | 1880 | 1827 | 1775 | 1878 | 1898 | 2021 |
| PRODUCTION WORKER WAGES/MAN-HOURS . . . . . . . cost of materials and payrolls/total value of | 1.81 | 2.38 | 2.33 | 1.72 | 1.76 | 1.59 | 1.76 | 1.67 | 1.61 |
|  | . 80 | . 85 | . 67 | . 84 | . 78 | . 88 | . 78 | . 80 | . 80 |
| cost of materials/total value of shipments. . | . 51 | . 63 | . .37 | . 64 | . .46 | . 58 | . 48 | . 49 | - 52 |
|  | 6347 | B 692 | 11469 | $6 \quad 319$ | 6013 | 4171 | 6847 | 6083 | 6560 |
| SALARIES AND WAGES/ADJUSTED VALUE ADDED | . 59 | . 60 | . 48 | . 59 | . 59 | . 76 | . 56 | . 60 | . 57 |

Standari Notes: - Represents zero, (D) Withheld to avoid disclosing figures for iniviviaual companies. (NA) Not available. (X) Not applicable.
${ }^{1}$ The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.

## TANNING; FOOTWEAR; INDUSTRIAL LEATHER GOODS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

## SIC Code and Title

3111--Leather Tanning and Finishing
3121 - Industrial Leather Belting and Packing
3131 --Boot and Shoe Cut Stock and Findings
3141 - Footwear, Except House Slippers and Rubber Footwear
3142-House Slippers
The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owred by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3111--LEATHER TANNING AND FINISHING

This industry comprises establishments primarily engaged in tanning, currying and finishing hides and skins into leather. This industry also includes leather converters, who buy hides and skins and have them processed into leather on a contract basis by others. For a detailed list of products of industry 3111 , refer to table 6A, product codes 3111111 to 3111911.
ratterns of Operation. -The leather tanning and finishing industry is characterized by three major types of establishment operations: (1) "regular tanneries," (2) leather "converters," and (3) "contract tanneries." The regular tannery purchases raw materials, employs production workers in the plant to tan, curry, and finish the hides and skins, and sells the finished product; in effect, this establishment type performs all of the usual manufacturing functions within one establishment.

The leather converter, on the other hand, typically performs only the entrepreneurial functions of the manufacturing concern, such as buying raw materials, arranging with outside factories (contract tanneries) for the production of the finished leathers, and marketing the finished product. The actual tanning and finishing of the hides and skins is done on contract by the contract tanneries. The contract tanner employs production
workers in his own establishment to process materials owned by converters, makes products to specification, and does not become involved in the sale of the finished product.

Methods of Reporting on Census Questionnaires.-Typically, the regular tannery reports figures on employment (including production workers), cost of hides, skins, and other raw materials, and the value of shipments of prodicts made by him from his own materials. The leather converter will show, in addition to his cost of raw materials, a cost for contract work, and the shipments of products made for him from his own materials. The typical leather converter's questionnaire shows few, if any, production workers but labor costs are indirectly reflected in his report on cost of contract work. The contract tanner, on the other hand, reports figures on employment (primarily production workers). Instead of showing the shipments of the leathers which he processed (which would duplicate the data reported by his principals), the contractor reports his receipts for the contract work done for leather converters on their materials. His materials costs and contract receipts do not include any costs for materials which he has processed but did not own.

Classification of Establishments.--Since these different methods of operation lead to significant differences in the various relationships between wages and salaries paid, cost of materials, value of shipments, and value added by manufacture, plants were classified by their primary method of operation, as regular tanneries, converters, or contract tanneries. Separate statistics for each group are shown in tables 2 to 4.

It should be noted, however, that some establishments in industry 3111 employ more than one method of operating. For example, some establishments act as both a regular tannery and a leather converter, or as a regular and a contract tannery. In assigning the primary method of operation for manufacturer-converter plants, the relationship between wages and salaries paid to the cost of contract work was the determining factor. If direct wage and salary payments were less than payments for contract work, the plant was classified as a converter. For plants operating as both regular and contract tanneries, the relationship between the value of shipments of products made for their own account was compared with the receipts for work done on materials owned by other establishments to determine the plant's primary method of operation.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Leather Tanning and Finishing Industry in 1963 totaled $\$ 758$ million. This amount included shipments of tanned, curried and finished leather (primary products) valued at $\$ 633$ million, shipments of other products (secondary products) valued at $\$ 5$ million, and miscellaneous receipts (mainly contract work on materials owned by others) at $\$ 120$ million.

This industry's shipments of tanned, curried and finished leather in 1963 represented 99 percent of its total product shipments. The industry specialization ratio in 1958 was 100 percent.

The production index for the primary products of the industry decreased to 90 in 1963 from the 1958 level of 99 . The unit value index for 1963 was 113 compared to 103 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3121 -INDUSTRIAL LEAT'HER BELTING AND PACKING

This industry comprises establishments primarily engaged in manufacturing industrial leather products, such as transmission belting, mechanical packings, and textile leather.

Establishments primarily engaged in manufacturing leather gaskets are classified in industry 3293, Steam and Other Packing and Pipe and Boiler Covering. For a detailed list of products of industry 3121, refer to table 6A, product codes 3121013 to 3121098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Industrial Leather Belting Industry in 1963 totaled $\$ 51.9$ million. This amount included shipments of industrial leather belting and packing (primary products) valued at $\$ 42.5$ million, shipments of other products (secondary products) valued at $\$ 5.2$ million, and miscellaneous receipts (mainly products bought and resold without further processing) at $\$ 4.2$ million.

This industry's shipments of $\$ 42.5$ million in 1963 represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 90 percent. Secondary products shipped by this industry in 1963 consisted mainly of mechanical rubber goods, n.e.c. ( $\$ 4.3$ million).

## 3131-BOOT AND SHOE CUT STOCK AND FINDINGS

This industry comprises establishments primarily engaged in manufacturing leather soles, inner soles, and other boot and shoe cut stock and findings. This industry also includes finished wood heels. Establishments primarily engaged in manufacturing heels, soling strips, and soles made of rubber, composition, plastics, and fiber are classified in Major Group 30, Rubber and Miscellaneous Plastics Products. For a detailed list of products of industry 3131, refer to table 6A, product codes 3131011 to 3131069 .

It should be noted that the statistics for the Footwear Cut Stock Industry include only establishments primarily producing for the commercial market or for transfer to other plants of the same company. The figures shown in table 6A on the shipments of footwear cut stock and findings do not include the production of these products made and consumed in integrated shoe manufacturing plants.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Footwear Cut Stock Industry in 1963 totaled $\$ 229.3$ million. This amount included shipments of boot and shoe cut stock and findings (primary products) valued at $\$ 202.4$ million, shipments of other products (secondary products) valued at $\$ 14.1$ million, and miscellaneous receipts (mainly products bought and resold without further processing) at $\$ 12.7$ million.

This industry's shipments of boot and shoe cut stock and findings in 1963 represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 consisted mainly of rubber heels and soles ( $\$ 7.3$ million), and leather tanning and finishing ( $\$ 1.3$ million).

The production index for the primary products of the industry decreased to 79 in 1963 from the 1958 level of 89 . The unit value index for 1963 was 113 compared to 111 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3141 -FOOTWEAR, EXCEPT HOUSE SLIPPERS AND RUBBER FOOTWEAR

This industry comprises establishments primarily engaged in the manufacture of boots and shoes designed primarily for street, work, play or sport wear. Establishments
primarily engaged in the production of suchprotective footwear as rubbers, rubber boots, storm shoes, galoshes and other footwear with rubber soles vulcanized to fabric uppers are classified in industry 3021 . For a detailed list of products of industry 3141, refer to table 6A, product codes 3141101 to 3141710 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Establishments in this industry were requested to report "value of shipments" in 1963 and "value of production" in prior years. This change was made as a result of a review of the reporting which indicated that the value of shipments data were more generally available from company records and were usually reported in place of value of production. This change does not significantly affect the comparability between 1963 and prior years for the product statistics shown in table 6A or in the value of shipments or value added data shown in table 1.

Value of shipments and other receipts of the Shoes, Except Rubber Industry in 1963 totaled $\$ 2,249$ million. This amount included shipments of shoes, except rubber (primary products) valued at $\$ 2,174$ million, shipments of other products (secondary products) valued at $\$ 26$ million, and miscellaneous receipts (mainly contract work on materials owned by others), at $\$ 49$ million.

This industry's shipments of shoes, except rubber in 1963 represented 99 percent of its total product shipments. The industry specialization ratio in 1958 was also 99 percent. Secondary products shipped by this industry in 1963 consisted mainly of house slippers ( $\$ 17$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 26 percent of the total industry shipments are represented by plants specializing in men's dress shoes, including play shoes; and 48 percent in women's dress, work, and play shoes.

Shipments of shoes, except rubber, by this industry in 1963 represented 99 percent of all shipments of these products ( $\$ 2,197$ million) by all industries. In 1958 the coverage ratio was also 99 percent.

The production index for the primary products of the industry increased to 112 in 1963 from the 1958 level of 110 . The unit value index for 1963 was 111 compared to 103 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3142—HOUSE SLIPPERS

This industry comprises establishments primarily engaged in manufacturing house slippers of leather or other materials. For a detailed list of products of industry 3142, refer to table 6A, product code 3142061 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Establishments in this industry were requested to report "value of shipments" in 1963 and "value of production" in prior years. This change was made as a result of a review
of the reporting which indicated that the value of shipments data were more generally available from company records and were usually reported in place of value of production. This change does not significantly affect the comparability between 1963 and prior years for the product statistics shown in table 6A or in the value of shipments or value added data shown in table 1.

Value of shipments and other receipts of the House Slippers Industry in 1963 totaled $\$ 123$ million. This amount included shipments of house slippers (primary products) valued at $\$ 108$ million, shipments of other products (secondary products) valued at $\$ 12$ million, and miscellaneous receipts (mainly contract work on materials owned by others), at $\$ 3$ million.

This industry's shipments of house slippers in 1963 represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 90 percent.

Shipments of house slippers by this industry in 1963 represented 85 percent of all shipments of these products ( $\$ 128$ million) by all industries. In 1958 the coverage ratio was 85 percent.

The production index for the primary products of the industry increased to 146 in 1963 from the 1953 level of 131. The unit value index for 1963 was 94 compared to 95 in 1958. Both indexes were computed on a basis of $1954=100$.


FOOTWEAR CUT STOCK: SIC 313
Value Added by Manufacture by State: 1963

table 1．General Statistics： 1963 and Earlier Years

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Year} \& \multirow[b]{2}{*}{\[
\begin{aligned}
\& \text { Com- } \\
\& \text { panies } \\
\& \text { (number) }
\end{aligned}
\]} \& \multicolumn{2}{|l|}{Establismments} \& \multicolumn{2}{|r|}{All employes} \& \multicolumn{3}{|c|}{Production workers} \& \multirow[b]{2}{*}{Value
added by
mantactues \(\underset{\substack{\text { manufacture，} \\ \text { adiusted }}}{ }\) （ \(\$ 1,000)\)} \& \multirow[b]{2}{*}{Cost of materials \((\$ 1,000)\)} \& \multirow[b]{2}{*}{\begin{tabular}{l}
Value of \\
shipments \\
\((\$ 1,000)\)
\end{tabular}} \& \multirow[b]{2}{*}{\begin{tabular}{l}
Capital \\
expend－
itures， \\
new \\
\((\$ 1,000)\)
\end{tabular}} \& \multirow[b]{2}{*}{\begin{tabular}{l}
Spe－
cial－ \\
iration \\
ratio \\
（per－ \\
cent）
\end{tabular}} \& \multirow[b]{2}{*}{} \\
\hline \& \& \[
\begin{array}{|l|l|}
\hline \text { Totalal } \\
\text { (number) }
\end{array}
\] \& with 20
enploy
efos
of more
onumber） \& \({ }_{\text {（number）}}^{\text {Total }}\) \& （ 51,000\()\) \& （number） \& Man－hours
\((1,000)\) \& Wages
（s，000） \& \& \& \& \& \& \\
\hline \multicolumn{15}{|c|}{} \\
\hline \& 482 \& \& \& 31，417 \& 163，307 \& \& \& \& \& \& \& \& \& O0 \\
\hline 1961 \& （NA） \& （NA） \& （NA） \& 33，227 \& 1577，237 \& 28，658 \& 55，018 \& 123， \& 267， \& \& 761，138 \& 7，154 \& （ NA （ \& （ NA （ \({ }_{\text {NA }}\) \\
\hline \(1960{ }^{1}\) \& （NA） \& （NA） \& （NA） \& 34，539 \& 163，864 \& 29，955 \& 57，600 \& 128，901 \& 278，536 \& 508， \& 790， \& 6，145 \& （NA） \& （NA） \\
\hline 19591 \& （NA） \& （ NA ） \& （NA） \& 37，055 \& 173，573 \& － 32,359 \& 62，606 \& 137，101 \& 337，518 \& 558 \& 886，908 \& 7.583 \& （NA） \& （NA） \\
\hline \({ }_{1957} 195\) \& （NA） \& （NA） \& （NA） \& 40，099 \& 177，071 \& 35，001 \& 63，376 \& 133,183
137,409 \& \& 4．44， \& 743
737
7 \& 年， 6,847 \& \& \({ }_{\text {（Na）}}\) \\
\hline \(1956{ }^{1}\) \& （NA） \& （NA） \& （NA） \& 41，380 \& 172，452 \& 36，505 \& 72，076 \& 140，973 \& 288，40 \& 480，477 \& 759，4 \& 6，156 \& （NA） \& （NA） \\
\hline \({ }_{-19554^{2}}\) \& \({ }_{5}^{(\mathrm{NA}} \mathrm{5} 5\) \& （NA） \& （NA） \& 43,498
43,468 \& 177,153
168,139 \& 38,640
38,662 \& 76，923 \& \({ }^{143,511}\) \& \(\xrightarrow{296,634}\) \& \begin{tabular}{l}
\(4.58,789\) \\
\(4.8,274\) \\
\hline
\end{tabular} \& 762,836
713,324 \& ¢，\({ }_{7,123}\) \& （ \({ }_{98}\) \& （NA）
100 \\
\hline \& \& \& \& \& \& \& \& \& \& \& \& \& \& \\
\hline \& （NA） \& （NA） \& （NA） \& 44，028 \& 162，72 \& \& \％， \& ， \& \& \& \& 4，193 \& （NA） \& （NA） \\
\hline \({ }_{19501}^{1951}\) \& （NA） \& （NA） \& （NA） \& 4， 4 4， 103 \& 1599，544 \& 40,497
44,883 \& 89，597 \& \begin{tabular}{l}
129,763 \\
134,840 \\
\hline
\end{tabular} \& 286，1 \& 631， 67 \& 983，331 \& 7，239 \& （（NA） \& （NA） \\
\hline 19491 \& （NA） \& （ Na ） \& （NA） \& 50，195 \& 160， 333 \& \& 88，775 \& 129，192 \& 291, \& 587， \& 878， \& （s） \& （NA） \& （NA） \\
\hline \({ }_{1}^{19492}\) \& （NA） \& 541 \& （NA） \& cis， 51,592 \& 156，632 \& － 48,6886 \& （100，\({ }_{\text {（NA）}}\) \& －130，700 \& \({ }^{403,831} 1\) \& 269， \& 346，438 \& （NA） \& （NA） \& （NA） \\
\hline \& （NA） \& 402 \& （NA） \& 54，427 \& 72，026 \& 50，687 \& （NA） \& \begin{tabular}{l}
61,288 \\
\hline 5,93
\end{tabular} \& 113，513 \& 281，506 \& 395，022 \& （NA） \& （NA） \& （NA） \\
\hline \({ }_{193533^{2}}\) \& \({ }_{\text {（NA）}}^{(N)}\) \& 384 \& \({ }_{\text {（NA }}^{\text {（NA）}}\) \& 54,823
47,008 \& 66,640
48,909 \& 50,877
44,191 \& （NA） \& 55,683
43,076 \& 108，933 \& 139， 1177 \& 308,345
237,202 \& \(\underset{(N A)}{\text {（NA）}}\) \& （NA） \& （NA）
（NA） \\
\hline 19 \& （na） \& 418 \& （ NA ） \& （va） \& （Na） \& 42，047 \& （Na） \& 49，542 \& 98，352 \& 172， \& 271， \& （NA） \& \& \\
\hline \& （NA） \& 471 \& （NA） \& 54,233 \& 79，063 \& \& （NA） \& 63，414 \& 143，742 \& \& \& （NA） \& \& （NA） \\
\hline 1925 \& （NA） \& \({ }_{5}^{49}\) \& （（NA） \&  \& 81，743） \& ¢2，924 \& （NA） \& 67,887
65,83

che \& 162，27 \& | 331，985 |
| :--- |
| 2965 |
| 185 | \& 494， 4 \& （NA） \& （NA） \& （NA） <br>

\hline 19 \& （NA） \& 597 \& （ NA ） \& 65，312 \& 89，401 \& 59，703 \& （NA） \& 73，784 \& 167，148 \& 321，750 \& 488 ， \& （NA） \& （NA） \& （NA） <br>
\hline 19 \& （NA） \& 608 68 \& （NA） \& 53，699

78,894 \& －108，384 \& ${ }_{72,476}^{48,95}$ \& （NA） \& | 57，741 |
| :--- |
| 88,205 | \& 105，620 \& 277， \& $\begin{array}{r}383,35 \\ 988,5 \\ \hline\end{array}$ \& （NA） \& （NA） \& （NA） <br>

\hline \& （NA） \& 680 \& （（NA） \& 60，214 \& 39，291 \& 55，936 \& （NA） \& 31，914 \& 82，931 \& 284，245 \& 367， 2 \& （NA） \& （NA） \& （NA） <br>
\hline \& （NA） \& \& （NA） \& \& 38， \& 62， \& （NA） \& 32，10 \& \& 248 \& \& （NA） \& \& （NA） <br>
\hline ${ }^{19049^{2}}$ \& （NA） \& 1，306 \& （ NA \& 60,490
54,517 \& 31,501
25,750 \& 52，109 \& （NA）
（NA） \&  \& 61，${ }_{49}$ ， 038 \& 151，000 \& 252,62
204,0 \& $\left(\begin{array}{c}\text { NA } \\ \text { NA）} \\ \hline\end{array}\right.$ \& （NA） \& （NA） <br>
\hline \& \multicolumn{14}{|c|}{Industry 3121．－TIDUSTRTAL IEATHER BEItiva} <br>
\hline \multirow[t]{7}{*}{} \& \& \& \& \& \& \& \& \& 2，915 \& \& \& \& \& <br>
\hline \& （NA） \& （NA） \& （NA） \& $(4,735)$ \& \& \& $(5,477)$ \& （12， 1212$)$ \& \& \& \& （ \& （NA） \& （NA） <br>
\hline \& （NA） \& （NA） \& （NA） \& （6，744） \& （26，152） \& （5，068） \& （9，202） \& （ 16,913 ） \& （51，998） \& $(29,723)$ \& （81，020） \& （2，341） \& （Na） \& <br>
\hline \& （NA） \& （NA） \& （ Na ） \& （5，551） \& （25，461） \& （ 4,208 \& （8，653） \& （16，${ }^{1247}$ ） \& （46，862） \& （41， 313$)$ \& （87，977） \& （1，932） \& （NA） \& （ NA ） <br>
\hline \& （NA） \& （ NA ） \& （na） \& 4，537 \& 20，670 \& 3，128 \& 6，415 \& 12，708 \& 43，83 \& 31，0 \& 72，069 \& （s） \& （NA） \& （NA） <br>
\hline \& （NA） \& （Na） \& （NA） \& \& \& \& \& \& \& \& \& \& \& （NA） <br>
\hline \& 128 \& \& \& 4，57 \& 18，5 \& 3，342 \& 6，513 \& 11，484 \& 35，383 \& 30，682 \& 7，102 \& 1，955 \& \& <br>
\hline 19532 \& （NA） \& （na） \& （NA） \& 5，022 \& 21，147 \& 3，545 \& 7，251 \& 12，930 \& 49，71 \& 32，3 \& 82， \& 1，038 \& （NA） \& （1a） <br>
\hline \& （NA） \& （NA） \& （NA） \& 6，63 \& 25， \& \& 10， \& 16，6 \& 39， \& 52， \& \& \& \& <br>
\hline \& （NA） \& （NA \& （NA） \& 5，33 \& 20，20 \& 4 \& 8,3 \& 11，522 \& 35，0 \& 30， \& \& 1，133 \& \& <br>
\hline \& （NA） \& （NA \& （NA） \& 4，865 \& 16，06 \& 3，708 \& 7，567 \& 9，666 \& 30， \& 34， \& 64, \& \& \& ${ }_{98}$ <br>
\hline \& （NA） \& 190 \& （va） \& 5，032 \& 13，441 \& 4，015 \& （NA） \& 9，067 \& 28， \&  \& 24， \& （1a） \& （va） \& <br>
\hline \& （NA） \& \& （NA） \& 3，454 \& 4，869 \& 2，829 \& （NA） \& 3，355 \& 12，372 \& 15，529 \& \& （NA） \& （NA） \& A） <br>
\hline $1935{ }^{2}$ \& （NA） \& 187 \& （Na） \& 3，038 \& 4，016 \& ${ }_{2}^{2,362}$ \& （NA） \& 2，520 \& 9，948 \& 11，574 \& ${ }^{21,522}$ \& （Na） \& （NA） \& （NA） <br>

\hline ${ }_{1931231^{2}}{ }^{2}$ \& （NA） \& | 122 |
| :--- |
| 178 | \& （NA） \& 2，（NA） \& $\xrightarrow{\text { 2，502 }}$ \& ，1，6840 \& （NA） \& 1，968 \& $\xrightarrow{7,862}$ \& 7，302 \& 14， 14,822 \& （NA） \& （ | （AA |
| :---: |
| （NA | \& （NA） <br>

\hline \& （NA） \& 207 \& （NA） \& 3，417 \& 5，908 \& 2，602 \& （nA） \& 3，550 \& 14，952 \& 0，680 \& 35，632 \& （NA） \& （NA） \& （A） <br>
\hline \& （Na \& \& （NA） \& 2， \& \& \& （NA） \& \& \& \& \& （NA \& \& <br>
\hline \& （Na） \& 168 \& （NA \& 5，430 \& 5,6 \& 2， \& （NA） \& 3， \& 12，943 \& 18， \& 31， \& va \& \& A） <br>
\hline \& （NA） \& 16 \& （NA） \& 3，969 \& 5，911 \& 3，16 \& （NA） \& 3，895 \& 13，15 \& 24，569 \& 37， \& NA \& NA \& （A） <br>
\hline \& （NA） \& 16 \& （NA） \& 3，249 \& 5，099 \& 2，268 \& （NA） \& 2，842 \& 6，092 \& ${ }^{13,076}$ \& 19，168 \& （NA） \& （NA \& （NA） <br>

\hline \& （NA） \& | 172 |
| :--- |
| 151 |
| 1 | \& （NA） \& ${ }_{4}^{3}, 177$ \& 5， \& 2，951 \& （NA） \& 3， | 3,200 |
| :--- |
| 2,070 | \& － \&  \& 23， \& （NA） \& （NA） \& （NA） <br>

\hline \& （NA） \& 139 \& （（Na） \& 4,270 \& 3，363 \& 3，0 \& （NA） \& 1，861 \& 8，069 \& 15，623 \& 23，692 \& （NA） \& （na） \& （NA） <br>
\hline \multirow[t]{3}{*}{$1_{1899^{2}} \ldots$} \& （N） \& 117 \& （NA） \& 2,706
2,100 \& 1，959 \& 2，092 \& （NA） \& 1，165 \& 3，122 \& ， \& （14，22 \& （NA） \& \& NA <br>
\hline \& \& 104 \& \& \& \& 1，607 \& （NA） \& \& 3，12 \& \& 10，022 \& （NA） \& （MA） \& （NA） <br>
\hline \& \multicolumn{14}{|c|}{Industry 3131．- Footwer cut stock} <br>
\hline \& \& \& \& \& \& \& \& \& ${ }^{90,611}$ \& 138，225 \& 229， 253 \& （ \& 析 \& 94 <br>
\hline \& （1a） \& （11） \& （NA） \& 17， 738 \& \& 15,291

17,312 \& ${ }_{32}^{29,3}$ \& \& 111，56 \& | 149,219 |
| :--- |
| 160,080 | \& ${ }_{272}^{261,}$ \& \& （NA） \& （A） <br>

\hline \& （NA） \& （NA） \& （NA） \& 20，066 \& 68，797 \& 17，624 \& 33，452 \&  \& 113，198 \& 174，488 \& － \& （s） \& （NA） \& （NA） <br>
\hline \& （NA） \& （NA） \& （NA） \& 20，312 \& 68，258 \& 17，890 \& 33，397 \& 53，919 \& 116，941 \& 180，479 \& 296，895 \& S） \& （（TA） \& （NA） <br>
\hline \& ${ }^{472}$ \& 513 \& 235 \& coine \& 58，489
6,538

6,588 \& 15，516 \& | 28,859 |
| :--- |
| 37248 | \& 44，570 \& －98，380 \& 158，637 \&  \& （s） \& \& 95 <br>

\hline $1952^{2}$ ．．．．．．．． \& （NA） \& （NA） \& （NA） \& ${ }_{21,628}^{2,40}$ \& 63，262 \& 19，103 \& 35，061 \& 49，512 \& 103，742 \& 178，373 \& 279，204 \& （s） \& （Na） \& ） <br>
\hline ${ }_{19545}^{1954}$ \& ${ }_{5}(\mathrm{NA})$ \& （ $\begin{gathered}\text { NA }) \\ 563\end{gathered}$ \& （ NA ） \&  \& 㐌 67,885 \& －19，665 \& 34,4201
32,533 \& 48，986
44,231 \& － 96,46 \&  \& － 270,578 \& （S） \& （NA） \& ${ }_{96}$ <br>
\hline
\end{tabular}

See footnotes at end of table．
table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted (\$1,000) | Cost of materials$(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| INDUSTRY 3131.-FOOTWEAR CUT STOCK-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1953{ }^{2}$ | (NA) | (NA) | (NA) | 20,431 | 59,305 | 18,033 | 34,197 | 46,510 | 93,129 | 175,094 | 268,223 | 2,064 | (NA) | (NA) |
| 1952 ${ }^{2}$ | (NA) | (NA) | (NA) | 18,926 | 51,707 | 16,398 | 28,957 | 40,913 | 77,154 | 186,085 | 267,249 | 985 | (NA) | (NA) |
| 19512 | (NA) | (NA) | (NA) | 17,988 | 46,100 | 15,584 | 27,535 | 37,111 | 66,494 | 243,598 | 314,102 | (S) | (NA) | (NA) |
| $1950{ }^{2}$ | (NA) | (NA) | (NA) | 22,280 | 51,585 | 19,001 | 34,346 | 40,718 | 72,460 | 200,320 | 276,790 | (S) | (NA) | (NA) |
| $1949{ }^{2}$ | (NA) | (NA) | (NA) | 20,260 | 46,297 | 18,003 | 33,240 | 37,204 | 72,988 | 189,542 | 262,911 | 1,386 | (NA) | (NA) |
| $1947{ }^{2}$ | 544 | 606 | (NA) | 22,077 | 47,793 | 19,706 | 38,145 | 38,468 | 87,301 | 206,560 | 294,309 | 1,921 | 99 | 97 |
| 19392 | (NA) | 520 | (NA) | 21,293 | 22,735 | 18,845 | (NA) | 17,196 | 38,912 | 90,487 | 129,399 | (NA) | (NA) | (NA) |
| $1937{ }^{2}$ | (NA) | 470 | (NA) | 20,780 | 22,266 | 18,755 | (NA) | 17,844 | 36,672 | 95,988 | 132,660 | (NA) | (NA) | (NA) |
| $1935{ }^{2}$ | (NA) | 498 | (NA) | 20,263 | 21,257 | 18,275 | (NA) | 16,781 | 35,262 | 76,317 | 111,579 | (NA) | (NA) | (NA) |
| $1933{ }^{2}$ | (NA) | 487 | (NA) | 18,331 | 16,615 | 16,798 | (NA) | 13,918 | 31,429 | 61,864 | 93,293 | (NA) | (NA) | (NA) |
| $1931{ }^{2}$ | (NA) | 552 | (NA) | (NA) | (NA) | 17,672 | (NA) | 16,412 | 34,827 | 82,274 | 117,101 | (NA) | (NA) | (NA) |
| $1929{ }^{2}$ | (NA) | 592 | (NA) | 22,290 | 27,538 | 19,875 | (NA) | 21,318 | 52,563 | 139,510 | 192,073 | (NA) | (NA) | (NA) |
| $1927{ }^{2}$ | (NA) | 580 | (NA) | 21,230 | 26,311 | 18,561 | (NA) | 20,556 | 48,627 | 129,829 | 178,456 | (NA) | (NA) | (NA) |
| $1925{ }^{2}$ | (NA) | 571 | (NA) | (NA) | (NA) | 16,582 | (NA) | 18,601 | 41,537 | 104, 575 | 146,112 | (NA) | (NA) | (NA) |
| 19232 | (NA) | 592 | (NA) | (NA) | (NA) | 15,903 | (NA) | 16,255 | 41,166 | 199,685 | 150,851 | (NA) | (NA) | (NA) |
| 1921 | (NA) | 570 | (NA) | 15,000 | 18,628 | 12,966 | (NA) | 14,222 | 31,954 | 79,854 | 111,808 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 679 | (NA) | 21,469 | 23,259 | 18,656 | (NA) | 17,312 | 49,713 | 174,316 | 224,029 | (NA) | (NA) | (NA) |
| 1914 | (NA) | 605 | (NA) | 16,645 | 9,823 | 14,533 | (NA) | 7,278 | 16,513 | 71,755 | 88,268 | (NA) | (NA) | (NA) |
| $1909{ }^{2}$ | (NA) | 575 | (NA) | 14,456 | 7,446 | 13,181 | (NA) | 6,104 | 14,897 | 55,270 | 70,167 | (NA) | (NA) | (NA) |
| $1904^{2}$ | (NA) | 579 | (NA) | 11,077 | 4,717 | 10,370 | (NA) | 4,012 | 9,655 | 27,925 | 37,580 | (NA) | (NA) | (NA) |
| $1899{ }^{2}$ | (NA) | 654 | (NA) | 9,970 | 3,972 | 9,401 | (NA) | 3,483 | 8,255 | 22,823 | 31,078 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3141.-SHOES, EXCEPT RUBBER |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 784 | 1,040 | 815 | 201, 728 | 713,577 | 182,901 | 334,969 | 589, 369 | 61,214,740 | 1,035,627 | 62,249,167 | 18,470 | 99 | 99 |
| $1962{ }^{1}$. | (NA) | (NA) | (NA) | 215,776 | 742,191 | 195,415 | 356,525 | 609,374 | 1,215,968 | 1,095,357 | 2,312,338 | 17,673 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 216,436 | 718, 323 | 195,216 | 352,123 | 584,839 | 1,177, 848 | 1,050,376 | 2,233,110 | 21,279 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 216,340 | 704,722 | 195,027 | 352,506 | 575,114 | 1,161,060 | 1,050,832 | 2,212,655 | 15,238 | (NA) | (NA) |
| 19591. | (NA) | (NA) | (NA) | 219,666 | 717,004 | 198, 888 | 366,285 | 588,812 | 1,185,045 | 1,100,983 | 2,279,564 | 13,787 | (NA) | (NA) |
| 1958. | 872 | 1,115 | 887 | 215,311 | 662,421 | 194, 314 | 348,481 | 542,179 | 1,086,260 | 964,289 | 2,048,857 | 14,533 | 99 | 99 |
| $19577^{1}$ | (NA) | (NA) | (NA) | 222, 365 | 680,055 | 201, 027 | 362,429 | 570,649 | 1,083,996 | 968,063 | 2,043,805 | (S) | (NA) | (NA) |
| $1956{ }^{1} 2$ | (NA) | (NA) | (NA) | 222, 841 | 666,566 | 202,055 | 368,670 | 563,428 | 1,075,422 | 951,171 | 2,018,152 | 17,258 | (NA) | (NA) |
| $1955^{1} 2$ | (NA) | (NA) | (NA) | 221,121 | 628,322 | 200,782 | 372,461 | 524,058 | 992,238 | 910, 877 | 1,891,818 | 16,347 | (NA) | (NA) |
| $1954{ }^{2}$ | 970 | 1,196 | 931 | 219,375 | 589,267 | 199,907 | 356,681 | 490,142 | 942, 961 | 864,967 | 1,809,127 | 11,420 | 99 | 99 |
| 19531 | (NA) | (NA) | (NA) | 232,546 | 640,360 | 212, 202 | 385,053 | 532,810 | 982,412 | 966,000 | 1,948,412 | (S) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 221,748 | 585,908 | 200, 925 | 362,520 | 492, 337 | 884, 772 | 905,099 | 1,789,871 | (S) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 214,800 | 533,055 | 194,863 | 336,987 | 443, 813 | 815,428 | 1,031,994 | 1,847,422 | (S) | (NA) | (NA) |
| 19501 | (NA) | (NA) | (NA) | 230,290 | 532,906 | 209,889 | 371,088 | 448,115 | 812,113 | 914,744 | 1,726,857 | (S) | (NA) | (NA) |
| $1949{ }^{1} 2$ | (NA) | (NA) | (NA) | 229,857 | 502,474 | 210,396 | 364,062 | 420, 823 | 737,031 | 874,607 | 1,611,638 | (S) | (NA) | (NA) |
| $1947{ }^{2}$ | 1,077 | 1,292 | (NA) | 230,882 | 496,990 | 212,213 | 400,757 | 423,181 | 751,528 | 975,081 | 1,726,609 | (S) | ${ }^{8}$ ) | $\left({ }^{8}\right)$ |
| $1939{ }^{2} 7$. | (NA) | 930 | (NA) | (NA) | (NA) | 207, 767 | (NA) | 175,384 | 330,075 | 369,203 | 699,278 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3142.-HOUSE SLIPPERS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 149 | 153 | 97 | 11,039 | 39,782 | 9,894 | 17,254 | 30,382 | ${ }^{6} 64,555$ | 58,869 | ${ }^{6} 123,560$ | 1,100 | 90 | 85 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 12,015 | 42,365 | 10,626 | 18,392 | 31,460 | 67,678 | 66,230 | 133,668 | $(1,120)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 12,278 | 40,147 | 10,816 | 18,094 | 29,386 | 67,905 | 64,358 | 131,836 | $(1,159)$ | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 11,348 | 38,616 | 10,024 | 17,434 | 28,868 | 60,072 | 59,129 | 119,386 | (S) | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 12,457 | 40,960 | 10,995 | 19,237 | 30,771 | 65,718 | 62,824 | 128,413 | (S) | (NA) | (NA) |
| 1958. | 160 | 164 | 97 | 11,520 | 37,057 | 10,168 | 18,046 | 28,291 | 59,656 | 52,552 | 112,145 | 590 | 90 | 85 |
| 195712 | (NA) | (NA) | (NA) | 12,661 | 38,225 | 11,188 | 20,310 | 28,194 | 61,048 | 63,610 | 123,974 | (S) | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 13,136 | 38,326 | 11,702 | 21,116 | 28,479 | 58,478 | 62,737 | 121,177 | (S) | (NA) | (NA) |
| 19551 | (NA) | (NA) | (NA) | 12,665 | 35,994 | 11,235 | 20,095 | 27,072 | 53,762 | 54,558 | 106,990 | (S) | (NA) | (NA) |
| 19542. | 170 | 173 | 99 | 10,879 | 30,065 | 9,661 | 16,773 | 22,911 | 45,418 | 45,641 | 90,760 | 664 | 89 | 87 |
| $1947{ }^{2}$ | $\left({ }^{8}\right)$ | 208 | (NA) | 9,433 | 19,889 | 8,441 | 18,895 | 15,713 | 34,015 | 33,373 | 67,388 | (NA) | ${ }^{8}$ ) | (8) |
| $1939{ }^{2}$ | (NA) | 139 | (NA) | (NA) | (NA) | 10,243 | (NA) | 8,253 | 16,072 | 19,235 | 35,307 | (NA) | (NA) | (NA) |
|  | INDUSTRIES 3141 AND 3142.-SHOES, EXCEPT RUBBER AND HOUSE SLIPPERS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | (NA) | 1,193 | 912 | 212,767 | 753,359 | 192,795 | 352, 223 | 619,751 | ${ }^{6} 1,279,295$ | 1,094,496 | 62,372,727 | 19,570 | 100 | 100 |
| $1962{ }^{3}$ | (NA) | (NA) | (NA) | 227,791 | 784,556 | 206, 041 | 374,917 | 640,834 | 1,283,646 | 1,161,587 | 2,446,006 | 18,793 | (NA) | (NA) |
| $1961{ }^{3}$ | (NA) | (NA) | (NA) | 228,714 | 758,470 | 206,032 | 370,217 | 614,225 | 1,245,753 | 1,114,734 | 2,364,946 | 22,438 | (NA) | (NA) |
| $1960{ }^{3}$ | (NA) | (NA) | (NA) | 227,688 | 743,338 | 205, 051 | 369,940 | 603,982 | 1,221,132 | 1,109,961 | 2,332,041 | (NA) | (NA) | (NA) |
| $1959{ }^{3}$ | (NA) | (NA) | (NA) | 232,123 | 757,964 | 209,883 | 385,522 | 619,583 | 1,250,763 | 1,163,807 | 2,407,977 | (NA) | (NA) | (NA) |
| 1958. | (NA) | 1,279 | 984 | 226,831 | 699,478 | 204, 482 | 366,527 | 570,470 | 1,145,916 | 1,016,841 | 2,161,002 | 15,034 | 100 | 100 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 235,026 | 718,280 | 212,215 | 382,739 | 598,843 | 1,145,044 | 1,031,673 | 2,167,779 | 18,164 | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 235,977 | 704, 892 | 213,757 | 389,786 | 591, 907 | 1,133,900 | 1,031,908 | 2,139,329 | 17,937 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 233,786 | 664,316 | 212,017 | 392,556 | 551,130 | 1,046,000 | 965,435 | 1,998,808 | 17,716 | (NA) | (NA) |
| $1954{ }^{2}$ | (NA) | 1,369 | 1,030 | 230,254 | 619,332 | 209,568 | 373,455 | 513,053 | 988,379 | 910,608 | 1,899,887 | 12,084 | 100 | 100 |

[^36]
# table 1. General Statistics: 1963 and Earlier Years -Continued 

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (perCent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRIES 3141 AND 3142.-SHOES, EXCEPT RUBBER AND HOUSE SLIPPERS-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1953{ }^{1} 2$ | (NA) | (NA) | (NA) | 244, 044 | 670,318 | 222,583 | 403,390 | 556,749 | 1,026,968 | (NA) | (NA) | 11,954 | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 231,185 | 614,358 | 209,082 | 378,551 | 514,516 | 931,995 | (NA) | (NA) | 9,515 | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 223,760 | 559,599 | 202,511 | 350,549 | 463,093 | 854, 744 | (NA) | (NA) | 9,780 | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 241,197 | 560,615 | 219,803 | 388,333 | 470,016 | 855,424 | (NA) | (NA) | (S) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 240,392 | 530,467 | 219,866 | 380,788 | 442,413 | 778,336 | (NA) | (NA) | 12,567 | (NA) | (NA) |
| $1947{ }^{2}$ | (NA) | 1,500 | (NA) | 240,315 | 516,879 | 220,654 | 419,652 | 438,894 | 785,543 | 1,008,454 | 1,793,997 | 13,344 | (NA) | (NA) |
| $1939{ }^{2}$ | (NA) | 1,069 | (NA) | (NA) | (NA) | 218,010 | (NA) | 183,637 | 346,147 | 388,438 | 734, 585 | (NA) | (NA) | (NA) |
| $1937{ }^{2}$ | (NA) | 1,080 | (NA) | 230,330 | 220,352 | 215,438 | (NA) | 191,305 | 352,022 | 416,305 | 768,327 | (NA) | (NA) | (NA) |
| $1935{ }^{2}$ | (NA) | 1,024 | (NA) | 216,335 | 200, 241 | 202,113 | (NA) | 172,349 | 310,073 | 333,799 | 643,872 | (NA) | (NA) | (NA) |
| $1933{ }^{2}$ | (NA) | 1,132 | (NA) | 202,795 | 159,884 | 190,914 | (NA) | 142,054 | 267,122 | 286,303 | 553,425 | (NA) | (NA) | (NA) |
| $1931{ }^{2}$ | (NA) | 1,156 | (NA) | (NA) | (NA) | 181,374 | (NA) | 163,271 | 316,253 | 337,627 | 653,880 | (NA) | (NA) | (NA) |
| $1929{ }^{2}$ | (NA) | 1,341 | (NA) | 225,235 | 266,693 | 205,640 | (NA) | 222,408 | 450, 868 | 515,055 | 965,923 | (NA) | (NA) | (NA) |
| $1927{ }^{2}$ | (NA) | 1,357 | (NA) | 223,436 | 268,434 | 203,110 | (NA) | 225,090 | 450,161 | 494,553 | 944, 714 | (NA) | (NA) | (NA) |
| $1925{ }^{2}$ | (NA) | 1,460 | (NA) | 227,955 | 267,994 | 206,992 | (NA) | 225,788 | 443,751 | 481,632 | 925, 383 | (NA) | (NA) | (NA) |
| $1923{ }^{2}$ | (NA) | 1,606 | (NA) | 249,565 | 299,984 | 225,216 | (NA) | 250,346 | 472, 621 | 527,457 | 1,000,078 | (NA) | (NA) | (NA) |
| $1921{ }^{2}$ | (NA) | 1,505 | (NA) | 205,044 | 244, 543 | 183,502 | (NA) | 204,954 | 389,044 | 478,432 | 867,476 | (NA) | (NA) | (NA) |
| $1919{ }^{2}$ | (NA) | 1,449 | (NA) | 236,224 | 268,860 | 211, 049 | (NA) | 210,735 | 439, 772 | 715,269 | 1,155,041 | (NA) | (NA) | (NA) |
| $1914{ }^{2}$ | (NA) | 1,355 | (NA) | 209,258 | 128,623 | 191, 555 | (NA) | 105,695 | 191,403 | 310,357 | 501,760 | (NA) | (NA) | (NA) |
|  | (NA) | 1,343 | (NA) | 199,629 | 109,646 | 185,116 | (NA) | 92,359 | 165,163 | 277,468 | 442,631 | (NA) | (NA) | (NA) |
| $1904{ }^{2} 80$. | (NA) | 1,316 1,599 | (NA) | 158,735 149,609 | 77, 766 66,111 | 149,924 141,830 | (NA) | 69,060 58,441 | 122,744 90,337 | 197,363 168,633 | 320,107 258,970 | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: For 1954-1963 figures represent ad justed value added, which is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. For 1958, however, value of production rather than value of shipments was collected for industries 3141 , Footwear, Except Rubber, and 3142, House Slippers. In computing 1958 adjusted value added for these industries, the net change of only work-inprocess inventories is included. For years prior to 1954 figures represent unadjusted value added. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

## Standard Notes: - Represents zero. <br> (D) Withheld to avoid disclosing figures for individual companies. <br> (NA) Not available. <br> (X) Not

 applicable.(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period, The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ Data for Alaska and Hawaii are included.
${ }^{3}$ For 1957 and earlier years estimates with a standard error.
${ }^{4}$ In this industry which contains a very large number of very small establishments, there is a possibility that some of these small establishments may have been misclassified as to industry. This would not affect the statistics other than the number of establishments.
${ }^{5}$ Figures for 1933 and earlier years were obtained by combining the data for two former industries: "Boot and shoe cut stock, not made in boot and shoe factories," and "Boot and shoe cut findings, not made in boot and shoe factories."
${ }^{6}$ See text regarding comparability of 1963 and prior years.
7 "Footwear, except rubber" and "House slippers" formerly constituted a single classification. The separate figures for $1939-1963$ have been combined in order that statistics can be shown for the entire period 1899-1963.
${ }^{8}$ Comparable data are not available due to significant revisions in the 1947 classifications of plants and products in this industry.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establi shments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capita! expenditures, new$(\$ 1,000)$ | All employees (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3111.-LEATHER TANNING AND FINISHING |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 525 | 256 | 31,417 | 163,307 | 27,282 | 54,556 | 129,756 | 273,092 | 480,507 | 758,408 | 6,480 | 37,130 | 275,796 |
| New England......... <br> New Hampshire.... | 19517 | 8915 | $\begin{aligned} & 9,978 \\ & 1,615 \end{aligned}$ | $\begin{array}{r} 50,532 \\ 7,821 \end{array}$ | $\begin{aligned} & 8,690 \\ & 1,427 \end{aligned}$ | 17,0922,877 | $\begin{array}{r} 40,017 \\ 6,488 \end{array}$ | $\begin{array}{r} 81,767 \\ 8,747 \end{array}$ | 159,63917,743 | $\begin{aligned} & 241,749 \\ & 27,444 \end{aligned}$ | 2,082361 | 11,0571,758 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 10,971 |
| Massachusetts.... | 162 | 60 | 5,994 | 32,075 | 5,190 | 9,959 | 24,915 | 55,148 | 120,183 | 174,972 | 1,197 | 7,556 | 63,847 |
| Midale Atlantic.... | $\begin{aligned} & 188 \\ & 109 \end{aligned}$ | 76 | 8,211 | 42,725 | 7,085 | 13,897 | 34,088 | 70,023 | 117,533 | 190,739 | 1,140 | 21,348 | 80,149 |
| New York......... |  | 30 | 3,222 | 16,342 | 2,814 | 5,383 | 13,333 | 28,271 | 52,350 | 81,346 | 366 | 4,164 | 31,700 |
| New Jersey....... | 109 53 | 26 | 2,247 | 12,718 | 1,934 | 4,012 | 10,043 | 22,150 | 30,488 | 52,864 | 511 | 2,854 | 21,341 |
| Pennsyl vania..... | 53 26 | 20 | 2,742 | 13,665 | 2,337 | 4,502 | 10,712 | 19,602 | 34,695 | 56,529 | 263 | 4,330 | 27,102 |
| East North Central. | 6720 | 48 | 7,704 | 44,976 | 6,632 | 13,857 | 35,322 | 78,591 | 118,497 | 196,683 | 2,058 | 8,934 | 69,689 |
| tilinois......... |  | 13 | 2,038 | 11,950 | 1,808 | 3,882 | 9,803 | 19,551 | 33,352 | 52,863 | 493 | 2,303 | 18,274 |
| Michigan.......... | 20 7 | 5 | 886 | 5,173 | 747 | 1,533 | 4,269 | 9,396 | 14,684 | 23,585 | 362 | 927 | 6,439 |
| Wisconsin........ | 27 | 22 | 3,967 | 23,920 | 3,341 | 7,018 | 18,012 | 44,415 | 61,277 | 106,000 | 1,144 | 4,349 | 35,201 |
| West North Central. | 9 | 4 | 603 | 3,437 | 525 | 1,062 | 2,742 | 6,178 | 10,149 | 16,012 | 163 | 541 | 4,277 |
| South.............. . | 427 | 307 | $\begin{aligned} & 4,299 \\ & 1,086 \end{aligned}$ | 18,141 | 3,808 | 7,593 | 14,829 | 31,389 | 67,259 | 100,147 | 787 | 4,505 | 29,684 |
| Delaware.......... |  |  |  | 5,263 | 886 | 1,748 | 4,068 | 8,447 | 13,713 | 21,933 | (D) | 1,489 | 10,482 |
| Tennessee........ | 10 | 7 | 1,103 | 4,290 | 971 | 1,896 | 3,321 | 10,127 | 25,446 | 34,844 | 191 | ${ }^{2}$ ) | $\left({ }^{2}\right)$ |
| West. <br> California | 2417 | 8 | $\begin{aligned} & 622 \\ & 558 \end{aligned}$ | 3,496 | 542 | 1,055944 | 2,758 | 5,144 | 7,430 | 13,078 | 250 | 745 | 5,985 |
|  |  |  |  | 3,209 | 483 |  | 2,509 | 4,433 | 6,623 | 11,544 | 228 | 674 | 5,528 |
|  | INDUSTRY 3121.-INDUSTRIAL LEATHER BELTING |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 83 | 23 | 2,870 | 15,897 | 2,099 | 4,198 | 9,723 | 32,915 | 18,954 | 51,869 | 742 | 3,975 | 36,300 |
| Northeast. . . . . . . . . . New York. ......... Pennsylvania..... |  | 9 |  | 4,267 |  | 1,286 | 2,693 | 7,886 | 6,892 | 14,764 | 55 |  |  |
|  | 12 |  | $\begin{aligned} & 846 \\ & 110 \end{aligned}$ | 511 | $86$ | -175 | 244666 | 1,800 | 6,837 | 1,146 | 17 | $\left({ }^{2}\right)$198 | $\begin{array}{r} (2) \\ 1,739 \end{array}$ |
|  | 6 | 3 | 186 | 934 | 142 | 268 |  | 1,921 | 1,012 | 2,941 | 6 |  |  |
| East North Central. Illinois.......... | 145 | 62 | 1,151110 | 5,827437 | 92483 | 1,820168 | 4,172274 | 16,558706 | 5,393443 | 21,8531,159 | 521 | \} 2,087 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 20,665 |
| West North Central. South and West..... | 28 | $\begin{aligned} & 1 \\ & 7 \end{aligned}$ | $\begin{array}{r} 41 \\ 832 \end{array}$ | $\begin{array}{r} 254 \\ 5,549 \end{array}$ | $\begin{array}{r} 26 \\ 503 \end{array}$ | $\begin{array}{r} 52 \\ 1,040 \end{array}$ | 115 | 388 | 229 | 624 | 6 |  |  |
|  |  |  |  |  |  |  | 2,743 | 8,083 | 6,440 | 14,628 | 160 | 877 | 7,742 |
|  | INDUSTRY 3131.-FOOTWEAR CUT STOCK |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.. | 446 | 204 | 14,339 | 53,420 | 12,600 | 23,694 | 40,867 | 90,611 | 138,225 | 229,253 | 1,620 | 18,031 | 98,380 |
| New England. | 258 | 122 | 7,926 | 30,614 | 6,865 | 12,819 | 22,215 | 50,941 | 71,613 | 122,530 | 855 | 9,687 |  |
| Maine.... | 30 | 19 | 1,260 | 4,374 | 1,129 | 2,044 | 3,295 | 7,073 | 6,627 | 13,703 | 153 | $\left({ }^{2}\right)$ | ${ }^{(2)}$ |
| New Hampshire.. | 35 | 15 | 990 | 3,418 | 880 | 1,600 | 2,730 | 5,600 | 9,193 | 14,799 | 90 | 1,138 | 5,834 |
| Massachusetts.... | 186 | 83 | 5,421 | 21,586 | 4,630 | 8,677 | 15,331 | 36,492 | 54,646 | 91,023 | 560 | 7,213 | 42,382 |
| Rhode Island.. | 4 | 3 | 156 | 848 | 134 | 317 | 544 | 1,085 | 792 | 1,964 | 19 | 326 | 1,518 |
| Middle Atlantic... | 100 | 31 | 2,152 | 7,882 | 1,905 | 3,614 | 6,335 | 12,396 | 22,371 | 34,596 | 191 | 3,549 | 18,363 |
| New York. | 75 | 23 | 1,432 | 5,374 | 1,267 | 2,389 | 4,313 | 8,539 | 14,547 | 23,142 | 137 | 2,494 | 12,480 |
| East North Central. | 23 | 11 | 883 | 3,289 | 792 | 1,553 | 2,742 | 5,151 | 7,526 | 12,772 | 86 | 774 | 3,981 |
| Ohio.............. | 5 | 3 | 267 | 1,017 | 237 | 496 | 853 | 1,681 | 1,284 | 2,862 | (D) | 218 | 948 |
| Illinois......... | 9 | 5 | 309 | 1,106 | 286 | 535 | 968 | 1,828 | 2,928 | 4,919 | 23 | ${ }^{2}$ ) | $\left({ }^{2}\right)$ |
| West North Central. | 38 | 28 | 2,482 | 8,560 | 2,217 | 4,177 | 6,964 | 16,961 | 28,829 | 46,116 | 447 | 2,996 | 16,566 |
| South Atlantic..... | 6 | 5 | 190 | 612 | 171 | 321 | 503 | 764 | 1,945 | 2,850 | 11 |  |  |
| East South Central. | 6 | 4 | 518 | 1,800 | 487 | 907 | 1,592 | 3,341 | 4,881 | 8,240 | 22 | 823 | 3,796 |
| West South Central. | 4 | - | 36 | 88 | 32 | 63 | 77 | 126 | 174 | 306 | 2 |  |  |
| Pacific.............. California....... | $\frac{11}{7}$ | 3 | 152 | 575 | 131 | 240 | 439 | 931 | 886 | 1,843 | 6 | 196 | $1,050$ |
|  |  | 3 | 136 | 518 | 117 | 212 | 392 | 856 | 678 | 1,558 | 2 | $\left({ }^{2}\right)$ | ( ${ }^{2}$ ) |
|  | INDUSTRY 3141.-SHOES, EXCEPT RUBBER |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 1,040 | 815 | 201,728 | 713,577 | 182,901 | 334,969 | 589,369 | ${ }^{3} 1,214,740$ | 1,035,627 | ${ }^{3} 2,249,167$ | 18,470 | 215,311 | 1,086,260 |
| New England....... | 316 | 267 | 70,996 | 263,517 | 63,641 | 113,365 | 212,094 | 386, 203 | 340, 379 | 726,099 | 4,644 | 76,158 | 367,640 |
| Massachusetts.... | 167 | 136 | 31,140 | 121,275 | 27,554 | 47,929 | 96,006 | 179,289 | 147,769 | 326,623 | 1,816 | 38,689 | 196,133 |
| Connecticut...... | 15 | 14 | 1,583 | 5,123 | 1,478 | 2,739 | 4,344 | 7,974 | 6,890 | 14,935 | 107 | 1,570 | 6,670 |
| Middle Atlantic.... | 292 | 217 | 39,108 | 135,621 | 35,700 | 66,580 | 113,359 | 209,150 | 203,573 | 414,851 | 3,820 | 44,503 | 204,628 |
| New York. ........ | 152 | 96 | 14,045 | 52,327 | 12,563 | 23,243 | 42,351 | 81,617 | 81,472 | 163,158 | 1,563 | 20,843 | 101,104 |
| New Jersey....... | 13 | 9 | 1,112 | 3,859 | 1,036 | 1,420 | 3,056 | 5,557 | 5,187 | 10,886 | 69 | 822 | 3,967 |
| Pennsylvania..... | 127 | 11.2 | 23,951 | 79,435 | 22,101 | 41,917 | 67,952 | 121,976 | 116,914 | 240,807 | 2,188 | 22,838 | 99,557 |

See footnotes at end of table.
table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{2}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenct itures, new $(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| East North Central. Indiana. Illinois......... . Wisconsin....... | INDUSTRY 3141.-SHOES, EXCEPT RUBBER-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 110 | 96 | 30,753 | 117,496 | 27,479 | 50,691 | 95,125 | 221,750 | 168,199 | 390,432 | 2,813 | 33,929 | 194,523 |
|  | 7 | 6 | 2,141 | 8,127 | 2,021 | 4,048 | 7,468 | 17,497 | 13,105 | 30,474 | 253 | 1,950 | 12,870 |
|  | 35 | 29 | 10,750 | 37,979 | 9,906 | 17,675 | 32,210 | 77,967 | 57,176 | 135,738 | 464 | 12,889 | 74,045 |
|  | 41 | 38 | 8,614 | 34,905 | 7,183 | 13,470 | 25,475 | 59,288 | 53,765 | 113,414 | 580 | 9,914 | 57,248 |
| West North Central. | 91 | 79 | 22,797 | 72,689 | 20,937 | 37,629 | 62,929 | 159,677 | 120,213 | 280,213 | 2,997 | 29,387 | 159,663 |
| Minnesota........ | 7 | 6 | 1,000 | 4,706 | 860 | 1,669 | 3,048 | 8,838 | 6,533 | 15,152 | 84 | 1,057 | 6,717 |
| Missouri......... | 76 | 69 | 21,511 | 67,058 | 19,844 | 35,540 | 59,182 | 149,459 | 112,798 | 262,661 | 2,892 | -27,970 | 151,373 |
| South Atlantic..... | 54 | 40 | 10,030 | 31,860 | 8,991 | 16,855 | 25,348 | 55,096 | 47,552 | 99,942 | 823 |  |  |
| North Carolina... | 8 | 6 | 1,227 | 3,949 | 996 | 1,808 | 2,642 | 8,489 | 6,751 | 14,666 | 129 |  |  |
| East South Central. Kentucky.......... | 53 7 | 51 | 17,423 2,287 | 58,175 7,696 | 16,368 2,157 | 31,903 4,149 | 51,935 7,043 | 122,922 15,464 | 107,833 11,754 | 229,711 27,281 | 2,601 | 28,369 | 143,729 |
| West South Central. | 45 | 31 | 7,815 | 23,301 | 7,307 | 13,503 | 20,101 | 42,339 | 33,386 | 75,753 | 574 |  |  |
| Arkansas.. | 17 | 17 | 6,031 | 18,004 | 5,701 | 10,740 | 16,028 | 33,059 | 26,075 | 59,169 | 300 |  |  |
| Texas.. | 28 | 14 | 1,784 | 5,297 | 1,606 | 2,763 | 4,073 | 9,280 | 7,311 | 16,584 | 274 |  |  |
| West $\qquad$ Hawaii | 79 | 34 | 2,806 | 10,918 | 2,478 | 4,443 | 8,478 | 17,603 | 14,492 | 32,166 | 198 | 2,965 |  |
|  | 11 | 3 | 100 | 384 | 87 | 150 | 350 | 609 | 561 | 1,165 | 27 | (2) | (2) |
|  | INDUSTRY 3142.-HOUSE SLIPPERS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 153 | 97 | 11,039 | 39,782 | 9,894 | 17,254 | 30,382 | ${ }^{3} 64,555$ | 58,869 | ${ }^{3} 123,560$ | 1,100 | 11,520 | 59,656 |
| New England......... Massachusetts.... | $\begin{aligned} & 32 \\ & 23 \end{aligned}$ | 2115 | $\begin{aligned} & 2,740 \\ & 2,284 \end{aligned}$ | $\begin{aligned} & 9,414 \\ & 7,742 \end{aligned}$ | $\begin{aligned} & 2,448 \\ & 2,043 \end{aligned}$ | $\begin{aligned} & 4,033 \\ & 3,255 \end{aligned}$ | 7,073 | 14,592 | 14,477 | 29,100 | 192 | 2,887 | 15,181 |
|  |  |  |  |  |  |  | 5,820 | 12, 322 | 12,254 | 24,573 | 147 | 2,382 | 12,486 |
| Middle Atlantic.... New York. New Jersey........ Pennsylvania..... | $\begin{gathered} 92 \\ 74 \\ 8 \end{gathered}$ | 5843 | $\begin{aligned} & 6,190 \\ & 4,267 \end{aligned}$ | 23,291 | 5,627 | 9,959 | 18,340 | 37,758 | 35,103 | 72,969 | 683 | 6,165 | 32,831 |
|  |  |  |  | 15,140 | 3,847 | 6,619 | 11,982 | 26,242 | 23,862 | 49,931 | 415 | 4,476 | 24,377 |
|  |  | 8 | $952$ | 4,776 | 875 | 1,753 | 3,472 | 6,376 | 5,551 | 11,835 | 145 | 888 | 4,729 |
|  | 10 | 7 |  | 3,375 | 905 | 1,587 | 2,886 | 5,140 | 5,690 | 11,203 | 123 | 801 | 3,725 |
| East North Central. Wisconsin........ | 10 | 3 | $\begin{aligned} & 783 \\ & 194 \end{aligned}$ | 2,713571 | $\begin{aligned} & 688 \\ & 171 \end{aligned}$ | $\begin{array}{r} 1,185 \\ 282 \end{array}$ | 1,804447 | 4,764849 | 3,125782 | 7,9151,641 | 8522 | $\begin{aligned} & 783 \\ & \left({ }^{2}\right) \end{aligned}$ | $\begin{array}{r} 3,359 \\ \left({ }^{2}\right) \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West North Central. South and West..... | 712 | 65 | $\begin{aligned} & 842 \\ & 484 \end{aligned}$ | 2,906 | 724 | 1,376 | 2,157 | 4,972 | 4,197 | 9,163 | 77 | 941 | 4,400 |
|  |  |  |  | 1,458 | 407 | 701 | 1,008 | 2,469 | 1,967 | 4,413 | 63 | 744 | 3,885 |

(D) Withheld to avoid disclosing figures for individual companies.
${ }^{i}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3111, Leather Tanning and Finishing: New England-Maine, 13 (2,059); Vermont, 1 (100-249); Connecticut, 2 (20-99); East North Central-0hio, 11
(500-999); Indiana, 2 (100-249); West North Central-Minnesota, 3 (361); Missouri, 5 (100-249); Nebraska, 1 (20-99); South Atlantic-Maryland, 1
(100-249); Virginia, 4 (592); West Virginia, 5 (508); North Carolina, 2 (100-249); South Carolina, 1 (1-19); East South Central-Kentucky, 2 (100249); West South Central—Louisiana, l (1-19); Texas, 4 (103); Mountain-Colorado, 1 (1-19); Utah, 1 (1-19); Pacific-Washington, 2 (1-19); Oregon, 3 (20-99).
SIC 3121, Industrial Leather Belting: New England-New Hampshire, 1 (100-249); Massachusetts, 12 (20-99); Rhode Island, 2 (1-19); Connecticut, 2 (1-19); Middle Atlantic-New Jersey, 3 (284); East North Central-Ohio, 3 (662); Michigan, 4 (100-249); Wisconsin, 2 (250-499); West North CentralMissouri, 3 '(20-99); South Atlantic-Delaware, 1 (20-99); Maryland, 1 (1-19); North Carolina, 9 (20-99); South Carolina, 5 (20-99); Georgia, 3 (20-99);'West South Central-Louisiana, I (1-19); Texas, l (l-19); Pacific-California, 7 (518).
SIC 3131, Footwear Cut Stock: New England-Vermont, 2 (20-99); Connecticut, 1 (1-19); Middle Atlantic-New Jersey, 3 (20-99); Pennsylvania, 22 (500-999); East North Central-Indiana, l (20-99); Michigan, l (20-99); Wisconsin, 7 (100-249); West North Central-Iowa, l (1-19); Missouri, 37 (1,000-2,499); South Atlantic-Maryland, l (1-19); Virginia, 3 (114); North Carolina, l (20-99); Florida, 1 (20-99); East South CentralKentucky, 2 (20-99); Tennessee, 4 (250-499); West South Central-0klahoma, 1 (1-19); Texas, 3 (20-99); Pacific-Oregon, 4 (1-19).
SIC 3141, Shoes, Except Rubber: New England-Maine, 74 (10,000 and over); New Hampshire, 60 ( 10,000 and over) ; East North Central-Ohio, 20 (7,087); Michigan, 7 (2,161); West North Central-Iowa, 2 (100-249); Nebraska, 2 (20-99); Kansas, 4 (20-99); South Atlantic-Maryland, 11 (1,000-2,499); Virginia, 10 (3,017); West Virginia, 1 (250-499); Georgia, 10 ( $2,500-4,999$ ); Florida, 14 (500-999); East South Central-Tennessee, 37 (10,000 and over); Alabama, 4 (500-999); Mississippi, 5 (2,005); Mountain-New Mexico. 3 (104); Arizona, 3 (20-99); Pacific-Washington. 3 (20-99); Oregon, 4 (1-19); California, 55 (2,500-4,999).
SIC 3142, House Slippers: New England-Maine, 4 (20-99); Vermont, 1 (1-19); Rhode Island, 1 (20-99); Connecticut, 3 (307); East North Central-Ohio 3 (347); Indiana, 1 (100-249); Illinois, 2 (20-99); West North Central-Minnesota, 1 (20-99); Missouri, 5 (500-999); Kansas, 1 (0); South AtlanticMaryland, 1 (100-249); Ceorgia, 1 (20-99); Florida, 1 (1-19); East South Central-Tennessee, 1 (1-19); West South Central-Arkansas, 1 (100-249); Texas, 4 (111); Pacific—Oregon, 1 (0); California, 1 (1-19); Hawaii, 1 (1-19).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report
showed the number of establishments and total employment (either actual or in the size ranges) for such Statos
${ }^{3}$ See text regarding comparability for 1963 and prior years.

TABLE 3. Detailed Statistics: 1963

| Item | Leather tanning and finishing (SIC 3111) |  |  |  | Industrial leather belting (SIC 3121) | $\begin{array}{\|l} \text { Footwear } \\ \text { cut } \\ \text { stock } \\ \text { (SIC 3131) } \end{array}$ | Shoes, except rubber (SIC 3141) | House slippers (SIC 3142) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Total } \\ & \text { (SIC 3111) } \end{aligned}$ | Tanneries (SIC 3111-11) | $\begin{gathered} \text { Converters } \\ (\text { SIC 3111-22) } \end{gathered}$ | Contract tanneries (SIC 3111-33) |  |  |  |  |
| Primary product specialization ratio ${ }^{1}$. | . 99 | (NA) | (NA) | (NA) | . 89 | . 93 | . 99 | . 90 |
| Coverage ratio ${ }^{2}$.................... | 1.00 | (NA) | (NA) | (NA) | . 84 | . 94 | . 99 | . 85 |
| Establishments, total.....................................number.. | 525 | 284 | 61 | 180 | 83 | 446 | 1,040 | 153 |
| With 1 to 19 employees................................... . . ${ }^{\text {a }}$. . . . | 269 | 133 | 50 | 86 | 60 | 242 | 225 | 56 |
| With 20 to 99 employees................................... . . . ${ }^{\text {a }}$. | 166 | 81 | 10 | 75 | 18 | 169 | 214 | 60 |
| With 100 employees or more............................. .do. | 90 | 70 | 1 | 19 | 5 | 35 | 601 | 37 |
| Proprietors and working partners........................do.... | 328. | (NA) | (NA) | (NA) | 63 | 376 | 450 | 110 |
| All employees (average for the year).....................do.... | 37. 417 | 22,164 | 306 | 8,447 | 2,870 | 14,339 | 201,728 | 11,039 |
| Payroll (all employees), total for year............... $\$ 1,000 .$. | 163,307 | 117,569 | 5,781 | 39,95'7 | 15,897 | 53,420 | 713,577 | 39,782 |
| Production workers: |  |  |  |  |  |  |  |  |
| Average for the year..................................number.. | 27,282 | 19,329 | 413 | 7,540 | 2,099 | 12,600 | 182,901 | 9,894 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . | 26,749 | 18,913 | 404 | 7,432 | 2,074 | 12,971 | 185,978 | 9,240 |
| May. | 26,959 | 19,064 | 417 | 7,478 | 2,128 | 12,353 | 180,544 | 9,703 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 27,284 | 19,288 | 411 | 7,585 | 2,129 | 12,464 12,620 | 184,527 180,555 | 10,604 10,029 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do.. . . | 28,136 | 20,051 | 420 | 7,665 | 2,055 | 12,620 | 180,555 | 10,029 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 54,556 | 38,854 | 831 | 14,871 | 4,198 | 23,694 | 334,959 | 17,254 |
| January-March........................ . . . . . . . . . . . . . . .do.... | 13,436 | 9,542 | 199 | 3,695 | 1,033 | 6,056 | 85,636 | 3,654 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 13,871 | 9,884 | 214 | 3,773 | 1,082 | 5,914 | 82,359 | 4,417 |
| July-September. | 13,275 | 9,507 | 205 | 3,563 | 1,030 | 5,740 | 83,211 | 4,643 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 13,974 | 9,921 | 213 | 3,840 | 1,053 | 5,984 | 83,763 | 4,540 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 129,756 | 94,025 | 2,150 | 33,581 | 9,723 | 40,867 | 589,369 | 30,382 |
| Cost of materials, etc., total...........................do | 480,507 | 332,549 | 109,360 | 38,598 | 18,954 | 138,225 | 1,035,627 | 53,869 |
| Materials, parts, containers, and supplies consumed..do | 397,655 | 303,226 | 60,937 | 33,492 | 15,591 | 129,045 | 983,404 | 54,695 |
| Cost of resales.. | 8,177 | 6,370 | 1,711 | 96 | 2,697 | 6,310 | 24,157 | 701 |
| Fuels consumed........ . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 8,350 | 6,114 | 53 | 2,183 | 139 | 543 | 2,718 | 147 |
| Electric energy: |  |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |  |
| Quantity...............................million kw.-hrs.. | 291 | 220 | 5 | 66 | 16 | 54 | 367 | 20 |
| Cost................................................ $\$ 1,000 .$. | 4,694 | 3,404 | 82 | 1,208 | 227 | 1,027 | 7,172 | 398 |
| Generated less sold......................million kw:-hrs.. | 78 | 66 | - | 12 | - | (D) | 2 | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | 61,631 | 13,435 | 46,577 | 1,619 | 300 | 1,300 | 18,176 | 2,928 |
| Value of shipments (including resales), total..........do. | 758,408 | 533,109 | 127,744 | 97,555 | 51,869 | 229,253 | 2,249,167 | 123,560 |
| Value of resales.......................................... do | 9,095 | 6,901 | 1,989 | 205 | 3,783 | 7,972 | 29,722 | 946 |
| Value added by manufacture, adjusted....................do | 273,492 | 196,842 | 17,212 | 59,038 | 32,915 | 90,611 | 1,214,740 | 64,555 |
| Manufacturers' inventories: |  |  |  |  |  |  |  |  |
| Beginning of year, total.................................do. ${ }^{\text {do. }}$ | 149,201 | 119,631 | 20,353 | 9,217 | 7,667 | 24,310 | 273,045 | 12,203 |
| Finished products. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 46,085 | 36,795 | 8,713 | 577 | 3,489 | 9,596 | 105,974 | 5,518 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 63,404 | 52,110 | 6,789 | 4,505 | 1,839 | 3,319 | 50,988 | 1,421 |
| Materials, supplies, fuel, etc.......................d. ${ }^{\text {do. }}$ | 39,712 | 30,726 | 4,851 | 4,135 | 2,339 | 11,395 | 116,083 | 5,264 |
| End of year, total........................................do. | 140,301 | 112,807 | 18,368 | 9,126 | 7,726 | 22,980 | 268,527 | 11,927 |
| Finished products......................................... . . . . . . . . | 43,839 | 35,419 | 7,945 | 475 | 3,566 | 8,831 | 106,619 | 5,599 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 60,841 | 49,768 | 6,385 | 4,688 | 1,762 | 3,667 | 51,543 | 1,204 |
| Materials, supplies, fuel, etc........................do.... | 35,621 | 27,620 | 4,038 | 3,963 | 2,398 | 10,482 | 110,365 | 5,124 |
| Expenditures for plant and equipment, total............do.... | 7,003 | 5,371 | 170 | 1,462 | 771 | 1,953 | 20,868 | 1,155 |
| New, total.............................................. .do. . | 6,480 | 5,031 | 164 | 1,285 | 742 | 1,620 | 18,470 | 1,100 |
| New structures and additions to plant...............do.... | , 756 | 620 | 26 | 110 | 75 | 184 | 4,225 | 161 |
| New machinery and equipment..........................do.... | 5,724 | 4,411 | 138 | 1,175 | 667 | 1,436 | 14,245 | 939 |
| Used plant and equipment...............................do.... | 523 | 340 | 6 | 177 | 29 | 333 | 2,398 | 55 |
| Selected operating ratios: |  |  |  |  |  |  |  |  |
| Payroll/Total employment. | 5,198 | 5,305 | 7,172 | 4,730 | 5,539 | 3,726 | 3,537 | 3,604 |
| Production workers/Total employment | . 87 | . 87 | . 51 | . 89 | . 73 | . 88 | . 91 | . 90 |
| Man-hours/Production workers..... | 2,000 | 2,010 | 2,012 | 1,972 | 1,984 | 1,880 | 1,831 | 1,744 |
| Production worker wages/Man-hours. | 2.38 | 2.42 | 2.59 | 2.26 | 2.33 | 1.72 | 1.76 | 1.76 |
| Cost of materials and payrolls/Total value of shipments.... | . 85 | . 84 | . 90 | . 81 | . 67 | . 84 | . 78 | . 80 |
| Cost of materials/Total value of shipments.................. | . 63 | . 62 | . 86 | . 40 | . 37 | . 60 | . 45 | . 43 |
| Adjusted value added/Total employment.... | 8,692 | 8,881 | 21,355 | 6,989 | 11,469 | 6,319 | 6,022 | 5,848 |
| Salaries and wages/Adjusted value added.. | . 60 | . 60 | . 34 | . 68 | . 48 | . 59 | . 59 | . 62 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: applicable.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 500 \text { to } \\ & 999 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 1,000 \text { to } \\ & 2,499 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3111.-LEATHER TANNING AND FINISHING |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number.. | 525 | 116 | 82 | 71 | 88 | 78 | 63 | 23 | 3 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 31,417 | 209 | 550 | 1,020 | 2,769 | 5,465 | 10,132 | 7,918 44 | 13,354 | (D) | - |
| Payroll..................\$1,000.. | 163,307 | 1,278 | 2,799 | 4,969 | 13,239 | 26,859 | 51,010 | 44,239 | 18,914 | (D) |  |
| Value added, adjusted.......do.... | 273,092 | 5,415 | 6,517 | 10,862 | 22,335 | 44,823 | 79,799 | 75,331 | 28,010 | (D) |  |
| Value of shipments..........do.... | 758,408 | 29,735 | 28,236 | 44,207 | 58,215 | 126,702 | 224,858 | 174,945 | 71,510 | (D) | - |
| Capital expenditures, new...do.... | 6,480 | 58 | 98 | 193 | 555 | 827 | 1,875 | 2,108 | 766 | (D) |  |
|  | Subindustry 3111-11.-Tanneries |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number.. | 284 | 60 | 48 | 25 | 39 | 42 | 48 | 19 | 2 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.....................do.... | 22,164 | 103 | 333 | 367 | 1,225 | 2,938 | 7,916 | 9,282 | (D) | (D) |  |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 117,569 | 477 | 1,498 | 1,592 | 5,626 | 14,395 | 40,207 | 53,774 | (D) | (D) |  |
| Value added, adjusted.......do.... | 196,842 | 1,130 | 3,174 | 2,965 | 10,514 | 25,592 | 62,449 | 91,018 | (D) | (D) |  |
| Value of shipments..........do.... | 533,109 | 2,601 | 8,180 | 7,943 | 25,832 | 70,201 | 194,658 | 223,694 | (D) | (D) |  |
| Capital expenditures, new...do.... | 5,031 | 34 | 58 | 69 | 241 | 512 | 1,647 | 2,470 | (D) | (D) |  |
|  | Subindustry 3111-22.-Converters |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 61 | 24 | 15 | 11 | 7 | 3 | 1 | - | - | - |  |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 806 | 50 | 90 | 139 | 202 | 325 | (D) | - | - | - |  |
| Payroll................ $\$ 1,000$. . | 5,781 |  |  |  |  | $\frac{2,115}{5,151}$ | (D) | - | - | - |  |
| Value added, adjusted.......do.... Value of shipments.........do... | 17,212 127,744 | 3,738 26,334 | 2,319 17,806 | 3,804 29,734 | 2,200 17,603 | 3 $\frac{5,151}{6,267}$ | (D) | - | - | - |  |
| Capital expenditures, new...do.... | 164 | +11 | 173 | 32 | 34 | 64 | (D) | - |  | - |  |
|  | Subindustry 3111-33.-Contract Tanneries |  |  |  |  |  |  |  |  |  |  |
| Establishments............ number. . | 180 | 32 | 19 | 35 | 42 | 33 | 14 | 4 | 1 | - | - |
| All employees: |  |  |  |  |  | 4,418 |  |  | (D) | - |  |
| Total................... . . . do.... | 8,447 39 | 56 349 | 127 | 514 2,269 | 1,342 6,262 | - $\frac{4,418}{21,152}$ | (D) | $\frac{1,990}{9,379}$ | (D) | - |  |
| Payroll................. \$1,000. . | 39,957 59,038 | 349 547 | 546 1,024 | 2,269 4,093 | 6,262 9,621 | $\frac{21,152}{31,430}$ | (D) | - $\frac{1,379}{12,323}$ | (D) | - |  |
| Value added, adjusted.......do.... | 59,038 | 547 800 | 1,024 2,250 | 4,093 6,530 | 9,621 14,780 | $\frac{31,430}{50,434}$ | (D) | $\frac{12,323}{22,761}$ | (D) | - |  |
| Value of shipments..........do.... Capital expenditures, new.. .do... | 97,555 1,285 | 800 13 | 2,250 17 | 6,530 92 | 14,780 280 | $\frac{50,434}{479}$ | (D) | $\frac{22,761}{404}$ | (D) | - |  |
|  | INDUSTRY 3121.-INDUSTRIAL LEATHER BELTING |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 83 | 31 | 16 | 13 | 14 | 4 | 2 | 2 | 1 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... .do... . | 2,870 | 73 | 106 | 193 | 421 | 289 | 1,788 | (D) | (D) | - |  |
| Payroll. . . . . . . . . . . . . . .\$1,000. . | 15,897 | 362 | 520 | 1,044 | 2,371 | 1,434 | 10,166 | (D) | (D) | - |  |
| Value added, adjusted.......do.... | 32,915 | 823 | 939 | 1,665 | 3,605 | 2,228 | 23,655 | (D) | (D) | - |  |
| Value of shipments...........do..... Capital expenditures, new...do.... | 51,869 | 1,660 | 1,935 | 3,483 | 8,105 | 3,690 | 32,996 | (D) | (D) | - |  |
|  | 742 | 25 | 15 | 21 | 681 | (D) | (D) | (D) | (D) | - | - |
|  | Industry 3131.-FOOTWEAR CUT STOCK |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 446 | 105 | 66 | 71 | 112 | 57 | 34 | 1 | - | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 14,339 | 192 | 446 | 1,030 | 3,697 | 3,955 | 5,019 | (D) | - | - | - |
|  | 53,420 | 608 | 1,618 | 3,695 | 14,031 | 15,513 | $\frac{17,955}{}$ | (D) | - | - |  |
| Value added, adjusted.......do.... | 90,611 | 1,319 | 2,557 | 6,583 | 22,563 | 24,834 | 32,755 | (D) | - | - |  |
| Value of shipments..........do.... | 229,253 | 3,511 | 6,886 | 17,367 | 60,894 | 59,863 | 80,732 | (D) | - | - |  |
| Capital expenditures, new...do.... | 1,620 | 42 | 68 | 93 | 388 | 395 | 634 | (D) | - | - |  |

See footnotes at end of table.

## TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963-Continued

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & \text { 2,500 } \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3141.-SHOES, EXCEPT RUBEER |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 1,040 | 125 | 43 | 57 | 110 | 104 | 247 | 288 | 62 | 3 | 1 |
| All employees: <br> Total. $\qquad$ do. | 201,728 | 200 | 301 | 807 | 3,514 | 7,975 | 41,678 | 101,685 | 38,456 | 7,112 | (D) |
| Payroll. ................. $\$ 1,000$. . | 713,577 | 717 | 932 | 2,779 | 11,461 | 27,569 | 144, 430 | 352,065 | 141,247 | 32,377 | (D) |
| Value added, adjusted.......do.... | 1,214,740 | 1,234 | 1,416 | 4,920 | 17,448 | 44,221 | 225,691 | 635,816 | 230,294 | 53,700 | (D) |
| Value of shipments..........do.... | 2,249,167 | 2,826 | 2,622 | 9,993 | 38,264 | 85,010 | 422,292 |  | 445,585 | 87,845 | (D) |
| Capital expenditures, new...do.... | 18,470 | 1200 | 2,48 | 110 | 335 | 722 | 4,835 | -9,785 | 2,157 | $\underline{278}$ | (D) |
|  | INDUSTRY 3142.-HOUSE SLIPPERS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 153 | 32 | 8 | 16 | 30 | 30 | 27 | 9 | 1 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do.... | 11,039 | 54 | 52 | 225 | 957 | 2,050 | 4,127 | 3,574 | (D) | - | - |
| Payroll.................. \$1,000. . | 39,782 | 217 | 125 | 697 | 3,314, | 6,765 | 14,177 | 14,457 | (D) | - | - |
| Value added, adjusted.......do.... | 64,555 | 449 | 202 | 1,077 | 5,426 | 10,441 | 21,669 | 25,291 | (D) | - | - |
| Value of shipments..........do.... | 123,560 | 1,452 | 356 | 1,993 | 13,243 | 18,760 | 41,684 | 46,072 | (D) | - | - |
| Capital expenditures, new...do.... | 1,100 | $\underline{2}$ | (D) | 12 | $\underline{279}$ | (D) | 448 | $\underline{352}$ | (D) | - | - |

[^37] class.
table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

| An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such <br> as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I . |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\text { Col. } \mathrm{B}}{\mathrm{Col} . \mathrm{B}+\mathrm{C}}$ (percent) | Total, made in all industries <br> $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> $\frac{\mathrm{Col} . \mathrm{B}}{\mathrm{Col} \mathrm{F}}$ <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3111 | Leather tanning and finishing....1963.. ${ }_{\text {1958.. }}$ | $\begin{aligned} & 758,408 \\ & 743,124 \end{aligned}$ | $\begin{aligned} & 633,231 \\ & 631,488 \end{aligned}$ | $\begin{aligned} & 5,086 \\ & 2,484 \end{aligned}$ | $\begin{aligned} & 120,091 \\ & 109,152 \end{aligned}$ | $\begin{array}{r} 99 \\ 100 \end{array}$ | $\begin{aligned} & 635,754 \\ & 634,227 \end{aligned}$ | $\begin{aligned} & 633,231 \\ & 631,488 \end{aligned}$ | $\begin{aligned} & 2,523 \\ & 2,739 \end{aligned}$ | 100 100 |
| 3121 | Industrial leather belting........1963.. | $\begin{aligned} & 51,869 \\ & 66,560 \end{aligned}$ | $\begin{aligned} & 42,457 \\ & 55,242 \end{aligned}$ | $\begin{aligned} & 5,247 \\ & 6,070 \end{aligned}$ | $\begin{aligned} & 4,165 \\ & 5,248 \end{aligned}$ | $\begin{aligned} & 89 \\ & 90 \end{aligned}$ | $\begin{aligned} & 50,563 \\ & 60,111 \end{aligned}$ | $\begin{aligned} & 42,457 \\ & 55,242 \end{aligned}$ | $\begin{aligned} & 8,106 \\ & 4,869 \end{aligned}$ | 84 92 |
| 3131 | Footwear cut stock................. 1963.. | 229,253 256,652 | 202,419 227,515 | 14,146 11,133 | $\begin{aligned} & 12,688 \\ & 18,004 \end{aligned}$ | $\begin{aligned} & 93 \\ & 95 \end{aligned}$ | $\begin{aligned} & 215,988 \\ & 239,043 \end{aligned}$ | $\begin{aligned} & 202,419 \\ & 227,515 \end{aligned}$ | $\begin{aligned} & 13,569 \\ & 11,528 \end{aligned}$ | 94 95 |
| 3141 | Shoes, except rubber.............. 1963. . $1958^{1}$. | 2, 249,167 $2,048,857$ | $\begin{aligned} & 2,173,992 \\ & 1,993,468 \end{aligned}$ | $\begin{array}{r} 26,187 \\ 20,006 \end{array}$ | $\begin{aligned} & 48,988 \\ & 35,383 \end{aligned}$ | 99 99 | $\begin{aligned} & 2,196,735 \\ & 2,013,126 \end{aligned}$ | $\begin{aligned} & 2,173,992 \\ & 1,993,468 \end{aligned}$ | $\begin{aligned} & 22,743 \\ & 19,658 \end{aligned}$ | 99 99 |
| 3142 | House slippers............................ 1963 . $1958^{\text {i }}$. | $\begin{aligned} & 123,560 \\ & 112,145 \end{aligned}$ | $\begin{array}{r} 108,323 \\ 98,781 \\ \hline \end{array}$ | $\begin{aligned} & 12,295 \\ & 11,293 \end{aligned}$ | $\begin{aligned} & 2,942 \\ & 2,071 \end{aligned}$ | $\begin{aligned} & 90 \\ & 90 \end{aligned}$ | $\begin{aligned} & 127,581 \\ & 115,700 \end{aligned}$ | $\begin{gathered} 108,323 \\ 98,781 \end{gathered}$ | $\begin{aligned} & 19,258 \\ & 16,919 \end{aligned}$ | 85 <br> 85 |

Note: See Introduction for an explanation of terms used.
${ }^{1}$ Represents value of production rather than value of shipments (see text).

## TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


[^38]TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3111- -- | TANNED, CURRIED, AND FINISHED LEATHER, TOTAL ${ }^{1}$. $\ldots . . . . . . . . . . .$. |  | (X) | 635,754 | (X) | 634,227 |
| 31111 -- | Finished cattle hide and kip side leathers, total. |  | (X) | 397,401 | (X) | 411,344 |
|  | Grains, except offal and welting leather (heads, shoulders, bellies, etc.): <br> Sole leather: |  |  |  |  |  |
| 3111111 | Vegetable tanned (backs, bends, and sides).................. | 1,000 lbs..... | 91,919 | 46,289 | 109,991 | 48,424 |
| 3111113 | Chrome or retan (backs, bends, and sides). | 1,000 sq. ft.. | 12,702 | 6,223 | 17,010 | 6,509 |
| 3111124 | Belting and mechanical leather...... | 1,000 lbs..... | 8,975 | 7,449 | 6,020 | 5,190 |
| 3111133 | Bag, case, and strap leather (sides). | 1,000 sq. ft.. | 40,877 | 19,200 | 41,563 | 17,633 |
| 3111135 | Upholstery leather - top grains and machine buffs (hides)..... | ...do.......... | 38,812 | 18,586 | 35,097 | 14,957 |
| 3111137 | Upper leather, excluding patent (sides)......................... | . . . do. | 509,419 | 216,283 | 551,488 | 205,465 |
| 3111141 | Patent leather (sides). | . . do. | 28,511 | 18,299 | 51,359 | 23,822 |
| 3111145 | Garment leather (sides)........................................... | ...do......... | 9,407 | 3,652 | 20,011 | 6,478 |
| 3111149 | Other grains, including flat and handbag leather, and lining leather (sides) | ...do......... | 40,558 | 15,578 | (NA) | ${ }^{2} 12,309$ |
|  | Offal (heads, shoulders, bellies, etc.) except splits and welting leather: Sole leather: |  |  |  |  |  |
| 3111151 | Vegetable tanned. | 1,000 lbs..... | 31,733 | 8,483 | 50,578 | 15,133 |
| 3111153 | Chrome or retan. | 1,000 sq. ft.. | 21,750 | 5,197 | 3,204 | 1,108 |
| 3111159 | Other offal, including waist belt leather. | ...do......... | 8,165 | 3,587 | (NA) | 27,841 |
| 3111160 | Welting leather grains and offal | 1,000 lbs..... | 3,964 | 1,071 | 4,203 | 1,320 |
|  | Finished splits, including shoulder splits, deep buffs, buffing and fleshers: |  |  |  |  |  |
| 3111161 | Bottom stock. | 1,000 sq. ft.. | 4,219 | 987 | 22,315 | 4,997 |
| 3111163 | Upper... | .do. | 32,522 | 6,704 | 49,933 | 12,790 |
| 3111165 | Lining. . . . . . . . . . . . . . . . . . . . . | do | 67,824 | 11,240 | 26,105 | 15,048 |
| 3111169 | Other including glove and upholste | do | 43,028 | 6,490 | 241,432 | 28,921 |
| 3111100 | Finished cattle hide and kip side leathers, n.s.k |  | (X) | 2,083 | (X) | 3,399 |
| 3111200 | Finished all calf and whole kip leathers. | 1,000 sq. ft.. | 69,888 | 51,921 | 83,612 | 62,643 |
| 31113 -- | Finished sheep and lamb leather, total | . . .do. | 234,218 | 69,661 | 228,263 | 56,726 |
| 3111312 | Shoe... | ...do.......... | 76,361 | 19,225 | 56,915 | 13,747 |
| 3111331 | Garment. | ...do. | 113,282 | 35,484 | 87,242 | 22,226 |
| 3111339 | Other, including glove, fleshers, and skivers. | ...do.......... |  | 14,078 | 270,462 | ${ }^{2} 15,044$ |
| 3111351 | Shearlings............................ | ...do.......... | 41,636 | 14,078 | 13,644 | 5,709 |
| 3111300 | Finished sheep and lamb leather, n.s.k | ...do.......... | ${ }^{3} 2,936$ | 874 | (X) | (X) |
| 31114 -- | Other finished leathers, n.e.c., total................................ | ...do......... | 130,302 | 69,421 | 150,465 | 69,156 |
|  | Goat and kid leathers: |  |  |  |  |  |
| 3111411 | Upper...................................................................... | ...do......... | 68,362 | 38,506 | - 69,941 | 35,119 28 |
| 3111419 | Lining and other..................................................... . . | do. | 10,358 | 4,300 | ${ }^{2} 23.537$ | 28,320 |
| 3111420 | All cabretta leathers. | ...do......... | 6,681 | 3,057 |  |  |
| 3111435 | Horse, colt, mule, ass, and pony leathers......................... | ...do | 8,454 | 6,265 | ${ }^{2} 18,160$ | 29,607 29,708 |
| 3111459 | Other animal leathers................................................. | ...do.......... | 33,184 | 15,555 | 224,162 | 29,708 |
| 3111400 | Other finished leathers, n.e.c, n.s.k............................... | ...do.......... | 33,263 | 1,738 | 2,256 | 1,037 |
| 31115 -- | Rough, russet and crust leather (not finished in the reporting establishment), total. |  | (X) | 23,449 | (X) | 26,726 |
| 3111520 | Grains and offal (heads, shoulders, bellies, etc.).............. |  | (X) | 10,726 | (X) | ${ }^{2} 11,454$ |
| 3111551 | Splits, including shoulder splits, deep buffs: buffing, and fleshers. |  | (X) | 12,723 | (X) | 15,272 |
| 3111000 | All other finished and rough leathers, n.s.k....................... |  | (X) | 23,901 | (X) | 7,632 |
| 3111911 | Receipts for contract finishing and tanning done for others on their materials. |  | (NA) | 499,067 | (X) | 483,855 |

See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Type of footwear | 1963, by type of constuction (1,000 pais ${ }^{\text {a }}$ ) |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | $\begin{gathered} \text { Cemented, } \\ \text { excluding } \\ \text { slip- } \end{gathered}$ $\begin{aligned} & \text { salp-d } \\ & \text { lasted } \end{aligned}$ | ${ }_{\substack{\text { Slip- } \\ \text { listed }}}^{\substack{\text { a }}}$ |  | $\begin{gathered} \text { Mckay, } \\ \text { including } \\ \text { Litlide. } \\ \text { way } \end{gathered}$ | Stictch- down | Soft sole | $\underbrace{}_{\substack{\text { Tum or } \\ \text { turned }}}$ | Vul- canized <br> including injection molded | Other construc- tions (prewelt, nailed, etc.) | tion <br> not <br> specified |
| SHors and sLipprrs, excepr RUBBER, TOTAL. | 604,32 | 349, 820 | 28,37 | 86,839 | 25,306 | 23,950 | 33,667 | 4,39 | 15,013 | 9,10 | 27,8 |
| Shoes, sandals and playshoes, | 509,722 | (D) | 22,79 | ,535 | (D) | 21,366 | 5,887 | 1,025 | 15,013 | 7,326 | 17,290 |
| $\begin{aligned} & \text { Men's, total. . .............. } \\ & \text { Men's, other than work. } \end{aligned}$ | $\begin{gathered} 120,703 \\ 82,547 \\ \hline \end{gathered}$ |  | 1,695 | 59,931 38,757 | 5,009 | 4,238 | (D) |  | 1,227 | $\xrightarrow{1,533}$ (D) | 4, 4,230 |
| Men's work: Less than $6^{\prime \prime}$ high.. " high and over. | $\begin{aligned} & 11,061 \\ & 17,095 \end{aligned}$ | (D) |  | $\begin{array}{r} 7,361 \\ 13,813 \end{array}$ | ${ }_{4}^{\text {(D) }}$ | ${ }_{843}$ |  |  | (10) | (D) | 1,5 |
| $\qquad$ | $\begin{aligned} & 24,043 \\ & 275,186 \\ & 355,539 \\ & 30,739 \\ & 33,512 \end{aligned}$ | $\begin{array}{r} 8,536 \\ 224,1.15 \\ 23,24 \\ 15,04 \\ 15,072 \\ 13,32 \end{array}$ | 18,997 1,150 522 431 | 5,499 $\begin{aligned} & \text { S,967 } \\ & 3,006 \\ & 5,061 \\ & 4,413\end{aligned}$ 4,431 |  | 3,818 (0) 2,564 5.564 3,863 3,873 | 1, $\begin{array}{r}\text {, } 325 \\ \text { (D) } \\ \text { (D) } \\ 4,140\end{array}$ | (D) <br> - <br> (D) |  | (D) | 1,855 7,569 4.4 1,44 2,157 |
| Athletic sh | 9,75 | (D) |  | 470 | 2,619 | 535 |  |  |  | (D) | ,658 |
| Slippers for housewear, total. Men's, <br> Women's .................... | $\begin{aligned} & 77,629 \\ & 15,6,64 \\ & 49,431 \end{aligned}$ | $\begin{aligned} & 32,439 \\ & 7,734 \\ & 71,960 \end{aligned}$ | $\begin{aligned} & 5,583 \\ & 362 \\ & 4,408 \end{aligned}$ | $\begin{aligned} & 816 \\ & 536 \\ & \text { (D) } \end{aligned}$ | $\begin{aligned} & (\mathrm{D}) \\ & (\mathrm{D}) \\ & -)_{1} \end{aligned}$ |  | $\begin{aligned} & 27,580 \\ & 3,97 \\ & 16,799 \end{aligned}$ | $\left.\begin{array}{c} 3,310 \\ \hline(0) \end{array}\right)$ |  | (D) | 4,346 4, 3,845 |
|  | 12 | 3,105 | 813 | (D) |  | (D) | 6,801 | 1,380 |  | 350 | 132 |
| 1 other footwear | 7,23 | (D) |  | 1,018 | 1,077 | (D) | (D) | (D) |  | 58 | 556 |
| Product |  | By type of construction$(1,000 \text { pairs })^{4}$ |  |  | Produt |  |  |  | By type of construction$(1,000 \text { pairs })^{1 / 4}$ |  |  |
|  |  | 1963 | 1958 |  |  |  |  |  | 193 |  | 1958 |
| Shors And silipers, excepr TOTAL... |  | 604,328 | 595,141 |  | Misses' shoes, total. <br> Welt, including Silhouwelt <br> Cemented, excluding slip-lasted. |  |  |  | $\begin{aligned} & 3,0,264 \\ & 23,234 \\ & 2,564 \end{aligned}$ |  | $\begin{gathered} 1638,631 \\ { }^{16,621} \\ 16,3,384 \\ 14,655 \end{gathered}$ |
| Men's shoes, other than work, tota |  | $\begin{aligned} & 82,57 \\ & 38,575 \\ & 5,509 \\ & 5,0695 \\ & 78,104 \end{aligned}$ |  |  |  |  |  |  |  |  |  |
| Weitt incluaing Shinhouvert,....... | , |  |  |  | Cemented, excluding slip-lasted. Stitchdown. |  |  |  |  |  |  |
| Mekey, including Littreway........................... |  |  |  |  | Sther constructions, including construction n.s.k. |  |  |  |  |  | 14,655 1,951 |
| Cemented, excluding slip-1asted |  |  | 4,8610 ${ }_{\text {15,619 }}$ |  | Chiliren's shoes, total .................... |  |  |  | $\begin{gathered} 30,739 \\ 5,611 \\ 5,009 \\ 5,070 \\ 5,663 \end{gathered}$ |  | $\begin{aligned} & 31,135 \\ & 6,59 \\ & 10,793 \\ & 11,641 \end{aligned}$ |
| other onstruations, incluaing |  | 28,1048,982 |  |  | Welt, inclua | ng Silho | elasted. |  |  |  |  |
|  |  |  |  |  |  tion n.s.k. |  |  |  |  |  |  |
| Men's work shoes,Welt, iness thanan Welt, inclucing sinhouwelt. Other constructions, including construction n.s.k. |  | $\underset{7,361}{11,061}$ | $\begin{array}{r} 8,871 \\ 7,615 \\ 683 \end{array}$ |  |  |  |  |  | 4,386 |  | 2,132 |
|  |  | Infants ' and babies' shoes, total. Welt, including Silhouweit. Stitchdown. <br> ther constructions, including construction n.s.k. |  |  |  |  |  |  |
|  |  | 3,700 |  |  | $\begin{gathered} 33,512 \\ 4,431 \\ 3,373 \\ 3,873 \end{gathered}$ |  | $\begin{aligned} & 36,470 \\ & 9,782 \\ & 10,841 \end{aligned}$ |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 5,897 |  |  |  |  |
| Men's work shoes, 6" high and over, total. Welt, including Silhouwelt. . . <br>  Other constructions, including construction n.s.k. |  |  |  |  |  |  |  | $\begin{array}{r} 17,005 \\ 13,883 \\ 1,435 \\ 1,449 \end{array}$ | $\begin{gathered} 16,045 \\ 13,208 \\ 1,126 \\ 1247 \end{gathered}$ |  | Athletic shoes, total. All other footwear, except slippers............. |  |  |  | $\begin{array}{r}25,208 \\ 9,733 \\ 7,234 \\ \hline\end{array}$ |  | $\begin{aligned} & 175,929 \\ & 176,569 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Men's, youths ', and boys s slippers, total...Cemented, excluding slip-lasted....a.... |  |  |  | $\begin{aligned} & 15,614 \\ & 7,374 \\ & 1,362 \\ & 3,977 \end{aligned}$ |  |  |  |  | $\begin{array}{r} 15,903 \\ 6,501 \\ 2,625 \\ 4,3135 \\ 4824 \end{array}$ |  |  |  |
|  |  | 1,398 | 1,474 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Soft sole |  |  |  |  |  |  |  |  |  |  |  |
| Youths' and boys' shoes, total. <br> Welt, including Silhouwelt. <br> McKay, including Iittieway. <br> Other constructions, including construction n.s.k. |  |  | $\begin{gathered} 24,043 \\ 5,49 \\ 3,418 \end{gathered}$ | $\begin{gathered} 23,548 \\ 11,596 \\ 8,482 \\ 2,040 \end{gathered}$ |  | Tum or turned. <br> Other construction, including construction n.s.k. |  |  |  |  |  | 2,901 |  |  |  |
|  |  |  |  |  |  | 1,818 |  |  |  |  |  |  |  |  |  |
|  |  |  | Women's slippers, total............ |  |  |  | $\begin{array}{r}49,431 \\ 1,358 \\ \hline\end{array}$ |  | 43,865 |  |  |  |  |  |
|  |  | 14,726 |  |  |  |  |  |  |  | , 30 |  |  |  |  |  |
|  |  |  |  |  | Mckay, inclu |  |  |  |  |  |  | Ung Iitti | ,.. |  |  |  |
|  |  |  | 16279,46218,730 |  |  |  |  |  |  | 21, 2,06016,799 |  | $\begin{array}{r} 12,507 \\ 16,512 \\ 16,512 \end{array}$ |  |  |  |
| Welt, including Silhouwelt <br> McKay, including Littleway <br> Slip-lasted. |  | 13,61118,997 |  |  |  |  |  |  | 4,906 |  |  |  |  |  |  |
|  |  | 20,25933,879 | tion n.s.k. |  |  |  |  |  | 6,901 |  |  |  |  |  |
| Cemented, excluding slip-lasted Other constructions, including construction n.s.k. |  |  | $\begin{array}{r} 224,145 \\ 12,466 \\ \hline \end{array}$ | $\begin{array}{r} 187,410 \\ 18,984 \end{array}$ |  | Misses', children's, infants', and babies' slippers, total. |  |  |  | 12,574 |  | ${ }^{1711,097}$ |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

${ }^{1}$ Represents the quantity and value of shipments of products made by or for companies from their own materials. See text for more detailed explanation.
${ }^{2}$ For this product, more detailed data were collected for 1958. This information is shown in the 1958 Census of Manufactures Volume.
${ }^{3}$ Quantity estimated based on the quantity-value relationship reported for other products of the product class.
${ }^{4}$ Contract receipts are not included in the total shown for tanned, curried, and finished leather. For 1963 , contract receipts include all receipts for tanning and finishing done for others on their materials regardless of the industry classification of the establishments. For 1958, contract receipts include all receipts for contract work done for others on their materials by establishments classified in industry 3lll, Leather Tanning and Finishing.
${ }^{5}$ For 1958 , product code 3121013 includes the following: Flat leather belting, $\$ 5,136$ thousand; Other leather belting, \$2,879 thousand; and Industrial leather belting, not specified by kind, $\$ 1,696$ thousand. Data for these products were not collected separately for 1963 .
${ }^{6}$ Figures exclude footwear and cut stock and findings made from rubber and elastomer resins and plastics which are not primary to industry 3131. Data on the shipments of rubber and elastomer resin footwear cut stock are included with the figures for industry 3069, Fabricated Rubber Products, n.e.c.; footwear cut stock and findings made from plastics are included with figures for industry 3079, Miscellaneous Plastic Products.
${ }^{7}$ For 1958, includes 1,320 thousand dozen pairs of leather counters valued at $\$ 1,791$ thousand, and 22,475 thousand dozen pairs of other counters valued at $\$ 9,972$ thousand. Data for these products were not collected separately for 1963.
${ }^{8}$ For 1958, includes 335 thousand dozen pairs of leather counters valued at $\$ 488$ thousand, and 3,653 thousand dozen pairs of counters of other materials valued at $\$ 1,102$ thousand. Data for these products were not collected separately for 1963.
${ }^{9}$ For 1958, includes 859 thousand dozen pairs of midsoles valued at $\$ 2,246$ thousand; 6,549 thousand dozen pairs of heel lifts and top lifts valued at $\$ 2,458$ thousand; and upper (vamps, quarters, tips, and tongues, etc.) valued at $\$ 3,305$ thousand. Data for these products were not collected separately for 1963.
${ }^{11}$ For 1958 , includes 1,660 thousand dozen pairs of platforms, valued at $\$ 2,017$ thousand, for which data were not collected separately for 1963 .
${ }^{11}$ For 1958, represents value of production (see text).
${ }^{12}$ The constructions shown in this table relate to the method of outersole attachment. In addition to those specified, companies were asked to report two additional categories: Moccasins with outersole attached, and moccasins having no line of demarcation between the sole and upper. An investigation showed that a substantial number of companies producing moccasins with outersole attached had included them with cemented, welt, etc. depending on the method of attachment of the outersole. It was also apparent that moccasins having no line of demarcation between the sole and upper were not completely reported. Figures reported for these two categories, therefore, have been included in the "construction not specified" column, by type of footwear.
${ }^{13}$ Production data on footwear with sole vulcanized to fabric upper, including sneakers, are presented in the 1963 Census of Manufactures report on rubber footwear, SIC Code 3021.
${ }^{14}$ The constructions listed are those for which separate data are available for 1958. More detailed information for 1963 for the "other constructions" category is shown above.
${ }^{15}$ For 1958 , includes 1,657 thousand pairs of men's play shoe's for which separate data were not collected by type of construction.
${ }^{16}$ For 1958, figures for misses' play shoes are included with those for women's shoes. For 1963, they are included with misses'.
${ }^{17}$ Data by method of construction are not available for 1958.
table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes ( $1954=100)$ |  | Product code | Product and year | Indexes ( $1954=100)$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |  |  | Production | Unit value |
| 3111 | Tanned, curried, and finished leather ${ }^{1}$................................. 1963. 1958. | 90 99 | 113 103 | 3141 | Shoes, except rubber ${ }^{2}$ $\qquad$ 1958. . | $\begin{aligned} & 112 \\ & 110 \end{aligned}$ | 111 |
| 31111 | Finished cattle hide and kip side leathers.................................. . 1963. . | 94 | 110 | 31411 | Men's dress shoes, including play shoes. . . . . . . . . . . . . . . . . . . . . . . . . . . . 1963. 1958. | 112 104 | 108 |
|  | 1958.. | 106 | 101 | 31412 | Men's work shoes.................... $1963 .$. | $\begin{aligned} & 125 \\ & 117 \end{aligned}$ | 127 |
| 31112 | Finished all calf and whole kip leathers................................. 1963.. | 75 90 | $\begin{aligned} & 108 \\ & 109 \end{aligned}$ | 31413 | Youths' and boys' shoes............1963.. ${ }^{\text {1958.. }}$ | 1 | 111 |
| 31113 | Finished sheep and lamb leather.... $\begin{array}{r}1963 . . \\ \text { 1958.. }\end{array}$ | $\begin{aligned} & 98 \\ & 95 \end{aligned}$ | 115 96 | 31414 | Women's dress, work and play shoes. ................................... 1963.. 1958 . | 110 | 111 |
| 3114 | Other finished leathers, n.e.c.......1963.. | 62 | 130 | 31415 | Misses' and childrens' shoes........ $1963 .$. | $\begin{array}{r} 95 \\ 103 \end{array}$ | 104 99 |
|  | 1958. . <br> Boot and shoe cut stock and | 72 | 113 | 31416 | Infants' and babies' shoes.......... 1963.. | 89 103 | 115 104 |
| 31 | Boot and shoe cut stock and findings................................... $1963 .$. 1958.. | 79 89 | $\begin{aligned} & 113 \\ & 111 \end{aligned}$ | 31417 | Other footwear (except rubber, shoes with skates attached, or slippers). . . . . . . . . . . . . .............. . . 1963. . | 145 | 116 |
| 314 | Shoes, except rubber, and house slippers ${ }^{2}$. . . . . . . . . . . . . . . . . . . . $1963 .$. | $\begin{aligned} & 113 \\ & 111 \end{aligned}$ | $\begin{aligned} & 110 \\ & 102 \end{aligned}$ | 3142 | House slippers........................... $1958 .$. $1953 .$. $1958 .$. | $\begin{aligned} & 158 \\ & 146 \\ & 131 \end{aligned}$ | 94 94 95 |

${ }_{1}^{n} \cdot$ e.c. Not elsewhere classified.
${ }_{2}^{1}$ Adjusted to include rough, russet and crush leather (product class 31115), also all other leathers not specified by kind.
${ }^{2}$ Ad,justed to include footwear not specified by kind.

# TABLE 6C. Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963 

| Code | Product class | 1963 | $1962^{1}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3111- | Leather tanning and finishing........\$1,000.. | 635,754 | 656,253 | 650,233 | 682,499 | 765,911 | 634,227 | 618,177 | 1,004,970 |
| 31111 | Finished cattle hide and kip side <br> leathers.......................................... | 397,401 | 449,748 | 440,874 | 450,989 | 497,676 | 411, 314 | 383,080 | 646,105 |
| 31112 | Finished calf and whole kip leathers: <br> Quantity.......................1,000 sq. ft. . <br> Value. $\qquad$ | $\begin{aligned} & 69,888 \\ & 51,921 \end{aligned}$ | $\begin{gathered} (\mathrm{NA}) \\ 56,600 \end{gathered}$ | $\begin{array}{r} (\mathrm{NA}) \\ 60,845 \end{array}$ | $\begin{gathered} (\mathrm{NA}) \\ 56,515 \end{gathered}$ | $\begin{aligned} & \text { (NA) } \\ & 3.421 \end{aligned}$ | $\begin{aligned} & 83,612 \\ & 62.643 \end{aligned}$ | $\begin{aligned} & 92,604 \\ & 63,599 \end{aligned}$ | $\begin{aligned} & 127,238 \\ & 107.747 \end{aligned}$ |
| 31113 | Finished sheep and lamb leathers: <br> Quantity.......................1,000 sq. ft.. | 234,218 | (NA) | (NA) | (NA) | (NA) | 8,263 | 236,448 | 314,787 |
| 31114 | Other finished leathers: <br> Quantity......................... 1,000 sq. ft.. | 130,302 | (NA) | (NA) | (NA) | (NA) | 150,465 | (NA) | (NA) |
|  | Value............................\$1,000.. | 69,421 | 59,069 | 60,647 | (S) | (S) | 69,156 | 85,408 | 146,920 |
| 31115 | Rough, russet, and crust leathers. | 23,4 | (s) | (s) | (s) | (s) | 26,726 | 23,934 | 12,524 |
| 31120 | Leather finishing and tanning,n.s.k. | 23,901 | (s) | (s) | (s) | (s) | 7,632 | - |  |
| 31119 | Receipts for contract finishing and tanning ${ }^{2}$. $\qquad$ | 99,067 | (NA) | (NA) | (NA) | (NA) | 83,855 | 70,282 | 53,613 |
| 31210 | Industrial leather belting and packing............................................. | 50,563 | 78,400 | 67,756 | 74,507 | 83,583 | 60,111 | (NA) | (NA) |
| 31310 | Footwear cut stock and findings. | 215,988 | 256,736 | 264,827 | 263,402 | 275,462 | 239,043 | (NA) | (Na) |
| 3141- | Footwear, except rubber: <br> Quantity........................1,000 pairs.. <br> Value..................................... $\$ 1,000$. . | $\begin{array}{r} 524,170 \\ 2,196,735 \end{array}$ | $\begin{array}{r} (X) \\ 2,195,987 \end{array}$ | $\begin{array}{r} (\mathrm{X}) \\ 2,104,976 \end{array}$ | $\begin{array}{r} (X) \\ 2,097,259 \end{array}$ | $\begin{array}{r} \text { (X) } \\ 2,229,269 \end{array}$ | $\begin{array}{r} 3524,276 \\ 2,013,126 \end{array}$ | 473,355 $1,779,134$ | $\begin{array}{r} 437,928 \\ 1,712,761 \end{array}$ |
| 31411 | Men's dress shoes, including play shoes: Quantity......................... 1,000 pairs. . Value........................................ . $\$ 1,000 .$. | $\begin{array}{r} 83,798 \\ 531,013 \end{array}$ | $\begin{aligned} & \text { (X) } \\ & 507,110 \end{aligned}$ | $\begin{array}{r} \text { (x) } \\ 473,877 \end{array}$ | $\begin{gathered} (\mathrm{x}) \\ 462,110 \end{gathered}$ | $\begin{aligned} & \text { 533, } \mathrm{X}) \end{aligned}$ | $\begin{aligned} & \begin{array}{l} 777,616 \\ 472,469 \end{array} \end{aligned}$ | $\begin{array}{r} 72,972 \\ 438,608 \end{array}$ | $\begin{aligned} & 485,015 \\ & 466,972 \end{aligned}$ |
| 31412 | Men's work shoes: <br> Quantity........................1,000 pairs.. <br> Value..................................... $\$ 1,000 .$. | $\begin{array}{r} 26,714 \\ 174,934 \end{array}$ | $\begin{gathered} (X) \\ 191,462 \end{gathered}$ | $\begin{array}{r} \text { (X) } \\ 170,701 \end{array}$ | $(X)$ 156,743 | $(\mathrm{X})$ 174,939 | 324,916 146,860 | 21,257 109,993 | $\begin{aligned} & 421,786 \\ & 97,523 \end{aligned}$ |
| 31413 | Youth's and boy's shoes: <br> Quantity.......................... 1,000 pairs. . Value. . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | $\begin{aligned} & 22,172 \\ & 82,179 \end{aligned}$ | $\begin{gathered} (X) \\ 96,468 \end{gathered}$ | $90(\mathrm{X})$ | $\begin{gathered} (\mathrm{X}) \\ 88,397 \end{gathered}$ | $\begin{array}{r} (X) \\ 94,869 \end{array}$ | $\begin{gathered} 323,548 \\ 81,774 \\ \hline \end{gathered}$ | $\begin{aligned} & 19,563 \\ & 65,088 \end{aligned}$ | $\begin{gathered} 49,822 \\ 55,938 \end{gathered}$ |
| 31414 | Women's dress, work, and play shoes: <br> Quantity.......................... 1,000 pairs.. <br> Value............................................................. | $\begin{array}{r} 275,704 \\ 1,065,523 \end{array}$ | $\begin{array}{r} (\mathrm{X}) \\ 1,101,000 \end{array}$ | $\begin{array}{r} (X) \\ 1,059,536 \end{array}$ | $\begin{array}{r} (\mathrm{X}) \\ 1,070,366 \end{array}$ | $\begin{array}{r} (\mathrm{X}) \\ 1,088,229 \end{array}$ | $\begin{gathered} 3279,462 \\ 996,402 \end{gathered}$ | $\begin{aligned} & 246,803 \\ & 874,280 \end{aligned}$ | $\begin{array}{r} 4183,811 \\ 784,490 \end{array}$ |
| 31415 | Misses' and children's shoes: <br> Quantity........................ 1,000 pairs.. <br> Value........................................ $\$ 1,000$. . | $\begin{array}{r} 65,520 \\ 189,924 \end{array}$ | $\begin{array}{r} (X) \\ 178,861 \end{array}$ | $\begin{array}{r} (X) \\ 179,870 \end{array}$ | $(X)$ 185,910 | $(X)$ 198,887 | 369,766 192,256 | 68,304 188,276 | $\begin{aligned} & 453,083 \\ & 139,811 \end{aligned}$ |
| 31416 | Infants' and babies' shoes: <br> Quantity.......................1, 000 pairs.. <br>  | $\begin{aligned} & 31,660 \\ & 73,065 \end{aligned}$ | $\begin{gathered} (X) \\ 60,589 \end{gathered}$ | $\begin{gathered} (x) \\ 72,016 \end{gathered}$ | $\begin{aligned} & (x) \\ & 78,675 \end{aligned}$ | $\begin{gathered} (X) \\ 83,408 \end{gathered}$ | $\begin{aligned} & { }^{3} 36,470 \\ & 76,181 \end{aligned}$ | $\begin{aligned} & 36,394 \\ & 71,035 \end{aligned}$ | $\begin{array}{r} 435,038 \\ 57,176 \end{array}$ |
| 31417 | All other footwear: <br> Quantity.......................1,000 pairs.. <br> Value........................................ $\$ 1,000$. | $\begin{aligned} & 12,477 \\ & 54,432 \end{aligned}$ | $\begin{array}{r} (\mathrm{X}) \\ 60,497 \end{array}$ | $\begin{gathered} (X) \\ 58,826 \end{gathered}$ | $\begin{gathered} (X) \\ 55,328 \end{gathered}$ | $\begin{aligned} & (x) \\ & 55,615 \end{aligned}$ | $\begin{aligned} & 32,498 \\ & 47,184 \end{aligned}$ | $\begin{gathered} 8,062 \\ 31,854 \end{gathered}$ | $\begin{aligned} & 47,594 \\ & 32,878 \end{aligned}$ |
| 31410 | Footwear, n.s.k.: <br> Quantity.......................1,000 pairs.. <br> value..................................... $\$ 1,000$. | $\begin{aligned} & 56,125 \\ & 25,665 \end{aligned}$ | $\begin{aligned} & (x) \\ & (x) \end{aligned}$ | $\begin{aligned} & (x) \\ & (x) \end{aligned}$ | $\begin{aligned} & (x) \\ & (x) \end{aligned}$ | $\begin{aligned} & (x) \\ & (x) \end{aligned}$ | $\begin{aligned} & (X) \\ & (X) \\ & \end{aligned}$ | $\begin{aligned} & (x) \\ & (x) \end{aligned}$ | ( X (x) |
| 31420 | Houseslippers: <br> Quantity........................1,000 pairs.. <br> Value....................................... $\$ 1,000$. . | $\begin{array}{r} 79,785 \\ 127,581 \end{array}$ | $\begin{array}{r} (x) \\ 131,527 \end{array}$ | $\begin{array}{r} (X) \\ 126,928 \\ \hline \end{array}$ | $\begin{array}{r} \text { (X) } \\ 115,922 \\ \hline \end{array}$ | $\begin{aligned} & 129,679 \end{aligned}$ | $\begin{aligned} & { }^{3} 70,865 \\ & 115,700 \\ & \hline \end{aligned}$ | $\begin{aligned} & 56,000 \\ & 92,241 \end{aligned}$ | $\begin{aligned} & 43,426 \\ & 75,390 \end{aligned}$ |

[^39](S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manu-
 lishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
${ }^{2}$ Contract receipts are not included in the total show for Leather tanning and finishing. For 1963, contract receipts include all receipts for tanning and finishing done for others on their materials regardless of the industry classification of the establishments. Prior to 1963, contract receipts include all receipts for contract work done for others on their materials by establishments classified in industry 31il, Leather Tanning and Finishing.
${ }^{3} 1958$ represents value of production rather than value of shipments (see text).
${ }^{4}$ The figures shown for 1947 are not completely comparable due to differences in reporting by manufacturers of sandal-type snoes. The 1947 data for play shoes, which are not included in the product class detail, are as follows: Men's, youths', and boys', 740 thousand pairs, $\$ 2,429$ thousand; Womens' and misses', 29,510 thousand pairs, $\$ 73,294$ thousand; Children's, 773 thousand pairs, $\$ 1,236$ thousand; Infants' and babies', 756 thousand pairs, $\$ 1,014$ thousand.
${ }^{5}$ Quantity estimated using the average unit value reported by other shoe producing companies reporting both quantity and value of shipments.

# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.


[^40]pplicable. (Z) Less than $\$ 1$ million reported. n.e.c. Not elsewhere classified.
${ }^{1}$ For the specified product classes, shipmenter of $\$ 1$ million or more were reported for the States listed, but the exact figures are withheld to avoid disclosure of individual company figures: 31111, Maine, Vermont, Ohio, Indiana, Minnesota, Missouri, Maryland, Virginia, North Carolina, Georgia, Kentucky, and California; 31113, New Hampshire, Massachusetts, New York, Wisconsin, North Carolina, and Tennessee; 31114, Massachusetts, Connecticut, New Jersey, Pennsylvania, Illinois, Michigan, and Delaware; 31411, New Hampshire, Connecticut, New York, New Jersey, Indiana, Illinois, Michigan, Minnesota, Missouri, Virginia, West Virginia, North Carolina, Georgia, Kentucky, Tennessee, Arkansas, and Texas; 31412, New York, Pennsylvania, Michigan, Minnesota, Missouri Maryland, North Carolina, Georgia, Alabama, Arkansas, and California; 31413, New York, Ohio, Michigan, Missouri, Virginia, North Carolina, and Kentucky; 31414 , Indiana, Michigan, Wisconsin, Minnesota, Virginia, Georgia, Florida, Kentucky, and Tennessee; 31415, New York, Indiana, Illinois, Michigan, Missouri, Georgia, and Mississippi; 31416, New York, Wisconsin, and Kentucky; 31417, New Hampshire, New York, Illinois, and Wisconsin.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.
${ }^{3}$ See text regarding comparability of 1963 and 1958 data.

TABLE 7A. Materials by Kind: 1963 and 1958


## TABLE 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost $(\$ 1,000)$ | Quantity | Delivered cost <br> $(\$ 1,000)$ | Quantity | Delivered cost <br> $(\$ 1,000)$ | Quantity | $\begin{gathered} \text { Delivered } \\ \text { cost } \\ (\$ 1,000) \\ \hline \end{gathered}$ |
|  |  |  | INDUSTRY 3141.-SHOES, EXCEPT RUBBER-Continued |  |  |  | INDUSTRY 3142.-HOUSE SLIPPERS-Continued |  |  |  |
|  | Materials, parts, supplies-Continued |  |  |  |  |  |  |  |  |  |
| 970011 | Containers and other packaging supplies. |  | (X) | 35,891 | (X) | 34,371 | (X) | 2,378 | (X) | 2,732 |
| 970099 | All other materials, parts, supplies. |  | (x) | 213,478 | (x) | 268,629 | (X) | 15,756 | (X) | 10,196 |
| 976000 | Materials, parts, supplies, n.s.k.?...................... |  | (X) | 109,459 | (X) | 58,344 | (X) | 12,397 | (X) | 6,393 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual compenies.
(NA) Not available.
(X) Not applicable.
n.s.k. Not specified by kind.
${ }^{1}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."
${ }^{2}$ In 1958, data for plywood and other wood products, except boxes and containers, were not collected separately, but were included in the value reported for code 970099, All other materials, containers, and supplies consumed.
${ }^{3}$ Includes the following: Purchased leather cut stock, $\$ 30,024$ thousand; and cormosition and nuclear types of soling materials, $\$ 55,939$ thousand.
4ncludes the following: Purchased leather cut stock, $\$ 539$ thousand; and composition and nuclear types of soling materials, $\$ 3,309$ thousand.

## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Leather tanning and finishing (SIC 3111) | Industrial leather belting (SIC 3121) | Footwear cut stock (SIC 3131) | Shoes, except rubber (SIC 3141) | House slippers (SIC 3142) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. | 12,686 | 1,732 | 1,349 | 10,478 | 594 |
| Total cost of purchased fuels................................do. | 8,183 | 1,348 | 568 | 3,251 | 173 |
| Bituminous coal, lignite, and anthracite: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons. . | 324 | - | 6 | 70 | (S) |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 2,793 | - | 73 | 670 | (S) |
| Coke and breeze: <br> Quantity. .1,000 short tons. | - | - | - |  | - |
| Cost................................................. . . $\$ 1,000 .$. | - | - | - | (S) | - |
| Fuel oil (distillate and residual): |  |  |  |  |  |
| Quantity...................... 1, 000 barre1s of $42{ }^{\text {gallons.. }}$ | 988 2.775 | 34 87 | (S) | 302 | 20 |
| Cost................................. . . . . . . . . . . . . . . $\$ 1,000 .$. | 2,775 | 87 | (S) | 1,121 | 77 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |
| Quantity........................................million cu.ft.. | 2,327 | 2,573 | 201 | 802 | (S) |
| Cost. .................................................... . $\$ 1,000 .$. | 1,119 | 1,258 | 86 | 511 | (S) |
| Other fuels. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do.. . . | 1,496 | (S) | 220 | 945 | 60 |
| Electric energy: |  |  |  |  |  |
| Purchased: | 314 | 27 | 38 | 357 | 21 |
|  | 4,503 | 384 | 781 | 7,227 | 421 |
| Generated less sold............................million kw. -hrs.. | 68 | - | - | (S) | (S) |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.........1,000 hp.. | 280 | 12 | 29 | 185 | 11 |
| Prime movers, total............................................do.... | 71 | 3 | (Z) | 7 | 1 |
| Driving generators......................................... . do. . . | 59 | - | (z) | 7 | 1 |
| Not driving generators..................................... . do.... | 12 | 3 | (2) | (z) | - |
| Electric motors, total..........................................do..... | 240 | 10 | 29 | 179 | 11 |
| Driven by purchased energy.................................do. ${ }^{\text {do.. }}$ | 209 | 10 | 29 | 178 | 11 |
| Driven by energy generated at establishment.............do.... | 32 | - | - | 1 | - |
| Aggregate horsepower per 100 production workers.................... | 1,026 | 480 | 190 | 95 | 104 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. (Z) Less than 500 horsepower.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

# table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 


the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures,$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| $31.11-$ | Leather tanning and finishing |  |  |  |  |  |  |  |  |  |  |
| 31211 | Finished cattle hide and kip side leathers, all establishments (primary product class of estab.) Establishments with$90 \%$ or more specialization.... 75-89\% specialization.......... | 525 | 31,417 | 163,307 | 27,282 | 54,556 | 129,756 | 273,092 | 480,507 | 758,408 | 6,480 |
|  |  | 478 | 30,463 | 158,966 | 26,440 | 52,966 | 126,307. | 267,336 | 470,477 | 742,536 | 6,296 |
|  |  | 141 | 15,291 | 84,648 | 13,288 | 27,229 | 67,174 | 146,993 | 303,537 | 455,339 | 3,870 |
|  |  | 173 14 | 10,439 1,962 | 57,540 10,494 | $-9,136$ 1,657 | 18,763 3,402 | 45,337 8,381 | 101,132 18,301 | 218,886 30,929 | 324,525 49,571 | 2,792 407 |
| 31112 | Finished calf and whole kip leathers, all establishments (primary product class of estab.).......... | 13 | 1,624 | 8,792 | 1,392 | 2,719 | 6,675 | 14,373 | 25,152 | 38,814 | 259 |
| 31.14 | Finished sheep and lamb leathers, all establishments. (primary product class of estab.).......... Establishments with- | 50 | 1,740 | 8,423 | 1,463 | 2,793 | 5,840 | 16,132 | 48,747 | 64,963 | 275 |
|  | 90\% or more specialization.... | 44 | 1,315 | 6,582 | 1,094 | 2,114 | 4,513 | 13,130 | 42,587 | 55,776 | 189 |
|  | Other finished leathers, n.e.c., all establishments (primary product class of estab.).......... Establishments with$90 \%$ or more specialization.... | 32 | 2,560 | 13,766 | 2,084 | 4,048 | 10,140 | 20,930 | 39,511 | 60,963 | 367 |
|  |  | 25 | 1,712 | 9,241 | 1,395 | 2,676 | 6,750 | 12,926 | 28,256 | 41,825 | 336 |
| 31115 | Rough, russet, and crust leather (primary product class of estab.) Establishments with- | 13 | 760 | 3,609 | 642 | 1,230 | 2,806 | 6,020 | 14,025 | 20,332 | 1.18 |
|  | $90 \%$ or more specialization.... | 8 | 307 | 1,434 | 264 | 477 | 1,101 | 1,864 | 6,830 | 8,892 | 40 |
| 31119 | Receipts for tanning or finishing leather owned by others (primary product class of estab.).......... Establishments with90\% or more specialization.... |  |  |  |  |  |  |  |  |  |  |
|  |  | 131 | 8,081 | 38,324 | 7,225 | 14,268 | 32,411 | 55,740 | 36,661 | 92,164 | 1,195 |
|  |  | 125 | 7,707 | 36,287 | 6,883 | 13,486 | 30,630 | 52,387 | 34,953 | 87,196 | (D) |
| 31111-12 | Leather tanning and finishing, tanneries (entire subindustry). Establishments with$90 \%$ or more specialization.... | 283 | 22,148 | 117,540 | 19,316 | 38,832 | 94,003 | 196,793 | 332,488 | 532,998 | 5,030 |
|  |  | 275 | 21,441 | 114,293 | 18,695 | 37,669 | 91,512 | 192,744 | 323,100 | 519,453 | 4,913 |
|  | Finished cattle hide and kip side leathers, tanneries (entire subindustry).......... Establishments with9 \% or more specialization.. 75-89\% specialization....... | 112 | 14,778 | 80,959 | 13,005 | 26,658 | 65,562 | 135,870 | 235,383 | 375,723 | 3,755 |
|  |  | $\begin{aligned} & 90 \\ & 12 \end{aligned}$ | $\begin{array}{r} 10,073 \\ 1,917 \end{array}$ | $\begin{aligned} & 54,784 \\ & 10,253 \end{aligned}$ | $\begin{aligned} & 8,902 \\ & 1,620 \end{aligned}$ | $\begin{array}{r} 18,290 \\ 3,327 \end{array}$ | $\begin{array}{r} 44,016 \\ 8,208 \end{array}$ | $\begin{aligned} & 91,482 \\ & 17,672 \end{aligned}$ | $\begin{array}{r} 167,321 \\ 29,652 \end{array}$ | $\begin{array}{r} 263,044 \\ 47,672 \end{array}$ | 2,709 390 |
| 31114-12 | Finished sheep and lamb leathers, tanneries (entire subindustry) $\qquad$ | 29 | 1,404 | 6,257 | 1,233 | 2,353 | 4,745 | 10,619 | 21,993 | 32,537 | 219 |
|  | Other finished leather, n.e.c., tanneries (entire subindustry) Establishments with- | 24 | 2,439 | 13,032 | 2,027 | 3,939 | 9,916 | 19,723 | 30,416 | 50,049 | 356 |
|  | $90 \%$ or more specialization.. | 19 | 1,621 | 8,674 | 1,355 | 2,596 | 6,585 | 12,132 | 21,562 | 33,727 | 326 |
| 31.1.15-12 | Rough russet, and crust leathers, tanneries (entire subindustry). $\qquad$ | 9 | 678 | 3,146 | 566 | 1,052 | 2,510 | 5,031 | 12,364 | 17,624 | 116 |

See footnotes at end of table.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| $\begin{gathered} \text { Industry } \\ \text { or } \\ \text { product } \\ \text { class } \\ \text { code } \\ \hline \end{gathered}$ | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted ( $\$ 1,000$ ) | Cost of materials <br> $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| $3112-$ | IEATHER TANNING AND FINISHINGContinued |  |  |  |  |  |  |  |  |  |  |
| 3111-22 | Leather tanning and finishing converters (entire subindustry) Establishments with- | 61 | 806 | 5,781 | 413 | 831 | 2,150 | 17,212 | 109,360 | 127,744 | 164 |
|  |  | 61 | 806 | 5,781 | 413 | 831 | 2,150 | 17,212 | 109,360 | 127,744 | 164 |
| 31111-22 | Finished cattle hide and kip side leathers, converters (entire subindustry).......... | 26 | 410 | 3,083 | 190 | 391 | 1,100 | 10,232 | 66,998 | 77,562 | 91 |
| 3111-33 | ```Leather tanning and finishing, contract tanneries (entire subindustry) Establishments with-``` | 180 | 8,447 | 39,957 | 7,540 | 14,871 | 33,581 | 59,038 | 38,598 | 97,555 | 1,285 |
|  | 90\% or more specialization.... | 141 | 8,200 | 38,863 | 7,319 | 14,444 | 32,623 | 57,331 | 37,956 | 95,228 | 1,218 |
| 31121-33 | Finished cattle hide and kip side leathers, contract tanneries (entire subindustry).. | 3 | 103 | 606 | 93 | 180 | 512 | 891 | 1,156 | 2,054 | 24 |
| 3141- | SHOES, EXCEPT RUBBER |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 1,040 | 201,728 | 713,577 | 182,901 | 334,969 | 589,369 | 1,214,740 | 1,035,627 | 2,249,167 | 18,470 |
|  | $90 \%$ or more specialization.. <br> 75-89\% specialization....... | $\begin{array}{r} 963 \\ 13 \end{array}$ | $\begin{array}{r} 191,115 \\ 2,053 \end{array}$ | $\begin{array}{r} 679,805 \\ 6,937 \end{array}$ | $\begin{array}{r} 173,189 \\ 1,852 \end{array}$ | $\begin{array}{r} 317,081 \\ 3,271 \end{array}$ | $\begin{array}{r} 561,460 \\ 5,408 \end{array}$ | $\begin{array}{r} 1,161,538 \\ 10,984 \end{array}$ | $1,001,455$ 9,812 | $\begin{array}{r} 2,163,871 \\ 20,394 \end{array}$ | 17,589 113 |
| 31411 | Men's dress shoes, including play shoes (primary product class of estab.)................................. Establishments with-- | 146 | 46,016 | 170,011 | 41,538 | 76,927 | 141,554 | 304,543 | 275,573 | 580,081 | 3,946 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | $\begin{aligned} & 92 \\ & 22 \end{aligned}$ | $\begin{array}{r} 29,744 \\ 7,046 \end{array}$ | $\begin{array}{r} 215,805 \\ 23,255 \end{array}$ | $\begin{array}{r} 26,670 \\ 6,396 \end{array}$ | 49,464 11,778 | $\begin{aligned} & 94,816 \\ & 20,351 \end{aligned}$ | 212,988 35,969 | 182,461 42,267 | 395,015 78,571 | 1,729 478 |
| 31412 | Men's work shoes (primary product class of estab.)...................... Establishments with - | 51 | 11,672 | 43,145 | 10,454 | 19,649 | 33,339 | 75,226 | 91,919 | 165,738 | 1,176 |
|  | 90\% or more specialization.... <br> 75-89\% specialization......... | 38 5 | $\begin{aligned} & 7,982 \\ & 2,107 \end{aligned}$ | $\begin{array}{r} 29,295 \\ 8,458 \end{array}$ | $\begin{aligned} & 7,333 \\ & 1,668 \end{aligned}$ | 13,633 3,241 | $\begin{array}{r} 23,810 \\ 5,286 \end{array}$ | $\begin{aligned} & 51,586 \\ & 13,874 \end{aligned}$ | $\begin{aligned} & 66,934 \\ & 14,624 \end{aligned}$ | $\begin{array}{r} 118,194 \\ 27,997 \end{array}$ | $\begin{aligned} & 503 \\ & 413 \end{aligned}$ |
| 31413 | Youth's and boy's shoes (primary product class of estab.).......... Establishments with$90 \%$ or more specialization. $\qquad$ | 21 4 | 5,193 792 | 16,347 2,333 | 4,873 711 | 9,032 1,348 | 14,585 1,898 | 31,647 4,029 | 23,186 3,409 | 55,004 7,678 | 434 40 |
| 31414 | Women's dress, work and play shoes (primary product class of estab.) Establishments with - | 399 | 99,326 | 348,837 | 90,378 | 163,086 | 289,050 | 582,020 | 490,975 | 1,071,967 | 9,180 |
|  | 90\% or more specialization.... <br> 75-89\% specialization.......... | $\begin{array}{r} 347 \\ 21 \end{array}$ | 88,712 4,905 | 311,435 16,137 | 80,097 4,507 | 144,439 8,240 | $\begin{array}{r} 257,952 \\ 13,790 \end{array}$ | $\begin{array}{r} 517,382 \\ 27,117 \end{array}$ | $\begin{array}{r} 437,622 \\ 25,371 \end{array}$ | $\begin{array}{r} 955,941 \\ 52,405 \end{array}$ | $\begin{array}{r} 8,280 \\ 566 \end{array}$ |
| 31415 | Misses' and children's shoes (primary product class of estab.) Establishments with- | 105 | 22,500 | 80,482 | 20,503 | 38,395 | 66,519 | 134,708 | 95,494 | 231,083 | 2,086 |
|  | 90\% or more specialization.... | 32 | 5,430 | 18,159 | 5,069 | 9,835 | 15,676 | 29,096 | 22,440 | 51,543 | 899 |
|  | 75-89\% specialization........... | 15 | 3,637 | 11,599 | 3,383 | 6,289 | 10,214 | 21,578 | 15,957 | 37,898 | 182 |
| 31416 | Infants ${ }^{1}$ and babies' shoes (primary product class of estab.).... Establishments with- | 41 | 5,212 | 16,184 | 4,662 | 8,255 | 13,275 | 27,572 | 18,633 | 46,408 | 434 |
|  | 90\% or more specialization.... | 30 | 2,995 | 9,304 | 2,623 | 4,586 | 7,255 | 25,053 | 10,451 | 25,468 | 279 |
| 31417 | All other footwear (primary product class of estab.)............... Establishments with- | 69 | 5,252 | 19,349 | 4,574 | 8,457 | 14,366 | 31,445 | 28,856 | 60,156 | 437 |
|  | 90\% or more specialization.... | 52 | 2,691 | 9,498 | 2,329 792 | 4,197 1,402 | 7,065 2,563 | 16,397 4,803 | 13,376 4,783 | 29,713 9,378 | 299 29 |
|  | 75-89\% specialization.......... | 6 | 859 | 3,123 | 792 | 1,402 | 2,563 | 4,803 | 4,783 | 9,378 |  |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
n.e.c. Not elsewhere classified.

## LEATHER GLOVES; LUGGAGE; AND MISCELLANEOUS LEATHER GOODS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3151-Leather Dress, Semidress, and Work Gloves<br>3161-Luggage<br>3171-Women's Handbags and Purses<br>3172-Personal Leather Goods, Except Handbags and Purses<br>3199-Leather Goods, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4 ) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

With the exception of the Leather Gloves Industry (SIC 3151), the products of these industries are made from both leather and nonleather materials. For example, plants primarily engaged in making luggage (whether from plastics, leather, or other materials) are classified in the luggage industry; the basis for classification is the type of product rather than the kind of raw material used.

## 3151-LEATHER DRESS, SEMIDRESS, AND WORK GLOVES

This industry comprises establishments primarily engaged in manufacturing dress, semidress, and work gloves exclusively of leather. Establishments primarily engaged in manufacturing sporting and athletic gloves are classified in industry 3949; and dress, semidress, and work gloves and mittens of cloth, or cloth and leather combined, in industry 2381. For a detailed list of products of industry 3151, refer to table 6A, product codes 3151012 to 3151079 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Leather Gloves Industry in 1963 totaled $\$ 81$ million. This amount included shipments of leather dress, semidress, and work gloves (primary products) valued at $\$ 55$ million, shipments of other products (secondary products) valued at $\$ 13$ million, and miscellaneous receipts (mainly contract work on materials owned by others), at $\$ 12$ million.

This industry's shipments of leather gloves in 1963 represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 consisted mainly of fabric dress gloves and mittens ( $\$ 9$ million), and fabric work gloves and mittens ( $\$ 3$ million).

Shipments of leather dress, semidress, and work gloves by this industry in 1963 represented 89 percent of all shipments of these products ( $\$ 62$ million) by all industries. In 1958 the coverage ratio was 86 percent.

Establishments in this industry were requested to report value of shipments in 1963 and value of production in prior years. This change was made as a result of a review of the reporting which indicated that the value of shipments data were more generally available from company records and were usually reported in place of value of production. This change does not significantly affect the comparability between 1963 and prior years for the product statistics shown in tables 6 A or in the industry's value of shipments shown in tables 1 to 4 .

The production index for the primary products of the industry increased to 123 in 1963 from the 1958 level of 103 . The unit value index for 1963 was 115 compared to 109 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3161-LUGGAGE

This industry comprises establishments primarily engaged in manufacturing luggage of leather or other materials. For a detailed list of products of industry 3161, refer to table 6A, product codes 3161015 to 3161098 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Luggage Industry in 1963 totaled $\$ 210$ million. This amount included shipments of luggage (primary products) valued at $\$ 192$ million, shipments of other products (secondary products) valued at $\$ 10$ million, and miscellaneous receipts (mainly contract work on materials owned by others), at $\$ 8$ million.

This industry's shipments of luggage in 1963 represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was also 95 percent.

Shipments of luggage by this industry in 1963 represented 94 percent of all shipments of these products ( $\$ 205$ million) by all industries. In 1958 the coverage ratio was 95 percent. Other industries shipping luggage consisted mainly of industry 3172, Small Leather Goods, $\$ 2,048$ million.

As a result of revisions to the 1957 Standard Industrial Cla'sification, data for this industry for 1957 and earlier years are not directly comparaole to those for 1958 to 1963. The extent of noncomparability is described in the text for industry 3161 which appears in the 1958 Census of Manufactures, volume II, part 2.

The production index for the primary products of the industry increased to 120 in 1963 from the 1958 level of 106 . The unit value index for 1963 was 115 compared to 104 in 1958. Both indexes were computed on a basis of $1954=100$.

Establishments shipping luggage, travel kits, billfolds, wallets, and French purses also report monthly on Census Form M31E, Luggage, Briefcases, and Personal Leather Goods. The 1963 data compiled from this survey are shown in table 6A together with the com-
parable totals reported in the census of manufactures. The M31E survey was initiated in 1960.

The two sets of 1963 data differ primarily because of the different procedures used in deriving the totals. All manufacturing plants are included in the census of manufactures. The monthly M31E data, on the other hand, are estimates based on reports received from a sample of all producers benchmarked to their 1958 Census of Manufactures reports. Over a period of time, most samples, including this one, are subject to increasing errors pending rebenchmarking to a complete universe. It appears that the sample for the luggage and personal leather goods survey did not completely reflect the changes in business activity of the nonsample companies and consequently the estimates differed from the results of the complete census.

In addition, the data available for the benchmark year (1958) were in less detail than that collected in the M31E survey. Therefore, "average" estimating factors were used for some of the detail items. This fact significantly affected the level of some of these estimates.

## 3171-WOMEN'S HANDBAGS AND PURSES

This industry comprises establishments primarily engaged in manufacturing women's handbags and purses of leather or other materials, except precious metal (industry 3911). For a detailed list of products of industry 3171, refer to table 6A, product codes 3171011 to 3171071 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Handbags and Purses lndustry in 1963 totaled $\$ 280$ million. This amount included shipments of ladies' and children's handbags and purses (primary products) valued at $\$ 261$ million, shipments of other products (secondary products) valued at $\$ 7$ million, and miscellaneous receipts (mainly contract work on materials owned by others), at $\$ 12$ million.

This industry's shipments of handbags and purses in 1963 represented 98 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent.

Shipments of handbags and purses by this industry in 1963 represented 98 percent of all shipments of these products ( $\$ 266$ million) by all industries. In 1958 the coverage ratio was 98 percent. Another industry shipping handbags and purses was industry 3172 , Small Leather Goods, $\$ 2$ million.

The production index for the primary products of the industry increased to 117 in 1963 from the 1958 level of 107 . The unit value index for 1963 was 127 compared to 111 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3172—PERSONAL LEATHER GOODS, EXCEPT HANDBAGS AND PURSES

This industry comprises establishments primarily engaged in manufacturing small articles, such as billfolds, key cases and coin purses of leather or other materials, except precious metal (industry 3911). For a detailed list of products in industry 3172, refer to table 6A, product codes 3172011 to 3172055 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Small Leather Goods Industry in 1963 totaled $\$ 159$ million. This amount included shipments of personal leather goods, except
handbags and purses, (primary products) valued at $\$ 141$ million, shipments of other products (secondary products) valued at $\$ 6$ million, and miscellaneous receipts (mainly contract work on materials owned by others), at $\$ 12$ million.

This industry's shipments of small leather goods in 1963 represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 consisted mainly of luggage ( $\$ 2$ million), and handbags and purses (\$2 million).

Shipments of personal leather goods, except handbags and purses; by this industry in 1963 represented 92 percent of all shipments of these products ( $\$ 154$ million) by all industries. In 1958 the coverage ratio was 87 percent.

As a result of revisions to the 1957 Standard Industrial Classification, data for this industry for 1957 and earlier years are not directly comparable to those for 1958 to 1963. The extent of noncomparability is described in the text for industry 3172 which appears in the 1958 Census of Manufactures, volume II, part 2.

The production index for the primary products of the industry increased to 130 in 1963 from the 1958 level of 112. The unit value index for 1963 was 99 compared to 102 in 1958. Both indexes were computed on a basis of $1954=100$.

Establishments shipping luggage, travel kits, billfolds, wallets, and French purses also report monthly on Census Form M31E, Luggage, Briefcases, and Personal Leather Goods. The 1963 data compiled from this survey are shown in table 6A, together with the comparable totals reported in the census of manufactures. The M31E survey was initiated in 1960.

The two sets of 1963 data differ primarily because of the different procedures used in deriving the totals. All manufacturing plants reported in the census of manufactures. The monthly M31E data, on the other hand, are estimates based on reports received from a sample of all producers benchmarked to their 1958 Census of Manufactures reports. Over a period of time, most samples, including this one, are subject to increasing errors pending rebenchmarking to a complete universe. It appears that the sample for the luggage and personal leather goods survey did not completely reflect the changes in business activity of the nonsample companies and consequently the estimates differed from the results of the complete census.

In addition, the data available for the benchmark year (1958) were in less detail than that collected in the M31E survey. Therefore, "average" estimating factors were used for some of the detail items. This fact significantly affected the level of some of these estimates.

## 3199-LEATHER GOODS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing leather goods, n.e.c., such as saddlery, harness, and whips; embossed leather goods; leather desk sets; and razor straps. For a detailed list of products of industry 3199, refer to table 6A, product codes 3199011 to 3199098.

Establishments primarily engaged in manufacturing leather garments are classified in industry 2386, Leather and Sheeplined Clothing; leather belts in industry 2387, Apparel Belts; leather gaskets in industry 3293, Gaskets and Insulations; leather buffing wheels in industry 3291, Abrasive Products; and leather costume jewelry in industry 3961, Costume Jewelry.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Leather Goods, N.E.C., Industry in 1963 totaled $\$ 67$ million. This amount included shipments of saddlery, harness and whip and other leather products, n.e.c. (primary products) valued at $\$ 55$ million, shipments of other products (secondary products) valued at $\$ 4$ million, and miscellaneous receipts (mainly contract work on materials owned by others), at $\$ 8$ million.

This industry's shipments of leather goods, n.e.c., in 1963 represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent.

Shipments of saddlery, harness and whip and other leather products, n.e.c., by this industry in 1963 represented 82 percent of all shipments of these products ( $\$ 67$ million) by all industries. In 1958 the coverage ratio was 84 percent.

(


# table 1. General Statistics: 1963 and Earlier Years 

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | $\begin{gathered} \text { Value } \\ \text { added by } \\ \text { manufacture, } \\ \text { adjusted } \\ (\$ 1,000) \end{gathered}$ | Cost of materials <br> $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Corerage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |



INDUSTRY 3161. - LUGGAGE


|  |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


| 539 | 545 | 262 |
| :---: | :---: | :---: |
| (NA) | (NA) | (NA) |
| (NA) | (NA) | (NA) |
| (NA) | (NA) | (NA) |
| 611 | 624 | 262 |
| (NA) | ( NA ) | ( NA ) |
| (NA) | (NA) | (nA) |
| (NA) | (NA) | (NA) |
| 710 | 714 | 247 |

24,548
24,020
23,597
23,224
23,914
21,971
23,261
24,418
24,537
22,881

88,455
81,237
76,636
74,023
73,24
68,644
66,602
68,059
65,35
61,305 22,001
21,678
21,152
20,702
21,164
19,459
20,892
22,164
22,377
20,911

41,752
41,282
49,537
39,025
40,050
37,259
38,100
41,681
441,028
39,942

|  | 70,058 |
| :--- | :--- |
| 66,555 | 142,554 |
| 61,580 | 134,100 |
| 58,307 |  |
| 58,607 | 127,687 |
| 57,447 | 122,49 |
| 54,275 | 11,545 |
| 52,423 | 106,550 |
| 53,756 | 110,749 |
| 51,821 | 102,074 |
| 49,620 | 93,865 |



| 1,890 | 98 | 98 |
| :---: | :---: | :---: |
| 1,310 | $(\mathrm{NA})$ | $(\mathrm{NA})$ |
| 1,094 | $(\mathrm{NA})$ | $(\mathrm{NA})$ |
| 1,064 | $(\mathrm{NA})$ | $(\mathrm{NA})$ |
| $(5)$ | $(\mathrm{NA})$ | $(\mathrm{NA})$ |
| 1,575 | 96 |  |
| $(5)$ | $(\mathrm{NA})$ | $(\mathrm{NA})$ |
| $(\mathrm{S})$ | $(\mathrm{NA})$ | $(\mathrm{NA})$ |
| $(\mathrm{S})$ | $(\mathrm{NA})$ | $(\mathrm{NA})$ |
| 972 | 97 | 98 |

See footnbtes at end of table.
table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> ( $\$ 1,000$ ) | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 31'71. - HANDBAGS AND PURSES-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1953{ }^{2}$ | (NA) | (NA) | (NA) | 20,768 | 56,451 | 18,407 | 35,193 | 44,069 | 86,676 | 84,175 | 170,851 | (S) | (NA) | (NA) |
| $1950^{2}$. | (NA) | (NA) | (NA) | 20,780 | 48,652 | 18,643 | 40,593 | 38,557 | 64,740 | 86,280 | 151,020 | (S) | (NA) | (NA) |
| 1947. | 725 | 736 | 279 | 20,378 | 45,664 | 18,468 | 38,725 | 36,168 | 77,042 | 86,264 | 163,306 | 799 | 99 | 97 |
|  | (NA) | 286 | (NA) | 15,700 | 14,777 | 14,048 | (NA) | 11,239 | 22,929 | 32,878 | 55,807 | (NA) | (NA) | (NA) |
| $1937{ }^{\text {9 }}$. | (NA) | 203 | (NA) | 12,236 | 11,264 | 11, 306 | (NA) | 9,054 | 18,690 | 24,756 | 43,446 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3172.-SMALL LEATHER GOODS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 325 | 340 | 117 | 12,432 | 47,352 | 10,320 | 19,580 | 32,077 | 82,385 | 76,603 | 159,013 | 1,262 | 96 | 92 |
| $1962{ }^{2}$ | (NA) | (NA) | (NA) | 13,734 | 51,250 | 11,539 | 21,371 | 34,931 | 86,322 | 69,786 | 154,863 | $(1,772)$ | (NA) | (NA) |
| $1961{ }^{2}$ | (NA) | (NA) | (NA) | 13,400 | 47,977 | 11,362 | 21,159 | 32,502 | 80,972 | 64,575 | 144,631 | $(1,330)$ | (NA) | (NA) |
| $1960{ }^{2}$ | (NA) | (NA) | (NA) | 15,297 | 52,573 | 12,939 | 23,693 | 35,178 | 81,054 | 72,640 | 154,309 | $(5,650)$ | (NA) | (NA) |
| $1959{ }^{2}$ | (NA) | (NA) | (NA) | 15,140 | 52,009 | 12,703 | 23,741 | 35,330 | 82,256 | 72,675 | 153,437 | $(2,843)$ | (NA) | (NA) |
| $1958{ }^{10}$ | 399 | 400 | 123 | 13,657 | 46,483 | 11,521 | 21,380 | 31,865 | 75,791 | 62,550 | 138,052 | 1,378 | 91 | 87 |
| $1954{ }^{4}$. | (NA) | 425 | 129 | 14,666 | 44,079 | 12,219 | 23,473 | 30,305 | 69,882 | 53,516 | 124,164 | 1,303 | (NA) | (NA) |
| 1947. | (NA) | 411 | 122 | 12,818 | 27,447 | 11,367 | 22,385 | 20,867 | 45,825 | 34,829 | 80,654 | 1,098 | (NA) | (NA) |
| $1939{ }^{\circ}$. | (NA) | 242 | (NA) | (NA) | (NA) | 7,714 | (NA) | 6,561 | 15,280 | 12,741 | 28,021 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3199.-LEATHER GOODS, N. E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 365 | 370 | 67 | 4,989 | 18,742 | 4,209 | 8,507 | 13,668 | 32,730 | 34,827 | 67,058 | 766 | 94 | 82 |
| $1962{ }^{2}$ | (NA) | (NA) | (NA) | 5,104 | 20,362 | 4,219 | 8,628 | 14,342 | 36,922 | 35,054 | 72,003 | (615) | (NA) | (NA) |
| $1961{ }^{2}$ | (NA) | (NA) | (NA) | 4,560 | 18,654 | 3,835 | 7,881 | 12,884 | 35,546 | 31,772 | 66,511 | (705) | (NA) | (NA) |
| $1960{ }^{2}$ | (NA) | (NA) | (NA) | 5,217 | 18,549 | 4,340 | 9,653 | 13,572 | 34, 34,4 | 32,099 | 66,364 | (S) | (NA) | (NA) |
| $1959{ }^{2}$ | (NA) | (NA) | (NA) | 5,736 | 19,193 | 4,905 | 9,330 | 14,038 | 34,034 | 31,149 | 64,478 | (S) | (NA) | (NA) |
| 1958. | 429 | 433 | 74 | 5,405 | 17,651 | 4,623 | 8,778 | 13,185 | 31,227 | 28,740 | 60,178 | 842 | 96 | 84 |
| $1954{ }^{4}$. | (NA) | 489 | 83 | 5,900 | 16,471 | 5,109 | 9,835 | 12,392 | 29,208 | 29,709 | 58,659 | 340 | 92 | 85 |
| $1952^{2}$ | (NA) | (NA) | (NA) | 7,617 | 21,847 | 6,826 | 12,883 | 16,755 | 37,114 | (NA) | (NA) | (NA) | (NA) | (NA) |
| $1951{ }^{2}$ | (NA) | (NA) | (NA) | 7,683 | 19,616 | 6,877 | 12,618 | 14,594 | 33,457 | (NA) | (NA) | (NA) | (NA) | (NA) |
| $1950{ }^{2}$ | (NA) | (NA) | (NA) | 9,387 | 22,441 | 7,176 | 13,307 | 14,583 | 39,812 | (NA) | (NA) | (NA) | (NA) | (NA) |
| $1949{ }^{2}$ | (NA) | (NA) | (NA) | 7,574 | (NA) | 6,235 | 11,827 | (NA) | 27,196 | (NA) | (NA) | (NA) | (NA) | (NA) |
| 1947. | (NA) | 54.4 | 113 | 9,016 | 19,882 | 7,901 | 15,924 | 15,209 | 31,696 | 29,698 | 61,394 | 668 | (NA) | (NA) |
| 1939. | (NA) | 316 | (NA) | 6,214 | 6,355 | 5,217 | (NA) | 4,475 | 9,913 | 11,116 | 21,029 | (NA) | (NA) | (NA) |
| $1937{ }^{11}$ | (NA) | 346 | (NA) | (NA) | (NA) | 6,748 | (NA) | 5,832 | 12,449 | 15,549 | 27,998 | (NA) | (NA) | (NA) |

NOTR: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual conpanies. (NA) Not available. ( X ) Not applicable. (Z) Less than $\$ 500$ thousand. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ See text regarding comparability of 1963 data with earlier years.
${ }^{2}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a conplete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{3}$ The 1957 Standard Industrial Classification combined in this industry two industries which were separate in the 1945 Standard Industrial Classification. These were: Leather dress gloves and leather work gloves. The data for 1947-1954 for these two industries have been combined. Prior to 1947, leather work gloves and leather dress gloves constituted a single industry.
${ }^{4}$ Data for Alaska and Hawaii are not included for 1957 and prior years.
${ }^{5}$ This industry contains a number of very small establishments, some of which may have been misclassified as to industry in 1954 . This would not affect the statistics other than the number of establishments.
${ }^{6}$ The figures for 1925-1963 do not include data for gloves and mittens of cloth and leather combined, whereas the figures for earlier years include data for these products.

7 The figures for 1899 include data for a few establishments making gloves and mittens from materials other than leather.
$8_{\text {A }}$ revision in the definition of the Luggage Industry was introduced in the 1957 Standard Industrial Classification so that the industry is not exactly comparable to years prior to 1958. The 1957 and earlier figures are on the old SIC definition of the industry. The details of the revision are described in the text.
${ }^{9 " H a n d b a g s ~ a n d ~ P u r s e s " ~ a n d ~ " S m a l l ~ L e a t h e r ~ G o o d s " ~ f o r m e r l y ~ c o n s t i t u t e d ~ o n e ~ i n d u s t r y . ~ S e p a r a t e ~ f i g u r e s ~ f o r ~ p r i o r ~ y e a r s ~ a r e ~ n o t ~ a v a i l a b l e . ~}$
${ }^{10}$ The 1957 Standard Industrial Classification combined in this industry two industries with several product revisions which were separate in the 1945 Standard Industrial Classification. These were Small Leather Goods (old SIC Industry 3172) and Jewelry and Instrument Cases (old SIC Industry 3986). The data for 1954 and earlier years for these two industries have been combined. The details of the revisions are described in the text.
${ }^{11}$ Comparable figures for earlier years are not available.

# TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958 

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | $\begin{gathered} \text { Value } \\ \text { added by } \\ \text { manatac-- } \\ \text { aduere } \\ \text { adjusted } \\ (\$ 1,000) \\ \hline \end{gathered}$ | Cost of materials <br> $(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures,$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacadjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{gathered} \begin{array}{c} \text { Man- } \\ \text { hours } \end{array} \\ (1,000) \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total <br> Northeast. New York. $\qquad$ | INDUSTRY 3151.-LEATHER GLOVES |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 16 | 87 | 7,718 | 24,439 | 6,899 | 12,244 | 19,481 | 232,194 | 46,694 | ${ }^{2} 80,640$ | 328 | 6,212 | ${ }^{2} 25,999$ |
|  | $\begin{aligned} & 93 \\ & 85 \end{aligned}$ | $\left.\begin{aligned} & 44 \\ & 41 \end{aligned} \right\rvert\,$ | $\begin{aligned} & 4,127 \\ & 3,910 \end{aligned}$ | $\begin{aligned} & 12,887 \\ & 12,232 \end{aligned}$ | $\begin{aligned} & 3,668 \\ & 3,465 \end{aligned}$ | $\begin{aligned} & 6,173 \\ & 5,805 \end{aligned}$ | 10,286 9,740 | $\begin{aligned} & 16,3,34 \\ & 15,520 \end{aligned}$ | $\begin{aligned} & 27,432 \\ & 26,559 \end{aligned}$ | $\begin{aligned} & 44,967 \\ & 43,250 \end{aligned}$ | 175 160 | $\begin{aligned} & 3,166 \\ & 2,838 \end{aligned}$ | $\begin{aligned} & 13,211 \\ & 11,805 \end{aligned}$ |
| East North Central. Illinois. Wisconsin. | 37720 | 25514 | $\begin{aligned} & 2,213 \\ & 584 \\ & 1,155 \end{aligned}$ | 7,0721,7633,780 | 2,0155381,048 | 3,8621,191,968 | 5,7851,4913,059 | 8,936 1,867 4 | $\begin{array}{r}11,430 \\ 3,352 \\ 5,687 \\ \hline\end{array}$ | 20,8865,65510,376 | 65 43 14 | 2,037 579 882 | 8,6752,833,547 |
|  |  |  |  |  |  |  |  | 4,556 |  |  | 14 | 882 |  |
| West North Central. Iowa. . |  | 7 | $\begin{aligned} & 537 \\ & 383 \end{aligned}$ | $\begin{aligned} & 1,760 \\ & 1,263 \end{aligned}$ | $\begin{aligned} & 444 \\ & 300 \end{aligned}$ | 770 493 | $\begin{aligned} & 1,234 \\ & 785 \end{aligned}$ | $\begin{aligned} & 2,557 \\ & 1,799 \end{aligned}$ | $\begin{aligned} & 2,913 \\ & 1,963 \end{aligned}$ | $\begin{aligned} & 5,601 \\ & 3,762 \end{aligned}$ | $\begin{aligned} & 24 \\ & 14 \end{aligned}$ | $\begin{aligned} & 3131 \\ & \left({ }^{3}\right) \end{aligned}$ | 1,186 |
| Sout |  | 5 | 475 | 1,361 | 456 | 858 | 1,242 | 2,285 | 2,581 | 4,863 | 41 | 459 | 1,691 |
| West. Oregon. California. | $\begin{array}{r} 22 \\ 8 \\ 9 \\ \hline \end{array}$ | 2 <br> 4 |  | $\begin{array}{r} 1,359 \\ 635 \\ 612 \\ \hline \end{array}$ | $\begin{aligned} & 316 \\ & 134 \\ & 149 \\ & \hline \end{aligned}$ | $\begin{array}{r} 581 \\ 279 \\ 250 \\ \hline \end{array}$ | $\begin{aligned} & 934 \\ & 407 \\ & 439 \\ & \hline \end{aligned}$ | 2,0721,057860 | 2,3381,314900 | $\begin{aligned} & 4,323 \\ & 2,278 \\ & 1,761 \end{aligned}$ | $\begin{array}{r}23 \\ 14 \\ 5 \\ \hline\end{array}$ | 238$\begin{aligned} & (3) \\ & 149\end{aligned}{ }^{1} \times 1$ | $\begin{array}{r}1,236 \\ (3) \\ 941 \\ \hline\end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | INDUSTRY 3161.-LUGGGAGE |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 37 | 145 | 16,409 | 62,853 | 14,134 | 26,340 | 46,715 | 112,796 | 100,363 | 210,303 | 1,908 | 15,856 | 96,560 |
| $\begin{aligned} & \text { New England.......... } \\ & \text { Massachusetts.... } \end{aligned}$ | $\begin{aligned} & 30 \\ & 21 \end{aligned}$ | $\begin{array}{r}10 \\ 7 \\ \hline\end{array}$ | $\begin{aligned} & 1,386 \\ & 505 \end{aligned}$ | 5,259 1,664 | $\begin{array}{r}1,184 \\ 428 \\ \hline\end{array}$ | 2,097 755 | 3,518 1,304 | 11,716 2,289 | $\begin{array}{r}11,904 \\ 3,508 \\ \hline\end{array}$ | $\begin{array}{r} 23,403 \\ 5,851 \end{array}$ | 133 65 | 1,390 | $\begin{aligned} & 8,536 \\ & 3,086 \end{aligned}$ |
| Middle Atlantic New York. New Jersey Pennsylvania | 133313121 | $\begin{aligned} & 84 \\ & 53 \\ & 20 \end{aligned}$ | $\begin{aligned} & 6,688 \\ & 3,904 \\ & 1,923 \end{aligned}$ | $\begin{gathered} 23,991 \\ 13,745 \\ 7,486 \end{gathered}$ | 5,884 3,457 | 10,738 6,608 2, | 18,971 | 40,645 24,199 | 40,703 22,767 | $\begin{aligned} & 8,967 \\ & 4,97,140 \\ & 22,028 \end{aligned}$ | $\begin{array}{r} 457 \\ 336 \\ 65 \end{array}$ |  | $\begin{array}{r} 41,720 \\ 26,211 \\ 11,524 \\ 3,985 \end{array}$ |
|  |  |  |  |  | 1,690 | 2,882 | 5,854 | 11,125 | 11,342 |  |  | 2,091 |  |
|  |  | 11 | 861 | 2,760 | 737 | 1,248 | 2,286 | 5,321 | 6,594 | 11,808 | 56 | 766 |  |
| East North Central. Ohio. Indiana. Illinois. Michigan.. $\qquad$ Wisconsin. | 8512647614 |  | $\begin{array}{r} 1,850 \\ 181 \\ 262 \\ 1,059 \\ 109 \\ 239 \end{array}$ | $\begin{array}{r} 6,888 \\ 744 \\ 973 \\ 4,025 \\ 382 \\ 764 \end{array}$ | 1,611 | 3,185 | 5,066 | 10,505 | 10,424 | 20,964 | 142 | 1,907 | 11,124 |
|  |  | 2 <br> 4 <br> 4 |  |  | 159 | 306 | 559 | 1,069 | 935 | 2,026 | + |  | 965(3) |
|  |  |  |  |  | 236909 | 4751,789 | 8132,766 | 1,206 | 1,787 | 2,958 |  | ${ }^{3}{ }^{3}$ ) |  |
|  |  | 1111 |  |  |  |  |  | 6,360 | 6,375 | 12,784 | 105 | 1,006150 | 5,9849762,835 |
|  |  |  |  |  | 93 | 184 | 286 | 650 | 300 | 921 | 2 |  |  |
|  |  | 5 |  |  | 214 | 431 | 642 | 1,220 | 1,027 | 2,275 | 24 | 489 |  |
| West North Central. Missouri. | $\begin{aligned} & 14 \\ & 10 \end{aligned}$ | 6 | 893 783 | 3,134 2,785 | 808 716 | 1,547 1,385 | 2,596 2,339 | 4,857 4,150 | 4,394 3,975 | 9,171 8,052 | 48 32 | 1,034 | 4,729 4,679 |
| South Atlantic..... | 15 | 7 | 1,434 | 4,440 | 1,290 | 2,495 | 3,688 | 10,566 | 8,438 | 17,953 |  |  |  |
| East South Central. |  | 3 | 567 | 1,739 | 411 | ,714 | 1,051 | 4,018 | 4,632 | 9,017 | (D) | 1,529 | 8,197 |
| West South Central. | 8 | 3 | 291 | 1,025 | 265 | 485 |  | 1,739 | 1,444 | 3,002 |  |  |  |
| West.... | 35 | 9 | 3,300 | 16,377 | 2,681 | 5,079 | 10,999 | 28,750 | 18,424 | 45,817 | 670 | 2,654 | 22,254 |
|  |  |  |  |  |  | Indusi | 3171. | BAGS AND | ISES |  |  |  |  |
| Total. | 545 | 262 | 24,548 | 88,455 | 22,001 | 41,752 | 70,058 | 142,554 | 137,107 | 280,343 | 1,890 | 21,971 | 111,545 |
| New England......... Massachusetts.. | 26 19 | 15 9 | 1,953 1,136 | $\begin{aligned} & 7,064 \\ & 4,119 \end{aligned}$ | $\left.\begin{aligned} & 1,655 \\ & 1,005 \end{aligned} \right\rvert\,$ | $\left.\begin{aligned} & 3,104 \\ & 1,816 \end{aligned} \right\rvert\,$ | $\begin{aligned} & 5,502 \\ & 2,993 \end{aligned}$ | $\begin{aligned} & 9,478 \\ & 6,096 \end{aligned}$ | 9,106 4,995 | $\begin{aligned} & 18,770 \\ & 11,128 \end{aligned}$ | 94 38 38 | $\begin{aligned} & 2,269 \\ & 1,428 \end{aligned}$ | $\begin{gathered} 10,662 \\ 5,985 \end{gathered}$ |
| Middle Atlantic.... | 440 | 214 | 19,633 | 70,872 | 17,683 | 33,605 | 56,426 | 117,392 | 113,573 | 231,485 | 1,453 | 17,756 | 90,255 |
| New York.... | 384 | 174 | 14,685 | 53,552 | 13,130 | 24,895 | 42,267 | 88,840 | 88,849 | 178,248 | 1,074 | 13,357 | 69,911 |
| New Jersey... | 40 | 26 | 3,594 | 13,275 | 3,315 | 6,395 | 10,867 | 22,035 | 19,046 | 41,021 | +256 | 3,133 | 14,514 |
| Pennsylvania. | 16 | 4 | 1,354 | 4,045 | 1,238 | 2,315 | 3,292 | 6,517 | 5,678 | 12,216 | 123 | 1,266 | 5,830 |
| North Central. | 18 | 10 | 1,126 | 4,198 | 1,002 | 1,957 | 3,166 | 6,142 | 5,292 | 11,461 | 93 | 888 | 4,629 |
| South.. | 39 | 13 | 983 | 2,880 | 893 | 1,683 | 2,393 | 4,405 | 5,133 | 9,511 | 193 | 601 | 3,206 |
| West... | 22 | 10 | 853 | 3,441 | 768 | 1,403 | 2,571 | 5,137 | 4,003 | 9,116 | 57 | 457 | 2,793 |
|  |  |  |  |  |  | Indus | Y 3172.- | Mail ieathir | GCODS |  |  |  |  |
| Total. | 340 | 117 | 12,432 | 47,352 | 10,320 | 19,580 | 32,077 | 82,385 | 76,603 | 159,013 | 1,262 | 13,657 | 75,791 |
| New England. Massachusetts. | 42 22 | $\begin{aligned} & 21 \\ & 12 \end{aligned}$ | $\begin{aligned} & 1,866 \\ & 1,422 \end{aligned}$ | $\begin{aligned} & 8,106 \\ & 6,614 \end{aligned}$ | 1,496 1,119 | 2,817 2,055 | 5,209 4,131 | $\begin{aligned} & 13,764 \\ & 11,486 \end{aligned}$ | $\begin{array}{r} 10,004 \\ 7,523 \end{array}$ | $\begin{aligned} & 23,776 \\ & 19,011 \end{aligned}$ | ${ }_{\text {(D) }}^{211}$ | $\begin{aligned} & 3,945 \\ & 2,409 \end{aligned}$ | $\begin{aligned} & 22,467 \\ & 13,222 \end{aligned}$ |
| Middle Atlantic.... | 206 | 68 | 6,905 | 24,905 | 5,993 | 11,496 | 18,423 | 43,383 | 46,527 | 90,393 | 579 | 6,764 | 33,967 |
| New York.......... | 161 | 51 | 5,176 | 18,553 | 4,472 | 8,560 | 13,666 | 32,943 | 30,566 | 63,518 | 417 | 4,149 | 21,823 |
| New Jersey....... Pennsylvania | 36 9 | 14 3 | $\begin{array}{r}\text { 1,351 } \\ \hline 178\end{array}$ | $\begin{gathered} 4,914 \\ 1 \end{gathered}$ | 1,182 | 2,264 672 | $\begin{array}{r}3,703 \\ 1,054 \\ \hline\end{array}$ | 8,396 2,044 | 13,901 2,060 | 22,806 4,069 | 82 <br> 80 | 1,958 657 | 9,282 2,862 |
| North Central. | 4 | 18 | 2,726 | 11,269 | 2,034 | 3,790 | 6,351 | 20,923 | 16,137 | 36,414 | 331 | 2,257 | 15,843 |
| Illinois.. | 20 | 10 | 745 | 2,814 | 646 | 1,180 | 1,994 | 4,919 | 5,892 | 10,696 | 48 | 696 | 4,186 |
| South...... Florida.. | 19 5 | 7 3 | 738 <br> 328 | 2,243 840 | 635 277 | 1,149 | 1,520 613 | $\begin{array}{r} 2,964 \\ 900 \end{array}$ | $\begin{array}{r}2,756 \\ \hline 658\end{array}$ | $\begin{aligned} & 5,903 \\ & 1,680 \end{aligned}$ | $\begin{aligned} & 123 \\ & (\mathrm{D}) \end{aligned}$ | 691 | 3,514 |
| West | 29 | 3 | 197 | 829 | 162 | 328 | 574 | 1,351 | 1,179 | 2,527 | 18 |  |  |

See footnotes at end of table.

## table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees(number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| Total. | INDUSTRY 3199.-LEATHER GOODS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 370 | 67 | 4,989 | 18,742 | 4,209 | 8,507 | 13,668 | 32,730 | 34,827 | 67,058 | 766 | 5,405 | 31,227 |
| New England. ........ Massachusetts.... | 3727 | 9 | 530380 | $\begin{aligned} & 1,797 \\ & 1,248 \end{aligned}$ | 430307 | 779543 | $\begin{array}{r} 1,300 \\ 932 \end{array}$ | $\begin{aligned} & 3,255 \\ & 2,179 \end{aligned}$ | 2,8312,143 | 5,8334,078 | 77 | 500 | 2,4751,730 |
|  |  |  |  |  |  |  |  |  |  |  | 34 | 362 |  |
| Middle Atlantic...New York........Pennsylvania.... | 121 | 19 | 1,450 | 4,929 | 1,222 | 2,5392,136 | 4,070 | 10,020 | 10,132 | $\begin{aligned} & 20,078 \\ & 16,334 \end{aligned}$ | 193 | 2,325 | 14,100 |
|  | 9418 | 16 |  |  | 1,033 |  | 3,480 | 8,291 | 8,155 |  |  | 1,906 |  |
|  |  | 2 | 197 | 771 | 153 | 318 | 471 | 1,377 | 1,710 | 3,119 | 19 | 299 | 1,760 |
| East North Central. Ohio. Illinois | 541726 | 825 | $\begin{aligned} & 632 \\ & 108 \\ & 453 \end{aligned}$ | $\begin{array}{r}2,440 \\ \hline 352\end{array}$ | 53384389 | 1,108183 | $\begin{array}{r} 1,730 \\ 255 \end{array}$ | $4,186$ | 3,630729 | $\begin{aligned} & 7,826 \\ & 1,399 \end{aligned}$ | $\begin{array}{r}106 \\ 20 \\ \hline\end{array}$ | 584 <br> 117 | 3,417590 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 1,839 |  | 779 | 1,256 | 2,998 | 2,611 | 5,627 | 72 | 359 | 2,136 |
| West North Central. Missouri.......... | 159 | 43 | $\begin{aligned} & 153 \\ & 117 \end{aligned}$ | $\begin{aligned} & 530 \\ & 441 \end{aligned}$ | 11886 | $\begin{aligned} & 220 \\ & 168 \end{aligned}$ | $\begin{aligned} & 341 \\ & 267 \end{aligned}$ | $\begin{aligned} & 932 \\ & 714 \end{aligned}$ | $\begin{aligned} & 856 \\ & 656 \end{aligned}$ | $\begin{aligned} & 1,783 \\ & 1,368 \end{aligned}$ | 17(D) | 77$(3)$ | 393$(3)$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South Atlantic..... Georgia. $\qquad$ | 238 | 63 | $\begin{aligned} & 729 \\ & 412 \end{aligned}$ | $\begin{aligned} & 2,442 \\ & 1,516 \end{aligned}$ | $\begin{aligned} & 664 \\ & 388 \end{aligned}$ | $\begin{array}{r} 1,288 \\ 775 \end{array}$ | $\begin{aligned} & 2,006 \\ & 1,287 \end{aligned}$ | $\begin{aligned} & 3,711 \\ & 2,065 \end{aligned}$ | $\begin{aligned} & 4,431 \\ & 2,489 \end{aligned}$ | 8,1604,578 | 7028 | 792454 | 3,7482,206 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| East South Central. Tennessee......... | 149 | 54 | $\begin{aligned} & 525 \\ & 445 \end{aligned}$ | $\begin{aligned} & 1,858 \\ & 1,572 \end{aligned}$ | $\begin{aligned} & 461 \\ & 388 \end{aligned}$ | $\begin{aligned} & 897 \\ & 776 \end{aligned}$ | $\begin{aligned} & 1,504 \\ & 1,266 \end{aligned}$ | $\begin{aligned} & 3,850 \\ & 3,336 \end{aligned}$ | $\begin{aligned} & 5,468 \\ & 4,913 \end{aligned}$ | $\begin{aligned} & 9,293 \\ & 8,216 \end{aligned}$ | 79(D) | 305$(3)$ | $\begin{array}{r} 1,497 \\ \left({ }^{3}\right) \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West South Central. Texas. $\qquad$ | 3627 | 55 | $\begin{aligned} & 403 \\ & 357 \end{aligned}$ | $\begin{aligned} & 1,417 \\ & 1,254 \end{aligned}$ | $\begin{aligned} & 329 \\ & 293 \end{aligned}$ | $\begin{aligned} & 716 \\ & 638 \end{aligned}$ | $\begin{array}{r} 1,059 \\ 939 \end{array}$ | $\begin{aligned} & 2,889 \\ & 2,397 \end{aligned}$ | $\begin{aligned} & 3,209 \\ & 2,929 \end{aligned}$ | 5,9175,339 | 5646 | 231$(3)$ | $1,575$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { West. ................. } \text {. } \\ & \text { Colorado. . . . . . } \end{aligned}$Califormia. | 70 | 1154 | $\begin{aligned} & 567 \\ & 171 \\ & 289 \end{aligned}$ | $\begin{array}{r} 2,405 \\ 821 \\ 1,200 \end{array}$ | $\begin{aligned} & 452 \\ & 128 \\ & 240 \end{aligned}$ | $\begin{aligned} & 960 \\ & 257 \\ & 513 \end{aligned}$ | $\begin{array}{r} 1,658 \\ 475 \\ 912 \end{array}$ | $\begin{aligned} & 3,887 \\ & 1,255 \\ & 1,976 \end{aligned}$ | $\begin{aligned} & 4,270 \\ & 1,506 \\ & 2,083 \end{aligned}$ | $\begin{aligned} & 8,168 \\ & 2,744 \\ & 4,076 \end{aligned}$ | $\begin{array}{r} 168 \\ 96 \\ 53 \end{array}$ | 591 | 4,0228462,563 |
|  | 11 |  |  |  |  |  |  |  |  |  |  | 126357 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified.
$l_{\text {General }}$ statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3151, Leather Gloves: New England-Vermont, 2 (20-99); Massachusetts, l (1-19); Middle Atlantic-New Jersey, l (20-99); Pennsylvania, 4 (20-99) ; East North Central-Ohio, 3 (20-99); Indiana, 4 (263); Michigan, 3 (100-249); West North Central-Minnesota, 4 (20-99); Missouri, 1 (20-99); East South Central-Kentucky, 1 (20-99); Tennessee, 3 (100-249); West South Central—Arkansas, 1 (100-249); Mountain-Idaho, 2 (1-19); Pacific-Washington, 3 (20-99).
SIC 3161, Luggage: New England-Maine, l (1-19); New Hampshire, 1 (250-499); Rhode Island, 6 (509); Connecticut, 1 (20-99); West North CentralMinnesota, l (1-19); Iowa, l (20-99); Nebraska, l (1-19); Kansas, 1 (1-19); South Atlantic-Delaware, 2 (500-999); Maryland, 3 (194); Virginia, 1 (500-999); West Virginia, l (1-19); North Carolina, 2 (1-19); Georgia, 2 (100-249); Florida, 4 (20-99); East South Central-Kentucky, 2 (1-19); Tennessee, 4 (414); Mississippi, 1 (100-249); West South Central-Oklahoma, 1 (100-249); Texas, 7 (100-249); Mountain-Colorado, 4 (2,500-4,999); Arizona, 1 (1-19); Pacific-Washington, 4 (227); California, 26 (529).
SIC 3171, Handbags and Purses: New England-Maine, 1 (20-99); Vermont, 2 (250-499); Connecticut, 4 (250-499); East North Central-Indiana, 1
(1-19); Illinois, 6 (100); Wisconsin, 1 (100-249); West North Central-Missouri, 10 (500-999); South Atlantic-North Carolina, 2 (1-19);
Georgia, 2 (100-249); Florida, 15 (487); East South Central-Tennessee, 9 (100-249); West South Central-Arkansas, 1 (20-99); 0klahoma, 5 (20-99); Texas, 5 (114); Mountain-Arizona, l (1-19); Pacific-Washington, 1 (1-19); California, 18 (812); Hawaii, 2 (1-19).
SIC 3172, Small Leather Goods: New England-Maine, l (1-19); Rhode Island, 15 (389); Connecticut, 4 (20-99); East North Central-Ohio, 9 (215);
Indiana, 3 (20-99); Michigan, 4 (1-19); Wisconsin, 4 (500-999); West North Central-Missouri, 3 (1,000-2,499); Kansas, 1 (1-19); South Atlantic-Maryland, 2 (l-19); North Carolina, 2 (1-19); East South Central Tennessee, 2 (1-19); West South Central-Arkansas, 1 (100-249); Oklahoma, 2 (100-249); Texas, 5 (100); Mountain-Colorado, 1 (1-19); Pacific-Washington, 1 (1-19); Oregon, 3 (20-99); California, 24 (150).

SIC 3199, Leather Goods, N.E.C.: New England-Maine, l (1-19); New Hampshire, 1 (20-99); Vermont, 1 (20-99); Rhode Island, 3 (20-99); Connecticut, 4 (1-19); Middle Atlantic-New Jersey, 9 (20-99); East North Central—Indiana, 3 (1-19); Wisconsin, 8 (20-99); West North Central-Minnesota, 1
 5 (20-99); Florida, 5 (20-99); East South Central-Kentucky, 3 (20-99); Alabama, 1 (1-19); Mississippi, 1 (1-19); West South Central-Arkansas, 3 (1-19); Louisiana, 1 (1-19); Oklahoma, 5 (20-99); Mountain-Montana, 1 (1-19); Idaho, 3 (20-99); New Mexico, 2 (1-19); Arizona, 1 (1-19); Utah, 3 (20-99); Pacific-Oregon, 9 (20-99).
${ }^{2}$ See text regarding comparability of 1963 data with earlier years.
${ }^{3}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

| Item | Leather gloves (SIC 3151) | Luggage <br> (SIC 3161) | Handbags and purses (SIC 3171) | Small leather goods (SIC 3172) | Leather goods, n.e.c. (SIC 3199) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio ${ }^{1}$.......................... | . 81 | . 95 | . 98 | . 96 | . 94 |
| Coverage ratio ${ }^{2}$. .................................................... | . 89 | . 94 | . 98 | . 92 | . 82 |
| Establishments, total.....................................number.. | 166 | 379 | 545 | 340 | 370 |
| With 1 to 19 employees..................................do.... | 79 | 234 | 283 | 223 | 303 |
| With 20 to 99 employees.................................do.... | 66 | 102 | 190 | 88 | 62 |
| With 100 employees or more.............................do.... | 21 | 43 | 72 | 29 | 5 |
| Proprietors and working partners........................do.... | 92 | 202 | 258 | 191 | 265 |
| All employees (average for the year)....................do.... | 7,718 | 16,409 | 24,548 | 12,432 | 4,989 |
| Payroll (all employees), total for year............... $\$ 1,000 .$. | 24,439 | 62,853 | 88,455 | 47,352 | 18,742 |
| Production workers: |  |  |  |  |  |
| Average for the year..................................number.. | 6,899 | 14,134 | 22,001 | 10,320 | 4,209 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 6,394 | 13,184 | 23,289 | 9,655 | 4,121 |
| May.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 6,707 | 14,092 | 18,794 | 9,260 | 4,195 |
| August... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 7,259 | 14,877 | 22,805 | 10,833 | 4,257 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 7,236 | 14,383 | 23,116 | 11,532 | 4,263 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 12,244 | 26,340 | 41,752 | 19,580 | 8,507 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 2,752 | 6,070 | 10,852 | 4,453 | 2,009 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . | 3,000 | 6,739 | 9,069 | 4,441 | 2,102 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 3,276 | 6,819 | 10,678 | 5,055 | 2,108 |
| October-December................... . . . . . . . . . . . . . . . . . do.... | 3,216 | 6,712 | 11,153 | 5,631 | 2,288 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 19,481 | 46,715 | 70,058 | 32,077 | 13,668 |
| Cost of materials, etc., total..........................do.... | 46,694 | 100,363 | 137,107 | 76,603 | 34,827 |
| Materials, parts, containers, and supplies consumed..do.... | 34,295 | 93,531 | 123,542 | 62,449 | 29,804 |
| Cost of resales.............................................do... . . | 7,502 | 4,405 | 3,231 | 5,952 | 4,422 |
| Fuels consumed............................................ . ${ }^{\text {do.... }}$ | 138 | 276 | 188 | 201 | 87 |
| Electric energy: |  |  |  |  |  |
| Purchased: <br> Quantity. million kw.-hrs. |  | 48 | 39 | 28 | 10 |
| Cost..................................................... . $\$ 1.000$. . | 146 | 781 | 741 | 537 | 181 |
| Generated less sold.......................million kw.-hrs.. | - | (D) | - | (D) | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 4,613 | 1,370 | 9,405 | 7,464 | 333 |
| Value of shipments (including resales), total...........do..... | 80,640 | 210,303 | 280,343 | 159,013 | 67,058 |
| Value of resales............................................................ | 9,201 | 6,297 | 4,989 | 8,087 | 6,641 |
| Value added by manufacture, adjusted....................do.... | 32,194 | 112,796 | 142,554 | 82,385 | 32,730 |
| Manufacturers' inventories: |  |  |  |  |  |
| Beginning of year, total................................do. | 16,532 | 33,312 | 19,632 | 21, 192 | 9,345 |
| Finished products.................................... . . . . . . do. | 8,370 | 14,745 | 8,875 | 9,924 | 4,349 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 3,347 | 4,386 | 3,431 | 3,210 | 839 |
| Materials, supplies, fuel, etc........................do. | 4,815 | 14,180 | 7,326 | 8,058 | 4,157 |
| End of year, total......................................d. ${ }^{\text {do. }}$ | 14,858 | 36,292 | 18,808 | 20,915 | 9,527 |
| Finished products........................................... . . . . . . | 6,828 | 17,731 | 8,365 | 9,764 | 4,641 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 3,137 | 4,256 | 3,259 | 3,345 | 1,046 |
| Materials, supplies, fuel, etc.......................do. | 4,893 | 14,305 | 7,184 | 7,806 | 3,840 |
| Expenditures for plant and equipment, total............do.. | 370 | 2,159 | 2,033 | 1,352 | 798 |
| New, total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 328 | 1,908 | 1,890 | 1,262 | 766 |
| New structures and additions to plant...............do. | 96 | 139 | 282 | 130 | 209 |
| New machinery and equipment..........................do. | 232 | 1,769 | 1,608 | 1,132 | 557 |
| Used plant and equipment................................do.... | 42 | 251 | 143 | 90 | 32 |
| Selected operating ratios: |  |  |  |  |  |
| Payroll/Total employment............ | 3,166 | 3,830 | 3,603 | 3,809 | 3,757 |
| Production workers/Total employment. | . 89 | . 86 | . 90 | . 893 | . 82 |
| Man-hours/Production workers. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,775 | 1,878 | 1,898 | 1,897 | 2,021 |
| Production worker wages/Man-hours............................ | 1.59 | 1.76 | 1.68 | 1.64 | 1.61 |
| Cost of materials and payrolls/Total value of shipments.... | . 88 | .78 | . 80 | . 78 | . 80 |
| Cost of materials/Total value of shipments................... | . 58 | . 48 | . 49 | . 48 | .52 6,560 |
|  | 4,171 .76 | 6,847 .56 | 5,807 .62 | 6,627 .57 | 6,560 |

 in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(x) Not
applicable, n.e.c. Not elsewhere classified
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all
manufacturing establishments.

## TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3151. -LEATHER GLOVES |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 166 | 34 | 24 | 21 | 39 | 27 | 17 | 3 | 1 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total....................... ${ }^{\text {do.... }}$ | 7,718 | 55 | 158 | 300 | 1,250 4 5 | 1,901 | 2,528 |  | (D) | - | - |
| Payroll................. \$1,000. . Value added, adjusted......do... | 24,439 32,194 | 116 <br> 254 | 455 1,018 | 779 1,392 | 4,309 5,805 | 6,118 7,841 | 7,561 10,099 | $\frac{5,105}{5,785}$ | (D) | - | - |
| Value of shipments...........do.... | 80,640 | 554 | 2,968 | 2,889 | 12,762 | 19,631 | 25,000 | 16,836 | (D) | - | - |
| Sapital expenditures, new...do.... | 328 | 16 | (D) | 11 | 67 | 100 | 108 | $\underline{26}$ | (D) | - | - |
|  | INDUSTRY 3161. -LUGGAGE |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 379 | 113 | 59 | 62 | 70 | 32 | 39 | 9 | 1 | - | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total........................d..... | 16,409 | 231 | 410 | 831 | 2,207 | 2,150 | 4,202 | 6,378 | (D) | - | (D) |
| Payroll..................\$1,000.. | 62,853 | 701 | 1,504 | 3,411 | 7,669 | 7,739 | 15,165 | $\frac{26,664}{52,31}$ | (D) | - | (D) |
| Value added, adjusted.......do.... | 112,796 | 1,656 | 2,516 | 5,806 | 12,825 | 12,599 | 24,965 | 52,431 | (D) | - | (D) |
| Value of shipments..........do.... Capital expenditures, new...do... | 210,303 1,908 | 1,219 19 | 5,317 52 | 11,915 | 23,602 170 | $\begin{array}{r}23,398 \\ \hline 203\end{array}$ | $\begin{array}{r}54,734 \\ \hline 524\end{array}$ | $\frac{88,118}{891}$ | (D) | - | (D) |
|  | INDUSTRY 3171. -HANDBAGS AND PURSES |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 545 | 117 | 62 | 104 | 129 | 61 | 56 | 15 | 1 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 24,548 | 229 | 423 1,372 | 1,492 | 4,287 15,000 |  | $\begin{array}{r}8,338 \\ 29,259 \\ \hline\end{array}$ |  | (D) | - | - |
| Payroll.................. \$1,000. . | 88,455 | 855 | 1,372 | 5,294 | 15,000 | 15,740 | 29,259 | 20,935 | (D) | - | - |
| Value added, adjusted.......do.... | 142,554 | 2,157 | 2,301 | 8,225 | 25,656 | 24,880 | 45,353 | 33,982 | (D) | - | - |
| Value of shipments............do.... Capital expenditures, new...do.... | 280,343 | 4,147 | 5,927 | 16,256 | 48,075 | 49,076 | 91,984 | 64,878 | (D) | - | - |
|  | 1,890 | 27 | 35 | 94 | 363 | 320 | 595 | 456 | (D) | - | - |
|  | INDUSTRY 3172. -SMALL LEATHER GOODS |  |  |  |  |  |  |  |  |  |  |
| Establishments. . . . . . . . . . number. . | 340 | 106 | 63 | 54 | 56 | 32 | 23 | 1 | 5 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 12,432 | 191 | 425 | 725 | 1,583 | 2,336 | 3,926 | (D) | 3,246 | - | - |
| Payroll. . . . . . . . . . . . . . . \$1,000. . | 47,352 | 647 | 1,510 | 2,608 | 5,205 | 8,762 | 15,021 | (D) | 13,599 | - | . |
| Value added, adjusted.......do.... | 82,385 | 1,666 | 2,941 | 4,864 | 8,370 | 14,043 | 24,884 | (D) | 25,617 | - | - |
| Value of shipments............do..... Capital expenditures, new...do.... | 159,013 | 4,324 | 7,502 | 15,544 | 16,942 | 29,460 | 42,542 | (D) | 42,699 | - | - |
|  | 1,262 | 22 | 61 | 101 | 121 | 173 | 330 | (D) | 454 | - | - |
|  | INDUSTRY 3199.-LEATHER GOODS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments. . . . . . . . . . number. . | 370 | 177 | 63 | 63 | 4 | 18 | 4 | 1 | - | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total..................... . . do.... | 4,989 | 327 | 438 | 846 | 1,302 | 1,207 | 869 | (D) | - | - | - |
| Payroll................... \$1,000. . | 18,742 | 1,032 | 1,755 | 3,074 | 5,196 | 4,560 | $\frac{3.125}{5.314}$ | (D) | - | - | - |
| Value added, adjusted.......do.... | 32,730 | 2,475 | 3,149 | 5,468 | 8,707 | 7,617 | 5,314 | (D) | - | - | - |
| Value of shipments..........do.... | 67,058 | 4,967 | 6,234 | 10,273 | 17,242 | 15,783 | 12,559 | (D) | - | - | - |
| Capital expenditures, new...do.... | 766 | 87 | 111 | 177 | $25{ }^{\circ}$ | 66 | 71 | (D) | - | - | - |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
n.e.c. Not elsewhere classified.


## table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. <br> code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio <br> Col. B <br> Col. B+C <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3151 | Leather gloves...................... ${ }^{\text {1963.. }}$ 1958.. | $\begin{aligned} & 80,640 \\ & 54,155 \end{aligned}$ | $\begin{aligned} & 55,424 \\ & 42,599 \end{aligned}$ | $\begin{array}{r} 13,235 \\ 7,389 \end{array}$ | $\begin{array}{r} 11,981 \\ 4,167 \end{array}$ | 81 85 | $\begin{aligned} & 61,942 \\ & 49,319 \end{aligned}$ | $\begin{aligned} & 55,424 \\ & 42,599 \end{aligned}$ | $\begin{aligned} & 6,518 \\ & 6,720 \end{aligned}$ | 89 86 |
| 3161 | Luggage. . . . . . . . . . . . . . . . . . . . . . . . . . 1963. 1958. . | $\begin{aligned} & 210,303 \\ & 184,722 \end{aligned}$ | $\begin{aligned} & 191,562 \\ & 171,090 \end{aligned}$ | $\begin{array}{r} 10,460 \\ 9,276 \end{array}$ | $\begin{aligned} & 8,281 \\ & 4,356 \end{aligned}$ | 95 95 | $\begin{aligned} & 2 \alpha, 755 \\ & 180,481 \end{aligned}$ | $\begin{aligned} & 191,562 \\ & 171,090 \end{aligned}$ | $\begin{array}{r} 13,193 \\ 9,391 \end{array}$ | 94 95 |
| 3171 | Handbags and purses............... $1963 .$. | $\begin{aligned} & 280,343 \\ & 231,110 \end{aligned}$ | $\begin{aligned} & 261,269 \\ & 210,769 \end{aligned}$ | $\begin{aligned} & 6,598 \\ & 9,375 \end{aligned}$ | $\begin{aligned} & 12,476 \\ & 10,966 \end{aligned}$ | 98 96 | $\begin{aligned} & 266,099 \\ & 214,106 \end{aligned}$ | $\begin{aligned} & 261,269 \\ & 210,769 \end{aligned}$ | $\begin{aligned} & 4,830 \\ & 3,337 \end{aligned}$ | 98 98 |
| 3172 | Small leather goods................ $1963 .$. | $\begin{aligned} & 159,013 \\ & 138,052 \end{aligned}$ | $\begin{aligned} & 141,211 \\ & 117,709 \end{aligned}$ | $\begin{array}{r} 6,270 \\ 11,416 \end{array}$ | $\begin{array}{r} 11,532 \\ 8,927 \end{array}$ | 96 91 | $\begin{aligned} & 154,270 \\ & 134,728 \end{aligned}$ | $\begin{aligned} & 141,211 \\ & 117,709 \end{aligned}$ | $\begin{aligned} & 13,059 \\ & 17,019 \end{aligned}$ | 92 87 |
| 3199 | Leather goods, n.e.c.............. $\begin{array}{r}1963 . . \\ 1958 . \text {. }\end{array}$ | $\begin{aligned} & 67,058 \\ & 60,178 \end{aligned}$ | $\begin{aligned} & 55,117 \\ & 51,449 \end{aligned}$ | $\begin{aligned} & 3,729 \\ & 2,092 \end{aligned}$ | $\begin{aligned} & 8,212 \\ & 6,637 \end{aligned}$ | 94 96 | $\begin{aligned} & 67,066 \\ & 61,198 \end{aligned}$ | $\begin{aligned} & 55,117 \\ & 51,449 \end{aligned}$ | $\begin{array}{r} 11,949 \\ 9,749 \end{array}$ | 82 <br> 84 |

n.e.c. Not elsewhere classified.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

| Prod. class code | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Leather gloves (SIC 3151) |  | Other industries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 31510 | LEATHER GLOVES INDUSTRY |  |  |  |  |
|  | Value of shipments.. |  |  | 80,640 | (X) |
|  | Dress and work gloves and mittens, all leather...................................... |  |  | 55,424 | ${ }^{1} 6,518$ |
|  | Secondary products.. |  |  | 13,235 | (X) |
| $\begin{aligned} & 23811 \\ & 23812 \end{aligned}$ | Dress gloves and mittens made from woven or purchased kit fabrics................ Work gloves and mittens made from woven or purchased knit fabrics. $\qquad$ <br> Other secondary products. $\qquad$ |  |  | $\begin{array}{r} 9,429 \\ 2,905 \\ 901 \end{array}$ | (X) (X) (X) |
|  | Miscellaneous receipts, total. |  |  | 11,981 | ( X ) |
|  | Resales. <br> Other, including contract and commission receipts. |  |  | $\begin{aligned} & 9,201 \\ & 2,780 \end{aligned}$ | (X) (X) |
|  |  | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Luggage (SIC 3161) | Small leather goods (SIC 3172) | Other industries |
| 31610 | LUGGAGE INDUSTRY |  |  |  |  |
|  | Value of shipments. | ( X ) | 210,303 | ( X ) | (X) |
|  | Suitcases, briefcases, bags, and musical instrument cases. | 204,755 | 191,562 | 2,048 | ${ }^{2} 11,145$ |
|  | Secondary products. | (X) | ${ }^{3} 10,460$ | (x) | (X) |
|  | Miscellaneous receipts, total. | (X) | 8,281 | (X) | (x) |
|  | Resales. Other, including contract and commission receipts......................................... | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{x}) \end{aligned}$ | 6,297 1,984 | (X) | (X) |

[^41]table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
 Fabric Dress and Work Gloves.
 Games and Toys
 sporting and athletic goods.
 thalmic coods.
${ }^{5}$ Includes $\$ 2$ million or more made in industry 2387, Apparel Belts, but is withheld to avoid disclosing individual conpany figures.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product |
| :---: | :---: |
| 3161- -- | LUGGAGE-Continued |
|  | Brief bags, briefcases, envelopes and zippered ring binders attaché cases, and catalogue cases:-continued <br> As reported on Census Monthly Form M31E—continued |
|  | Envelopes (under arm cases and portfolios), and zippered ring binders: <br> As reported in the census of manufactures. <br> As reported on Census Monthly Form M31E.................................. |
| 3161076 | Attaché cases: <br> As reported in the census of manufactures. |
|  | As reported on Census Monthly Form M31E... |
|  | Catalog cases: <br> As reported in the census of manufactures |
|  | As reported on Census Monthly Form M31E.. |
|  | School bags: |
| 3161078 | As reported in the census of manufactures. <br> As reported on Census Monthly Form M31E. |
| 3161081 | Musical instrument cases. |
| $\begin{aligned} & 3161098 \\ & 3161000 \end{aligned}$ | Other luggage. |
|  | Luggage, n.s.k. |
| 3171--- | LADIES' AND CHILDREN'S HANDBAGS AND PURSES, TOTAL. |
| 3171011 | All leather and chiefly leather. |
| 3171051 | Plastic or chiefly plastic... |
| 3171071 | Other materials, except precious metals. |
| 3171000 | Ladies' and children's handbags and purses, |
| 3172--- | SMALL LEATHER GOODS, TOTAL ${ }^{5}$ |
|  | Travel kits (fitted and unfitted): |
| 3172031 | As reported in the census of manufactures. As reported on Census Monthly Survey M3le. |
|  | Billfolds, wallets, and French purses: As reported in the census of manufactures. As reported on Census Monthly Survey M31E. |
|  | Leather: |
| 3172011 | As reported in the census of manufactures As reported on Census Monthly Survey M31E. |
| 3172015 | Plastic: <br> As reported in the census of manufactures |
|  | As reported on Census Monthly Survey M31E |
| 3172017 | Other materials. |
|  | Other personal leather goods (key cases, cigarette cases, vanity cases, clutches, secretaries, pass cards, tobacco pouches, cosmetic bags, etc.): ${ }^{11}$ |
| 3172019 | As reported in the census of manufactures. |
|  | As reported on Census Monthly Survey M31E. |
|  | Jewelry boxes and cases, and instrument cases, except musical instrument cases, total. |
| 3172053 | Jewelry boxes and cases. |
| 3172055 | Instrument cases, except musical instrument cases.... |
| 3172000 | Small leather goods, n.s.k. |



See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Value of shipments including interplant transfers $(\$ 1,000)$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 | 1958 |  |
| 3199- -- | LEATHER GOODS, N.E.C., TOTAL ${ }^{12}$. | 67,066 |  | 61,198 |
| 3199011 | Leather novelties.. | 13,165 |  | 20,177 |
| 3199031 | Saddlery and harness and accounterments. | 21,376 |  | 14,178 |
| 3199098 | Other leather goods, n.e.c...... | 20,963 |  | 10,358 |
| 3199000 | Leather goods, n.s.k... | 11,562 |  | 16,485 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Establishments in this industry were requested to report value of shipments in 1963 and value of production in 1958 . this change does not significantly affect the comparability of the data for the two years. (See text.)
${ }^{2}$ Includes only all-leather gloves and mittens. Leather and fabric combinations are classified in industry 2381, Fabric Dress and Work Gloves. ${ }^{3}$ The quantity data reported on Census Annual Form MA-23D. "Gloves and Mittens" represent quantity produced rather than quantity shipped. ${ }^{4}$ Quantity estimated, based on average quantity-value relationship of all other products.
${ }^{5}$ The reasons for the differences between the 1963 data collected in the census of manufactures and the current monthly survey M31E are discussed in the text. The M31E survey was not conducted in 1958, and all data for that vear are from the census of manufactures.
${ }^{6}$ For 1963, data collected in the census of manufactures are not completely comparable to those collected on the census monthly survey M3lE to the extent that vanity cases are included in the monthly survey data but are classified in industry 3172, Small Leather Goods, in the census of manufactures.
${ }^{7}$ For 1958, separate data were not collected for zippered hand luggage. Figures for this item were included with women's and men's hand luggage, as applicable. Therefore, the data are not comparable to the 1963 information. Detailed figures were collected in 1958 by type of material (leather, plastic, and other) and are published in the census of manufactures report for that year.
${ }^{8}$ For 1958, figures for attaché cases and catalog cases were not collected separately but were included with "Other Luggage."
${ }^{9}$ For 1963, quantity data for these items were also collected on Census Form M31E, Luggage, Briefcases, and Personal Leather Goods. Since this survey was begun in 1960, comparsble data are not available for 1958. The 1958 data are as collected in the census of manufactures for that year. ${ }^{10}$ For 1953 , no category was provided to report billfolds, wallets, and French purses of materials other than leather and plastic in either the eensus of manufactures or survey M3IE. No information is available on where these were reported for 1963.
${ }^{11}$ The data as reported in the census of manufactures are not completely comparable to the data reported on survey M31E. On survey M31E, vanity cases are included with "Other women's hand luggage", product code 3161025, while on the census they are included in product code 3172019. The quantity of this item is not known.
${ }^{12}$ The products of this industry only include leather goods that are not classified in other industries. (See text.)

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 315- | Leather gloves..................................... . ${ }^{\text {1963. }}$ 1958.. | 123 103 | 115 109 |
| 3151 | Leather dress, semidress, and work gloves.......... $\begin{array}{r}\text { 1963.. } \\ 1958 . .\end{array}$ | 123 103 | 115 109 |
| 316- | $\text { Luggage. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . } 1963 . \text { 1958. }$ | 120 | 115 104 |
| 3161 | Luggage. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1963. . 1958 . | 120 | 115 104 |
| 317- | Handbags and purses............................... $1963 .$. | 122 109 | 116 108 |
| 3171 | Ladies' and childrens' handbags and purses......... 1963.. ${ }^{\text {1958.. }}$ | 117 107 | 127 |
| 3172 | Small leather goods....................................... ${ }^{\text {1963.. }} 19$. | 130 112 | 99 102 |

table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962^{1}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31510 | Dress and work gloves and mittens, all leather ${ }^{2}$. | 61,942 | 45,156 | 52,881 | 55,112 | 57,163 | 49,319 | 43,601 | 61,362 |
| 31610 | Suitcases, briefcases, bags, and musical instrument cases. $\qquad$ | 204,755 | 211,041 | 187,713 | 196,748 | (S) | ${ }^{3} 180,481$ | 158,949 | 127,863 |
| 31710 | Women's handbags and purses.. | 266,099 | 242,407 | 237,862 | 237,643 | 237, 777 | 214,106 | 180,309 | 161,080 |
| 31720 | Personal leather goods, except handbags and purses. | 154,270 | 139,622 | 127, 350 | 135,094 | 145,100 | $4.134,728$ | 121,314 | (NA) |
| 31990 | Saddlery, harness and whip and other leather products, n.e.c......................... | 67,066 | 67,809 | 63,777 | 63,194 | 63,912 | 61,198 | 54,332 | 64,056 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(x) Not
applicable. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
${ }^{2}$ See text regarding comparability of 1963 data with earlier years.
${ }_{4}^{3}$ See footnote 3, table 1.
${ }^{4}$ See footnote 10 , table 1.
table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1 .

| Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DRESS AND WORK GLOVES AND MITTENS, ALL LEATHER (31510) | $1963{ }^{1}$ | DRESS AND WORK GLOVES AND MITTENS, ALL LEATHER (31510)-Continued | $1963{ }^{\text {² }}$ | DRESS AND WORK CLOVES AND MITTENS, ALL LEATHER (31510) -Continued | $1963{ }^{1}$ |  |
|  | 61,942 | $\begin{aligned} & \text { East North Central........... } \\ & \text { Inlinois.................. } \\ & \text { Wisconsin................. } \end{aligned}$ | 17,585 |  | $\begin{aligned} & 6,850 \\ & 2,880 \end{aligned}$ |  |
| United States, total... |  |  | $\begin{aligned} & 5,531 \\ & 8,122 \end{aligned}$ | South. Tennessee |  |  |
| Northeast. | $\begin{aligned} & 29,898 \\ & 28,275 \end{aligned}$ | West North Central.........Iowa................... | 4,829 | West.. |  | 2,780 |
| New York. . . . . . . . . . . . . . . . |  |  | 2,704 | California |  | 1,480 |

${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 31510-Indiana, Michigan, Minnesota, and Arkansas.

## table 7A. Materials by Kind: 1963 and 1958



[^42]
## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962


Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power


 "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
(Z) Less than 500 horsepower.
n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated
 consistency review.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| $\begin{gathered} \text { Industry } \\ \text { or } \\ \text { product } \\ \text { class } \\ \text { code } \\ \hline \end{gathered}$ | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3151- | LEATHER GLOVES |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................. <br> Establishments with- | 166 | 7,718 | 24,439 | 6,899 | 12,244 | 19,481 | 32,194 | 46,694 | 80,640 | 328 |
|  | $90 \%$ or more specialization. 75-89\% specialization...... | 122 10 | 3,941 360 | $\begin{array}{r} 12,151 \\ 1,193 \end{array}$ | 3,548 332 | $\begin{array}{r} 6,165 \\ 607 \end{array}$ | $9,905$ | $\begin{array}{r} 18,170 \\ 2,046 \end{array}$ | $\begin{array}{r} 23,467 \\ 2,345 \end{array}$ | $\begin{array}{r} 42,139 \\ 4,348 \end{array}$ | $\begin{array}{r} 200 \\ 19 \end{array}$ |

# Stone, Clay, and Glass Products 

## 32A Glass products

32B Cement and structural clay products
32C Pottery and related products
32D Concrete, plaster, and cut stone products
32E Abrasive, asbestos, and miscellaneous nonmetallic mineral products

This major group includes establishments engaged in manufacturing flat glass and other glass products, cement, structural clay products, pottery, concrete, and gypsum products, cut stone products, abrasive and asbestos products, etc., from materials taken principally from the earth in the form of stone, clay, and sand. When separate reports are available for mines and quarries operated by manufacturing establishments classified in this major group, the mining activities are classified in mining industries; when separate reports are not available, the mining activities are classified with the manufacturing operations and classified as manufacturing industries.

## Stone, Clay, and Glass Products: Major Group 32

Value Added by Manufacture by State: 1963


## table 1. General Statistics: 1963 and Earlier Years

| Year and item ${ }^{1}$ | Establishments |  | All employees ${ }^{2}$ |  |  | Production workers |  |  |  | Value added by manufacture, adjusted ${ }^{3}$$(\$ 1,000)$ | Cost of materials ${ }^{4}$$(\$ 1,000)$ | Value of shipments ${ }^{4}$$(\$ 1,000)$ | $\qquad$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | With 20 employees or more (number) | Total <br> (number) |  | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ |  | Wages <br> $(\$ 1,000)$ |  |  |  |  |
| ALL MANUFACTURING ESTABLISHMENTS, TOTAL: |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 16185 | 4839 | 602764 | 3 | 462465 | 455818 | 928948 | 2 | 350223 | 7 043 | 5287768 | 12289091 | 607581 |
|  | 15305 | 4637 | 574790 | 2 | 754013 | 446009 | 884124 | 1 | 935028 | $\begin{array}{llll}5 & 533 & 392\end{array}$ | (NA) | 9726543 | 488645 |
|  | (NA) | ( NA) | 504436 | 2 | 023427 | 412031 | 827012 | 1 | 496029 | 3866229 | (NA) | (NA) | 300647 |
| ADMINISTRATIVE AND AUXILIARY UNITS: |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 347 | 184 | 28905 |  | 249970 | ( $x$ ) | (x) |  | (x) | (x) | (x) | (x) | (x) |
| $1958^{6}$. . . | 258 | 154 | 22268 |  | 167640 | (x) | (x) |  | (x) | (x) | (x) | (x) | (x) |
| $1954{ }^{5}$. | (NA) | (NA) | 12622 |  | 85342 | (x) | (x) |  | (x) | (x) | (x) | (x) | (x) |
| OPERATING MANUFACTURING ESTABLISHMENTS: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963... | 15838 | 4655 | 573859 | 3 | 212495 | 455818 | 928948 | 2 | 350223 | 7043987 | 5287768 | 12289091 | 607581 |
| 1958 | 15047 | 4484 | 552522 | 2 | 586373 | 446009 | 884124 | 1 | 935028 | $\begin{array}{llll}5 & 533 & 392\end{array}$ | (NA) | 9726543 | 488645 |
| 1954 | 11162 | (NA) | 491814 | 1 | 938085 | 412031 | 827012 | 1 | 496029 | 3866229 | (NA) | (NA) | 300647 |
| OPERATING MANUFACTURING ESTABLISHMENTS: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1962^{7}$. . . . . . . | (NA) | (NA) | 573012 | 3 | 102469 | 463152 | 939383 | 2 | 280194 | $\begin{array}{llll}6 & 589 & 135\end{array}$ | 4973160 | 11524053 | 549100 |
| $1961{ }^{7}$. . . . . . . . . . . | (NA) | (NA) | 567250 | 2 | 937948 | 456932 | 923413 | 2 | 152895 | $6 \quad 287566$ | 4766783 | 11011124 | 554259 |
| $1960{ }^{7}$. . . . . . . . . . | (NA) | (NA) | 581390 | 2 | 950031 | 474060 | 959578 | 2 | 187224 | 6369831 | (NA) | (NA) | 540891 |
| $1959{ }^{7}$. . . . . . . . . . . | (NA) | (NA) | 595821 |  | 938951 | 487532 | 980737 |  | 199379 | 6504384 | (NA) | (NA) | 557009 |
| $19577^{\circ}$. . . . . . . . | (NA) | (NA) | 525597 | 2 | 354451 | 437099 | 869338 | 1 | 802722 | 4980460 | (NA) | (NA) | 655457 |
| $1956{ }^{7}$ | (NA) | (NA) | 535998 |  | 344539 | 450087 | 911127 | 1 | 814726 | 5035547 | (NA) | (NA) | 724835 |
| $1955{ }^{\circ}$. . . . . . . . . . |  | (NA) | 524729 | 2 | 177539 | 442295 | 899357 | 1 | 703041 | 4637225 | ( $N A$ ) | (NA) | 460865 |
| 19537. | (NA) | (NA) | 506439 | 1 | 948876 | 430888 | 873011 | 1 | 538450 | $\begin{array}{llll}3 & 752 \\ 3 & 512\end{array}$ | ( $N A$ ) | (NA) | 281715 |
| $1952{ }^{7}$. | 10435 | (NA) | 510353 | 1 | 841507 | 435680 | 895027 | 1 | 456600 | 3531294 | (NA) | (NA) | 250766 |
| $1951{ }^{7}$. | 10700 | (NA) | 529069 |  | 827834 | 455373 | 945593 | 1 | 458753 | 3560697 | (NA) | (NA) | 322702 |
| $1950{ }^{7}$ | 9707 | (NA) | 490568 | 1 | 529473 | 418153 | 862831 | 1 | 220126 | $\begin{array}{llll}3 & 138 & 263\end{array}$ | ( NA) | (NA) | 222652 |
| $1949{ }^{7}$. | (NA) | (NA) | 453192 |  | 323196 | 387496 | 778449 | 1 | 044203 | 2450931 | (NA) | (NA) | 190986 |
| 1947 | 11643 | (NA) | 461037 | 1 | 206903 | 404930 | 838320 |  | 991966 | 2298521 | (NA) | (NA) | 285066 |
| 1939 | 6678 | (NA) | 313467 |  | 410365 | 267094 | (NA) |  | 307248 | 856323 | ( NA ) | (NA) | (NA) |
| 1937 | 6114 | (NA) | 330709 |  | 419452 | 297404 | (NA) |  | 345524 | 860063 | (NA) | (NA) | (NA) |
| 1935. | 5846 | (NA) | 265065 |  | 292773 | 234781 |  |  | 227777 | 599530 | ( NA ) | (NA) | (NA) |
| 1933 | 4 4 6 6 | (NA) | (NA) |  | (NA) | 175145 | (NA) |  | 144078 | 404148 | (NA) | (NA) | (NA) |
| 1931. | 6549 | (NA) | (NA) |  | (NA) | 233744 | (NA) |  | 249551 | 615728 | (NA) | (NA) | (NA) |
| 1929. | 8688 | (NA) | 371950 |  | 548216 | 330708 | (NA) |  | 435865 | 1053908 | (NA) | (NA) | (NA) |
| 1927 | 8574 | (NA) | 389733 |  | 574850 | $\begin{array}{lll}348 & 142\end{array}$ | (NA) |  | 463015 | 1022786 | (NA) | (NA) | (NA) |
| 1925. | 8391 | (NA) | 391797 |  | 565247 | 351136 | (NA) |  | 466357 | 1042452 | (NA) | (NA) | (NA) |
| 1923. | 8 8 8 | (NA) | 388603 |  | 543474 | 348 <br> 258 | (NA) |  | 450660 | 990128 | (NA) | (NA) | (NA) |
| 1921 - . . . . . | 8227 | (NA) | 282113 |  | 377080 | 251157 | (NA) |  | 305449 | 605136 | (NA) | (NA) | (NA) |
| 1919. | 12326 | (NA) | 330605 |  | 396901 | 294590 | (NA) |  | 323718 | 680214 | (NA) | (NA) | (NA) |
| 1914. | 14693 | (NA) | 404738 |  | 248920 | 335325 | (NA) |  | 206161 | 379247 | (NA) | (NA) | (NA) |
| 1909. | 16207 | (NA) | 371734 |  | 223715 | 343864 | (NA) |  | 189992 | 352306 | (NA) | (NA) | (NA) |
| 1904. | 10744 | (NA) | 304.725 |  | 170693 | 285740 | (NA) |  | 148846 | 270915 | (NA) | (NA) | (NA) |
| 1899. | 11471 | (NA) | 242873 |  | 115553 | 230013 | (NA) |  | 102351 | 185273 | (NA) | (NA) | (NA) |

Standard Notes: - Represents zero.
dividual companies.
ligures (NA) Not available.
$r_{\text {Figures }}$ for establishments primarily engaged in producing readymixed concrete are excluded for 1954, 1947, and 1939. In 1958, the value added in ready-mixed concrete establishments represented 12 percent of the total value added for the stone, clay, and glass products, and in 1937, less than 1 percent. As indicated in the introductory text, cerain quarries, operated as parts of manufacturing establishments, are included in the stone, clay and glass products industries but separate figures for such mining activity ere also obtained in the last three censuses. The value added at quarries operated in conjunction with these manufacturing establishments (including value added in producin mineral products consumed in the same establishnent) was $\$ 321,240$ thousand in 1963; $\$ 360,992$ thousand in 1958; and $\$ 193,636$ thousand in 1954. Further detail on such mining operations are included in the Census of Mineral Industries reports.
${ }^{2}$ The figures for 1939 through 1954 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not knowr.
${ }^{3}$ For the period 1954 to 1963, figures represent adjusted value added by manuf acture and for earlier years, unadjusted value added. Adjusted value added is equal to value
of shipments (including resales of finished products) less cost of finished products,
materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year.
${ }^{4}$ The total value of shipments and cost of materials for industry groups (2- and 3digit) include extensive duplication arising from shipnents between establishments in the same industry classification. For more complete explanation, see Introduction.

The figures for 1958 to 1963 include expenditures for plants under construction and not yet in operation.
din data are shown for the years 1949 to 1963 in the annual surver or manufactures volumes. Data for these establishments are not available for the years 1955 to 1957, 1959-1962 or prior to 1949.
These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| code | Industy group and geograptic area | 1963 |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Essblisments |  | All employes |  | Production workers |  |  | Valueadded bymantutature,adissted(s.,000) |  | $\begin{aligned} & \text { All } \\ & \text { emploges } \\ & \text { (number) } \end{aligned}$ | $\begin{array}{\|c} \text { Value } \\ \text { adeded by } \\ \text { manuratue, } \\ \text { adiusted } \\ \text { (s.,00) } \\ \hline \end{array}$ |
|  |  | Toal | $\begin{aligned} & \text { With } 20 \\ & \text { employes } \\ & \text { or rore } \\ & \text { (number) } \end{aligned}$ | (number) |  | (number) | (1,000) | Wages (s1,000) |  |  |  |  |
| 32 | Stone, clay, \& glass prooucts, total | 15838 | 4655 | 573859 | 3212495 | 455818 | 928948 | 2350223 | 7043987 | $\begin{aligned} & 607581 \\ & 127228 \\ & 127 \end{aligned}$ | $\begin{aligned} & 552522 \\ & 159918 \end{aligned}$ | $5533 \quad 392$ |
|  | NORTHEast | 15 |  | 155946 | 913655 | 124 | 25077 | 676 | 1792348 |  |  | $1508226$ |
|  | ${ }_{\text {Henche }}^{\text {MaINe }}$ | 796 <br> 56 <br> 64 <br> 120 <br> 306 <br> 50 <br> 196 | 20 <br> 17 <br> 13 | 25374 <br> $\substack{1 \\ 1 \\ 1 \\ 182 \\ 158}$ |  | 19122 | 39306 | - 1003338 | 300755 | 19735 | 25649 | 226 180 |
|  |  |  |  |  |  |  |  |  | (11090 | cis |  |  |
|  | VERMSONTH |  |  |  |  | 2617 <br> 7 <br> 7 <br> 152 <br> 502 | (15 59.96 |  | - | (1) |  |  |
|  | RHODE 15 CONNECTI |  | ${ }_{60}^{12}$ | [1970 | [10 40268 |  | $\begin{aligned} & 3156 \\ & 10770 \end{aligned}$ |  | 23152 81 81 |  | 1190 6002 6002 | 17 <br> 54 <br> 5050 <br> 165 |
|  | ole atan |  | $\begin{aligned} & 880 \\ & \hline 207 \\ & 2824 \\ & 389 \end{aligned}$ |  |  |  |  |  |  |  | 1342693838395062727627 |  |
|  | New York |  |  |  |  |  |  |  |  |  |  |  |
|  | North cen | 5141 | 1361 | 190032 | 1101044 | 151306 | 306562 | 808503 | 2458202 | 165258 | 189900 | 20270421571404 |
|  | St nort |  | $\begin{gathered} 1054 \\ \substack{198 \\ 102 \\ 159 \\ 150 \\ 150} \\ \hline 85 \end{gathered}$ |  |  |  |  |  |  | ${ }^{126} 8848$ | 152716642642614 |  |
|  | $\xrightarrow{\text { OHIO }}$ inotan |  |  |  |  |  |  |  |  |  |  |  |
|  | Hitulinais |  |  |  |  |  |  |  |  | ${ }^{1}$ | 20, 37817 |  |
|  | ${ }_{\text {wiscon }}$ |  |  |  |  |  |  |  |  | ${ }^{22} 650$ | \% 322 |  |
|  | St Mortur mines | 147331318412122123 | $\begin{gathered} 307 \\ 72 \\ 59 \\ 59 \end{gathered}$ | $\begin{aligned} & 40.021 \\ & 10.981 \\ & 5901 \\ & 5901 \end{aligned}$ | ${ }^{234} 4359$ | $\begin{array}{r} 30167 \\ 0 \\ \hline \\ \hline \end{array}$ |  | $\begin{gathered} 161788 \\ 398 \\ 24850 \end{gathered}$ |  | (180 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Hitssouri |  | 91 9 |  |  | 10 ${ }^{2}$ | (10 |  |  | - 9778 |  |  |
|  |  |  |  |  | [ |  |  |  |  |  |  |  |
|  | NEERASKA |  |  | ( ${ }_{2}^{2228}$ |  | 17446 ${ }_{5} 207$ | ( |  |  |  | 18 6013 6088 | $\begin{array}{r}22 \\ 78744 \\ \hline 784\end{array}$ |
|  | Suth | 443 | 1468 | 157129 | 759111 | $\begin{gathered} 127088 \\ \\ 68 \\ \hline 855 \end{gathered}$ | $264252$ | 564955 | $1802960$ | $\left\|\begin{array}{l} 215 \\ 1597 \\ 105698 \end{array}\right\|$ | $140 \quad 599$ | 1282984 |
|  | south athant |  |  | $\begin{array}{r} 83190 \\ 8820 \\ 9804 \\ 080 \end{array}$ |  |  |  | 301283 <br> 2981 | 893833 |  |  |  |
|  | DELAMARE |  |  |  |  | $\begin{gathered} 68085 \\ \left.\begin{array}{c} 085 \\ 7 \\ 7 \\ 7 \\ \hline 57 \\ \hline 50 \end{array}\right) \end{gathered}$ |  | - $\begin{array}{r}2 \\ 4 \\ 415150 \\ \hline 150\end{array}$ |  | $\begin{array}{rr} 105 & 698 \\ & 965 \\ 21 & 016 \\ 1 & 359 \end{array}$ |  |  |
|  | Oistrict |  |  |  |  | - 7989 |  |  | +11420 | - $\begin{gathered}1 \\ 10 \\ 2439\end{gathered}$ | ${ }^{7} 776$ |  |
|  | \#est virgin |  |  |  | $\begin{array}{r}108647 \\ 4364 \\ \hline 654\end{array}$ |  |  |  |  | ${ }_{23}^{11} 0098$ |  |  |
|  | Sout cand |  |  |  |  | - |  | - | +19757 |  | ( |  |
|  |  |  |  |  |  |  |  |  | 117 <br> 14275 <br> 375 | 173959 | 12545 |  |
|  | ST Sout | $\begin{gathered} 944 \\ \substack{235 \\ 295 \\ 2065 \\ \hline} \end{gathered}$ | $\begin{gathered} 285 \\ 91 \\ 92 \\ 98 \\ 88 \\ \hline 8 \end{gathered}$ |  |  |  |  |  |  |  |  |  |
|  | KENNESSE |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 94245 | - |  |  |
|  | ST South | 13391421420200795295 | $\begin{aligned} & 416 \\ & 37 \\ & 60 \\ & 46 \\ & \hline 40 \end{aligned}$ |  |  |  |  |  |  | ( 74.911 |  |  |
|  | ${ }_{\text {arkan }}^{\text {ARANS }}$ |  |  |  |  |  |  |  |  |  |  | 31238 70 732 |
|  | OkR |  |  |  |  |  |  |  |  |  |  |  |
|  | wEST. | 2752 | 720 | 7067 | 43812 | 53 | 10798 | 3083 | 9720 | 10008 | 6234 | 16307 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | MONTA |  | 10 |  | ${ }^{4} 764$ |  |  |  | ${ }^{11} 18935$ | (12 392 | (0) | (0) |
|  | $\xrightarrow{\text { HYOMNN }}$ | 45 |  | - 632 | 3 3176 | 年378 | (146 | 3 3040 |  | + 514 | 545 | 181 |
|  | NEW MEx |  | ${ }_{18}^{14}$ | - 4 H 453 | ( | ${ }^{3} 519$ | - | - 18.14 | ¢19264 | - | + | ${ }^{43} 8.64$ |
|  |  |  |  |  |  | - $\begin{aligned} & 2372 \\ & 1 \\ & 1995\end{aligned}$ | - ${ }^{4} 646$ | 11263 | 44 34 340 |  |  | - 35013 |
|  | NEVEVAC | 102 | 36 <br> 19 | 2680 1540 |  | + | ${ }^{4}$ | -10 7244 | 34 <br> 27030 <br> 030 | ${ }_{2}^{2} 396$ | ${ }^{046}$ | 14277 |
|  | Ifric |  | 54. | 5502 |  | 415 |  |  |  |  | 9376 |  |
|  | OREGO |  | - 27 | ${ }^{2} 5$ |  | $\begin{array}{r}4 \\ 3 \\ 3 \\ 3 \\ 238 \\ \hline 38\end{array}$ |  |  | 6 |  | ${ }^{2}$ | 26 |
|  |  | - 15 | 430 | -172 |  |  |  |  |  | ${ }^{56} 322$ | ${ }^{174}$ | ${ }^{2275}$ |
|  |  |  |  |  |  |  |  |  |  |  |  | 332 |
|  | flat glass. torder |  |  | 815 | 21 | 940 | 39704 | 14375 | 364466 | 28244 | 2117 | 26315 |

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


See footnotes at end of table.
table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{Cose} \& \multirow[b]{3}{*}{Industry group and geographic area} \& \multicolumn{9}{|c|}{1963} \& \multicolumn{2}{|r|}{1958} \\
\hline \& \& \multicolumn{2}{|l|}{Establishments} \& \multicolumn{2}{|c|}{All employees} \& \multicolumn{3}{|c|}{Production workers} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)} \& \multirow[t]{2}{*}{\[
\begin{gathered}
\text { Capital } \\
\text { expendi- } \\
\text { tures, } \\
\text { new } \\
(\$ 1,000) \\
\hline
\end{gathered}
\]} \& \multirow[b]{2}{*}{\begin{tabular}{l}
All employees \\
(number)
\end{tabular}} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted ( \(\$ 1,000\) )} \\
\hline \& \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& \begin{tabular}{|c|}
\hline With 20 \\
employees \\
or more \\
(number) \\
\hline
\end{tabular} \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& \[
\begin{aligned}
\& \text { Payroll } \\
\& (\$ 1,000)
\end{aligned}
\] \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& \begin{tabular}{l}
Man-hours \\
\((1,000)\)
\end{tabular} \& \[
\begin{aligned}
\& \text { Wages } \\
\& (\$ 1,000)
\end{aligned}
\] \& \& \& \& \\
\hline 326 \& POTTERY AND RELATED PROOUCTS-CONT. EAST SOUTH CENTRAL. TENNESSEE. \& 30
9 \& 11
5 \& 2052
1548 \& 9508
7767 \& \(\begin{array}{ll}1 \& 740 \\ 1 \& 271\end{array}\) \& 3544
2648 \& 7128
5624 \& 14619
11983 \& 1383

399 \& $\begin{array}{ll}1 & 991 \\ 1 & 509\end{array}$ \& 11278
$8 \quad 718$ <br>
\hline \& WEST SOUTH \& 28 \& 10 \& 142 \& 5992 \& 959 \& 1918 \& 4694 \& 11016 \& 390 \& 1022 \& 9085 <br>
\hline \&  \& 201
176 \& 40
38 \& 5148
4042 \& 25854
19176 \& 4298
3517 \& 8438
6623 \& 20196

15505 \& $$
\begin{array}{ll}
42 & 302 \\
32 & 091
\end{array}
$$ \& \[

$$
\begin{array}{lll}
1 & 671 \\
1 & 052
\end{array}
$$

\] \& \[

$$
\begin{aligned}
& 5372 \\
& 4738
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 37555 \\
& 33710
\end{aligned}
$$
\] <br>

\hline \multirow[t]{51}{*}{327} \& CONCRETE ANO PLASTER PROOUCTS, TOTAL \& 10160 \& 2244 \& 165848 \& 906026 \& 118505 \& 251697 \& 591622 \& 2122283 \& 210634 \& 149947 \& 1553639 <br>
\hline \& NORTHEAST \& 1717 \& 402 \& 29799 \& 181367 \& 21294 \& 45500 \& 119313 \& 401796 \& 42994 \& 28878 \& 312508 <br>
\hline \& NEW ENGLANO : \& 417
35
35 \& 91
12 \& $\begin{array}{r}6677 \\ 582 \\ \hline\end{array}$ \& 40844
2650 \& 4807
405 \& 10470
897 \& 26137
1629 \& 95975
5938 \& $\begin{array}{r}9652 \\ 962 \\ \hline 772\end{array}$ \& $5 \begin{array}{r}568 \\ 465 \\ \\ 4\end{array}$ \& 65405
4226 <br>
\hline \& NEW HAMPSLIRE. \& 41 \& 5 \& 537 \& + 2929 \& 371 \& 843 \& 1872 \& ${ }_{6} 6479$ \& 772 \& 405 \& 3922 <br>
\hline \& MASSACHUSETTS. \& 170 \& 37 \& 2933 \& 18639 \& 2099 \& 4641 \& 12075 \& 45231 \& 4254 \& 2605 \& 33592 <br>
\hline \& CONNECTICUT. - \& 122 \& 27 \& 2066 \& 13516 \& 1547 \& 3225 \& 8598 \& 32306 \& 3120 \& 1771 \& 18127 <br>
\hline \& miode atlantic \& 1300 \& 311 \& 23122 \& 140523 \& 16487 \& 35030 \& 93176 \& 305821 \& 33342 \& 23010 \& 247103 <br>
\hline \& PENNSYLVANIA \& 568 \& 121 \& 9005 \& 47029 \& 6729 \& 14025 \& 32524 \& 99338 \& 12365 \& 8810 \& 85136 <br>
\hline \& NORTH CENTRAL \& 3478 \& 575 \& 45855 \& 267639 \& 32635 \& 69260 \& 172056 \& 634103 \& 56144 \& 45703 \& 510051 <br>
\hline \& EAST NORTH CENTRAL. \& 2321 \& 404 \& 31082 \& 188675 \& 21589 \& 45685 \& 117733 \& 443686 \& 39696 \& 31212 \& 348366 <br>

\hline \& OH10 ${ }^{\text {a }}$ \& 577 \& 113 \& 9663 \& 58496 \& 6486 \& 13580 \& 34771 \& 134659 \& 13961 \& | 10402 |
| :--- |
| 635 | \& 111867 <br>

\hline \& 1LLINOIS \& 515
538 \& 93
85 \& 6773
6415 \& 42773
38862 \& 48846
4523 \& 10476
9
9 \& 28626
24684 \& 99427

98350 \& | 6 |
| :--- |
| 8 |
| 8 | \& $\begin{array}{ll}6 & 335 \\ 6 & 457\end{array}$ \& 78890

71435 <br>
\hline \& Michigan \& 538 \& 85 \& 6415 \& 38862 \& 4523 \& 9500 \& 24684 \& 98350 \& 8112 \& \& 71435 <br>
\hline \& WEST NORTH CENTRA \& 1157 \& 171 \& 14773 \& 78964 \& 11046 \& 23575 \& 54323 \& 190417 \& 16448
3 \& \& <br>
\hline \& MINNESOTA. \& 284 \& 41
36 \& 3109
3
3
4 \& 17594
19
19 \& 11
2
2 288 \& 4971
5837 \& 11526
13583
13 \& 37685

55866 \& | 3478 |
| :--- |
| 3887 |
| 488 | \& (D)

3216 \& (0)
44521 <br>
\hline \&  \& 270
262 \& 36
45 \& 3474
3925 \& 19126
21177 \& 2652

3054 \& | 5837 |
| :--- |
| 6244 |
| 24 | \& 13583

15530 \& 55866
45974 \& 3887
4613 \& 3216
4615 \& 44521
46596 <br>
\hline \& NORTH OAKOtA \& 262
37 \& 4 \& $\begin{array}{r}359 \\ \hline 575\end{array}$ \& 191177
1
2 \& - 259 \& 533 \& 1148
1 \& 3818 \& 366 \& 313 \& 3149 <br>
\hline \& SOUTH OAKOTA \& 60 \& 8 \& 575 \& \& 444 \& 926 \& 1856 \& ${ }_{6}^{6125}$ \& 814 \& 101 \& (10) <br>
\hline \& nesraska . - \& 101 \& 15 \& 1493 \& 6899 \& 1
1
1 \& 2
244
2 \& 4754 \& 16410 \& 1445 \& 1
1
1 785 \& 9769 <br>
\hline \& kANSAS \& 143 \& 22 \& 1838 \& 9622 \& 1219 \& 2620 \& 5926 \& 24539 \& 1845 \& 1762 \& 21854 <br>
\hline \& SOUTH \& 3168 \& 833 \& 58047 \& 255125 \& 42471 \& 92140 \& 167914 \& 637487 \& 66732 \& 49244 \& 448320 <br>
\hline \& SOUTH ATLANTIC. \& 1533 \& 469 \& 30015 \& 133219 \& 21945 \& 47368 \& 87112 \& 324603 \& 34581 \& 26117 \& 224127 <br>
\hline \& oelaware. \& 33 \& 11 \& 740 \& 3645 \& 575 \& 1222 \& 2718 \& 10133 \& -925 \& 541 \& 4895 <br>
\hline \& MARYLANO - ${ }^{\text {a }}$ \& 142 \& 51 \& 3139 \& 16701 \& 2232 \& $\begin{array}{r}4831 \\ \hline 984\end{array}$ \& 10383
2 \& $\begin{array}{r}44 \\ 8 \\ 8 \\ 782 \\ \hline 83\end{array}$ \& $\begin{array}{ll}5 & 343 \\ 1 & 328\end{array}$ \& 2409 \& 24430
5954 <br>
\hline \& OISTRICT OF CULUM81A
VIRGINIA \& -8 \& $\begin{array}{r}7 \\ 75 \\ \hline\end{array}$ \& $5 \begin{array}{r}592 \\ 5422\end{array}$ \& 3910
25385 \& $\begin{array}{r}451 \\ 4423 \\ \hline\end{array}$ \& \& 2493
18647 \& 8782
63502 \& \& 523
4085 \& 5954
42796 <br>
\hline \& WEST VIRGINIA. \& 70
70 \& 17 \& 5422
1082 \& $\begin{array}{r} \\ 4914 \\ \hline\end{array}$ \& 4797 \& 1636 \& + 338 \& 10053 \& 1040 \& 1237 \& 10693 <br>

\hline \& NORTH CAROLINA. \& 226 \& 68 \& 3777 \& 15006 \& 2755 \& 5892 \& 9267 \& 32236 \& 4411 \& | 3 |
| :--- | \& 20849 <br>

\hline \& SOUTH Carolina . \& 118 \& 29 \& \& 6309 \& \& \& 4262 \& 14623 \& 2097 \& 1377 \& 11114 <br>
\hline \& georgia. . . . \& 225 \& 67 \& 4385 \& 17678 \& 3278 \& 6937 \& 12015 \& 45197 \& 4603 \& 2989 \& 23692 <br>
\hline \& FLORIOA. \& 501 \& 144 \& 9170 \& 39671 \& 6135 \& 13460 \& 23989 \& 96034 \& 7170 \& 9892 \& 79704 <br>
\hline \& EAST SOUTH \& 673 \& 133 \& 10010 \& 40630 \& 7220 \& \& 25572 \& 101116 \& 10032 \& 8070 \& 66081 <br>
\hline \& KENTUCKY \& 174 \& 21 \& 1913 \& 8501 \& 1279 \& 2612 \& 4855 \& 19389 \& 2006 \& 1477 \& 11416 <br>
\hline \& WEST SOUTH CENTRAL. \& 962 \& 231 \& 18022 \& 81276 \& 13306 \& 29708 \& 55230 \& 211768 \& 22119 \& 15057 \& 158112 <br>
\hline \& ARKANSAS \& 107 \& 18 \& \& 4583 \& 955 \& \& 3425 \& 12271 \& 2485 \& 1088 \& 9150 <br>
\hline \& loulsiana. \& 160 \& 37 \& 2816 \& 12696 \& 2104 \& 4539 \& 8624 \& 33155 \& 2872 \& 2772 \& 28618 <br>
\hline \& OKLAHOMA. \& 149
546 \& 20
156 \& 2139
11862 \& 10401
53
596 \& 1
1
8
8 \& 3
3
19
748 \& 7105
36076 \& 27412
138930 \& 3
3
13 \& 1920
9
9 \& 19830
100514 <br>
\hline \& texas. . . \& 546 \& 156 \& 11862 \& 53596 \& 8720 \& 19748 \& 36076 \& 138930 \& 13537 \& 9277 \& 100514 <br>
\hline \& WEST. \& 1798 \& 435 \& 32147 \& 201895 \& 22105 \& 44797 \& 131919 \& 452498 \& 44919 \& 26122 \& 282760 <br>
\hline \& mountain. \& 565 \& 134 \& 10269 \& 58700 \& 7425 \& 15186 \& 40063 \& 136721 \& 13597 \& \& 80114 <br>
\hline \& MONTANA. \& 54 \& 6 \& 534 \& 2775 \& 400 \& 744 \& 1988 \& 6110 \& 501 \& (0) \& (0) <br>
\hline \& 10АHO. \& 51 \& 10 \& 626 \& 3316 \& 471 \& 948 \& 2298 \& 6070 \& 594 \& 752 \& 7021 <br>
\hline \& coloraco. \& 142 \& 26 \& 2056 \& 11787 \& 1382 \& 2862 \& 7187 \& 25885 \& 2516 \& 1443 \& 13873 <br>

\hline \& NEW MEXICO \& 64 \& 15 \& 1119 \& 5734 \& 809 \& 1700 \& | 3819 |
| :--- |
| 584 | \& 13353 \& 1586 \& 833 \& $\begin{array}{r}6810 \\ \hline 17550\end{array}$ <br>

\hline \& ARIzONA. \& 102 \& 26 \& 2461 \& 13707 \& 1809 \& 3516 \& 9534 \& 31282 \& $\begin{array}{ll}3 & 881 \\ 2 & 536\end{array}$ \& 1561 \& 17550 <br>
\hline \& nevaia . - \& 38 \& 19 \& 1323 \& 9626 \& 994 \& 2152 \& 7161 \& 26943 \& 2536 \& 779 \& 12079 <br>
\hline \& PACLFIC . . . \& 1233 \& 301 \& 21878 \& 143195 \& 14680 \& 29611 \& 91856 \& 315777 \& 31322 \& 18623 \& 202646 <br>
\hline \& WASHINGTON \& 197 \& 51 \& 3653 \& 23744 \& 2698 \& 5297 \& 17078 \& 44268 \& 4755 \& 3025 \& 30344 <br>
\hline \& OREGON. \& 152 \& 20 \& 1934 \& 11701 \& 1456 \& 2911 \& 8404 \& 25828 \& 5646 \& 1696 \& 17336 <br>
\hline \& CALIFORN1A \& 855 \& 218 \& 15479 \& 102522 \& 9931 \& 20295 \& 63044 \& 232838 \& 20106 \& \& <br>
\hline \& ALASKA . . . . . \& 16 \& \& 172
640 \& 1441
3 \& 118
477 \& 225
883 \& 880
2450 \& 3054
9789 \& 322
493 \& (0)
(0) \& (0)
(0) <br>
\hline \& hawall . . . . . . . . . . \& 13 \& \& 640 \& 3787 \& 477 \& 883 \& 2450 \& 9789 \& 493 \& (0) \& <br>
\hline 328 \& CUT Stone and stone prooucts, total ${ }^{\text {| }}$ \& 893 \& 211 \& 18340 \& 85745 \& 15259 \& 30896 \& 66657 \& 131465 \& 6693 \& 20348 \& 129038 <br>
\hline
\end{tabular}

See footnotes at end or table.

## TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958_Continued

| Code | Industry group and geographic area | 1963 |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture. adjusted $(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \\ \hline \end{gathered}$ | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total (number) | Man-hours $(1,000)$ | Wages $(\$ 1,000)$ |  |  |  |  |
| 329 | NONMETALLIC MINERAL PRODUCTS, TOTAL. | 1748 | 632 | 100617 | 613811 | 75511 | 153766 | 415331 | 1337569 | 98114 | 91270 | 1001730 |
|  | NORTHEAST | 567 | 231 | 40727 | 258998 | 29746 | 59944 | 170350 | 509835 | 27550 | 40716 | 400919 |
|  | NEW ENGLANO ${ }_{\text {MASSACHUSETTS }}{ }^{\text {a }}$ | 108 69 | $\begin{array}{r}52 \\ 29 \\ \hline\end{array}$ | 10135 6474 | 65180 44049 | 7096 4302 | 14 8 8 | 39652 <br> 24565 <br> 11 | 126784 87315 | 4547 3521 | $\begin{array}{r}10571 \\ 6815 \\ \hline 865\end{array}$ | 94850 62863 |
|  | CONNECTICUT. | 29 | 17 | 2746 | 16825 | 2052 | 4217 | 11991 | 31006 | 696 | 2650 | 24229 |
|  | MIOOLE ATLANTIC | 459 | 179 | 30592 | 193818 | 22650 | 45895 <br> 17 | 130698 | $\begin{array}{lll}383 & 051\end{array}$ | 23003 | $\begin{array}{lll}30 & 145\end{array}$ | 306069 |
|  | NEW YORK. | 168 | 54 | 12 8 8 9 | 79457 <br> 57 <br> 619 | 8599 8 6 812 | 17239 14 222 | 49689 41222 | 155 <br> 118 <br> 1180 <br> 183 | 7200 98408 | 10963 8880 | 112124 |
|  | NEW JERSEY: | 123 | 51 74 | 12933 <br> 9 <br> 410 | 57 56 56 742 | 6812 78239 | $14 \begin{aligned} & 14 \\ & 14\end{aligned}$ | 49 <br> 87 | 109798 | ¢ 6495 | 10580 10602 | 90177 103768 |
|  | NORTH CENTRAL | 578 | 222 | 37599 | 227644 | 28138 | 57420 | 154443 | 517785 | 30451 | 32417 | 378188 |
|  | EAST NORTH CENTRAL. | 496 | 205 | 29204 | 168899 | 22809 | 46465 | 120004 | 373866 | 23028 | 26623 | 287911 |
|  | OHIO ${ }^{-}$ | 144 | 65 | 8892 | 51783 | 7 | 14405 | 38109 <br> 19 <br> 963 | 111260 | 9 4 4 7 197 | 7 | $\begin{array}{ll}77 & 058 \\ 50\end{array}$ |
|  | Indiana. | $\begin{array}{r}51 \\ 167 \\ \hline\end{array}$ | 26 | 4762 11 1319 | 25708 67286 | $\begin{array}{ll}3 & 974 \\ 8 & 547\end{array}$ | 86067 17657 | 19 <br> 46073 <br> 673 | 55430 150148 | 4221 7373 | 4626 10492 | 50 11711 |
|  | MICHIGAN. | 101 | 35 | ${ }^{1} 240$ | 19149 | 2456 | 4858 | 12498 | 43655 | 1767 | 3053 | 31261 |
|  | WISCONSIN. | 33 | 8 | 991 | 4973 | 791 | 1478 | 3361 | 13373 | 470 | 1014 | 12203 |
|  | WEST North central. | 82 | 17 | 8 395 | 58745 | 5329 | 10955 | 34439 | 143919 | 7423 | 5794 | 90277 |
|  | SOUTH - | 303 | 110 | 14112 | 72619 | 11617 | 23737 | 54681 | 177504 | 28669 | 10971 | 118761 |
|  | SOUTH ATLANTIC. | 127 | 41 | 6996 | 34392 | 5993 | 11925 | 27599 | 81536 | 4883 | 5049 | 49383 |
|  | VIRGINIA ${ }_{\text {WEST }}$ VIRGINIA. | 17 | 7 5 | 1384 1602 | 5661 3669 | 1182 | 21342 1 1 | 4562 2961 296 |  | $\begin{array}{r}1196 \\ \\ \\ \\ \\ \hline\end{array}$ | 1214 1 109 | 9 1 1 523 |
|  | WEST VIRGINIA. | 13 | 5 | -602 | 3669 | 492 | 1051 | 2961 | 9489 | 397 | 109 | 1523 |
|  | North carolina | 25 | 10 | 1232 | 4962 | 1075 | 2 1 1 516 | 3792 379 | 8912 6879 | 504 428 | 909 | 5753 <br> (0) |
|  | SOUTH CAROLINA GEORGIA. | 23 | 3 | 896 796 | 4 4 3 | 735 681 | $\begin{array}{lll}1 & 516 \\ 1 & 241 \\ 1 & 029\end{array}$ | 3 279 <br> 2755  | 6879 <br> 8209 <br> 8 | 428 546 | 304 |  |
|  | FLORIOA. | 25 | 2 | 648 | 3376 | 521 | 1029 | 2507 | 12246 | (0) | 262 | 1743 |
|  | EASt south central. | 70 | 31 | 3100 | 16521 | 2467 | 5059 | 11531 | 41584 | 4877 | 2487 | 27565 |
|  | KENTUCKY • • | 11 | 4 | 811 |  | 605 |  | 3558 | 10135 | 2106 | 958 | 8902 |
|  | TENNESSEE. | 24 | 10 | 784 |  | 612 |  | 2178 | 7626 | 1773 | $(0)$ | (0) |
|  | ALABAMA. | 25 | 12 | 762 | 3584 | 623 | 1156 | 2593 | 9564 | 238 | 857 | 10315 |
|  | MISSISSIPPI. | 10 | 5 | 743 | 4002 | 627 | 1331 | 3202 | 14259 | 760 | (D) | (0) |
|  | WEST SOUTH CENTRAL. | 106 | 38 | 4016 | 21706 | 3157 |  | 15551 | 54384 | 18909 | 3435 | 41813 |
|  | LOUISIANA. | 17 | 9 | 1130 | 6460 | 924 | 1906 | 5024 | 17063 | 730 | 1329 | 13483 |
|  | texas. - | 74 | 26 | 2534 | 13497 | 1949 | 4257 | 9267 | 33586 | 17888 | 1789 | 21808 |
|  | WEST. | 299 | 68 | 8109 | 54054 | 5956 | 12532 | 35514 | 135685 | 11683 | 7166 | 103862 |
|  | MOUNTAIN. | 60 | 9 | 747 |  | 592 | 1128 | 3061 | 10231 | 688 | 894 | 13864 |
|  | UTAH - | 10 | 3 | 242 | 1341 | 202 | 376 | 1085 | 3346 | 87 | 354 | 7284 |
|  | PACIFIC. |  |  |  | 49969 |  | 11404 | 32453 | 125454 | 10995 | 6272 | 89998 |
|  | WASHINGTON - | 25 | 4 | 381 | 2203 | 300 | 607 | 1686 | 5618 | 219 | 451 | 5602 |
|  | california . . . . . . . . . | 200 | 55 | 6900 | 47333 | 5002 | 10688 | 30474 | 118999 | 10711 | 5782 | 84063 |

[^43]${ }^{1}$ This industry group consists of a single 4 -digit industry. Detailed data by State are included in the 4 -digit industry tables.

## TABLE 3. Detailed Statistics: 1963

| Item | Stone, clay, and glass products (SIC 32) | Flat glass (SIC 321) | Pressed and blown glassware (SIC 322) | $\begin{gathered} \text { Products of } \\ \text { purchased glass } \\ \text { (SIC 323) } \end{gathered}$ | Cenient, hydraulic (SIC 324) | Structural clay products (SIC 325) | Pottery and related products (SIC 326) | Concrete and plaster products (SIC 327) | Cut stone and stone products (SIC 328) | Nonmetallic mineral products (SIC 329) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| establishments, tutal . . . . . number. | 15838 | 31 | 220 | 1044 | 188 | 916 | 638 | 10160 | 893 | 1748 |
| With 1 TO 19 employees. . . . . . Do. | 11183 | 31 | 20 | 795 | 9 | 235 | 409 | 7916 | 682 | 1116 |
| WITH 20 TU 99 EMPLOYEES . . . . . DO. | 3481 | 4 | 23 | 195 | 30 | 496 | 127 | 2024 | 175 | 407 |
| with 100 empluyees or mure. . . . do. | 1174 | 26 | 177 | 54 | 149 | 185 | 102 | 220 | 36 | 225 |
| Pruprieturs and working partners. . do. ALL EMPLUYEES (average for the | 7699 | - | 11 | 562 | 1 | 188 | 400 | 5402 | 558 | 577 |
| Year). . Do. | 573859 | 22815 | 97986 | 26158 | 34863 | 65034 | 42198 | 165848 | 18340 | 100617 |
| Parkar . . EMPLOYEES). Total for | 3212495 | 172214 | 535248 | 138275 | 227385 | 320922 | 212869 | 906026 | 85745 | 613811 |
| PRODUCTION WORKERS: AVERAGE FUR THE YEAR. |  |  |  |  |  |  |  |  |  |  |
| average fur the year. . . . . number. | 455818 430299 | 19440 18591 | 86533 <br> 84 <br> 84 | 21669 20818 | 28719 26649 | 54840 50474 | 35 342 34 984 3 | 118 10605 039 | 15259 14363 | 75511 73897 |
| mar . . . . . . . . . . . . . . Do. | 459535 | 18853 | 86860 | 21374 | 29663 | 55862 | 34946 | 120960 | 15522 | 75495 |
| August . . . . . . . . . . . . . Do. | 474345 | 19659 | 89524 | 22087 | 30510 | 57605 | 35189 | 127123 | 15866 | 76782 |
| november. . . . . . . . . . . . do. | 459437 | 20652 | 85254 | 22424 | 27997 | 55421 | 36318 | 120163 | 15274 | 75934 |
| man-hulirs . . . . . . . . .1,000. | 928948 | 39704 | 171910 | 43384 | 57579 | 111520 | 68492 | 251697 | 30896 | 153766 |
| January-march . . . . . . . . . Do. | 212852 | 9365 | 41276 | 10465 | 12833 | 24851 | 16657 | 53057 | ${ }_{6}^{6} 933$ | 37415 38841 |
| APRIL-JUNE. . . . . . . . . . Do. | 237746 | 9604 | 43923 44653 | 10902 | $\begin{array}{ll}15 & 046 \\ 15\end{array}$ | 28770 <br> 29 <br> 664 | 17270 16847 168 | 65288 69469 | 8102 8 8 | 38841 38332 |
| JuLY-SEPTEMBER. ${ }_{\text {OCTOBER-DECEMBER. }}^{\text {. }}$. . . . . . . . Do. . | 243139 235309 | 9 9 10939 | 44653 42058 | $\begin{array}{ll}10 & 872 \\ 11 & 145\end{array}$ | 15 <br> 1515 <br> 14 <br> 85 | 29664 28235 | 16847 17917 | 69469 63883 | 8048 7813 | 38332 39077 |
| wages . . . . . . . . . . . . \$1,000. | 2350223 | 143752 | 446612 | 103890 | 173891 | 244766 | 163702 | 591622 | 66657 | 415331 |
| COST Of Materials, etc., Total ${ }^{1}$. . DO. | 5287768 | 185879 | 560014 | 320339 | 388747 | 288953 | 165217 | 2191640 | 86633 | 1100346 |
| MATERIALS, PARTS, CONTAINERS. ${ }_{\text {and }}$ SUPPLIES CONSUMED. . . . . do. | 4235746 | 146029 | 446482 | 281018 | 195819 | 174000 | 120579 | 1860951 | 70599 | 940269 |
| cost of resales . . . . . . . . . do. | 435574 | (0) | 24679 | 28276 | 6993 | 31987 | (D) | 204298 | 6860 | 91751 |
| fuels cunsumed. . . . . . . . . . Do. | 403301 | 20615 | 64438 | 4840 | 123611 | 64135 | 10215 | 78513 | 1698 | 35236 |
| electric energy: PURCHASED: |  |  |  |  |  |  |  |  |  |  |
| OUANTITY. . . . .MILLION KW.-hrs. | 16296 | 883 | 2607 | 276 | 6520 | 1081 | 340 | 1973 | 227 | 2389 |
| cost. . . . . . . . . . \$1,000. | 173185 | 7087 | 23362 | 3709 | 59533 | 15355 | 4532 | 30807 | 3409 | 25391 |
| generated less sold . . . . .million kw.-hrs. | 6212 | (D) | 18 | (D) | 445 | 7 | (D) | 1 | (D) | (D) |
| Contract work . . . . . . . . si,000 | 39962 | (D) | 1053 | 2499 | 2791 | 3469 | (D) | 17071 | 4067 | 7699 |
| Value of shipments (including |  |  |  |  |  |  |  |  |  |  |
| resalesi, rotali . . . . . . . . . do. | 12289091 | 549390 | 635409 | 627327 | 176913 | 841715 | 492989 | 4312849 | 217176 | 2435323 |
| value of resales. . . . . . . . . do. | 564808 | 12705 | 27881 | 31018 | 8285 | 41018 | 28729 | 279518 | 9423 | 126231 |
| value added by manufacture, adjusted . . . . . . . . . . . . . Do. | 7043987 | 364466 | 1101820 | 309734 | 785681 | 553809 | 337160 | 2122283 | 131465 | 1337569 |
| MANUFACTURERS' INVENTORIES: |  |  |  |  |  |  |  |  |  |  |
| beginning of year, total. . . . . DO. | 1471029 | 71489 | 206119 | 85208 | 181942 | 160753 | 75097 | 288802 | 29779 | 371840 |
| FINISHED PRODUCTS . . . . . . . Do. | 774805 | 21019 | 137245 | 40456 | 72135 | 110604 | 36139 | 170042 | 11861 | 175304 |
| WORK-IN-PRUCESS . . . . . . . . DO. | 186245 | 16854 | 14982 | 15868 | 25167 | 12376 | 17426 | 19543 |  | 56019 |
| MATERIALS, SUPPLIES. FUEL. . . Do. | 509979 | 33616 | 53892 | 28884 | 84640 | 37773 | 21532 | 99217 | 9908 | 140517 |
| end of year, total. . . . . . . . du. | 1522406 | 72669 | 232707 | 88888 | 180625 | 162707 | 77820 | 298961 | 31199 | 376830 |
| FINISHED PRODUCTS . . . . . . . DO. | 804464 | $\begin{array}{ll}21 & 612\end{array}$ | 162625 | 43044 | 69648 | 111942 | 37413 | 169820 | 11 <br> 961 <br> 9 | $\begin{array}{r}176599 \\ 57 \\ \hline 711\end{array}$ |
| WORK-IN-PRUCESS ${ }_{\text {MATERIALS, SUPPLIES, }}$ f fuel . . . DO. | 194487 | 17216 | 16027 | 16026 | 25169 | 12085 | 18715 | 22906 |  | 57311 |
| etc. . . . . . . . . . . . . . do. | 523456 | 33841 | 54055 | 29819 | 85808 | 38680 | 21692 | 106235 | 10406 | 142920 |
| EXPENDITURES FOR PLANT AND EOUIP- |  |  |  |  |  |  |  |  |  |  |
| ment, total. . . . . . . . . . . . do. | 641233 | 28866 | 77536 | 14982 | 121369 | 43545 | 13305 | 229366 | 7676 | 104588 |
| NEW, TOTAL. . . . . . . . . . . . DO. | 607581 | 28244 | 76469 | 13223 | 120843 | 42192 | 11169 | 210634 | 6693 | 98114 |
| NEW STRUCTURES AND ADDITIONS DO. |  |  |  |  |  |  |  |  |  |  |
| TUEW PLANTINERY AND EOUIPMENT . . DO. | 156 451 45153 | $\begin{array}{rr}5 & 106 \\ 23 & 138\end{array}$ | 19728 56741 | $\begin{array}{rr}2 & 932 \\ 10 & 291\end{array}$ | 36192 84651 | 13233 28959 | $\begin{array}{ll}2 & 057 \\ 9 & 112\end{array}$ | 52 158 1559 | $\begin{array}{ll}1 & 378 \\ 5 & 315\end{array}$ | 23723 74391 |
| used plant and eouipment. . . . . Do. | 33656 | 622 | 1067 | 1759 | 526 | 1353 | 2136 | 18736 | 983 | 6474 |
| selected operating ratios: |  |  |  |  |  |  |  |  |  |  |
| Payroll total employment . - . - . | 5598 | 7548 | 5462 | 5286 | 6522 | 4935 | 5045 | 5463 | 4675 | 6100 |
| PRODUCTION WORKERS/TOTAL EMPLUYMENT | . 79 | . 85 | . 88 | . 83 | . 82 | . 84 | . 84 | . 71 | . 83 | .75 |
| MAN-HOURS/PRODUCTION WORKERS. | 2.04 | 2042 | 1987 | 2002 | 2005 | 2034 | 1938 | 2124 | 2025 | 2036 |
| PRODUCTION WORKER WAGES/MAN-HOURS ${ }^{\text {cost UF MATERIALS AND PAYROLLS/TOTAL }}$ - | 2.53 | 3.62 | 2.60 | 2.39 | 3.02 | 2.19 | 2.39 | 2.35 | 2.16 | 2.70 |
| cost uf materials and payrolls/total value of shipments | . 69 | . 65 | . 67 | . 73 | . 52 | . 72 | . 75 | . 72 | . 79 | . 70 |
| cost of materials/total value of |  |  |  |  | . 52 | . 72 |  |  |  |  |
| Shipments - . . . . . . . | . 43 |  | . 34 | .51 | . 33 | . 34 | . 32 | . 51 | ${ }^{40}$ | . 45 |
| adjusted value added/total employment. | 12275 | 15975 | 11245 | 11841 | $22 \quad 536$ | 8516 | 7990 | 12797 | 168 | 13294 |
| Salaries and wages/adjusted value added | . 46 | .47 | . 49 | . 45 | . 28 | . 58 | .63 | .43 | . 65 | . 46 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
l The value of shipments and cost of materials for industry
industry. For a more complete explanation, see Introduction. groups (2-and 3-digit) include extensive duplication arising from shipments between establishments in the same

## GLASS PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

## SIC Code and Title

3211-Flat Glass<br>3221-Glass Containers<br>3229-Pressed and Blown Glass and Glassware, N.E.C.<br>3231-Glass Products, Made of Purchased Glass

This group of industries includes establishments primarily engaged in manufacturing flat glass and glass products not specifically classified in other industries. For example, establishments primarily engaged in manufacturing the following glass products are not included in this group of industries: Complete electric light bulbs, electronic or X-ray tubes (classified in Major Group 36, Electrical Machinery and Equipment), ophthalmic goods, including prescription sun glasses and eye-protective goggles (classified in industry 3851, Ophthalmic Goods), glass fabrics (classified in industry 2221, Weaving Mills, Synthetic), glass insulation (classified in industry 3296, Mineral Wool).

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables lto 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3211--FLAT GLASS

This industry comprises establishments primarily engaged in manufacturing flat glass, including plate glass, window glass, rolled glass, figured and wire glass, opalescent and obscured glass, and cathedral and skylight glass. This industry also includes establishments that produce laminated glass from glass produced in the same establishment. Establishments primarily engaged in manufacturing laminated glass from purchased flat glass are classified in industry 3231, Glass Products, Made of Purchased Glass. For a detailed list of primary products of industry 3211, refer to table 6A, product codes 3211122 to 3211498 and 3231311 to 3231698.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Flat Glass Industry in 1963 totaled $\$ 549$ million. This amount included shipments of flat and laminated glass (primary prod-
ucts), and other products (secondary products) valued at $\$ 536$ million, and miscellaneous receipts at $\$ 13$ million. Separate value of shipments data for primary and secondary products are withheld to avoid disclosing figures for individual companies.

This industry's shipments of flatglass, including laminated in 1963 represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was also 90 percent.

The production index for the primary products of the industry increased to 139 in 1963 from the 1958 level of 98 . The unit value index for 1963 was 107 compared to 112 in 1958. The computation of the indexes included laminated glass made in the Flat Glass lndustry (3211) and laminated glass made in the Products of Purchased Glass lndustry (3231). Both indexes were computed on a basis of $1954=100$.

Table 6 presents data for the total "shipments and interplant transfers" of flat glass. It should be noted, however, that some of the flat glass reported as "shipments and interplant transfers" does not reach the ultimate consumer as flat glass, but is instead used by establishments in industry 3231 in the production of laminated glass and other glass products. These data are shown in table 7 for industry 3231.

A quarterly survey on Business and Defense Services Administration form BDSAF-375, "Flat Glass" collects statistics on flat glass (except laminated glass-code 32113 and other flat glass-code 3211498 ) in the same detail that is presented in this report. These statistics are summarized and published quarterly in Current lndustrial Reports Series BDSAF-375, Flat Glass.

## 3221-GLASS CONTAINERS

This industry comprises establishments primarily engaged in manufacturing glass containers for commercial packing and bottling, and for home canning. Products of this industry may be machine-made or hand-made and include carboys, cosmetic jars, fruit jars, medicine bottles, milk bottles, vials, and beverage and beer bottles. For a more detailed list of primary products of industry 3221, refer to table 6A, product codes 3221011 to 3221062 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Glass Containers lndustry in 1963 totaled $\$ 1,004$ million. This amount included shipments of glass containers (primary products), valued at $\$ 973$ million, shipments of other products (secondary products) valued at $\$ 7$ million and miscellaneous receipts at $\$ 24$ million.

This industry's shipments of glass containers in 1963 represented 99 percent of its total product shipments. The industry specialization ratio in 1958 was also 99 percent.

Shipments of glass containers by this industry in 1963 represented 99 percent of all shipments of these products ( $\$ 982$ million) by all industries. In 1958 the coverage ratio was also 99 percent. Other industries shipping glass containers (primary products) consisted mainly of industry 3229, Pressed and Blown Glass, N.E.C.

The production index for the primary products of the industry increased to 141 in 1963 from the 1958 level of 114 . The unit value index for 1963 was 111 compared to 117 in 1958. Both indexes were computed on a basis of $1954=100$.

A monthly survey on Census Form M32G, "Glass Containers," collects statistics on quantity of machine-made containers in the same detail that is presented in this re-
port. These statistics are summarized and published monthly in Current lndustrial Reports, Series M32G, Glass Containers.

## 3229-PRESSED AND BLOWN GLASS AND GLASSWARE, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing glass and glassware, not elsewhere classified, pressed, blown, or shaped from glass produced in the same establishment. Establishments primarily engaged in manufacturing textile type glass fibers are also included in this industry, but establishments primarily engaged in manufacturing glass wool insulation products are classified in industry 3296 , Mineral Wool.

Establishments primarily engaged in the production of pressed lenses for headlights, beacons, and lanterns are also included in this industry, but establishments primarily engaged in the production of optical lenses are classified in industry 3831, Optical lnstruments and Lenses. Establishments primarily engaged in manufacturing glass containers are classified in industry 3221, Glass Containers, and complete electric light bulbs in industry 3641, Electric Lamps. For a detailed list of products of industry 3229, refer to table 6A, product codes 3229111 to 3229417.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Pressed and Blown Glass, N.E.C., Industry in 1963 totaled $\$ 631$ million. This amount included shipments of pressed and blown glass, n.e.c., (primary products), valued at $\$ 600$ million, shipments of other products (secondary products) valued at $\$ 23$ million, and miscellaneous receipts at $\$ 8$ million.

This industry's shipments of pressed and blown glass, n.e.c., in 1963 represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent. Secondary products shipped by this industry in 1963 consisted mainly of glass containers and lighting fixtures.

Shipments of pressed and blown glass, n.e.c., by this industry in 1963 represented 97 percent of all shipments of these products ( $\$ 615$ million) by all industries. In 1958 the coverage ratio was also 97 percent. Other industries shipping pressed and blown glass, n.e.c. (primary products) consisted mainly of industry 3221, Glass Containers. $\$ 3$ million; and industry 3296, Mineral Wool, $\$ 7$ million.

An annual survey on Census Form MA-32E, "Consumer, Scientific, Technical and lndustrial Glassware" (formerly "Pressed and Blown Glassware") collects statistics in the same detail that is presented in this report. These statistics are sumnarized and published annually in Current lndustrial Reports, Series M32E, "Consumer, Scientific, Technical and lndustrial Glassware" (formerly "Pressed and Blown Glassware").

## 3231 -GLASS PRODUCTS, MADE OF PURCHASED GLASS

This industry comprises establishments primarily engaged in manufacturing glass products from purchased glass, including laminated glass, tempered glass, stained, leaded, ornamented, and decorated glass; mirrors; cutware; scientific-apparatus glass; glass novelties; mosaic glass; cut, beveled; and etched glass. Establishments primarily engaged in manufacturing optical lenses and opthalmic lenses are classified in Major Group 38, lnstruments and Related Products; glass insulation in industry 3296; Mineral Wool and glass fabrics in industry 2221, Weaving Mills, Synthetic. For a detailed list of products of industry 3231 , refer to table 6A, product codes 3231511 to 3231698 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Products of Purchased Glass Industry in 1963 totaled $\$ 627$ million. This amount included shipments of primary and secondary products and miscellaneous receipts. Separate value of shipments data for primary and secondary products and miscellaneous receipts are withheld to avoid disclosing figures for individual companies.

This industry's shipments of products of purchased glass in 1963 represented over 90 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent.



PRODUCTS OF PURCHASED GLASS: SIC 323


# table 1. General Statistics: 1963 and Earlier Years 

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours (1,000) | Wages (\$1,000) |  |  |  |  |  |  |
|  | INDUSTRY 3211.-FLAT GLASS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 196 | 11 | 31 | 30 | 22,815 | 172,214 | 19,440 | 39,704 | 143,752 | 364,466 | 185,879 | 549,390 | 28,244 | ${ }^{2} 90$ | (D) |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 22,366 | 162,556 | 19,110 | 38,833 | 135,951 | 315,189 | 176,159 | 490,681 | 33,982 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 21,159 | 146,221 | 17,938 | 35,493 | 120,681 | 284,585 | 164,731 | 448,483 | 39,013 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 23,471 | 167,626 | 20,010 | 41,478 | 140,203 | 345,197 | 180,492 | 529,944 | 36,132 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 27,280 | 180,616 | 23,841 | 46,962 | 155,998 | 400,516 | 174,872 | 557,431 | 18,866 | (NA) | (NA) |
| 1958 | 14 | 32 | 31 | 21,179 | 133,551 | 17,625 | 35,867 | 110,675 | 263,151 | 115,115 | 384,711 | 21,607 | ${ }^{2} 90$ | (D) |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 26,105 | 163,356 | 22,746 | 46,048 | 138,694 | 315,863 | 144,548 | 458,038 | 86,509 | (NA) | (NA) |
| 1956 | (NA) | (NA) | (NA) | 26,628 | 165,528 | 23,332 | 49,494 | 143,985 | 327,358 | 148,087 | 467,275 | 101,320 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 26,482 | 159,921 | 23,294 | 49,726 | 140,279 | 346,475 | 146,479 | 492,088 | 12,790 | (NA) | (NA) |
| 1954 | 16 | 32 | 30 | 24,559 | 132,509 | 21,389 | 44,344 | 114,966 | 247,175 | 119,576 | 372,689 | 30,964 | ${ }^{2} 90$ | (D) |
| $1953{ }^{\text {¹ }}$ | (NA) | (NA) | (NA) | 25,819 | 129,769 | 22,779 | 46,217 | 113,711 | 224,583 | 111,591 | 336,174 | (NA) | (NA) | (NA) |
| 1952 | (NA) | (NA) | (NA) | 23,206 | 107,870 | 20,435 | 41,966 | 94,521 | 191,080 | 91,321 | 282,401 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 26,401 | 114,907 | 23,447 | 49,006 | 101,066 | 211,498 | 104,880 | 316,378 | (NA) | (NA) | (NA) |
| 1950 | (NA) | (NA) | (NA) | 26,286 | 103,996 | 23,685 | 48,954 | 92,208 | 201,555 | 99,539 | 301,094 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 23,329 | 84,081 | 20,409 | 41,112 | 73,504 | 152,284 | 82,847 | 235,131 | (NA) | (NA) | (NA) |
| 1947 | (NA) | 32 | (NA) | 25,268 | 77,940 | 22,563 | 46,966 | 67,861 | 158,746 | 64,736 | 223,715 | (NA) | (NA) | (NA) |
| $\begin{aligned} & 1939^{\circ} \\ & 1937^{3} \end{aligned}$ | (NA) | 37 | (NA) | 18,638 | 28,161 | 16,739 | (NA) | 24,009 | 68,540 | 33,849 | 102,389 | (NA) | (NA) | (NA) |
|  | (NA) | 39 | (NA) | (NA) | (NA) | 20,583 | (NA) | 30,598 | 82,903 | 44,450 | 127,353 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3221.-GLASS CONTAINERS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 40 | 113 | 105 | 59,987 | 327,956 | 53,476 | 107,055 | 278,691 | 629,608 | 392,541 | 1,004,464 | 53,805 | 99 | 99 |
| 1962 | (NA) | (NA) | (NA) | 60,033 | 326,733 | 53,348 | 106,933 | 275,994 | 612,953 | 375,507 | 987,620 | 53,630 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 60,152 | 314,480 | 53,653 | 106,566 | 265,058 | 601,248 | 366,673 | 967,405 | 68,930 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 58,531 | 298,251 | 52,027 | 104,309 | 251,420 | 576,529 | 375,239 | 939,177 | 34,777 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 56,240 | 271,948 | 50,109 | 98,796 | 228,872 | 561,292 | 354,610 | 915,611 | 32,898 | (NA) | (NA) |
| 1958. | 42 | 100 | 92 | 54,937 | 259,893 | 48,635 | 97,622 | 218,358 | 532,469 | 333,554 | 862,117 | 31,164 | 99 | 99 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 54,255 | 238,254 | 48,449 | 97,428 | 203,580 | 502,360 | 315,446 | 797,141 | 45,370 | 98 | 100 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 51,574 | 230,590 | 46,256 | 94,201 | 195,817 | 470,411 | 294,503 | 758,092 | 34,423 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 51,138 | 212,140 | 45,770 | 92,138 | 179,904 | 422,696 | 276,073 | 693,703 | 23,865 | (NA) | (NA) |
| 1954. | 38 | 85 | 83 | 49,410 | 195,944 | 44,076 | 87, 672 | 166,107 | 384,647 | 267,222 | 646,104 | 26,542 | 98 | 99 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 50,605 | 189,514 | 45,306 | 89,857 | 163,281 | 358,465 | 255,164 | 613,629 | (NA) | (NA) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (NA) | 47,569 | 168,976 | 42,938 | 86,674 | 143,767 | 325,674 | 252,841 | 564,494 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 48,159 | 162,498 | 43,541 | 87,478 | 138,828 | 308,093 | 254,852 | 548,918 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 42,279 | 131,889 | 38,235 | 77,546 | 113,104 | 264,811 | 205,118 | 455,902 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 40,303 | 119,977 | 36,242 | 74,137 | 101,592 | 223,746 | 185,362 | 395,081 | (NA) | (NA) | (NA) |
| 1947. | 41 | 87 | (NA) | 47,132 | 126,503 | 41,943 | 87,530 | 107,101 | 252,069 | 191,961 | 422,614 | (NA) | (D) | (D) |
| $\begin{aligned} & 1939^{\circ} \\ & 1937^{3} \end{aligned}$ | (NA) | 77 | (NA) | 29,357 | 43,023 | 25,753 | (NA) | 34,181 | 98,378 | 59,894 | 158,272 | (NA) | (NA) | (NA) |
|  | (NA) | 80 | (NA) | (NA) | (NA) | 28,422 | (NA) | 37,288 | 93,581 | 69,136 | 162,717 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3229.-PRESSED AND BLOWN GLASS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1963{ }^{2}$ | 75 | 107 | 95 | 37,999 | 207,292 | 33,057 | 64,855 | 167,921 | 472,212 | 167,473 | 630,945 | 22,664 | 96 | 97 |
| $1962^{1}$ | (NA) | (NA) | (NA) | 38,137 | 199,651 | 33,117 | 64,718 | 161,151 | 448,081 | 174, 54, | 619,471 | 24,420 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 37,443 | 190,388 | 32,380 | 62,730 | 153,794 | 425,338 | 163,938 | 584,751 | 27,554 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 37,078 | 181,817 | 34,252 | 67,545 | 162,064 | 408,843 | 177,282 | 568,917 | 41,816 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 37,972 | 184,001 | 33,361 | 65,771 | 152,257 | 398,648 | 151,789 | 547,473 | $(33,827)$ | (NA) | (NA) |
| 1958. | 111 | 140 | 98 | 35,358 | 161,296 | 30,473 | 58,974 | 131,851 | 312,342 | 128,892 | 445,361 | 19,387 | 98 | 97 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 46,308 | 204,087 | 37,867 | 74,076 | 157,333 | 356,737 | 141,103 | 488,886 | 23,566 | 98 | 97 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 45,006 | 188,767 | 37,677 | 71,496 | 144,266 | 345,765 | 134,936 | 476,446 | 26,458 | (NA) | (NA) |
| $1955{ }^{1}$. | (NA) | (NA) | (NA) | 43,337 | 174,339 | 36,304 | 70,450 | 134,877 | 318,630 | 130,145 | 444,775 | 17,493 | (NA) | (NA) |
| 1954. | (NA) | $(4)^{4}$ | $\left({ }^{4}\right)$ | 41,924 | 158,623 | 35,006 | 66,673 | 121,776 | 294,192 | 117,757 | 416,021 | 10,875 | 98 | 96 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 39,703 | 151,985 | 34,510 | 66,594 | 118,242 | 254,394 | 97,793 | 352,187 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 39,391 | 133,664 | 33,436 | 64,667 | 104,779 | 230,107 | 84,658 | 314,763 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 42,963 | 137,545 | 37,009 | 72,669 | 109,352 | 227,374 | 91,223 | 318,595 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 41,650 | 122,065 | 36,238 | 69,536 | 97,611 | 239,041 | 81,181 | 320,220 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 38,063 | 105,964 | 32,511 | 62,383 | 82,845 | 185,850 | 73,757 | 259,605 | (NA) | (NA) | (NA) |
| 1947. | 107 | 126 | (NA) | 42,170 | 103,784 | 37,474 | 75,249 | 86,853 | 169,449 | 69,863 | 234,795 | (NA) | 96 | 91 |
| 1939 | (NA) | 115 | (NA) | 31,320 | 38,975 | 27,330 | (NA) | 30,115 | 70,284 | 27,033 | 97,317 | (NA) | (NA) | (NA) |
| 19373 ${ }^{\text {a }}$. | (NA) | 113 | (NA) | (NA) | (NA) | 30,046 | (NA) | 33,701 | 70,521 | 27,119 | 97,649 | (NA) | (NA) | (NA) |
|  | INDUSTRIES 3211, 3221, 3229.-TOTALS FOR FLAT GLASS, GLASS CONTAINERS, AND PRESSED AND BLOWN GLASS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | (NA) | 257 | 230 | 120,801 |  |  | 211,614 | 590,364 | 1,466,286 | 745,893 | 2,184,759 | 102,923 | (NA) | (NA) |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 120,536 | 688,940 | 105,575 | 210,484 | 573,096 | 1,376,223 | 726,210 | 2,097,772 | 112,032 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 118,754 | 651,089 | 103,971 | 204,789 | 539,533 | 1,311,171 | 695,342 | 2,000,639 | 135,497 | (NA) | (NA) |
| $1960^{1}$ | (NA) | (NA) | (NA) | 119,808 | 647,694 | 106,289 | 213,332 | 553,687 | 1,330,569 | 729,013 | 2,038,038 | 112,725 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 121,492 | 636,565 | 107,311 | 211,529 | 537,127 | 1,360,456 | 681,271 | 2,020,515 | 85,591 | (NA) | (NA) |
| 1958. | (NA) | 272 | 221 | 113,224 | 564,858 | 96,733 | 192,463 | 460,884 | 1,107,962 | 577,561 | 1,692,189 | 54,475 | (NA) | (NA) |
| $1957{ }^{1} 1956^{1}$ | (NA) | (NA) | (NA) | 126,668 | 605,697 | 109,062 | 217,552 | 499,607 | 1,174,960 | 601,097 | 1,744,065 | 155,445 | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 123,208 | 584,885 | 107,265 | 215,191 | 484,068 | 1,143,534 | 577,526 | 1,701,813 | 162,201 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 120,957 | 546,400 | 105,368 | 211,314 | 455,060 | 1,087,801 | 522,697 | 1,630,566 | 54,148 | (NA) | (NA) |
| 1954. | (NA) | (NA) | (NA) | 115,893 | 487,076 | 100,471 | 198,689 | 402,849 | 926,014 | 504,555 | 1,434,814 | 68,381 | (NA) | (NA) |

[^44]table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRIES 3211, 3221, 3229.-TOTALS FOR FLAT GLASS, GLASS CONTAINERS, AND PRESSED AND BLOWN GLASS, N.E.C.-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1953{ }^{1}$. | (NA) | (NA) | (NA) | 116,127 | 471,268 | 102,595 | 202,668 | 395,234 | 837,442 | 464,548 | 1,301,990 | (NA) | (NA) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (NA) | 170,166 | 410,510 | 96,809 | 193,307 | 343,067 | 746,861 | 428,820 | 1,161,658 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 117,523 | 414,950 | 103,997 | 209,153 | 349,246 | 746,965 | 450,955 | 1,183,891 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 110,215 | 357,950 | 98,158 | 196,036 | 302,923 | 705,407 | 385,838 | 1,077,216 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 101,695 | 310,022 | 89,162 | 177,632 | 257,941 | 561,880 | 341,966 | 889,817 | (NA) | (NA) | (NA) |
| 1947. | (NA) | 245 | (NA) | 114,570 | 308,227 | 101,980 | 209,745 | 261,815 | 580,264 | 326,560 | 881,124 | (NA) | (NA) | (NA) |
| 1939. | (NA) | 229 | (NA) | 79,315 | 110,159 | 69,822 | (NA) | 88,305 | 237,202 | 120,776 | 357,978 | (NA) | (NA) | (NA) |
| $1937{ }^{3}$ | (NA) | 232 | (NA) | 87,007 | 119,391 | 79,051 | (NA) | 101,587 | 247,005 | 140,705 | 387,710 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 213 | (NA) | 73,350 | 85,828 | 67,138 | (NA) | 71,443 | 173,884 | 110,041 | 283,925 | (NA) | (NA) | (NA) |
| 1933 | (NA) | 213 | (NA) | 54,297 | 53,858 | 49,797 | (NA) | 45,222 | 128,538 | 63,410 | 191,948 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 229 | (NA) | (NA) | (NA) | 49,917 | (NA) | 57,882 | 142,690 | 73,575 | 216,265 | (NA) | (NA) | (NA) |
| 1929 | (NA) | 263 | (NA) | 73,396 | 103,382 | 67,527 | (NA) | 87,795 | 200,525 | 103,294 | 303,819 | (NA) | (NA) | (NA) |
| 1927 | (NA) | 269 | (NA) | 71,454 | 95,207 | 65,825 | (NA) | 81,353 | 172,483 | 109,911 | 282,394 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 310 | (NA) | 74,786 | 100,637 | 69,371 | (NA) | 86,736 | 182,307 | 113,652 | 295,959 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 333 | (NA) | 79,629 | 105,417 | 73,335 | (NA) | 89,898 | 196,183 | 113,170 | 309,353 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 329 | (NA) | 59,741 | 80,665 | 54,748 | (NA) | 68,224 | 127,435 | 86,036 | 213,471 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 371 | (NA) | 83,596 | 100,891 | 77,520 | (NA) | 87,527 | 171,104 | 90,780 | 261,884 | (NA) | (NA) | (NA) |
| 191 | (NA) | 348 | (NA) | 78,711 | 55,205 | 74,502 | (NA) | 48,656 | 77,068 | 46,017 | 123,085 | (NA) | (NA) | (NA) |
| 190 | (NA) | 363 | (NA) | 72,486 | 44,293 | 68,911 | (NA) | 39,300 | 59,976 | 32,119 | 92,095 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 399 | (NA) | 67,009 | 41,228 | 63,969 | (NA) | 37,288 | 53,462 | 26,146 | 79,608 | (NA) | (NA) | (NA) |
| 1899....... | (NA) | 355 | (NA) | 55,086 | 29,877 | 52,818 | (NA) | 27,085 | 39,809 | 16,731 | 56,540 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3231.-PRODUCTS OF PURCHASED GLASS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 1,016 | 1,044 | 249 | 26,158 | 138,275 | 21,669 | 43,384 | 103,890 | 309,734 | 320,339 | 627,327 | 13,223 | ${ }^{2} 90$ | (D) |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 27,710 | 138,130 | 22,914 | 44,948 | 103,532 | 301,483 | 268,725 | 562,101 | 18,482 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 26,967 | 127,677 | 22,184 | 43,095 | -95,097 | 286,896 | 247,633 | 520,569 | 7,404 | (NA) | (NA) |
| $1960^{1}$ | (NA) | (NA) | (NA) | 27,965 | 131,848 | 23,203 | 4,780 | 100,658 | 314,357 | 260,327 | 557,811 | 13,629 | (NA) | (NA) |
| 19591 | (NA) | (NA) | (NA) | 28,628 | 135,345 | 24,426 | 46,839 | 105,305 | 311,143 | 293,220 | 581,079 | 20,201 | (NA) | (NA) |
| $1958{ }^{3}$ | 1,002 | 1,031 | 239 | 24,024 | 109,570 | 19,737 | 38,124 | 83,125 | 242,657 | 226,031 | 468,809 | 16,526 | 98 | 81 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 23,367 | 103,548 | 19,249 | 37,413 | 80,488 | 251,709 | 205,192 | 445,789 | (S) | 96 | 71 |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 24,215 23,462 | 105,755 103,626 | 20,157 19,839 | 40,497 41,105 | 83,532 83,522 | 250,428 248,011 | 212,686 | 449,169 468,487 | (5) | (NA) | (NA) |
| 1954. | (NA) | ${ }^{(4)}$ | (4) | 21,614 | 87,529 | 18,203 | 36,377 | 68,285 | 193,282 | 190,435 | 386,695 | 5,590 | 97 | 75 |
| 19531 | (NA) | (NA) | (NA) | 28,647 | 110,685 | 24,466 | 46,217 | 88,031 | 231,573 | 190,985 | 422,558 | (NA) | (NA) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (NA) | 29,026 | 97,955 | 25,809 | 51,941 | 80,878 | 215,510 | 186,709 | 402,153 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 29,130 | 89,734 | 25,908 | 51,782 | 75,520 | 205,899 | 180,682 | 386,515 | (NA) | (NA) | (NA) |
| $1950^{1}$ | (NA) | (NA) | (NA) | 24,813 | 76,581 | 22,295 | 47,189 | 64,867 | 187,714 | 166,140 | 353,788 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 20,756 | 61,525 | 17,762 | 35,229 | 48,878 | 140,761 | 107,785 | 247,380 | (NA) | (NA) | (NA) |
| 1947. | (NA) | 1,048 | (NA) | 23,920 | 61,508 | 20,748 | 38,884 | 48,449 | 129,857 | 84,595 | 214,873 | (NA) | (NA) | (NA) |
| 1939. | (NA) | 557 | (NA) | 12,195 | 15,168 | 10,012 | (NA) | 10,615 | 23,432 | 26,454 | 49,886 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 534 | (NA) | 14,442 | 17,885 | 12,652 | (NA) | 13,981 | 47,265 | 40,744 | 88,009 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 532 | (NA) | 12,256 | 13,967 | 10,687 | (NA) | 10,896 | 39,438 | 29,300 | 68,738 | (NA) | (NA) | (NA) |
| 19 | (NA) | 425 | (NA) | 7,435 | 6,910 | 6,520 | (NA) | 5,559 | 14,292 | 18,585 | 32,877 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 610 | (NA) | (NA) | (NA) | 7,183 | (NA) | 8,650 | 19,077 | 17,250 | 36,327 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 735 | (NA) | 12,721 | 19,987 | 10,811 | (NA) | 14,757 | 33,138 | 31,978 | 65,116 | (NA) | (NA) | (NA) |
| 1927 | (NA) | 650 | (NA) | 10,430 | 16,839 | 8,773 | (NA) | 12,575 | 28,786 | 24,967 | 53,753 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 628 | (NA) | 10,841 | 16,871 | 9,013 | (NA) | 12,621 | 29,848 | 33,044 | 62,892 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 629 | (NA) | 10,230 | 14,403 | 8,621 | (NA) | 10,921 | 26,595 | 31,900 | 58,495 | (NA) | (NA) | (NA) |
| 1921 | (NA) | 642 | (NA) | 8,395 | 11,579 | 7,050 | (NA) | 8,807 | 18,059 | 20,890 | 38,949 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 802 | (NA) | 10,865 | 12,494 | 9,079 | (NA) | 8,974 | 22,417 | 26,857 | 49,274 | (NA) | (NA) | (NA) |
| 1914 | (NA) | 817 | (NA) | 12,902 | 8,613 | 11,251 | (NA) | 6,638 | 13,478 | 13,157 | 26,635 | (NA) | (NA) | (NA) |
| 1909. | (NA) | 731 | (NA) | 13,851 | 8,758 | 12,356 | (NA) | 7,013 | 13,521 | 12,151 | 25,672 | (NA) | (NA) | (NA) |
| 1904 | (NA) | 572 | (NA) | 12,073 | 6,842 | 11,028 | (NA) | 5,734 | 11,534 | 9,209 | 20,743 | (NA) | (NA) | (NA) |
| 1899. | (NA) | 514 | (NA) | 8,213 | 4,390 | 7,469 | (NA) | 3,625 | 8,223 | 8,531 | 16,754 | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

- Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(
(NA) Not available
. (X) Not applicable.
$(S)$ Withneld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimata or on the basis of a consistency review.
n.e.c. Not elsewhere classified.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the ampal survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing estab lishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data
${ }^{2}$ This is a minimum percentage. The exact figure cannot be shown without disclosing figures for individual companies.
${ }^{3}$ "Flat Glass," "Glass Containers," and "Pressed and Blow Glassware, N.E.C." constituted a single classification "Glass" prior to 1937. The separate industry figures shom for 1937-1963 have been combined in order that comparable statistics can be show for the period lo99-1963
${ }^{4}$ Due to misclassification of small establishments in 1954 no separate establishment count is available for industries 3229 and 3231 . Combined establishment count for industries 3229 and 3231 in 1954: 1,146 establishments; with 20 or more employees: 310.
table 2. General Statistics, by Geographic Areas: 1963 and 1958


See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| West North Central. Missouri. | INDUSTRY 3231.-PRODUCTS OF PURCHASED GLASS-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 5025 | 74 | 461 | $\begin{aligned} & 2,309 \\ & 1,299 \end{aligned}$ | $\begin{aligned} & 354 \\ & 199 \end{aligned}$ | $\begin{aligned} & 671 \\ & 373 \end{aligned}$ | $\begin{array}{r} 1,503 \\ 889 \end{array}$ | $\begin{aligned} & 4,945 \\ & 2,358 \end{aligned}$ | $\begin{aligned} & 5,471 \\ & 1,579 \end{aligned}$ | $\begin{array}{r} 10,396 \\ 3,937 \end{array}$ | $\begin{aligned} & 334 \\ & 167 \end{aligned}$ | 389231 | $\begin{aligned} & 3,237 \\ & 2,002 \end{aligned}$ |
|  |  |  | 255 |  |  |  |  |  |  |  |  |  |  |
| South Atlantic.... | 95 | 29 | 2,656 | 10,719 | $\begin{array}{r} 2,197 \\ 283 \end{array}$ | $\begin{array}{r} 4,487 \\ 546 \end{array}$ | $\begin{aligned} & 7,880 \\ & 1,018 \end{aligned}$ | $\begin{array}{r} 20,397 \\ 2,029 \end{array}$ | $\begin{array}{r} 34,461 \\ 1,276 \end{array}$ | $\begin{array}{r}54,647 \\ 3,331 \\ \hline 1626\end{array}$ | 118 | 2,629$(2)$ | 16,898 |
| Maryland......... | 15 | 2 | 315 | 1,212 |  |  |  |  |  |  |  |  | $(2)$4,647 |
| Virginia......... | 9 | 7 | 600 | 2,453 | $\begin{aligned} & 283 \\ & 487 \end{aligned}$ | 990 | 1,558 | 4,534 | 11,631 | 16,269 | 203 | 585 |  |
| West Virginia.... | 20 | 6 | 370 | 1,247 | 299 | 6581,445 | 1,049 | 2,677 | 2,119 | 4,755 | 59240 | 804 | 1,813 |
| North Carolina... | 14 | 6 | 827 | 3,610 | 711 |  | 2,853 | 6,616 | 13,085 | 19,440 |  | 833 |  |
| Georgia.......... | 6 | 3 | 206 | 914 | 142 | 299 | 2,454 | 1,948 | 2,521 | $\begin{aligned} & 4,310 \\ & 6,153 \end{aligned}$ | $\begin{aligned} & 24 \\ & 88 \end{aligned}$ | $\left.{ }^{2}\right)$ | $(2)$2,568 |
| Florida.......... | 27 | 4 | 296 | 1,115 | 242 | 481 | 821 | 2,319 | 3,703 |  |  |  |  |
| Mountain. . . . . . . . . | 14 | 3 | 130 | 648 | 108 | 214 | 393 | 1,190 | 1,245 | 2,449 | 64 | 68 | 449 |
| Pacific........... | 146 | 23 | 1,740 | 9,658 | $\begin{aligned} & 1,359 \\ & 1,261 \end{aligned}$ | $\begin{aligned} & 2,745 \\ & 2,545 \end{aligned}$ | $\begin{aligned} & 6,899 \\ & 6,451 \end{aligned}$ | $\begin{aligned} & 21,849 \\ & 20,753 \end{aligned}$ | $\begin{aligned} & 19,368 \\ & 18,176 \end{aligned}$ | $\begin{aligned} & 41,061 \\ & 38,789 \end{aligned}$ | $\begin{aligned} & 1,933 \\ & 1,625 \end{aligned}$ | $\begin{aligned} & 1,320 \\ & 1,226 \end{aligned}$ | 9,8398,927 |
| California....... | 121 | 22 | 1,624 | 9,088 |  |  |  |  |  |  |  |  |  |
| All other divisions | 59 | 9 | 992 | 3,816 | $\begin{aligned} & 851 \\ & 204 \end{aligned}$ | $\begin{array}{r} 1,706 \\ 420 \end{array}$ | $\begin{array}{r} 3,069 \\ 847 \end{array}$ | $\begin{aligned} & 9,850 \\ & 2,671 \end{aligned}$ | $\begin{aligned} & 7,928 \\ & 1,540 \end{aligned}$ | $\begin{array}{r} 17,756 \\ 4,190 \end{array}$ | $\begin{array}{r} 1,011 \\ 263 \end{array}$ | $\begin{aligned} & 596 \\ & 161 \end{aligned}$ | $\begin{aligned} & 3,903 \\ & 1,070 \end{aligned}$ |
| Texas. | 28 | 4 | 247 | 1,064 |  |  |  |  |  |  |  |  |  |

${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 321l, Flat Glass: East North Central-Ohio, 4 (4,143); Indiana, 2 (250-499); Illinois, 2 (500-999); Michigan, 1 (1,000-2,499); Missouri, 2 (1,000-2,499); South Atlantic-Maryland, 1 (500-999); East South Central-Tennessee, 3 (2,500-4,999); West South Central-Arkansas, 1 (250-499); Iouisiana, 1 (500-999); Oklahoma, 2 ( $1,000-2,499$ ) ; Pacific-California, 1 (20-99).
SIC 3221, Glass Containers: New England-Connecticut, 1 (100-249); Middle Atlantic-New York, 7 (1,000-2,499); New Jersey, 13 (9,395); East North Central-Ohio, 2 ( $1,000-2,499$ ); Indiana, $9(6,586)$; Michigan, $2(2,099)$; West North Central-Minnesota, $2(2,500-4,999)$; South Atlantic- West
Virginia, 6 ( 4,213 ); North Carolina, 3 (250-499); South Carolina, 1 (500-999); Georgia, 2 (1,000-2,499); Florida, 2 (500-999); East South
Central-Tennessee, l (500-999); Alabama, 1 (250-499); Mississippi, 2 (500-999); West South Central-Arkansas, 1 (100-249); Louisiana, 2 (250-499); Oklahoma, 5 (1,000-2,499); Texas, 3 (1,000-2,499); Mountain-Arizona, 1 (1-19); Pacific-Washington, 1 (250-499); Oregon, 1 (250-499); California, 16 (5,000-9,999).
SIC 3229, Pressed and Blown Glass, n.e.c.: New England-Rhode Island, 2 ( $1,000-2,499$ ); Middle Atlantic-New York, 8 (2,500-4,999); New Jersey, 3 (1,842); East North Central-Ohio, 19 ( 10,000 and over); Indiana, 4 (1,101); Illinois, 2 (100-249); Michigan, 1 (500-999); South Atlantic-Virginia,
1 (250-499); West Virginia, 34 ( 6,946 ) ; North Carolina, 1 ( $1,000-2,499$ ); South Carolina, $2(1,000-2,499$ ); East South Central-Kentucky, 4 (1,000-
2,499) ; Tennessee, l (250-499); Mississippi, l (20-99); West South Central-Arkansas, 1 (100-249); Oklahoma, 3 (500-999); Texas, 1 (1-19).
SIC 3231, Products of Purchased Glass: New England-Maine, 1 (20-99); New Hampshire, 3 (20-99); Rhode Island, 8 (20-99); West North Central-
Minnesota, 16 (100-249); Iowa, 2 (1-19); Nebraska, 2 (1-19); Kansas, 5 (20-99); South Atlantic-Delaware, 2 (20-99); District of Columbia, 1(1-19);
South Carolina, 1 (1-19); East South Central-Kentucky, 5 (20-99); Tennessee, 10 (466); Mississippi, 2 (100-299); West South Central-Arkansas, 4
(20-99); Louisiana, 5 (1-19); Oklahoma, 5 (20-99); Mountain-Colorado, 7 (20-99); New Mexico, 2 (1-19); Arizona, 2 (20-99); Utah, 3 (1-19);
Pacific-Washington, 7 (20-99); Oregon, 12 (20-99); Hawaii, 6 (20-99).
${ }^{2}$ This state or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

| Item | Flat glass (SIC 3211) | Glass containers (SIC 3221) | Pressed and blown glass, n.e.c. (SIC 3229) | Products of purchased glass (SIC 3231) |
| :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio ${ }^{1}$. Coverage ratio ${ }^{3}$. | ${ }^{2} \cdot 90$ | .99 99 | .96 | ${ }^{2} .90$ |
|  | 31 3 4 26 | 113 8 2 103 | 107 12 21 74 | 1,044 795 195 54 |
|  | 22,815 172,214 | 59,987 327,956 | r 5 37,999 207,292 | $\begin{array}{r} 562 \\ 26,158 \\ 138,275 \end{array}$ |
| Production workers: |  |  |  |  |
| Average for the year. <br> March..................................................................................................... | 19,440 | 53,476 51,909 | 33,057 32,575 | 21,669 20,818 |
| May... | 18,853 | 54,070 | 32,575 32,90 | 20, 2174 |
| August.... | 19,659 | 56,384 | 33,140 | 22, 087 |
| November.. | 20,652 | 51,547 | 33,707 | 22,424 |
| Man-hours......................................................1, 000. . | 39,704 | 107,055 | 64,855 | 43,384 |
| January-March.................................................do. | 9,365 | 25,742 | 15,534 | 10,465 |
| April-June.............................................. do | 9,604 | 27,499 | 16,424 | 10,902 |
| July-September............................................. ${ }^{\text {do }}$ | 9,939 | 28,172 | 16,481 | 10, 872 |
| October-December | 10,796 | 25,642 | 16,416 | 11,145 |
| Wages...................................................... $\$ 1,000 .$. | 143,752 | 278,691 | 167,921 | 103, 890 |
| Cost of materials, etc., total..................................do.. | 185, 879 | 392, 541 | 167,473 | 320,339 |
| Materials, parts, containers, and supplies consumed...........do. | 146,029 | 315,938 | 130, 544 | 281,018 |
| Cost of resales |  | 20, 302 | 4,377 | 28, 276 |
| Fuels consumed. | 20,615 | 40,798 | 23,640 | 4,840 |
| Electric energy: |  |  |  |  |
| Purchased: |  |  |  |  |
| Quantity.................................................................................... Cost.. million hw.-hrs. | 883 7,087 | 1,731 15,170 | 876 8,192 | 276 3,709 |
| Generated less sold.............................million kw.-hrs.. | (D) | 28 | - | (D) |
| Contract work...............................................\$1,000.. | (D) | 333 | 720 | 2,499 |
|  | 549,390 12,705 | $1,004,464$ 22,038 | 630,945 5,843 | $\begin{gathered} 627,327 \\ 31,028 \end{gathered}$ |
| Value added by manufacture, adjusted............................do. | 364,466 | 629,608 | 472, 212 | 309, 734 |
| Manufacturers ' inventories: |  |  |  |  |
| Beginning of year, total.................................... ${ }^{\text {do.. }}$ | 71,489 | 120, 575 | 85,544 | 85, 208 |
| Finished products. | 21,019 | 87,607 | 49,638 | 40,456 |
| Work-in-process........ | 16,854 | 1,406 | 13,576 | 15,868 28,884 |
| Materials, supplies, fuel, etc..............................do.. | 33,616 | 31,562 | 22,330 | 28,884 |
| End of year, total...........................................d. ${ }^{\text {do. }}$ | 72,669 | 137, 349 | 95,358 | 88,888 |
| Finished products. | 21,612 | 105,410 | 57,215 | 43, 044 |
| Work-in-process........................................ ${ }^{\text {d }}$ | 17, 216 | 1,288 | 14,739 | 16,026 |
| Materials, supplies, fuel, etc............................do... | 33,841 | 30,651 | 23,404 | 29,819 |
| Expenditures for plant and equipment, total.....................do. | 28,866 | 54,043 | 23,493 | 14,982 |
| New, total.....................................................do. | 28, 244 | 53,805 | 22,664 | 13,223 |
| New structures and additions to plant......................do. | 5,106 | 13,495 | 6,233 | 2,932 |
| New machinery and equipment.................................do.... | 23,138 | 40,310 | 16,431 | 10, 291 |
| Used plant and equipment.....................................do.. | 622 | 238 | 829 | 1,759 |
| Selected operating ratios: |  |  |  |  |
| Payroil/Total employment. ......... | 7,548 | 5,467 | 5,455 | 5,286 |
| Production workers/Total employment | . 85 | . 89 | . 87 | . 83 |
| Man-hours/Production workers | 2,042 | 2,002 | 1,962 | 2,002 |
| Production worker wages/Man-hours....... | 3.62 | 2.60 | 2.59 | 2.39 |
| Cost of materials and payrolls/Total value of shipme | . 65 | . 72 | . 59 | . 73 |
| Cost of materials/Total value of shipments. | . 34 | . 39 | . 27 | . 51 |
| Adjusted value added/Total employment. | 25,975 | 10,496 | 12,427 | 21,841 |
| Salaries and wages/Adjusted value added.............................. | . 47 | . 52 | . 44 | . 45 |

[^45][^46]TAbLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & \text { 2,500 } \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3211. -FLAT GLASS |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 1 |  | 2 | 2 | 1 | 7 | 10 | 8 |  |
|  |  |  |  |  |  |  |  | 7 | 10 |  | - |
| Total...................... . do. . . . | 22,815 | - | 352 | - | (D) | (D) | (D) | 2,620 | 6,944 | 12,899 | - |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 172,214 | - | 2, $\frac{096}{5,250}$ | - | (D) | (D) | (D) | 17,110 | 52,459 | 100,549 |  |
| Value added, adjusted.......do.... | 364,466 | - | 5,250 | - | (D) | (D) | (D) | 30,276 | 110,185 | 218,755 |  |
| Value of shipments..........do.... | 549,390 | - | 8,437 | - | (D) | (D) | (D) | 40,760 | 154,674 | 345,519 | - |
| Capital expenditures, new...do.... | 28,244 | - | 117 | - | (D) | (D) | (D) | 1,989 | 14,781 | 11,357 | - |
|  | INDUSTRY 3221. -GLASS CONTAINERS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 113 | 5 | 2 | 1 | 1 | 1 | 22 | 43 | 22 | 13 | 3 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total..................... . do.... | 59,987 | 137 | (D) | (D) | (D) | (D) | 4, 108 | 14,606 | 16,340 | 17,050 | 7,746 |
| Payroll. . . . . . . . . . . . . . $\$ 1,000$. . | 327,956 | 892 | (D) | (D) | (D) | (D) | 21,473 | 80,851 | 89,545 | 90,859 | 44,336 |
| Value added, adjusted.......do.... | 629,608 |  | (D) | (D) | (D) | (D) | 40,387 | 171,109 | 174,541 | 148,924 | 94,626 |
| Value of shipments..........do... | 1,004,464 |  | (D) | (D) | (D) | (D) | 72,066 | 281,574 | 266,921 | 246,356 | 136,441 |
| Capital expenditures, new...do.... | 53,805 | ${ }^{1} \underline{1} \frac{1,3,388}{}$ | (D) | (D) | (D) | (D) | 4,702 | 18,558 | 9,015 | 6,964 | 1,228 |
|  | INDUSTRY 3229.-PRESSED AND BLOWN GLASS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments............. . . number. . | 107 | 2 | 4 | 6 | 11 | 10 | 34 | 15 | 15 | 10 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total..................... do.... | 37,999 | 37 | (D) | 92 | 361 | 689 | 5,522 | 5,375 | 10,339 | 15,584 | - |
| Payroll. . . . . . . . . . . . . . \$1,000.. | 207,292 | 181 | (D) | 423 | 1,739 | 3,522 | 27,131 | 28,832 | 57,018 | 88,446 | - |
| Value added, adjusted.......do.... | 472,212 | $\frac{292}{385}$ | (D) | 560 | 3,005 | 8,568 | 51,461 | 61,471 | 170,088 | 176,767 | - |
| Value of shipments...........do.... Capital expenditures, new...do.... | 630,945 | 385 | (D) | 845 | 3,949 | 11,327 | 68,424 | 82,461 | 220,714 | 242,840 | - |
|  | 22,664 | 69 | (D) | 8 | 69 | 159 | 2,144 | 2,936 | 8,090 | 9,189 | - |
|  | INDUSTRY 3231.-PRODUCTS OF PURCHASED GLASS |  |  |  |  |  |  |  |  |  |  |
| Establishments............ . . number. . | 1,044 | 459 | 177 | 159 | 130 | 65 | 41 | 8 | 4 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total. . . . . . . . . . . . . . . . . . do. . . . | 26,158 | 852 | 1,161 | 2,176 | 4,133 | 4,719 | 6,259 | 2,894 | 3,964 | (D) | - |
| Payroll.................. $\$ 1,000$. . | 138,275 | 3,560 | 5,428 | 10,507 | 19,386 | 22,390 | 30,612 | 18,161 | 28,231 | (D) | - |
| Value added, adjusted.......do.... | 309,734 | 8,182 | 10,382 | 18,306 | 34,953 | 41,758 | 62,594 | 46,588 | 86,971 | (D) | - |
| Value of shipments..........do.... | 627,327 | 13,159 | 19,758 | 34,836 | 71,192 | 78,556 | 129,503 | 107,646 | 172,677 | (D) | - |
| Capital expenditures, new...do.... | 13,223 | 713 | 821 | 1,372 | 1,521 | 2,558 | 2,538 | 1,252 | 2,448 | (D) | - |

## - Represents zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
${ }^{1}$ Includes capital expenditures for plants under construction but not in operation which constitute approximately $\$ 2-5$ million of the total for the size class.

## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for ag industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{Ind. code} \& \multirow{3}{*}{Industry and census year} \& \multicolumn{5}{|c|}{Value of shipments} \& \multicolumn{4}{|c|}{Value of primary product shipments} \\
\hline \& \& Total
\[
(\$ 1,000)
\] \& Primary products
\[
(\$ 1,000)
\] \& Secondary products
\[
(\$ 1,000)
\] \& Miscellaneous receipts
\[
(\$ 1,000)
\] \& \begin{tabular}{l}
Primary product specialization ratio
\[
\frac{\mathrm{Col} \cdot \mathrm{~B}}{\mathrm{Col}}
\] \\
Col. B+C \\
(percent)
\end{tabular} \& \begin{tabular}{l}
Total, made in all industries \\
\((\$ 1,000)\)
\end{tabular} \& Made in this industry
\[
(\$ 1,000)
\] \& \begin{tabular}{l}
Made in other industries \\
\((\$ 1,000)\)
\end{tabular} \& \begin{tabular}{l}
Coverage ratio \\
Col. B Col. F (percent)
\end{tabular} \\
\hline \& \& A \& B \& C \& D \& E \& F \& G \& H \& 1 \\
\hline 3211 \& Flat glass.......................... 1963.. \& \[
\begin{aligned}
\& 549,390 \\
\& 384,711
\end{aligned}
\] \& \[
\begin{aligned}
\& \text { (D) } \\
\& \text { (D) }
\end{aligned}
\] \& \begin{tabular}{l}
(D) \\
(D)
\end{tabular} \& \[
\begin{array}{r}
13,029 \\
2,369
\end{array}
\] \& 190
190 \& 2733,104
2546,991 \& \begin{tabular}{l}
(D) \\
(D)
\end{tabular} \& \[
\begin{aligned}
\& \text { (D) } \\
\& \text { (D) }
\end{aligned}
\] \& \begin{tabular}{l}
(D) \\
(D)
\end{tabular} \\
\hline 3221 \& Glass containers.................... 1963.. \& \(1,004,464\)
862,117 \& \[
\begin{aligned}
\& 973,254 \\
\& 836,776
\end{aligned}
\] \& \[
\begin{aligned}
\& 7,514 \\
\& 9,868
\end{aligned}
\] \& \[
\begin{aligned}
\& 23,696 \\
\& 15,473
\end{aligned}
\] \& 99
99 \& \[
\begin{aligned}
\& 982,382 \\
\& 841,560
\end{aligned}
\] \& \[
\begin{aligned}
\& 973,254 \\
\& 836,776
\end{aligned}
\] \& \[
\begin{aligned}
\& 9,128 \\
\& 4,784
\end{aligned}
\] \& \[
\begin{aligned}
\& 99 \\
\& 99
\end{aligned}
\] \\
\hline 3229 \& Pressed and blown glass, n.e.c...1963.. \& \[
\begin{aligned}
\& 630,945 \\
\& 445,361
\end{aligned}
\] \& \[
\begin{aligned}
\& 599,657 \\
\& 431,911
\end{aligned}
\] \& \[
\begin{array}{r}
22,776 \\
8,668
\end{array}
\] \& \[
\begin{aligned}
\& 8,512 \\
\& 4,782
\end{aligned}
\] \& 96
98 \& \[
\begin{aligned}
\& 615,126 \\
\& 447,997
\end{aligned}
\] \& \[
\begin{aligned}
\& 599,657 \\
\& 436,518
\end{aligned}
\] \& \[
\begin{aligned}
\& 15,469 \\
\& 11,479
\end{aligned}
\] \& 97
97 \\
\hline 3231 \& Products of purchased glass.......1963.. \& \[
\begin{aligned}
\& 627,327 \\
\& 468,809
\end{aligned}
\] \& \[
\begin{array}{r}
\text { (D) } \\
430,703
\end{array}
\] \& \[
\begin{array}{r}
\text { (D) } \\
10,607
\end{array}
\] \& \[
\begin{array}{r}
38,738 \\
27,499
\end{array}
\] \& \[
\begin{array}{r}
190 \\
98
\end{array}
\] \& \[
\begin{aligned}
\& 2729,287 \\
\& 2533.145
\end{aligned}
\] \& (D)

4 \& \[
$$
\begin{array}{r}
\text { (D) } \\
102,442
\end{array}
$$

\] \& | (D) |
| :--- |
| 81 | <br>

\hline
\end{tabular}

NOTE: See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
n.e.c. Not elsewhere classified
${ }^{1}$ This is a minimum percentage. The exact percentage cannot be shown without disclosing figures for individual companies.
${ }^{2}$ Includes laminated glass (product classes 32113 and 32313 ) which is primary to industry 3211 when made by primary glass producers, and industry 3231 when made from purchased glass. Separate totals withheld to avoid disclosing figures of individual companies.

## table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the tota! value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Includes totals for laminated glass (product classes 32113 and 32313 ) which is primary to industry 3211 when made by primary glass producers, and industry 3231, when made from purchased glass. Separate totals are withheld to avoid disclosing figures for individual companies.
${ }^{2}$ Industry 3229, Pressed and Blown Glass, N.E.C., had shipments totaling over $\$ 2$ million. The exact figure is withheld to avoid disclosing figures for individual companies.
${ }^{3}$ Includes the following product class which totaled $\$ 2$ million or more but are withheld to avoid disclosing individual company figures-26530, Corrugated and solid fiber boxes.
${ }^{4}$ Includes $\$ 3$ million shipped by industry 3221, Glass Containers; and $\$ 7$ million shipped by industry 3296 , Mineral Wool.
${ }^{5}$ Includes the following product classes which totaled $\$ 2$ million or more, but are withheld to avoid disclosing individual company figures- 32210 , Glass containers; 36343, Other small household electrical appliances; 36422, Commercial and institutional type electric fixtures; and 36423 , Industrial type electric fixtures.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


See footnotes at end of table.

TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


[^47]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


## TABLE 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  | Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |  |  | Production | Unit value |
| 3211 | Flat glass ${ }^{1}$........................ $1963 .$. | 139 98 | $\begin{aligned} & 107 \\ & 112 \end{aligned}$ | 322 | Pressed and blown glassware.......1963.. ${ }_{\text {1958.. }}$ | 131 104 | 116 |
|  | Sheet (window) glass (not rolled) |  |  | 3221 | Glass containers........................ $1963 .$. | 141 | 111 |
| 32111 | Sheet (window) glass (not rolled) <br> including colored.......................... 1963. . | 120 86 | 118 108 | 3229 | Pressed and blown glass, n.e.c. ${ }^{2}$..... $1963 .$. | $(2)$ $(2)$ | $(2)$ $(2)$ |
|  |  |  |  | 32291 | Table, kitchen, art, and novelty glassware.................................. . 1963. . | 102 | 154 |
| and 32114 | Plate glass and other flat glass.......................................... . . 1963. . | 173 | 97 |  | 1958.. | 94 327 | 128 |
|  |  | 112 | 110 | 32293 | Textile type fiber...................1963.. 1958 | 327 193 | 82 91 |
|  | d glass, inclu |  |  | 3231 | Products of purchased glass ${ }^{2} \ldots . . \begin{array}{r}\text { 1963.. } \\ \text { 1958. }\end{array}$ | $(2)$ $(2)$ | $(2)$ $(2)$ |
| 32313 | glass................................... . 1963. | 120 | 112 | 32315 | Mirrors. . . . . . . . . . . . . . . . . . . . . . . . . . . . 1963. . | 182 | 98 |
|  | 1958. | 93 | 116 |  | 1958.. | 133 | 96 |

n.e.c. Not elsewhere classified.

Includes laminated glass made in industry 3211, Flat Glass, and industry 3231, Products of Purchased Glass.
${ }^{2}$ Not shown pending further review of data covering products not included below.
table 6C. Product Classes-Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963


## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963

In thousands of dollars. Statistics are shown for selected product classes which are economically
significant and which have production that is geographically dispersed, provided that the disper-
sion is not approximated by the data in the geographic table for the industry (table 2) and they sion is not approximated by the data in the geographic table for the industry (table 2) and they
are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.

${ }^{1}$ For the specified product classes, production of over $\$ 1$ million were reported for 1963 for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 32291, New York, Pennsylvania, Ohio, Indiana, Oklahoma, and California; 32292, Rhode Island, New York, Pennsylvania, Ohio, Indiana, Michigan, Kentucky, and Oklahoma; 32293, Phode Island, Pennsylvania, Ohio, Kansas, West Virginia, North Carolina, South Carolina, and Tennessee; 32294, Rhode Island, New York, New Jersey, Pennsylvania, Ohio, Indiana, Virginia, West Virginia, Kentucky, and Oklahoma; 32315, Connecticut, Illinois, Michigan, Tennessee, Mississippi, and Arkansas; 32316, Rhode Island, Virginia, and Tennessee.

## table 7A. Materials by Kind: 1963 and 1958

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost <br> $(\$ 1,000)$ | Quantity | Delivered cost <br> (\$1,000) |
|  |  |  | INDUSTRY 3211.-FLAT GLASS |  |  |  |
|  | Materials, containers, and supplies, total. |  | (x) | 146,029 | (x) | 94,234 |
| 281228 | Sodium carbonate (soda ash) (98-100\% $\mathrm{Na}_{2} \mathrm{CO}_{3}$ ) ...................... | Short tons..... | 398,757 | 13,524 | 248,348 | 9,096 |
| 144301 281976 | Glass sand, all types....................................................... | ...do............ | $1,880,629$ 67,624 | 8,595 2,141 | 1,348,968 | 6,048 |
| 281976 321121 | Sodium sulfate, including salt cake....................................................................................................... | i, 0000 s.......... | 67,624 87,569 | 2,141 18,952 | 49,275 (NA) | 1,719 |
| 321111 | Sheet glass....................................... . . . . . . . . . . . . . . . . . . . . . . | ...do............ | 15,166 | 2,587 | (NA) | (NA) |
| 325501 | Refractories: <br> Clay. | Short tons...... | 14,428 | 2,622 | (NA) | (NA) |
| 329701 |  | ...do. | 9,807 | 1,641 | (NA) | (NA) |
| 265011 | Paper and paperboard containers, including folding, corrugated, and set-up. |  | (x) | 4,753 | (NA) | (NA) |
| 244011 | Wooden boxes and crates............................ . . . . . . . . . . . . . . . . |  | (X) | 7,902 | (X) | 10,338 |
| 970099 | Cullet (glass scrap).................................................... | 1,000 lbs | 998,149 | 7,472 | (NA) | (NA) |
|  | All other materials and components, parts, containers, and supplies consumed. |  | (X) | 75,840 | (X) | 67,033 |
|  |  |  | INDUSTRY 3221.-GLASS CONTAINERS |  |  |  |
|  | Materials, containers, and supplies, total.................... |  | ( X ) | 315,938 | (x) | 273,197 |
| 281228 | Sodium carbonate (soda ash) ( $98-100 \% \mathrm{Na}_{2} \mathrm{CO}_{3}$ ) | Short tons. | 1,623,890 | 58,082 | 1,258,695 | 44,711 |
| 144301 | Glass sand, all types......... | . .do. | 4,724,608 | 26,906 | 3,832,113 | 20,416 |
| 281976 | Sodium sulfate, including salt cake. | . .do. | - | - | 10,177 | 362 |
|  | Refractories: <br> Clay. |  |  |  |  |  |
| $\begin{aligned} & 325501 \\ & 329701 \end{aligned}$ | Clay. <br> Nonclay. | ...do........... | (S) | 2,739 3,078 | (NA) | (NA) (NA) |
| 265011 | Paperboard boxes and containers, including folding, corrugated, and set-up. |  | (x) | 100,472 | (X) | 85,783 |
| 970099 | All other materials and components, parts, containers, and supplies consumed. |  | (X) | 124,673 | (X) | 121,925 |
|  | Materials, containers, and supplies, total.................... |  | INDUSTRY 3229.-PRESSED AND BLOWN GLASS, N.E.C. |  |  |  |
|  |  |  | (X) | 130,544 | (x) | 104,081 |
| 281228 | Sodium carbonate (soda ash) (98-100\% $\mathrm{Na}_{2} \mathrm{CO}_{3}$ ) ....................... | Short tons..... . | 148,317 | 5,349 | 124,801 | 4,618 |
| 144301 | Glass sand, all types.................................................... | ...do. | 767,155 | 5,783 | 505,842 | 4,163 |
| 281976 | Sodium sulfate, including salt cake.................................... | ...do............ | 14,479 | 926 | (NA) | (NA) |
| 321121 | Plate glass............................................................... |  |  |  |  |  |
| 321111 | Sheet glass........................................................... | ...do............ | (X) | 1,231 | (NA) | 4,734 |
| 322901 | Other glass products...................... |  |  |  |  |  |
|  | Refractories: |  |  |  |  |  |
| 325501 | Clay... | Short tons...... | 7,967 | 1,723 | (NA) | (NA) |
| 329701 | Nonclay. | ...do. | (S) | 1,131 | (NA) | (NA) |
| 265011 | Paper and paperboard containers including folding, corrugated, and set-up. |  | (X) | 23,613 | (X) | 17,643 |
| 244011 | Wooden boxes and crates............................................... |  | (X) | 628 | (NA) | (NA) |
| 999816 | Cullet (glass scrap)..................................................... | 1,000 lbs....... | 417,593 | 6,425 | (NA) | (NA) |
| 970099973000 | All other materials and components, parts, containers, and supplies consumed. |  | (X) | 83,735 | (X) | 67,924 |
|  | All other materials, containers, and supplies, n.s.k.............Materials, containers, and supplies, total................... |  | (X) | - | - | 4,999 |
|  |  |  | INDUSTRY 3231.-PRODUCTS OF PURCHASED GLASS |  |  |  |
|  |  |  | (x) | 281,018 | (x) | 199,597 |
| 321121 | Plate glass. | 1,000 sq. ft.... | 293,675 | 104,865 | 262,085 | 79,363 |
| 321111 | Sheet glass: <br> Quantity reported. <br> Quantity not reported | ...do........... | $\begin{array}{r} 255,939 \\ (\mathrm{X}) \end{array}$ | $\begin{array}{r} 47,930 \\ (\mathrm{X}) \end{array}$ | $\begin{array}{r} 144,917 \\ (\mathrm{X}) \end{array}$ | $\begin{array}{r} 17,894 \\ 6,464 \end{array}$ |
| 322911 | Glass tumblers, stemware, and other tableware. |  | (X) | 3,871 | (x) | 5,137 |
| 322901 | Other glass products..................................................... . |  | (X) | 14,721 | (x) | 10,155 |
| 265011 | Paper and paperboard containers including folding, corrugated, and set-up. |  | (x) | 4,518 | (X) | 5,54,4 |
| 244011 | Wooden boxes and crates.............................................. |  | (X) | 3,490 | (NA) | (NA) |
| 970099 | All other materials and components, parts, containers, and supplies consumed. |  | (x) | 72,594 | (x) | 55,209 |
| 973000 | Materials, containers, and supplies, n.s.k. ${ }^{1}$........................ |  | (X) | 29,029 | (x) | 19,831 |

[^48]
## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Flat glass (SIC 3211) | Glass Containers (SIC 3221) | Pressed and blown glass, n.e.c. (SIC 3229) | Products of purchased glass (SIC 3231) |
| :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy............\$1,000.. | 23,576 | 55,760 | 30,425 | 8,052 |
| Total cost of purchased fuels................................. do.... | 16,698 | 41,048 | 22,361 | 3,682 |
| Bituminous coal, lignite, and anthracite: <br> Quantity. | 337 | 71 | (S) | 93 |
| Cost..................................................... $\$ 1,000 .$. | 2,334 | 548 | (S) | 683 |
| Coke and breeze: |  |  |  |  |
| Quantity................................................ 1,000 short tons. Cost........................................................................ . $\$ 1,000$. . | - | - | (S) | - |
| Fuel oil (distillate and residual): |  |  |  |  |
| Quantity..........................1, 000 barrels of 42 gallons.. | (S) | 1,527 | 329 | 89 |
| Cost......................................................... $\$ 1,000 .$. | (S) | 4,523 | 1,100 | 300 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |
| Quantity............................................million cu.ft.. | 32,728 | 80,774 | 39,533 | 3,797 |
| cost..................... . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 13,649 | 35,699 | 19,501 | 1,997 |
| Other fuels............... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 465 | 278 | 1,457 | 702 |
| Electric energy: |  |  |  |  |
| Purchased: |  |  |  |  |
| Quantity.........................................million kw.-hrs.. | 828 | 1,676 | 863 | 295 |
| cost......................................................... \$1,000.. $^{\text {. }}$ | 6,878 | 14,712 | 8,064 | 4,370 |
| Generated less sold...............................million kw.-hrs.. | 170 | 17 | - | 18 |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total............., $000 \mathrm{hp} .$. | 338 | 438 | 202 | 130 |
| Prime movers, total................................................ . ${ }^{\text {do. }}$ | 84 | 60 | 17 | 23 |
| Driving generators.............................................. . do. . . . | 66 | 11 | 5 | 19 |
| Not driving generators..........................................d. do.... | 18 | 49 | 12 | 4 |
| Electric motors, total............................................d. ${ }^{\text {do... }}$ | 287 | 382 | 185 | 114 |
| Driven by purchased energy....................................do..... | 255 | 378 | 185 | 107 |
| Driven by energy generated at establishment................ do.... | 32 | 4 | - | 7 |
| Aggregate horsepower per 100 production workers. | 1,769 | 821 | 610 | 567 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipmant as of Decembar 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specializa tion in products primary to their industry. The measures of plant specialization shown are (1) industry special ization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| $\begin{gathered} \text { Industry } \\ \text { or } \\ \text { product } \\ \text { class } \\ \text { code } \\ \hline \end{gathered}$ | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | $\begin{gathered} \text { Capital } \\ \text { expend- } \\ \text { itures, } \\ \text { new } \\ (\$ 1,000) \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3229- | PRESSED AND BLOWN GLASS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................... <br> Establishments with-- | 107 | 37,999 | 207,292 | 33,057 | 64,855 | 167,921 | 472,212 | 167,473 | 630,945 | 22,664 |
|  | 90\% of more specialization... | 93 | 33,604 | 185,922 | 29,128 | 57,073 | 150,000 | 395,893 | 146,898 | 535,495 | 20,369 |
| 32291 | Table, kitchen, art and novelty glassware(primary product class |  |  |  |  |  |  |  |  |  |  |
|  |  | 40 | 18,161 | 96,272 | 15,805 | 30,229 | 78,342 | 208,077 | 65,019 | 267,923 | 7,169 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization. ......... | $\begin{array}{r}23 \\ 8 \\ \hline\end{array}$ | $\begin{aligned} & 8,990 \\ & 3,560 \end{aligned}$ | $\begin{aligned} & 46,073 \\ & 18,044 \end{aligned}$ | $\begin{array}{r} 7,620 \\ 3,207 \end{array}$ | $\begin{array}{r} 13,992 \\ 6,161 \end{array}$ | $\begin{aligned} & 36,892 \\ & 14,576 \end{aligned}$ | $\begin{aligned} & 89,495 \\ & 70,240 \end{aligned}$ | $\begin{aligned} & 26,061 \\ & 18,302 \end{aligned}$ | $\begin{array}{r} 212,602 \\ 86,743 \end{array}$ | $\begin{aligned} & 2,394 \\ & 2,185 \end{aligned}$ |
| 32292 | Lighting and electronic glassware (primary product class of estab.) Establishments with-. | 40 | 10,720 | 61,169 | 9,438 | 18,529 | 50,169 | 163,315 | 51,192 | 213,623 | 6,599 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | 25 7 | 7,126 1,319 | 41,537 7,343 | 6,257 1,177 | $\begin{array}{r} 12,534 \\ 2,305 \end{array}$ | $\begin{array}{r} 34,330 \\ 6,030 \end{array}$ | $\begin{array}{r} 121,335 \\ 16,917 \end{array}$ | $\begin{array}{r} 35,987 \\ 5,383 \end{array}$ | $\begin{array}{r} 156,890 \\ 22,201 \end{array}$ | 5,146 466 |
| 32293 | ```Glass fiber (primary product class of estab.)......................... Establishments with--``` | 8 | 5,118 | 26,850 | 4,394 | 9,395 | 21,433 | 51,816 | 37,408 | 88,264 | 7,645 |
|  | 90\% or more specialization... | 8 | 5,118 | 26,850 | 4,394 | 9,395 | 21,433 | 51,816 | 37,408 | 88,264 | 7,645 |
| 32294 | Other pressed and biown glassware (primary product class of estab.) | 15 | 3,973 | 22,882 | 3,394 | 6,655 | 17,863 | 48,815 | 13,747 | 60,836 | 1,188 |

## CEMENT AND STRUCTURAL CLAY PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3241 --Cement, Hydraulic<br>3251-Brick and Structural Clay Tile<br>3253-Ceramic Wall and Floor Tile<br>3255-Clay Refractories<br>3259--Structural Clay Products, Not Elsewhere Classified

Establishments primarily engaged in manufacturing cement, brick, ceramic tile, clay refractories and other structural clay products included in their census of manufactures reports all of the activities at each establishment including the operation of mines, pits, or quarries at the same site. Selected data for mining and quarrying activities operated in conjunction with the manufacturing plant were reported separately in the 1963 Census of Manufactures by those establishments reporting on "standard forms" and are shown in tables 3 and 9 in this report, as well as in the 1963 reports for the census of mineral industries. "Small" establishments reporting on "short forms" were not required to report separate data for mining or quarrying done in conjunction with manufacturing. The limitations to the statistics resulting from this exclusion of "small" establishments is covered in the table footnotes.

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4 ) with product statistics (table 6 A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3241 --CEMENT, HYDRAULIC

This industry comprises establishments primarily engaged in manufacturing hydraulic cement, including portland, natural, masonry, and puzzolan cements. For a detailed list of products of industry 3241, refer to table 6A, product codes 3241011 to 3241051 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Cement, Hydraulic, Industry totaled $\$ 1,177$ million. This amount included shipments of hydraulic cement, including containers (primary products) valued at $\$ 1,158$ million, shipments of other products (secondary products)
valued at $\$ 10$ million, and miscellaneous receipts, at $\$ 9$ million. Virtually all of the hydraulic cement produced both in 1963 and 1958 was produced by plants classified in this industry.

This industry's shipments of hydraulic cement represented 99 percent of its total product shipments. The industry specialization ratio in 1958 was also 99 percent.

The production index for the primary products of the industry increased to 125 in 1963 from the 1958 level of 113 . The unit value index for 1963 was 117 compared to 116 in 1958. Both indexes were computed on a basis of $1954=100$.

In its annual report, Minerals Yearbook, the U.S. Department of the Interior, Bureau of Mines, publishes more detailed figures on the products listed in table 6A of this report. The variation between Bureau of Mines summary totals and the data appearing in this report are due to (1) inclusion of cost of containers and interplant transfers in Census Bureau figures and (2) differences in the reports submitted to the two agencies by individual companies.

## 3251 - BRICK AND STRUCTURAL CLAY TILE

This industry comprises establishments primarily engaged in manufacturing clay building brick, vitrified paving brick and hollow structural tile. Establishments primarily engaged in manufacturing clay firebrick are classified in industry 3255, Clay Refractories; nonclay firebrick in industry 3297, Nonclay Refractories; sand lime brick in industry 3299 , Nonmetallic Minerals, N.E.C.; and glass brick in industry 3229, Pressed and Blown Glass, N.E.C. For a detailed list of products of industry 3251, refer to table 6A, product codes 3251111 to 3251251 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Brick and Structural Tile Industry totaled $\$ 325$ million. This amount included shipments of brick and structural clay tile (primary products) valued at $\$ 303$ million, shipments of other products (secondary products) valued at $\$ 7$ million, and miscellaneous receipts, at $\$ 15$ million.

This industry's shipments of brick and structural clay tile represented 98 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent. Secondary products shipped by this industry in 1963 consisted mainly of structural clay products, n.e.c. (\$5 million).

Shipments of brick and structural tile by this industry represented 98 percent of all shipments of these products ( $\$ 308$ million) by all industries. In 1958, the coverage ratio was also 98 percent.

The production index for the primary products of the industry increased to 102 in 1963 from the 1958 level of 96 . The unit value index for 1963 was 125 compared to 115 in 1958. Both indexes were computed on a basis of $1954=100$.

Monthly data, including geographic information, are published on the production and shipments of brick (product code 3251111) and glazed brick and structural hollow tile (product codes 3251211,3251231 , and 3251251) in Current Industrial Reports series M32D, Clay Construction Products. The monthly survey is conducted on a sample basis and includes estimates for approximately 200 small establishments not included in the survey. The degree of estimation is shown in the monthly publications.

## 3253-CERAMIC WALL AND FLOOR TILE

This industry comprises establishments primarily engaged in manufacturing ceramic mosaic tile, glazed wall tile, quarry tile, and other types of ceramic wall and floor tile. Establishments primarily engaged in manufacturing hollow structural tile and ceramic and salt glazed facing tile are classified in industry 3251, Brick and Structural Tile; drain tile in industry 3259, Structural Clay Products, N.E.C.; asphalt floor tile in industry 3292, Asbestos Products; rubber tile in industry 3069, Rubber Products, N.E.C.; cork wall and floor tile in industry 2499, Wood Products, N.E.C; and other hard surface floor coverings in industry 3982, Hard Surface Floor Coverings. China and earthenware bathroom accessories (towel racks, soap cups, etc.) are classified in industry 3261, Vitreous Plumbing Fixtures. For a detailed list of products of industry 3253, refer to table 6A, product codes 3253013 to 3253071 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Ceramic Wall and Floor Tile Industry totaled $\$ 165$ million. This amount included shipments of ceramic wall and floor tile (primary products) valued at $\$ 143$ million, shipments of other products (secondary products) valued at $\$ 7$ million, and miscellaneous receipts, at $\$ 15$ millior.

This industry's shipments of ceramic wall and floor tile represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent.

Shipments of ceramic wall and floor tile by this industry represented 99 percent of all shipments of these products ( $\$ 143$ million) by all industries. In 1958 the coverage ratio was also 99 percent.

The production index for the primary products of the industry increased to 157 in 1963 from the 1958 level of 127. The unit value index for 1963 was 98 compared to 106 in 1958. Both indexes were computed on a basis of $1954=100$.

Monthly data, including geographic information, are published on the production and shipments of ceramic wall and floor tile in Current Industrial Reports series M32D, Clay Construction Products. Estimates not exceeding 5 percent of total shipments are made for small establishments not included in the monthly survey.

## 3255-CLAY REFRACTORIES

This industry comprises establishments primarily engaged in manufacturing clay firebrick, refractory bonding mortars, and other heat-resisting clay products such as glass-house tank blocks, stoppers, floaters, and rings. Establishments primarily engaged in manufacturing nonclay refractories, as well as all graphite refractories whether of carbon bond or ceramic bond, are classified in industry 3297, Nonclay Refractories. For a detailed list of products of industry 3255 , refer to table 6A, product codes 3255011 to 3255094.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Clay Refractories Industry totaled $\$ 192$ million. This amount included shipments of clay refractories (primary products) valued at $\$ 168$ million, shipments of other products (secondary products) valued at $\$ 16$ million, and miscellaneous receipts, at $\$ 8$ million.

This industry's shipments of clay refractories represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary prod-
ucts shipped by this industry in 1963 consisted mainly of nonclay refractories ( $\$ 9$ million), and minerals and earths, ground or otherwise treated ( $\$ 2$ million).

Shipments of clay refractories by this industry represented 93 percent of all shipments of these products ( $\$ 181$ million) by all industries. In 1958 the coverage ratio was 92 percent. Other industries shipping clay refractories consisted mainly of industry 3297, nonclay refractories $\$ 8$ million.

The production index for the primary products of the industry increased to 123 in 1963 from the 1958 level of 94 . The unit value index for 1963 was 128 compared to 131 in 1958. Both indexes were computed on a basis of $1954=100$.

Quarterly data on the shipments of clay refractories are published in Current Industrial Reports series M32C, Refractories. The detailed product information for 1963 as it appears in table 6A of this report was obtained from the 1964 Annual Summary (M32C (64)-5) from this series. Since detailed product statistics are reported quarterly, manufacturers were required to report only total shipments of clay refractories in the census of manufactures. A comparison on the totals as reported in the quarterly survey and the census of manufactures appears in table 6A.

## 3259--STRUCTURAL CLAY PRODUCTS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing clay sewer pipe and kindred products made of clay, and structural clay products, n.e.c., such as architectural terra cotta, roofing tile, stove lining, flue lining, chimney pipes, thimbles and tops, wall coping, segment blocks, drain tile and adobe brick. Establishments primarily engaged in manufacturing concrete sewer pipe are classified in industry 3272 , Other Concrete Products; cast iron pipe in industry 3321, Gray lron Foundries; and plastic pipe in industry 3079, Plastics Products, N.E.C. For a detailed list of products of industry 3259 , refer to table 6A, product codes 3259111 to 3259298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Structural Clay Products, N. E. C., Industry totaled $\$ 160$ million. This amount included shipments of structural clay products, n.e.c. (primary products) valued at $\$ 135$ million, shipments of other products (secondary products) valued at $\$ 17$ million, and miscellaneous receipts, at $\$ 8$ million.

This industry's shipments of structural clay products, n.e.c., represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 97 percent. Secondary products shipped by this industry in 1963 consisted mainly of construction plastics products (\$12 million).

Shipments of structural clay products, n.e.c., by this industry represented 95 percent of all shipments of these products ( $\$ 141$ million) by all industries. In 1958 the coverage ratio was 94 percent. Other industries shipping structural clay products, n.e.c., consisted mainly of industry 3251 , Brick and Structural Tile, $\$ 5$ million.

The production index for the primary products of the industry increased slightly to 101 in 1963 from the 1958 level of 100. The unit value index for 1963 was 130 compared to 120 in 1958. Both indexes were computed on a basis of $1954=100$.

Monthly data, including geographic information, are published on the production and shipments of clay sewer pipe and fittings (product code 3259111) in Current Industrial Reports series M32D, Clay Construction Products.

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted <br> $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1963. | 55 | 188 | 179 | 34,863 | 227,385 | 28,719 | 57,579 | 173,891 | 785,681 | 388,747 | 1,176,913 | 120,843 | 99 | 100 |
| 1962 | (NA) | (NA) | (NA) | 35,520 | 220,948 | 29,698 | 59,072 | 171,076 | 771,830 | 360, 394 | 1,131,071 | 96,735 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 36,388 | 218,107 | 30,533 | 60,519 | 170,553 | 752,877 | 355,423 | 1,107,872 | 100,223 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 39,357 | 227,919 | 33,249 | 66,728 | 180,198 | 760,817 | 366,792 | 1,112,330 | 114,350 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 41,129 | 229,757 | 35,036 | 71,213 | 183,033 | 815,132 | 379,453 | 1,190,995 | 119,436 | (NA) | (NA) |
| 1958. | 62 | 175 | 170 | 41,127 | 214,221 | 34,780 | 69,481 | 170,156 | 724,771 | 354,391 | 1,073,494 | 113,095 | 99 | 100 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 41,562 | 203,610 | 35,868 | 70,188 | 161,214 | 648,439 | 344,065 | 968,490 | 218,188 | 99 | 100 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 41,429 | 195,292 | 35,809 | 73,648 | 157,554 | 672,436 | 337,028 | 997,007 | 239,888 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 40,774 | 179,103 | 35,122 | 73,406 | 144,775 | 597,997 | 305,¢74 | 900,086 | 139,493 | (NA) | (NA) |
| 1954. | 67 | 162 | 160 | 39,769 | 167,659 | 34,036 | 70,839 | 134,777 | 525,667 | 285,388 | 814,923 | 73,015 | 99 | 100 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 37,785 | 156,164 | 31,802 | 67,514 | 123,199 | 464,463 | 284,155 | 748,618 | 68,866 | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 39,429 | 152,178 | 33,418 | 70,507 | 119,685 | 445,834 | 273,060 | 718,894 | 44,815 | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 39,746 | 141,991 | 33,706 | 70,471 | 111,764 | 427,251 | 265,023 | 692,274 | 41,769 | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 38,205 | 127,426 | 32,675 | 68,677 | 100,202 | 391,216 | 225,362 | 616,550 | 50,804 | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 35,613 | 113,823 | 30,327 | 64,041 | 90,838 | 302,591 | 211,974 | 514,565 | 44,948 | (NA) | (NA) |
| 1947. | 73 | 155 | (NA) | 35,662 | 98,626 | 30,639 | 66,341 | 79,861 | 247,936 | 160,992 | 408,928 | 42,488 | 100 | 100 |
| 1939. | (NA) | 160 | (NA) | 28,197 | 42,583 | 23,801 | (NA) | 31,588 | 124,081 | 68,530 | 129,611 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 158 | (NA) | 29,130 | 40,741 | 26,426 | (NA) | 34,070 | 113,222 | 69,979 | 183,201 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 153 | (NA) | 23,311 | 27,486 | 20,698 | (NA) | 20,904 | 77,328 | 43,089 | 120,417 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 148 | (NA) | (NA) | (NA) | 15,829 | (NA) | 13,870 | 59,989 | 26,932 | 86,921 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 164 | (NA) | (NA) | (NA) | 24,317 | (NA) | 29,884 | 92,747 | 56,098 | 148,845 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 174 | (NA) | 38,752 | 62,834 | 33,368 | (NA) | 48,849 | 172,267 | 95,242 | 267,509 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 161 | (NA) | 42,878 | 69,442 | 36,322 | (NA) | 53,111 | 173,553 | 120,012 | 293,565 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 125 | (NA) | 45,033 | 68,658 | 38,437 | (NA) | 53,912 | 186,726 | 114,169 | 300,895 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 133 | (NA) | 40,537 | 60,940 | 35,091 | (NA) | 49,708 | 163,331 | 100,767 | 264,098 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 125 | (NA) | 30,891 | 44,958 | 26,231 | (NA) | 34,416 | 101,267 | 102,360 | 203,627 | (NA) | (NA) | (NA) |
| 1919. | (NA) | 123 | (NA) | 30,238 | 42,691 | 25,524 | (NA) | 33,195 | 95,755 | 79,510 | 175,265 | (NA) | (NA) | (NA) |
| 1914. | (NA) | 133 | (NA) | 31,948 | 24,258 | 27,916 | (NA) | 18,192 | 49,769 | 51,987 | 101,756 | (NA) | (NA) | (NA) |
| 1909. | (NA) | 135 | (NA) | 29,494 | 18,973 | 26,775 | (NA) | 15,320 | 33,861 | 29,344 | 63,205 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 129 | (NA) | 18,861 | 10,672 | 17,478 | (NA) | 8,814 | 17,658 | 12,215 | 29,873 | (NA) | (NA) | (NA) |

INDUSTRY 3251.-BRICK AND STRUCTURAL TILE

| $1963{ }^{2}$ | 401 | 512 | 400 | 28,620 | 130,378 | 24,665 | 51,237 | 102,597 | 216,548 | 106,012 | 325,093 | 19,344 |  | 98 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 33,104 | 139,467 | 28,799 | 58,940 | 110,129 | 237,969 | 164,826 | 400,232 | 15, 677 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 33,977 | 136,154 | 29,666 | 59,487 | 108,252 | 225,153 | 150,945 | 370,490 | (19,878 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 34,158 | 135,412 | 29,468 | 59,144 | 107,315 | 214,943 | 151,600 | 359,666 | (13,832 | (NA) | (NA) |
| 19591 | (NA) | (NA) | (NA) | 34,116 | 135,916 | 29,768 | 61,330 | 108,467 | 226,128 | 119,575 | 342,547 | (19,953 | (NA) | (NA) |
| 1958. | 468 | 569 | 430 | 31,087 | 122,868 | 26,955 | 55,316 | 97,196 | 196,890 | 89,410 | 286,709 | 14,023 | 96 | 98 |
| $1957{ }^{1}$ | (NA) | (NA) | ( NA ) | 31,587 | 121,452 | 28,008 | 56,213 | 97,856 | 184,668 | 75,604 | 253,837 | (s) | 95 | 97 |
| 19561 | (NA) | (NA) | (NA) | 35,288 | 135,521 | 31,670 | 65,741 | 110,014 | 214,868 | 81,930 | 284,482 | (s) | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 33,757 | 125,327 | 30,149 | 65,661 | 104,058 | 210,509 | 77,088 | 289,133 | (NA) | (NA) | (NA) |
| 1954 | 510 | 610 | 459 | 32,426 | 114,740 | 28,751 | 61,048 | 93,114 | 184,017 | 77,404 | 262,590 | 16,233 | 96 | 98 |
| 19531 | (NA) | (NA) | (NA) | 30,269 | 105,155 | 26,855 | 56,996 | 83,478 | 161,764 | 58,444 | 220,208 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 33,636 | 108,484 | 30,536 | 64,070 | 88,471 | 154,278 | 55,863 | 210,740 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 35,506 | 112,520 | 32,623 | 69,547 | 93,718 | 156,035 | 68,773 | 225,407 | (NA) | (NA) | (NA) |
| 19501 | (NA) | (NA) | (NA) | 34,729 | 100,585 | 31,380 | 65,525 | 81,281 | 164,224 | 56,616 | 220,794 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 32,182 | 84,614 | 27,939 | 58,487 | 68,598 | 118,032 | 49,497 | 167,670 | (NA) | (NA) | (NA) |
| 1947. | 574 | 674 | (NA) | 29,617 | 69,399 | 27,002 | 58,367 | 59,876 | 110,867 | 37,640 | 144,497 | 13,266 | 95 | 97 |
| 1939. | (NA) | 800 | (NA) | 32,962 | 33,877 | 29,069 | (NA) | 26,349 | 55,684 | 22,469 | -78,153 | (NA) | (NA) | (NA) |
| 1937......... | (NA) | 781 | (NA) | (NA) | (NA) | 27,742 | (NA) | 24,685 | 45,887 | 20,014 | 65,901 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3253. -CRRAMIC WALL AND FLOOR TIIE |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 72 | 90 | 64 | 12,795 | 63,745 | 10,409 | 21,002 | 43,794 | 110,571 | 55,083 | 164,668 | 9,070 | 95 | 99 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 13,250 | 62,817 | 10,702 | 22,020 | 4, 372 | 120,222 | 56,882 | 173,436 |  | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 12,575 | 57,595 | 10,033 | 20,198 | 39,440 | 101,627 | 50,869 | 153,678 |  | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 13,765 | 61,311 | 11,095 | 22,966 | 43,852 | 106,939 | 52,387 | 157,600 | 5,558 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 14,372 | 63,756 | 11,659 | 24,031 | 47,432 | 112,618 | 54,230 | 163,498 | $(8,535)$ | (NA) | (NA) |
|  |  | 90 | 62 | 13,068 | 53,738 | 10,889 | 21,768 | 41,494 | 92,779 | 44,095 | 1.35,470 | 3,276 | 94 | 99 |
| $1958^{3}$ (old)... | (NA) | 86 | 58 | 12,482 | 51,350 | 10,387 | 20,747 | 39,696 | 88,442 | 43,178 | 130,300 | 3,091 | 93 | 99 |
| 1957¹... | (NA) | (NA) | (NA) | 11,409 | 47,879 | 9,437 | 18,661 | 36,234 | 81,653 | 32,823 | 112,929 | 8,839 | 91 | 99 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 13,129 | 54,020 | 11,248 | 22,570 | 42,357 | 95,761 | 37,618 | 126,518 | 7,743 | (NA) | (NA) |
| 1955 | (NA) | ( NA ) | (NA) | 12,325 | 48,452 | 10,445 | 21,134 | 37,781 | 90,841 | 33,708 | 124,449 | 5,493 | ( NA ) | (NA) |
|  |  |  | 40 | 11,265 | 43,488 | 9,627 | 19,706 | 33,718 | 71,501 | 26,727 | 100,025 | 4,579 | 91 | 99 |
| 1953 | (NA) | (NA) | (NA) | 10,411 | 38,719 | 8,707 | 18,123 | 29,755 | 60,400 | 23,357 | 83,757 | (NA) | (NA) | (NA) |
| 1952 | (NA) | (NA) | (NA) | 9,089 | 32,257 | 8,032 | 16,919 | 24,926 | 45,719 | 20,657 | 66,429 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 9,462 | 31,691 | 8,507 | 18,159 | 25, $31 / 1$ | 52,881 | 21,957 | 74,891 65,563 | (NA) | (NA) | (NA) (NA) |
| 1950 | (NA) | (NA) | (NA) | 9,008 | 26,301 | 8,120 | 17,121 | 21,640 | 46,673 | 18,837 | 65,563 | (NA) | (NA) | (NA) |

See footnotes at end of table.
table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3253. -CERAMLC WALL AND FLOOR TILE-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1949{ }^{1}$. | (NA) | (NA) | (NA) | 6,712 | 19,445 | 5,949 | 13,025 | 15,874 | 32,581 | 13,358 | 45,992 | (NA) | (NA) | (NA) |
| 1947. | 34 | 37 | 31 | 6,828 | 16,335 | 6,250 | 13,088 | 13,774 | 31,238 | 10,684 | 40,966 | 2,277 | 97 | 95 |
| 1939. | (NA) | 49 | (NA) | 6,434 | 7,523 | 5,681 | (NA) | 5,931 | 12,517 | 5,142 | 17,659 | (NA) | (NA) | (NA) |
| $1937{ }^{2}$ | (NA) | 37 | (NA) | (NA) | (NA) | 6,288 | (NA) | 6,531 | 11,762 | 5,324 | 17,086 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3255. -CLAY REFRACTORIES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 80 | 150 | 109 | 11,431 | 64,822 | 9,402 | 18,139 | 49,648 | 118,248 | 74,476 | 192,230 | 7,936 | 91 | 33 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 12,019 | 67,053 | 10,324 | 18,057 | 49,324 | 114,578 | 73,995 | 189,274 | 8,100 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 12,871 | 68,471 | 11,149 | 19,449 | 51,495 | 113,106 | 78,160 | 189,738 | 6,517 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 13,884 | 70,988 | 12,128 | 21,232 | 54,481 | 118,790 | 75,546 | 193,084 | 8,548 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 13,611 | 69,867 | 11, 825 | 21,237 | 52,958 | 123,013 | 72,499 | 193,169 | 9,902 | (NA) | (NA) |
| 1958. | 104 | 167 | 117 | 12,394 | 59,816 | 10,110 | 18,581 | 44,920 | 104,898 | 56,624 | 163,478 | 10,804 | 93 | 92 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 17,232 | 84,675 | 14,783 | 27,788 | 64,891 | 147,798 | 94,941 | 237,493 | (S) | 88 | 94 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 17,810 | 80,913 | 15,436 | 29,199 | 62,916 | 147,147 | 90,125 | 232,780 | 15,306 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 16,612 | 70,064 | 14,397 | 27,845 | 54,722 | 128,749 | 73,136 | 198,345 | 8,934 | (NA) | (NA) |
| 1954. | 113 | 177 | 133 | 14,463 | 55,604 | 12,204 | 22,783 | 43,006 | 88,483 | 49,956 | 139,290 | 5,702 | 92 | 95 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 15,644 | 58,502 | 13,638 | 27,001 | 48,595 | 94,904 | 52,410 | 147,314 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$. | (NA) | (NA) | (NA) | 17,534 | 62,239 | 15,412 | 30,709 | 51,553 | 106,755 | 53,620 | 160,290 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 18,018 | 62,877 | 15,852 | 32,976 | 52,356 | 114,362 | 54,308 | 168,585 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 16,035 | 47,634 | 13,989 | 27,297 | 39,156 | 87,448 | 39,568 | 126,825 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 16,019 | 44,671 | 14,062 | 25,806 | 36,393 | 69,865 | 36,467 | 106,141 | (NA) | (NA) | (NA) |
| 1947. | 108 | 168 | (NA) | 17,963 | 47,048 | 15,937 | 31,830 | 38,663 | 75,982 | 35,259 | 109,260 | (NA) | 93 | 94 |
| 1939......... | (NA) | 165 | (NA) | 13,655 | 15,404 | 12,211 | (NA) | 12, 324 | 28,978 | 13,213 | 42,191 | (NA) | (NA) | (NA) |
| 19372......... | (NA) | 163 | (NA) | (NA) | (NA) | 15,449 | (NA) | 16,409 | 34,827 | 17,823 | 52,650 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3259. -STRUCTURAL CLAY PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1963{ }^{1}$ | 126 | 164 | 108 | 12,188 | 61,977 | 10,364 | 21,142 | 48,727 | 108,442 | 53,382 | 159,724 | 5,842 | 89 | 95 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 12,235 | 63,028 | 10,523 | 20,929 | 49,630 | 104,944 | 47,256 | 153,868 | $(7,382)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 13,058 | 62,901 | 11,286 | 22,909 | 49,804 | 107,411 | 45,240 | 150,080 | 8,229 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 13,443 | 62,224 | 11,585 | 23,042 | 49,912 | 108,752 | 45,474 | 149,739 | 11,448 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 13,875 | 62,172 | 11,745 | 23,427 | 48,905 | 107,689 | 43,917 | 152,634 | 6,755 | (NA) | (NA) |
| 1958........ | (NA) | 192 | 117 | 13,756 | 56,454 | 11,795 | 22,185 | 44,582 | 95,881 | 38,190 | 134,928 | 6,759 | 97 | 94 |
| 19584 (old)... | (NA) | 195 | 120 | 14,112 | 57,800 | 12,096 | 22,791 | 45,508 | 98,526 | 38,611 | 137,810 | 6,565 | (NA) | (NA) |
| 1954......... | (NA) | 217 | 129 | 14,659 | 53,333 | 12,982 | 26,225 | 44,000 | 83,648 | 27,645 | 110,330 | 5,046 | 89 | 84 |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 14,375 | 42,039 | 12,774 | 24,818 | 34,986 | 72,697 | 20,045 | 92,969 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 14,874 | 41,487 | 13,408 | 26,638 | 34,870 | 59,082 | 21,931 | 80,972 | (NA) | (NA) | (NA) |
| 1947. | (NA) | 230 | 127 | 14,850 | 36,371 | 13,487 | 27,945 | 31,706 | 62,233 | 18,459 | 76,668 | (NA) | 83 | 83 |
| 1939. | (NA) | 192 | (NA) | 10,942 | 19,779 | 15,589 | (NA) | 15,732 | 20,941 | 6,805 | 51,641 | (NA) | (NA) | (NA) |
| $1937{ }^{2}$ | (NA) | 201 | (NA) | (NA) | (NA) | 10,105 | (NA) | 10,220 | 19,810 | 7,815 | 27,625 | (NA) | (NA) | (NA) |
| Total for clay products (other than pottery) and nonclay refractories: ${ }^{5}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1937. | (NA) | 1,238 | (NA) | 70,460 | 75,330 | 65,226 | (NA) | 64,175 | 128,206 | 63,513 | 191,719 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 1,074 | (NA) | 49,296 | 44,000 | 44,583 | (NA) | 34,603 | 73,114 | 38,083 | 111,197 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 928 | (NA) | 34,962 | 23,535 | 31,944 | (NA) | 18,967 | 44,609 | 19,994 | 64,603 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 1,264 | (NA) | (NA) | (NA) | 51,128 | (NA) | 44, 368 | 90,367 | 36,969 | 127,336 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 1,760 | (NA) | 101,938 | 128,989 | 93,657 | (NA) | 107,348 | 215,145 | 82,734 | 297,879 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 1,857 | (NA) | 109,743 | 144,550 | 101,230 | (NA) | 122,311 | 221,248 | 100,642 | 321,890 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 1,950 | (NA) | 111,662 | 148,914 | 103,061 | (NA) | 127,508 | 235,054 | 100,768 | 335,822 | (NA) | (NA) | (NA) |
| 1923.......... | (NA) | 1,996 | (NA) | 112,504 | 146,346 | 103,239 | (NA) | 124,400 | 232,340 | 104,544 | 336,884 | (NA) | (NA) | (NA) |
| 1921........... | (NA) | 1,898 | (NA) | 76,247 | 90,915 | 69,171 | (NA) | 74,222 | 127,196 | 69,103 | 196,299 | (NA) | (NA) | (NA) |
| 1919. | (NA) | 2,436 | (NA) | 85,887 | 95,545 | 77,763 | (NA) | 79,179 | 143,996 | 69,721 | 213,717 | (NA) | (NA) | (NA) |
| 1914. | (NA) | 3,249 | (NA) | 108,407 | 65,769 | 100,484 | (NA) | 55,079 | 93,815 | 43,993 | 137,808 | (NA) | (NA) | (NA) |

## table 1. General Statistics: 1963 and Earlier Years-Continued

Footnotes for Table 1-32B

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior io lig5 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimute or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }_{2}{ }^{\text {rBrick }}$ and Structural Tile," "Ceramic Wall and Floor Tile," "Sewer Pipe," "Clay Refractories" and "Structural Clay Products, N.E.C." together with "Nonclay Refractories," formerly constituted a single industry classification, "Clay Products (other than pottery) and Nonclay Refractories," figures for which are shown in this table for the period 1914-1937.
${ }^{3} \mathrm{~A}$ revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Figures for 1957 and earlier years are on the basis of the old SIC definition of the industry. Data for 1958 was retabulated to provide data comparable to that shown for 1957 and earlier years. The details of these revisions are described in Volume II, Industry Statistics, 1958 Census of Manufactures.
${ }^{4}$ The 1957 Standard Industrial Classification combined in this industry, industry 3254, Sewer Pipe and industry 3259, Structural Clay Products, N.E.C., which were separate in the 1945 Standard Industrial Classification. The data for 1957 and earlier years for these two industries have been combined to provide comparable data. The details of the revisions are described in Volume II, Industry Statistics, 1958 Census of Manufactures.
${ }^{5}$ Includes data for establishments engaged primarily in the manufacture of nonclay refractories. For 1937 the statistics included for these establishments are as follows: Number of establishments - 40; All employees, total - 5,990; Payroll - \$7, 218 thousand; Production workers, total 5,641; Production workers, wages - $\$ 6,331$ thousand; Value added by manufacture - $\$ 15,919$ thousand; Cost of materials - $\$ 12,538$ thousand; Value of shipments - $\$ 28,457$ thousand.
table 2. General Statistics, by Geographic Areas: 1963 and 1958


[^49]TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| Mountain. ........... Colorado.......... Arizona. | INDUSTRY 3251. -BRICK AND STRUCTURAL TILE--Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 26 | 16 | 1,512 | 8,311 | 1,208 | 2,367 | 5,788 | 11,400 | 7,891 | 18,775 | 1,052 | 1,672 | 11,243 |
|  | 7 | 6 | 819 | 4,535 | 650 | 1,259 | 2,977 | 6,331 | 4,146 | 10,169 | 570 | 812 | 6,142 |
|  | 7 | 3 | 169 | 844 | 138 | 270 | 660 | 1,256 | 672 | 1,973 | 88 | $\left({ }^{2}\right)$ | ${ }^{2}$ ) |
| Pacific. $\qquad$ Oregon. California $\qquad$ | 45 | 30 | 1,294 | 6,763 | 1,060 | 2,058 | 5,065 | 11,336 | 5,725 | 17,247 | 587 | 1,385 | 9,505 |
|  | 7 | 2 | 108 | 607 | 87 | 166 | 461 | 767 | 516 | 1,240 | 59 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ |
|  | 30 | 22 | 961 | 5,103 | 786 | 1,511 | 3,823 | 8,357 | 4,192 | 12,795 | 323 | (2) | (2) |
|  | INDUSTRY 3253.-CERAMIC WALL AND FLOOR TILE |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 90 | 64 | 12,795 | 63,745 | 10,409 | 21,002 | 43,794 | 110,571 | 55,083 | 164,668 | 9,070 | 13,068 | 92,779 |
| Northeast.......... | 19 | 12 | 2,862 | 15,284 | 2,353 | 4,866 | 10,939 | 26,682 | 11,692 | 38,345 | 1,243 | 2,799 | 22,916 |
| North Central...... | 18 | 13 | 3,920 | 20,218 | 3,257 | 6,329 | 13,668 | 33,091 | 13,768 | 45,957 | 1,052 | 4,655 | 27,554 |
| Ohio............. | 12 | 10 | 3,429 | 18,251 | 2,855 | 5,485 | 12,218 | 30,147 | 12,266 | 41,497 | 976 | 3,998 | 23,874 |
| South.............. | 27 | 23 | 3,561 | 14,584 | 2,949 | 6,125 | 10,327 | 26,748 | 19,115 | 46,102 | 5,348 | 3,204 | 21,197 |
| Florida........... | 3 | 3 | , 625 | 2,409 | 524 | 1,108 | 1,702 | 5,431 | 3,171 | 8,388 | (D) | 370 | 2,686 |
| Texas............ | 10 | 10 | 1,250 | 4,770 | 1,003 | 2,025 | 2,876 | 6,995 | 8,034 | 15,327 | 366 | 1,204 | 7,727 |
| West..................California....... | 26 | 16 | 2,452 | 13,659 | 1,850 | 3,682 | 8,860 | 24,050 | 10,508 | 34,264 | 1,427 | 2,410 | 21,112 |
|  | 21 | 16 | 2,406 | 13,456 | 1,813 | 3,605 | 8,709 | 23,797 | 10,316 | 33,650 | 1,420 | 2,300 | 20,477 |
|  | INDUSTRY 3255.-CLAY REFRACTORIES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total........... | 150 | 109 | 11,431 | 64,822 | 9,402 | 18,139 | 49,648 | 118,248 | 74,476 | 192,230 | 7,936 | 12,394 | 104,898 |
| Northeast. . . ....... . Pennsylvania..... | $\begin{aligned} & 49 \\ & 43 \end{aligned}$ | $\begin{aligned} & 29 \\ & 35 \end{aligned}$ | $\begin{aligned} & 3,108 \\ & 2,916 \end{aligned}$ | $\begin{aligned} & 17,996 \\ & 16,997 \end{aligned}$ | $\begin{aligned} & 2,595 \\ & 2,437 \end{aligned}$ | $\begin{aligned} & 4,919 \\ & 4,614 \end{aligned}$ | $\begin{aligned} & 14,294 \\ & 13,534 \end{aligned}$ | 31,541 | 19,628 |  | 2,634 | 3,493 | 24,603 |
|  |  |  |  |  |  |  |  | 29,777 |  | 49,163 | 2,583 | 3,297 |  |
| North Central...... Ohio.............. | 5836 | $\begin{aligned} & 43 \\ & 28 \end{aligned}$ | $\begin{aligned} & 5,617 \\ & 2,068 \end{aligned}$ | $\begin{aligned} & 32,148 \\ & 10,631 \end{aligned}$ | $\begin{aligned} & 4,492 \\ & 1,788 \end{aligned}$ | 8,697 | 23,670 | 59,202 | 36,033 | 94,400 | 2,740 | 5,811 | 53,189 |
|  |  |  |  |  |  | 3,403 | 8,695 | 19,316 | 10,232 | 29,175 | 652 | 2,033 | 14,697 |
| South Atlantic..... Maryland. . . . . . . . . | 134 | 9 | 1,300 | 7,090 | 1,118 | 2,168 | 5,506 | 12,716 | 8,062 | 20,844 | 1,393 | 1,262 | 9,281 |
|  |  | 3 | 245 | 1,576 | 211 | 402 | 1,156 | 2,210 | 2,469 | 4,884 | 155 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| East South Central. Kentucky. $\qquad$ Alabama. $\qquad$ | 1064 | 8 | 748 | 4,165 | 678 | 1,316 | 3,702 | 6,635 | 5,336 | 12,387 | 340 | 935 | 7,119 |
|  |  | 5 | 539 | 2,995 | 499 | 964 | 2,750 | 4,653 | 3,882 | 8,761 | 286 | 625 | 4,614 |
|  |  | 3 | 209 | 1,170 | 179 | 352 | 952 | 1,982 | 1,454 | 3,626 | 54 | 310 | 2,505 |
| West South Central. Texas. $\qquad$ | 4 | 3 | 183 | 699 | 158 | 310 | 538 | 1,726 | 668 | 2,370 | 55 | 238 | 1,606 |
|  |  | 3 | 183 | 699 | 158 | 310 | 538 | 1,726 | 668 | 2,370 | 55 | ${ }^{2}$ ) | $\left.{ }^{2}\right)$ |
| West. <br> California....... | 1610 | 7 | 475 | 2,724 | 361 | 729 | 1,938 | 6,428 | 3,976 | 10,598 | 774 |  | 7,008 |
|  |  | 4 | 205 | 1,206 | 164 | 329 | 917 | 3,619 | 2,410 | 6,192 | 624 | (2) | ${ }^{(2)}$ |
|  | INDUSTRY 3259.-STRUCTURAL CLAY PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Total........... } \\ & \text { Northeast........... } \end{aligned}$ | 164 | 108 | 12,188 | 61,977 | 10,364 | 21,142 | 48,727 | 108,442 | 53,382 | 159,724 | 5,842 | 13,756 | 95,881 |
|  | 15 | 12 | 1,077 | 5,492 | 963 | 1,951 | 4,711 | 8,713 | 4,018 | 12,704 | 308 | 1,308 | 8,837 |
| East North Central. Ohio.. Illinois......... Michigan. $\qquad$ | 83 | 54 | 5,326 | 27,542 | 4,538 | 8,724 | 21,658 | 37,535 | 21,816 | 58,609 | 1,607 | 6,834 | 44,058 |
|  | 46 | 29 | 3,294 | 16,454 | 2,803 | 5,168 | 12,806 | 21,169 | 12,866 | 34,163 | 835 | 4,812 | 29,479 |
|  | 12 | 10 | 636 | 3,304 | 550 | 1,058 | 2,660 | 4,841 | 2,694 | 7,329 | 163 | ${ }^{(2)}$ | ${ }^{(2)}$ |
|  | 5 | 3 | 311 | 2,027 | 263 | 595 | 1,472 | 3,272 | 1,703 | 4,828 | 162 | 305 | 3,224 |
| West North Central. | 16 | 13 | 1,512 | 8,058 | 1,235 | 2,727 | 6,117 | 14,007 | 6,873 | 21,541 | 984 | 994 | 7,584 |
| South.............. | 23 | 17 | 2,503 | 10,581 | 2,116 | 4,480 | 7,710 | 23,524 | 10,498 | 32,652 | 1,330 | 2,846 | 16,916 |
| West................. California....... | 2715 | 12 | 1,770 | 10,304 | 1,512 | 3,260 | 8,531 | 24,663 | 10,177 | 34,218 | 1,613 | 1,774 | 18,486 |
|  |  | 11 | 1,673 | 9,795 | 1,432 | 3,093 | 8,141 | 23,933 | 9,804 | 33,038 | 1,439 | 1,565 | 17,269 |

# table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued 



## TABLE 3. Detailed Statistics: 1963



[^50]
## table 3. Detailed Statistics: 1963--Continued

| Item | Clay refractories (SIC 3255) |  |  | Structural clay products, n.e.c. (SIC 3259) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Subindustry |  | Total | Subindustry |  |
|  |  | Establishments with mining or quarrying activity ${ }^{2}$ | Establishments without mining or quarrying activity ${ }^{1}$ |  | Establishments with mining or quarrying activity ${ }^{1}$ | Establishments without mining or quarrying activity ${ }^{1}$ |
|  | . 91 | (NA) | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | $.89$ | $\begin{aligned} & \text { (NA) } \\ & (\mathrm{NA}) \end{aligned}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ |
| Establishments, total. <br> number <br> With 1 to 19 employees.. <br> do. <br> With 20 to 99 employees. <br> With 100 employees or more.......................................... | 150 41 70 39 | (NA) <br> 1 <br> 11 <br> 9 | (NA) 40 59 30 | 164 56 60 48 | 76 3 40 28 | 88 48 20 20 |
|  All employees (average for the year)............................. Payroll (all employees), total for year................. $\$ 1,000$. | 14 11,431 64,822 | $(\mathrm{NA})$ 2,535 15,208 | (NA) 8,896 49,614 | 47 12,188 61,977 | (NA) 7,519 38,121 | (NA) 4,669 23,856 |
| Production workers: |  |  |  |  |  |  |
|  | 9,402 9,155 | 2,101 2,046 | '7,301 7,109 | 10,364 8,942 | 6,304 | 4,060 3,329 |
| Мау. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 9,538 | 2,142 | 7,396, | 10,548 | 6,485 | 4,063 |
| August.............. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 9,590 | 2,157 | 7,433 | 11,091 | 6,678 | 4,413 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do... . | 9,304 | 2,058 | 7,246 | 1.0,879 | 6,442 | 4,437 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 18,139 | 4,135 | 14,004 | 21,142 | 13,055 | 8,087 |
| January-March. . ...................... . . . . . . . . . . . . . . . . do. . . . | 4,345 | 999 | 3,346 | 4,367 | 2,780 | 1,587 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 4,657 | .2,083 | 3,574 | 5,433 | 3,352 | 2,081 |
| July-September . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 4,566 | 1,048 | 3,518 | 5,810 | 3,559 | 2,251 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 4,571 | 1,005 | 3,566 | 5,532 | 3,364 | 2,168 |
| Wages.......... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000.. | 49,648 | 11,699 | 37,949 | 48,727 | 29,419 | 19,308 |
| Cost of materials, etc., total...........................do. | 74,476 | 16,623 | 57,853 | 53,382 | 30,492 | 22,890 |
| Materials, parts, containers, and supplies consumed..do... | 54,210 | 10,974 | 43,236 | 30,399 | 16,238 | 14,161 |
| Cost of resales. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 5,322 | 1,278 | 4,044 | 5,527 | 3,412 | 2,115 |
| Fuels consumed. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.. | 11,644 | 3,311 | 8,333 | 13,973 | 8,617 | 5,356 |
| Electric energy: |  |  |  |  |  |  |
| Purchased: <br> Quantity $\qquad$ .million kw.-hrs.. |  |  |  |  |  | 62 |
| Cost......................................................... . $\$ 1,000$. . | 2,992 | 763 | 2,229 | 2,532 | 1,633 | 899 |
| Generated less sold.......................million kw.-hrs.. | (D) | - | (D) | (D) | (D) | - |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 308 | 297 | 11 | 947 | 592 | 355 |
| Value of shipments (including resales), total............do.... Value of resales. | 192,230 7,055 | 45,498 1,438 | 146,732 5,617 | 159,724 6,364 | 96,849 3,737 | 62,875 2,627 |
| Value added by manufacture, adjusted....................do.... | 118,248 | 29,349 | 88,899 | 108,442 | 67,413 | 41,029 |
| Manufacturers' inventories: |  |  |  |  |  |  |
| Beginning of year, total...............................do.... | 53,941 | 13,895 | 40,046 | 25,119 | 15,076 | 10,043 |
| Finished products. .do.... | 29,487 | 7,693 | 21,794 | 19,141 | 11,490 | 7,651 |
| Work-in-process. | 2,901 | 746 | 2,155 | 2,196 | 1,175 | 1,021 |
| Materials, supplies, fuel, etc........................do.... | 21,553 | 5,456 | 16,097 | 3,782 | 2,411 | 1,371 |
| End of year, total......................................do.. | 54,001 | 14,125 | 39,876 | 27,449 | 16,124 | 11,325 |
| Finished products...................................... .do.... | 30,322 | 8,103 | 22,219 | 21,223 | 12,527 | 8,696 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . | 2,560 | 810 | 1,750 | 2,214 | 1,194 | 1,020 |
| Materials, supplies, fuel, etc......................do.... | 21,119 | 5,212 | 15,907 | 4,012 | 2,403 | 1,609 |
| Expenditures for plant and equipment, total............do.... | 8,383 | 1,865 | 6,518 | 6,047 | 3,315 | 2,732 |
| New, total...................... . . . . . . . . . . . . . . . . . . . . do.... | 7,936 | 1,652 | 6,284 | 5,842 | 3,197 | 2,645 |
| New structures and additions to plant...............do.... | 1,521 | 353 | 1,168 | 1,930 | 1,086 | 844 |
| New machinery and equipment..........................do.... | 6,415 | 1,299 | 5,116 | 3,912 | 2,111 | 1,801 |
| Used plant and equipment..............................do.... | 447 | 213 | 234 | 205 | 118 | 87 |
| Selected operating ratios: |  |  |  |  |  |  |
| Payroll/Total employment....................................... . | 5,669 | 5,999 | 5,574 | 5,085 | 5,070 | 5,109 |
| Production workers/Total employment. . . . . . . . . . . . . . . . . . . . . | . 82 | . 83 | . 82 | . 85 | . 84 | . 87 |
|  | 1,928 | 1,968 | 1,916 | 2,040 | 2,071 | 1,992 |
| Production worker wages/Man-hours. . . . . . . . . . . . . . . . . . . . . . . | 2.74 | 2.83 | 2.71 | 2.30 | 2.25 | 2.39 |
| Cost of materials and payrolls/Total value of shipments.... | . 72 | . 70 | . 73 | . 72 | . 72 | . 74 |
| Cost of materials/Total value of shipments................. | . 39 | . 37 | . 39 | . 33 | . 32 | . 36 |
| Adjusted value added/Total employment........................ Salaries and wages/Adjusted value added................. | 10,387 .55 | 1 $\begin{array}{r}\text {, } 578 \\ .52\end{array}$ | 10,042 .56 | $\begin{array}{r}8,897 \\ \hline .57\end{array}$ | 8,966 .56 | 8,788 .58 | Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used. Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

${ }^{1}$ Separate detailed data are not available for "small" establishments that operated mines (ineluding clay pits) or quarries in conjunction
With manifacturins operations but reported on "short forms." These establishments are included with "Establishmentis Without Mining or
रuarrying Activity."
${ }^{2}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{\text {T The }}$ proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all
manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963


[^51]
## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products <br> $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\qquad$ <br> Col. B+C (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3241 | Cement, hydraulic.................1963.. | $\begin{aligned} & 1,176,913 \\ & 1,073,494 \end{aligned}$ | $\begin{aligned} & 1,158,276 \\ & 1,059,967 \end{aligned}$ | $\begin{aligned} & 9,708 \\ & 8,118 \end{aligned}$ | $\begin{aligned} & 8,929 \\ & 5,409 \end{aligned}$ | 99 | $\begin{aligned} & 1,162,965 \\ & 1,062,849 \end{aligned}$ | $\begin{aligned} & 1,158,276 \\ & 1,059,967 \end{aligned}$ | $\begin{aligned} & 4,689 \\ & 2,882 \end{aligned}$ | 100 100 |
| 3251 | Brick and structural tile........ $1963 .$. | $\begin{aligned} & 325,093 \\ & 286,709 \end{aligned}$ | $\begin{aligned} & 303,108 \\ & 264,627 \end{aligned}$ | 6,857 10,213 | $\begin{aligned} & 15,128 \\ & 11,869 \end{aligned}$ | $\begin{aligned} & 98 \\ & 96 \end{aligned}$ | $\begin{aligned} & 308,136 \\ & 268,887 \end{aligned}$ | $\begin{aligned} & 303,108 \\ & 264,627 \end{aligned}$ | $\begin{aligned} & 5,028 \\ & 4,260 \end{aligned}$ | 98 98 |
| 3253 | Ceramic wall and floor tile ..... $1963 .$. | $\begin{aligned} & 164,668 \\ & 135,470 \end{aligned}$ | 142,726 122,723 | 7,430 7,928 | $\begin{array}{r} 14,512 \\ 4,819 \end{array}$ | $\begin{aligned} & 95 \\ & 94 \end{aligned}$ | $\begin{aligned} & 143,390 \\ & 124,196 \end{aligned}$ | $\begin{aligned} & 142,726 \\ & 122,723 \end{aligned}$ | $\begin{array}{r} 664 \\ 1,473 \end{array}$ | 99 99 |
| 3255 | Clay refractories................ $1963 .$. | $\begin{aligned} & 192,230 \\ & 163,478 \end{aligned}$ | 168,133 145,617 | $\begin{aligned} & 16,429 \\ & 11,200 \end{aligned}$ | $\begin{aligned} & 7,668 \\ & 6,661 \end{aligned}$ | $\begin{aligned} & 91 \\ & 93 \end{aligned}$ | $\begin{aligned} & 180,664 \\ & 158,241 \end{aligned}$ | $\begin{aligned} & 168,133 \\ & 145,617 \end{aligned}$ | $\begin{aligned} & 12,531 \\ & 12,624 \end{aligned}$ | 93 92 |
| 3259 | Structural clay products, n.e.c..1963.. | $\begin{aligned} & 159,724 \\ & 134,928 \end{aligned}$ | $\begin{aligned} & 134,574 \\ & 124,628 \end{aligned}$ | $\begin{array}{r} 17,193 \\ 4,017 \\ \hline \end{array}$ | $\begin{aligned} & 7,957 \\ & 6,283 \end{aligned}$ | $\begin{aligned} & 89 \\ & 97 \end{aligned}$ | $\begin{aligned} & 141,400 \\ & 132,325 \end{aligned}$ | $\begin{aligned} & 134,574 \\ & 124,628 \end{aligned}$ | $\begin{aligned} & 6,826 \\ & 7,697 \\ & \hline \end{aligned}$ | 95 <br> 94 |

NOTE: See Introduction for an explanation of terms used.
n.e.c. Not elsewhere classified

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


[^52] applicable.
n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

Includes over \$2 million shipped by establishments classified in industry 2812, Alkalies and Chlorine. The exact amount is withheld to avoid
disclosing figures of individual companies.
${ }^{2}$ Includes $\$ 8$ million shipped by establishments classified in industry 3297, Nonclay Refractories.
${ }^{3}$ Includes $\$ 2$ million in shipments of product class 32950, Minerals and earths, ground or otherwise treated.
${ }^{4}$ Includes $\$ 5$ million shipped by establishments classified in industry 3251 , Brick and Structural Tile.
${ }^{5}$ Includes $\$ 12$ million in shipments of product class, 30796, Construction plastics products.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


[^53]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.

## (X) Not applicable.

(S) Does not meet publication standards.
n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }_{2}^{1}$ For 1963 included in values of products shipped.
${ }^{2}$ "Calcined" as applied to diaspore and bauxite implies heat treatment short of fusion for volume stability prior to use in a refractory product.
In the process, volatile materials are driven off and chemical changes take place.
${ }^{3}$ Excludes data for mullite and extra-high alumina refractories. These products are included with mullite and extra-high alumina brick and shapes in Industry 3297, Nonclay Refractories.

4 The subdivisions are in accordance with the ASTIM Classification Cl55, the respective groups being 16, 20 , and 23 and higher.
${ }^{5}$ Includes bonding mortars which contain up to $60 \% \mathrm{Al}_{2} \mathrm{O}_{3}$, dry basis. Bonding mortars which contain more than $60 \% \mathrm{Al}_{2} \mathrm{O}_{3}$ dry basis are included in Industry 3297, Nonclay Refractories.
${ }^{6}$ Includes products referred to as plastic fire brick and the less plastic materials intended for ramming into place after the addition of water (when shipped in dry form). Excludes mixes made of mullite or extra-high alumina. Mixes made of these products are included in Industry 3297 , Nonclay Refractories.
${ }^{7}$ Represents shipments for direct use as finished refractory products by establishments classified in "manufacturing" industries, and excludes shipments to refractory producers for processing in the manufacture of brick and other refractories. Includes data for calcined clay, ground brick, and siliceous and other gunning mixes.

# table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958 

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 3241 | Cement, hydraulic................................................ $1963 .$. 1958.. | 125 113 | $\begin{aligned} & 117 \\ & 116 \end{aligned}$ |
| 325 | Structural clay products.......................... $1963 .$. | $\begin{aligned} & 114 \\ & 101 \end{aligned}$ | $\begin{aligned} & 117 \\ & 118 \end{aligned}$ |
| 3251 | Brick and structural clay tile.......................1963.. 1958. | 102 96 | 125 115 |
| 32511 | Brick (except ceramic glazed and refractory brick)............................................................. $1953 .$. | 106 95 | 125 |
| 32512 | Glazed brick and structural hollow tile...........1963.. ${ }_{\text {1958. }}$ | 71 86 | 119 |
| 3253 | Ceramic wall and floor tile.......................... $1963 .$. | 157 127 | 98 106 |
| 3255 | Clay refractories.................................................. 1963.. | $\begin{array}{r}123 \\ 94 \\ \hline\end{array}$ | $\begin{aligned} & 128 \\ & 131 \end{aligned}$ |
| 3259 | Structural clay products, n.e.c......................1963.. 1958 | 101 | 130 120 |
| 32591 | Vitrified clay sewer pipe and fittings............1963.. ${ }_{\text {1958. }}$ | 106 | 128 |
| 32592 | Other structural clay products, n.e.c............. ${ }^{\text {1963.. }} 19$ 1958.. | 91 97 | 140 <br> 117 |

n.e.c. Not elsewhere classified.
table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962{ }^{1}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32410 | Cement, hydraulic............................... | 1,162,965 | 1,103,361 | 1,081,709 | 1,072,278 | 1,162,724 | 1,062,849 | 807,338 | 406,916 |
| 3251- | Brick and structural clay tile............... | 308,136 | 2296,364 | ${ }^{2} 276,933$ | ${ }^{2} 278,517$ | 2294,423 | 268,887 | 242,918 | - |
| 32511 | Brick, except ceramic glazed and refractory brick. | 263,584 | ${ }^{2} 246,457$ | 2225,285 | ${ }^{2} 223,546$ | ${ }^{2} 241,385$ | 212,700 | 196,107 |  |
| $\begin{aligned} & 32512 \\ & 32510 \end{aligned}$ | Glazed brick and structural hollow tile.... Brick and structural clay tile, n.s.k..... | 35,880 8,672 | 36,803 | 38,579 $(\mathrm{~S})$ | 39,505 | 40,080 (S) | 43,241 12,946 | 42,508 4,303 | - |
| 32530 | Clay $\frac{f}{3} l o o r$ and wall tile, including quarry tile ${ }^{3}$.................................................... | 143,390 | 157,330 | 142,706 | 140,895 | 149,345 | 124,196 | 92,758 | 43,650 |
| 32550 | Clay refractories................................. | 180,664 | 162,550 | 162,525 | 174,065 | 173,794 | 158,241 | 129,086 | 107,578 |
| 3259- | Structural clay products, n.e.c. | 141,400 | ${ }^{2} 1377,501$ | ${ }^{2} 1388,302$ | ${ }^{2} 140,985$ | ${ }^{2} 145,343$ | 132,325 | 110,637 | 75,136 |
| 32591 | Clay sewer pipe and fittings. | 98,223 | 288,620 | 228,640 | ${ }^{2} 94,780$ | ${ }^{2} 98,319$ | 86,912 | 70,878 | 42,984 |
| 32592 | Structural clay products, n.e.c............. | 39,907 | 48,881 | 48,662 | 46,205 | 47,024 | 45,413 | 39,759 | 32,152 |
| 32590 | Structural clay products, n.e.c., n.s.k... | 3,270 | 48, | 48,62 | , | , | , | , | - |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
$(S)$ Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

IThe figures for $1959-1962$ represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey $_{\text {then }}$ of.manufactures. These estimates, therefore, may differ from the results that would be obtained from a complete canvass of all manufacturing establishments.
${ }^{2}$ Source: Current Industrial Reports Series M32D, Clay Construction Products.
${ }^{3}$ It appears the estimates derived for 1959-1962 are overstated between 2 and 12 percent, based on a comparison of the totals obtained from Current Industrial Reports Series M32D, Clay Construction Products and the Censuses of Manufactures for 1958 and 1963. The comparable shipments figures as published in Series M32D are as follows:

| $\frac{\text { Year }}{1963}$ | $\frac{\$ 1,000}{137,854}$ | $\frac{\text { Year }}{1960}$ | $\frac{\$ 1,000}{129,524}$ |
| :--- | :--- | :--- | :--- |
| 1962 | 135,526 | 1959 | 141 |
| 1961 | 124,301 | 1958 | 119,179 |

## TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.

| Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BRICK, EXCEPT CERAMIC GLAZED AND REFRACTORY BRICK (32511) | $1963{ }^{1}$ | BRICK, EXCEPT CERAMIC GLAZED AND REFRACTORY BRICK (32511)-Continued | $1963{ }^{1}$ | BRICK, EXCEPT CERAMIC. GLAZED AND REFRACTORY BRICK (32511)-Continued | $1963{ }^{1}$ |
| United States, total.... | 263,584 | West North Central......... | $\begin{array}{r}14,901 \\ 3,071 \\ \hline\end{array}$ | West South Central......... | 29,391 |
| Northeast $\qquad$ <br> New Hampshire. $\qquad$ | 6,507 | Missouri..................... <br> Nebraska | 4,251 | Arkansas................. | 5,088 |
|  | $\begin{aligned} & 1,227 \\ & 3,616 \end{aligned}$ |  | 1,798 | Louisiana. | 2,298 |
| Connecticut................ |  | Nebraska...................... <br> Kansas........................ | 3,743 | Oklahoma...................... <br> Texas......................... | $\begin{array}{r} 2,504 \\ 19,501 \end{array}$ |
| Middle Atlantic.............. |  | South Atlantic............. | 69,133 |  |  |
|  | 35,546 | Maryland.................. | 5, 24,410,5452,453 |  |  |
| New York. . | 8,402 | Virginia. |  | Mountain.................... |  |
| New Jersey.. | 4,701 | West Virginia............. |  | Colorado..................... <br> Arizona |  |
| Pennsylvania............... | 22,443 | North Carolina........... South Carolina.......... | 22,948 10,595 |  | $\begin{aligned} & 6,370 \\ & 1,091 \end{aligned}$ |
|  | 48,550 | Georgia.................... | 14,979 |  |  |
| East North Central.......... |  |  | $\begin{array}{r} 32,547 \\ 9,924 \\ 8,301 \end{array}$ | Pacific....... | 14,688 |
| Ohio....................... | 28,687 | East South Central........... Alabama. Mississippi |  |  |  |
| Indiana..................... | 6,853 |  |  | Pacific.........................Washington..................California.............. | 2,716 |
| Illinois................... | 12,018 |  |  |  | 10,707 |

 disclosure of individual company figures: 3251l-Maine, Minnesota, District of Columbia, Kentucky, Tennessee, Utah, Oregon.

## table 7A. Materials by Kind: 1963

| Code | Material | 1963 |  |
| :---: | :---: | :---: | :---: |
|  |  | Quantity (short tons) | Delivered cost $(\$ 1,000)$ |
|  |  | INDUSTRY 3241.-CEMENT, HYDRAUIIC |  |
|  | Materials, containers, and supplies, total .............................................................. | (X) | 195,819 |
| 264338 | Paper shipping sacks and multiwall bags...................................................................... | 375,952 | 18,134 |
|  | Refractories: |  |  |
| $\begin{aligned} & 325501 \\ & 329701 \end{aligned}$ | clay. Nonclay. | (S) | $\begin{aligned} & 4,172 \\ & 2,906 \end{aligned}$ |
| 970099 | All other materials and components, parts, containers, and supplies consumed. | (X) | 167,626 |
| 976000 | Materials, containers, and supplies, n.s.k................................................................. | ( X ) | 2,981 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available
(X) Not
applicable. n.s.k. Not specified by kind.
(S) Withheld because the estimate did not meet publication standards.

## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Cement, hydraulic (SIC 3241) | Brick and structural tile (SIC 3251) | Ceramic wall tile floor tile (SIC 3253) | Clay refractories (SIC 3255) | Structural clay products, п.e.c. (SIC 3259) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. | 172,006 | 43,705 | 4,826 | 14,365 | 14,975 |
| Total cost of purchased fuels...............................do.... | 117,954 | 35,074 | 3,411 | 11,405 | 12,647 |
| Bituminous coal, lignite, and anthracite: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons. Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. | $\begin{array}{r} 7,631 \\ 54,205 \end{array}$ | (S) <br> (S) | (S) <br> (S) | (S) <br> (S) | $\begin{array}{r} 303 \\ 2,051 \end{array}$ |
| Coke and breeze: Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons. Cost. $\qquad$ . $\$ 1,000$. | $\begin{array}{r} 38 \\ 383 \end{array}$ | $\begin{aligned} & (\mathrm{S}) \\ & (\mathrm{S}) \end{aligned}$ | - | (S) | - |
| Fuel oil (distillate and residual): Quantity........................... 1, 000 barrels of 42 gallons.. cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | $\begin{aligned} & 3,053 \\ & 8,381 \end{aligned}$ | $\begin{array}{r} 755 \\ 2,655 \end{array}$ | $\begin{array}{r} 71 \\ 278 \end{array}$ | $\begin{aligned} & 174 \\ & 755 \end{aligned}$ | $\begin{array}{r} 277 \\ 1,024 \end{array}$ |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |
|  Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | $\begin{array}{r} 185,494 \\ 54,758 \end{array}$ | $\begin{aligned} & 64,245 \\ & 25,144 \end{aligned}$ | $\begin{aligned} & 5,672 \\ & 2,929 \end{aligned}$ | $\begin{array}{r} 20,298 \\ 9,494 \end{array}$ | $\begin{array}{r} 22,484 \\ 9,207 \end{array}$ |
|  | 227 | 3,156 | 181 | 78 | 365 |
| Electric energy: Purchased: |  |  |  |  |  |
| Quantity. ..................................................... . . . . . . . . . . . . <br> Cost. | $\begin{array}{r} 5,913 \\ 54,052 \end{array}$ | 568 8,631 | $\begin{array}{r} 99 \\ 1,415 \end{array}$ | 215 2,960 | 151 2,328 |
| Generated less sold............................million kw.-hrs.. | 1,522 | (S) | (S) | (S) | (S) |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total..........1,000 hp.. | 2,842 | 482 | 56 | 156 | 140 |
| Prime movers, total............................................ . . . . . . . | 757 | 91 | 9 | 12 | 27 |
| Driving generators. $\qquad$ do.... <br> Not driving generators......................................................... | 526 231 | 6 85 | 2 7 | 4 | 2 25 |
| Electric motors, total.........................................do.... | 2,611 | 392 | 48 | 145 | 113 |
| Driven by purchased energy................................................... Driven by energy generated at establishment.................do..... | 2,085 526 | 391 1 | 47 1 | 144 1 | 113 |
| Aggregate horsepower per 100 production workers. | 9,570 | 1,674 | 523 | 1,480 | 1,330 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for l962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, thereiore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withneld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c. Not elsewhere classified
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3251- | BRICK AND STRUCTURAL TILE |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................... <br> Establishments with- | 512 | 28,620 | 130,378 | 24,665 | 51,237 | 102,597 | 216,548 | 106,012 | 325,093 | 19,344 |
|  | $90 \%$ or more specialization... <br> $75-89 \%$ specialization. | 484 12 | 26,811 788 | 121,622 3,742 | 23,163 656 | $\begin{array}{r} 48,077 \\ 1,418 \end{array}$ | $\begin{array}{r} 96,052 \\ 2,806 \end{array}$ | $\begin{array}{r} 203,900 \\ 5,864 \end{array}$ | $\begin{array}{r} 98,383 \\ 3,205 \end{array}$ | $\begin{array}{r} 304,758 \\ 9,255 \end{array}$ | $\begin{array}{r} 15,723 \\ 1,379 \end{array}$ |
| 32511 | ```Brick, except ceramic glazed and refractory (primary product class of estab.)........................... Establishments with-``` | 432 | 24,791 | 111,737 | 21,453 | 44,574 | 88,115 | 188,772 | 91,655 | 283,212 | 15,838 |
|  | $90 \%$ or more specialization..... <br> 75-89\% specialization........... | $\begin{array}{r} 383 \\ 25 \end{array}$ | $\begin{array}{r} 21,381 \\ 1,468 \end{array}$ | $\begin{array}{r} 96,026 \\ 6,465 \end{array}$ | $\begin{array}{r} 18,586 \\ 1,267 \end{array}$ | $\begin{array}{r} 38,540 \\ 2,695 \end{array}$ | $\begin{array}{r} 76,249 \\ 5,021 \end{array}$ | $\begin{array}{r} 164,739 \\ 10,125 \end{array}$ | $\begin{array}{r} 77,328 \\ 5,445 \end{array}$ | $\begin{array}{r} 244,494 \\ 15,903 \end{array}$ | $\begin{array}{r} 12,904 \\ 1,411 \end{array}$ |
| 32512 | ```Glazed brick and structural hollow tile (primary product class of estab.).............................. Establishments with-``` | 26 | 3,037 | 15,691 | 2,528 | 5,284 | 12,090 | 22,423 | 11,047 | 33,220 | 1,436 |
|  | $90 \%$ or more specialization..... $75-89 \%$ specialization.......... | 17 4 | 1,969 366 | $\begin{array}{r} 10,184 \\ 1,622 \end{array}$ | 1,680 308 | 3,501 697 | $\begin{aligned} & 8,407 \\ & 1,107 \end{aligned}$ | $\begin{array}{r} 13,796 \\ 3,184 \end{array}$ | $\begin{array}{r} 7,065 \\ 772 \end{array}$ | $\begin{array}{r} 20,601 \\ 3,951 \end{array}$ | $\begin{array}{r} 1,134 \\ 67 \end{array}$ |
| 3259- | STRUCTURAL CLAY PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................... <br> Establishments with - | 164 | 12,188 | 61,977 | 10,364 | 21,142 | 48,727 | 108,442 | 53,382 | 159,724 | 5,842 |
|  | 90\% or more specialization... | $132$ | 8,044 | $40,535$ | 6,909 | 13,897 | 32,076 | 66,153 | 35,056 | 99,360 | 3,745 |
|  | 75-89\% specialization........ | $12$ | 1,706 | $8,739$ | 1,453 | 2,878 | 7,042 | $16,798$ | 6,478 | 22,928 | 697 |
| 32591 | Clay sewer pipe and fittings (primary product class of estab.)..... Establishments with - | 58 | 8,867 | 44,882 | 7,678 | 15,382 | 36,057 | 80,279 | 40,567 | 119,620 | 4,549 |
|  | $90 \%$ or more specialization..... | $30$ | 3,932 |  | 3,517 | 6,847 | $17,665$ |  |  |  |  |
|  | 75-89\% specialization............ | $13$ | 1,993 | $8,435$ | 1,710 | 3,296 | $6,231$ | $12,750$ | $6,945$ | $19,302$ | $809$ |
| 32592 | Structural clay products, n.e.c. (primary product class of estab.). Establishments with- | 74 | 3,010 | 15,389 | 2,411 | 5,182 | 11,208 | 24,945 | 11,835 | 36,087 | 1,059 |
|  | $90 \%$ or more specialization..... | 60 | 2,211 | 11,740 | 1,757 | 3,825 | 8,441 | 19,271 | 9,285 | 27,804 | 890 |
|  | -5-8\% specialization........... |  | 31 | 1,386 | 262 | 470 | 1,163 | 2,413 | 659 | 2,998 | 37 |

n.e.c. Not elsewhere classified.

## table 9. Selected Statistics for Establishments With Mining Activities: 1963

| Item | Cement, hydraulic (SIC 3241) | Brick and structural tile <br> (SIC 3251) | $\begin{aligned} & \text { Clay } \\ & \text { refractories } \\ & \text { (SIC 3255) } \end{aligned}$ | Structural clay products, п.e.c. (SIC 3259) |
| :---: | :---: | :---: | :---: | :---: |
| Establishments................................. . . . . . . . . . . . . . . . . . number. . | ${ }^{1} 149$ | ${ }^{2} 291$ | ${ }_{21} 1$ | ${ }^{176}$ |
| Production workers wages................................................ . ${ }^{\text {. }}$, $0.00 .$. | 19,221 | 6,541 | 1,294 | 881 |
| Man-hours of production workers............... . . . . . . . . . . . . . . . . $1,000$. . | 6,384 19,044 | 2,591 5,616 | $\begin{array}{r} 471 \\ 1,014 \end{array}$ | 410 1,643 |
| Cost of supplies, fuels, electric energy, and contract work.... $\$ 1,000,$. |  |  |  |  |

[^54]
## POTTERY AND RELATED PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

## SIC Code and Title

3261 - Vitreous China Plumbing Fixtures and China and Earthenware Fittings and Bathroom Accessories
3262-Vitreous China Table and Kitchen Articles
3263-Fine Earthenware (Whiteware) Table and Kitchen Articles
3264-Porcelain Electrical Supplies
3269 - Pottery Products, Not Elsewhere Classified
The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3261 -VITREOUS CHINA PLUMBING FIXTURES AND CHINA AND EARTHENWARE FITTINGS AND BATHROOM ACCESSORIES

This industry comprises establishments primarily engaged in manufacturing china plumbing fixtures and china and earthenware fittings and bathroom accessories. For a detailed list of products of industry 3261 , refer to table 6A, product codes 3261011 to 3261051.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Vitreous Plumbing Fixtures Industry totaled $\$ 156$ million. This amount included shipments of vitreous plumbing fixtures (primary products) valued at $\$ 139$ million, shipments of other products (secondary products) valued at $\$ 5$ million, and miscellaneous receipts at $\$ 12$ million.

This industry's shipments of vitreous plumbing fixtures represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was also 97 percent. Secondary products shipped by this industry in 1963 consisted mainly of plumbing fixture fittings and trim (brass goods).

Shipments of vitreous plumbing fixtures by this industry represented 97 percent of all shipments of these products ( $\$ 144$ million) by all industries. In 1958 the coverage ratio was also 97 percent. Other industries shipping vitreous plumbing fixtures consisted mainly of industry 3431, Metal Plumbing Fixtures.

The production index for the primary products of the industry increased to 140 in 1963 from the 1958 level of 110 . The unit value index for 1963 was 88 compared to 102 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3262-VITREOUS CHINA TABLE AND KITCHEN ARTICLES

This industry comprises establishments primarily engaged in manufacturing vitreous china table and kitchen articles for use in households and in hotels, restaurants, and other commercial institutions for preparing, serving, or storing food or drink. Establishments primarily engaged in manufacturing fine (semivitreous) types of earthenware (whiteware) table and kitchen articles are classified in industry 3263. For a detailed list of products of industry 3262, refer to table 6A, product codes 3262018 to 3262052 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Vitreous China Food Utensils Industry totaled $\$ 51$ million. This amount included shipments of vitreous china food utensils (primary products) valued at $\$ 47$ million, shipments of other products (secondary products) and miscellaneous receipts at $\$ 3$ million.

This industry's shipments of vitreous china food utensils represented over 90 percent of its total product shipments. The exact percentage is withheld to avoid disclosing figures of individual companies. The industry specialization ratio in 1958 was 96 percent.

Shipments of vitreous china food utensils by this industry represented 91 percent of all shipments of these products ( $\$ 52$ million) by all industries. In 1958 the coverage ratio was 96 percent. Other industries shipping vitreous china food utensils consisted mainly of industry 3263, Earthenware Food Utensils.

The production index for the primary products of the industry increased to 90 in 1963 from the 1958 level of 88 . The unit value index for 1963 was 119 compared to 123 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3263-FINE EARTHENWARE (WHITEWARE) TABLE AND KITCHEN ARTICLES

This industry comprises establishments primarily engaged in manufacturing fine (semivitreous) types of earthenware table and kitchen articles for preparing, serving, or storing food or drink. Establishments primarily engaged in manufacturing vitreous china table and kitchen articles are classified in industry 3262. For a detailed list of products of industry 3263 , refer to table 6A, product codes 3263012 to 3263052 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Fine Earthenware Food Utensils Industry totaled $\$ 59$ million. This amount included shipments of fine earthenware food utensils (primary products) valued at $\$ 53$ million, shipments of other products (secondary products) valued at $\$ 5$ million, and miscellaneous receipts at $\$ 2$ million.

This industry's shipments of fine earthenware food utensils represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent. Secondary products shipped by this industry in 1963 consisted mainly of fine vitreous china food utensils.

Shipments of fine earthenware food utensils by this industry represented 91 percent of all shipments of these products ( $\$ 58$ million) by all industries. In 1958 the coverage ratio was also 91 percent. Other industries shipping fine earthenware food utensils consisted mainly of industry 3253, Ceramic Wall and Floor Tile.

The production index for the primary products of the industry increased to 78 in 1963 from the 1958 level of 60 . The unit value index for 1963 was 106 compared to 127 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3264-PORCELAIN ELECTRICAL SUPPLIES

This industry comprises establishments primarily engaged in the manufacture of porcelain electrical insulators, molded porcelain parts for electrical devices, steatite electrical products and other electrical supplies from clay and other ceramic materials. For a detailed list of products of industry 3264, refer to table 6A, codes 3264012 to 3264098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Porcelain Electrical Supplies Industry totaled $\$ 132$ million. This amount included shipments of porcelain electrical supplies (primary products) valued at $\$ 115$ million, shipments of other products (secondary products) valued at $\$ 12$ million, and miscellaneous receipts at $\$ 5$ million.

This industry's shipments of porcelain electrical supplies represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent. Secondary products shipped by this industry in 1963 consisted mainly of pottery products, n.e.c. ( $\$ 3$ million), and current-carrying wiring devices (over $\$ 2$ million).

Shipments of porcelain electrical supplies by this industry represented 95 percent of all shipments of these products ( $\$ 121$ million) by all industries. $\ln 1958$ the coverage ratio was 93 percent. Other industries shipping porcelain electrical supplies consisted mainly of industry 3269, Pottery Products, N.E.C.

## 3269-POTTERY PRODUCTS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in firing and decorating white china and earthenware for the trade and manufacturing art and ornamental pottery, industrial and laboratory pottery, stoneware and coarse earthenware table and kitchen articles, unglazed red earthenware florists' articles, and other pottery products not elsewhere classified. For a detailed list of products of industry 3269, refer to table 6 A, product codes 3269011 to 3269091 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Pottery Products, N.E.C., Industry totaled $\$ 96$ million. This amount included shipments of pottery products, n.e.c.,(primary products) valued at $\$ 73$ million, shipments of other products (secondary products) valued at $\$ 11$ million, and miscellaneous receipts at $\$ 12$ million.

This industry's shipments of pottery products, n.e.c., represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 consisted mainly of porcelain electrical supplies.

Shipments of pottery products, n.e.c., by this industry represented 89 percent of all shipments of these products ( $\$ 81$ million) by all industries. In 1958 the coverage ratio was 90 percent. Other industries shipping pottery products, n.e.c., consisted mainly of industry 3264, Porcelain Electrical Supplies, $\$ 3$ million.

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> ( $\$ 1,000$ ) | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | with 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3261. -VITREOUS PLUMBING FIXTURES |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 34 | 49 | 43 | 9,280 | 56,794 | 7,893 | 15,519 | 46,588 | 101,502 | 55,664 | 155,658 | 2,442 | 97 | 97 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 8,812 | 51,529 | 7,354 | 14,309 | 40,955 | 88,054 | 52,758 | 141,451 | 1,572 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 8,945 | 49,339 | 7,457 | 14,133 | 39,277 | 85,808 | 49,829 | 135,382 | 3,222 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 10,308 | 56,050 | 8,743 | 16,988 | 45,042 | 100,615 | 56,993 | 153,726 | 3,179 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 10,919 | 58,820 | 9,376 | 18,556 | 48,219 | 112,780 | 64,909 | 175,530 | 1,831 | (NA) | (NA) |
| 1958. | 35 | 49 | 43 | 9,677 | 49,568 | 8,111 | 15,638 | 39,580 | 87,293 | 52,793 | 142,683 | 1,613 | 97 | 97 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 10,240 | 52,320 | 8,690 | 17,249 | 41,336 | 99,011 | 47,217 | 142,177 | (S) | 98 | 99 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 11,365 | 57,013 | 9,822 | 20,254 | 46,403 | 117,255 | 54,594 | 162,978 | (S) | (NA) | (NA) |
| $1955{ }^{1}$. | (NA) | (NA) | (NA) | 10,883 | 52,102 | 9,527 | 19,758 | 43,380 | 107,031 | 50,599 | 153,955 | (S) | (NA) | (NA) |
|  | 25 | 37 | 33 | 9,200 | 40,541 | 7,785 | 15,676 | 32,987 | 75,539 | 50,242 | 128,229 | 1,061 | 99 | 99 |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 8,896 | 37,019 | 7,582 | (NA) | 29,253 | 65,312 | 31,583 | 96,895 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 10,536 | 43,585 | 9,191 | (NA) | 35,827 | 86,276 | 40,046 | 126,322 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 10,067 | 38,480 | 8,757 | (NA) | 31,411 | 77,777 | 33,730 | 111,507 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 9,044 | 32,012 | 8,020 | (NA) | 25,923 | 51,714 | 30,989 | 82,703 | (NA) | (NA) | (NA) |
| 1947. | 26 | 33 | (NA) | 7,831 | 24,615 | 6,996 | 14,591 | 21,187 | 45,677 | 22,416 | 68,093 | (NA) | 98 | 99 |
| 1939. | (NA) | 25 | (NA) | 5,146 | 7,669 | 4,534 | (NA) | 6,316 | 14,997 | 6,982 | 21,979 | (NA) | (NA) | (NA) |
| 1937....... | (NA) | 30 | (NA) | (NA) | (NA) | 4,577 | (NA) | 6,481 | 14,547 | 5,846 | 20,393 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3262.-VITREOUS CHINA FOOD UTENSILS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 26 | 31 | 21 | 6,314 | 29,552 | 5,288 | 9,817 | 21,773 | 42,504 | 8,927 | 50,954 | 724 | (D) | 91 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 6,691 | 29,631 | 5,515 | 10,611 | 21,572 | 43,785 | 9,154 | 52,205 | 1,069 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 6,512 | 27,905 | 5,404 | 10,088 | 20,174 | 40,236 | 8,560 | 49,153 | 631 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA.) | (NA) | 7,052 | 30,034 | 5,876 | 10,950 | 21,645 | 42,588 | 9,015 | 51,468 | 782 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 7,219 | 30,367 | 6,103 | 11,633 | 22,633 | 42,735 | 8,933 | 51,792 | 1,059 | (NA) | (NA) |
| 1958. | 26 | 28 | 23 | 7,248 | 28,573 | 6,002 | 10,946 | 20,508 | 39,285 | 8,082 | 47,695 | 906 | 96 | 96 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 8,023 | 30,779 | 7,011 | 13,011 | 23,435 | 42,120 | 8,406 | 49,782 | 1,045 | 96 | 96 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 8,306 | 30,664 | 7,308 | 13,733 | 23,771 | 41,801 | 8,475 | 42,914 | 1,248 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 8,441 | 28,158 | 7,421 | 13,496 | 22,110 | 37,902 | 7,937 | 46,436 | 701 | (NA) | (NA) |
| 1954. | 32 | 34 | 29 | 8,704 | 28,161 | 7,693 | 14,061 | 22,622 | 36,413 | 8,675 | 45,063 | 1,333 | 95 | 96 |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 8,194 | 24,860 | 7,340 | 13,184 | 30,407 | 33,061 | 7,076 | 40,137 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 9,356 | 27,670 | 8,454 | 15,937 | 22,942 | 34,791 | 7,902 | 42,693 | (NA) | (NA) | (NA) |
| 1947. | 26 | 27 | 25 | 11,000 | 26,849 | 10,326 | 20,228 | 23,530 | 35,228 | 7,968 | 43,196 | 2,692 | 97 | 97 |
| $1939{ }^{2}$ | (NA) | 17 | (NA) | 4,798 | 5,716 | 4,350 | (NA) | 4,639 | 7,653 | 1,707 | 9,360 | (NA) | (NA) | (NA) |
| 1937²...... | (NA) | 18 | (NA) | (NA) | (NA) | 4,671 | (NA) | 5,030 | 8,438 | 1,977 | 10,415 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3263.-FINE EARTHENWARE FOOD UTENSILS |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $21$ | 18 | 7,349 | 31,614 | 6,594 | 12,319 | 26,416 | 41,046 | 17,881 | 59,046 | 797 | 92 | 91 |
| $1962^{1} .$ | (NA) | (NA) | (NA) | $(6,714)$ | $(27,086)$ | $(5,951)$ | $(10,726)$ | $(22,231)$ | $(34,192)$ | $(14,242)$ | $(48,383)$ | (660) | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | $(6,890)$ | $(25,870)$ | $(6,172)$ | $(10,833)$ | $(21,098)$ | $(32,769)$ | $(12,969)$ | $(46,446)$ | (673) | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | $(8,770)$ | $(33,575)$ | (7,890) | $(13,787)$ | $(27,893)$ | $(41,743)$ | $(16,059)$ | $(58,326)$ | (724) | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | $(9,289)$ | $(33,526)$ | $(8,477)$ | $(14,331)$ | $(28,228)$ | $(41,898)$ | $(15,490)$ | $(58,215)$ | (499) | (NA) | (NA) |
| 1958. | 29 | 30 | 24 | 8,718 | 28,749 | 7,969 | 12,645 | 24,756 | 36, 311 | 13,221 | 50,230 | 586 | 98 | 91 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 10,916 | 37,918 | 10,026 | 17,018 | 31,915 | 45,054 | 17,514 | 63,212 | 778 | 96 | 90 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 12,470 | 41,439 | 11,502 | 19,231 | 35,045 | 52,746 | 18,099 | 69,307 | 1,126 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 13,034 | 39,706 | 12,104 | 19,898 | 33,686 | 50,590 | 17,476 | 67,985 | 733 | (NA) | (NA) |
| 1954. | 46 | 47 | 36 | 13,335 | 38,742 | 12,333 | 19,467 | 32,468 | 48,655 | 17,220 | 67,029 | 528 | 98 | 92 |
| 19531 | (NA) | (NA) | (NA) | 14,593 | 42,790 | 13,510 | 22,892 | 37,172 | 52,173 | 15,578 | 67,751 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 17,726 | 54,936 | 16,159 | 29,266 | 46,949 | 72,062 | 21,007 | 93,069 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 17,822 | 54,001 | 16,209 | 29,483 | 46,484 | 70,185 | 22,743 | 92,928 | (NA) | (NA) | (NA) |
| 19501 | (NA) | (NA) | (NA) | 17,396 | 47,492 | 15,866 | 29,465 | 40,219 | 60,894 | 20,911 | 81,805 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 18,146 | 46,070 | 16,705 | 28,022 | 39,395 | 56,140 | 20,500 | 76,640 | (NA) | (NA) | (NA) |
| 1947. | 74 | 76 | 42 | 16,747 | 42,091 | 15,742 | 29,733 | 37,175 | 54,837 | 17,217 | 72,054 | 4,784 | 92 | 97 |
| 1939. | (NA) | 31 | (NA) | 12,773 | 15,600 | 11,728 | (NA) | 13,150 | 19,644 | 8,157 | 27,801 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 35 | (NA) | (NA) | (NA) | 11, 348 | ( NA ) | 12,918 | 17,945 | 7,744 | 25,689 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3264.-PORCELAIN ELECTRICAL SUPPLIES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 74 | 79 | 49 | 10,170 | 57,401 | 8,028 | 15,917 | 41,120 | 90,001 | 41,775 | 131,790 | 4,142 | 91 | 95 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 10,137 | 53,782 | 8,032 | 15,625 | 38,809 | 83,898 | 40,474 | 122,765 | 4,696 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 9,656 | 50,563 | 7,675 | 15,070 | 36,447 | 77,384 | 37,550 | 115,264 | 5,159 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 9,376 | 47,211 | 7,641 | 15,237 | 35,440 | 75,931 | 35,899 | 111,384 | 4,130 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 9,605 | 46,502 | 7,994 | 16,096 | 35,093 | 76,695 | 34,792 | 109,864 | 3,508 | (NA) | (NA) |
| 1958. | 57 | 59 | 44 | 9,107 | 42,362 | 7,489 | 14,741 | 31,342 | 66,074 | 31,014 | 97,475 | 4,390 | 92 | 93 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 9,538 | 43,758 | 7,965 | 15,916 | 33,159 | 70,969 | 30,370 | 101,957 | (S) | (NA) | (NA) |
| 19561. | (NA) | (NA) | (NA) | 10,347 | 45,367 | 8,813 | 17,602 | 35,153 | 72,604 | 28,899 | 99,403 | (S) | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 10,006 | 40,526 | 8,458 | 17,074 | 31,468 | 62,727 | 25,620 | 86,902 | 5,645 | (NA) | (NA) |
| 1954. | 42 | 45 | 37 | 9,550 | 37,679 | 7,990 | 15,847 | 28,629 | 54,312 | 27,798 | 83,169 | 5,357 | 94 | 87 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 11,393 | 43,480 | 9,808 | 19,765 | 33,947 | 63,906 | 28,751 | 72,657 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 11,318 | 41,748 | 9,870 | 19,872 | 33,415 | 60,576 | 30,271 | 90,847 | (NA) | (NA) | (NA) |
| 1951 ${ }^{1}$ | (NA) | (NA) | (NA) | 12,120 | 41,093 | 10,754 | 21,706 | 33,513 | 62,768 | 31,846 | 94,614 | (NA) | (NA) | (NA) |

[^55]
## TABLE 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | $\begin{gathered} \text { Value } \\ \text { added by } \\ \text { manufacture, } \\ \text { adjusted } \\ (\$ 1,000) \end{gathered}$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 <br> employ- <br> ees <br> or more <br> (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| $\begin{aligned} & 1950^{1} \ldots . . \\ & 1949^{1} \ldots \\ & 1947 . \\ & 1939^{3} \ldots \\ & 1937^{3} \ldots \end{aligned}$ | INDUSTRY 3264.-PORCELAIN ELECTRICAL SUPPLIES-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | (NA) | (NA) | (NA) | 9,896 | 30,496 | 8,690 | 17,774 | 24,434 | 48,760 | 21,397 | 70,157 | (NA) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 9,282 | 27,187 | 8,168 | 16,371 | 21,849 | 42,120 | 20,561 | 62,681 | (NA) | (NA) | (NA) |
|  | 47 | 50 | 40 | 11,547 | 30,463 | 10,447 | 21,553 | 25,454 | 52,832 | 18,652 | 71,484 | 2,904 | 89 | 93 |
|  | (NA) | 42 | (NA) | 6,897 | 8,767 | 6,018 | (NA) | 6,530 | 13,673 | 7,144 | 20,817 | (NA) | (NA) | (NA) |
|  | (NA) | 37 | (NA) | (NA) | (NA) | 7,170 | (NA) | 8,160 | 16,208 | 7,451 | 23,659 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3269.-POTTERY PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 449 | 458 | 98 | 9,085 | 37,508 |  | 14,920 | 27,805 | 62,107 | 34,145 | 95,541 | 3,064 | 87 | 89 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 9,799 | 38,018 | 8,372 | 15,341 | 28,481 | 59,795 | 34,836 | 96,211 | 1,323 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 9,003 | 33,829 | 7,651 | 14,743 | 25,630 | 55,788 | 31,747 | 89,642 | 3,287 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 9,683 | 34,979 | 8,339 | 15,978 | 26,730 | 57,323 | 29,761 | 88,798 | 2,813 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 10,404 | 34,801 | 8,723 | 16,650 | 26,608 | 57,735 | 31,141 | 87,295 | 2,391 | (NA) | (NA) |
| $1958{ }^{4} 5$ | 580 | 587 | 108 | 9,250 | 31,218 | 7,745 | 15,155 | 23,778 | 54,046 | 25,202 | 78,800 | 3,275 | 93 | 90 |
| $1954{ }^{4}$ | (NA) | 704 | 115 | 10,144 | 28,438 | 8,958 | 17,177 | 22,569 | 42,710 | 17,302 | 60,456 | 2,352 | 95 | 90 |
| $1947{ }^{4}$. | (NA) | 556 | 126 | 10,781 | 22,944 | 9,865 | 20,959 | 19,331 | 36,218 | 12,086 | 48,304 | 2,710 | 96 | 85 |
| 19392 | (NA) | 175 | (NA) | 7,481 | 9,165 | 6,475 | (NA) | 6,824 | 13,990 | 4,937 | 18,927. | (NA) | (NA) | (NA) |
| $1937{ }^{2}$ | (NA) | 147 | (NA) | (NA) | (NA) | 5,600 | (NA) | 6,099 | 12,263 | 3,997 | 16,260 | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unad justed value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustrnent is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
$(S)$ Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ Establishments primarily engaged in manufacturing vitreous china household food utensils are excluded from the 1939 and 1937 figures for "Vitreous china food utensils" and included in the figures for "Pottery products, n.e.c." Five establishments were primarily engaged in making these products in 1947.
${ }^{3}$ Excludes data for establishments which manufactured steatite and other ceramic electrical products.
${ }^{4}$ The 1957 Standard Industrial Classification combined in this industry two industries which were separate in the 1945 Standard Industrial Classification. These were: SIC 3265, China Decorating for the Trade, and SIC 3269, Pottery Products, N.E.C. The data for 1957 and earlier years for these two industries have been combined.
${ }^{5}$ Revised to include data for Alaska and Hawaii.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expend itures, new $(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| Total........... | INDUSTRY 3261.-VITREOUS PLUMBING FIXIURES |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 49 | 43 | 9,280 | 56,794 | 7,893 | 15,519 | 46,588 | 101,502 | 55,664 | 155,658 | 2,442 | 9,677 | 87,293 |
| Northeast............ <br> New Jersey | 19 | 14 | 3,375 1,974 | 20,612 11,888 | $\begin{aligned} & 2,857 \\ & 1,672 \end{aligned}$ | $\begin{aligned} & 5,540 \\ & 3,214 \end{aligned}$ | 17,227 9,971 | $\begin{aligned} & 37,593 \\ & 20,201 \end{aligned}$ | $\begin{aligned} & 19,499 \\ & 10,938 \end{aligned}$ | $\begin{aligned} & 56,848 \\ & 31.102 \end{aligned}$ | $\begin{aligned} & 450 \\ & 177 \end{aligned}$ | $\begin{gathered} 3,645 \\ \left({ }^{2}\right) \end{gathered}$ | $\begin{array}{r} 31,343 \\ (2) \end{array}$ |
|  | $\begin{array}{r} 15 \\ 4 \\ 3 \end{array}$ | 15 4 3 | 3,804 668 786 | 22,132 4,214 4,457 | 3,273 550 671 | 6,486 1,111 1,155 | 18,111 3,268 3,724 | 38,161 7,347 7,334 | $\begin{array}{r} 22,227 \\ 5,350 \\ 3,913 \end{array}$ | 59,495 12,894 11,047 | $\begin{array}{r} 967 \\ 72 \\ 175 \end{array}$ | 3,693 830 $(2)$ | $\begin{gathered} 32,595 \\ 7,378 \\ (2) \end{gathered}$ |
| South. . . . . . . . . . . . . | 7 | 7 | 976 | 5,834 | 820 | 1,642 | 4,607 | 10,931 | 6,398 | 17,274 | 740 | 1,181 | 9,591 |
| ```Pacific............. California``` | 8 | 7 7 | 1,125 1,125 | $\begin{aligned} & 8,216 \\ & 8,216 \end{aligned}$ | 943 943 | 1,851 1,851 | 6,643 6,643 | 14,817 14,817 | 7,540 7,540 | 22,041 22,041 | $\begin{aligned} & 285 \\ & 285 \end{aligned}$ | 1,158 1,158 | $\begin{aligned} & 13,764 \\ & 13,764 \end{aligned}$ |
|  | INDUSTRY 3262.-VITREOUS CHINA FOOD UTENSILS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.. | 31 | 21 | 6,314 | 29,552 | 5,288 | 9,817 | 21,773 | 42,504 | 8,927 | 50,954 | 724 | 7,248 | 39,285 |
| Middle Atlantic..... Pennsylvania...... | 11 | 10 | 4,568 1,801 | 22,430 8,681 | 3,714 1,483 | 7,023 2,858 | 15,996 6,516 | 32,894 11,340 | 6,822 2,163 | 39,322 12,960 | $\begin{aligned} & 619 \\ & 203 \end{aligned}$ | $\begin{gathered} 4,745 \\ (2) \end{gathered}$ | $28, \frac{115}{(2)}$ |
| North Central........ <br> South and West...... | 8 12 | 5 6 | $\begin{array}{r} 1,137 \\ 609 \end{array}$ | $\begin{aligned} & 4,699 \\ & 2,423 \end{aligned}$ | 1,026 548 | 1,771 | $\begin{aligned} & 3,750 \\ & 2,027 \end{aligned}$ | $\begin{aligned} & 6,569 \\ & 3,041 \end{aligned}$ | 1,062 | $\begin{aligned} & 7,613 \\ & 4,019 \end{aligned}$ | 74 31 | $\begin{array}{r} 1,585 \\ 918 \end{array}$ | $\begin{aligned} & 6,703 \\ & 4,467 \end{aligned}$ |
|  | INDUSTRY 3263. -FINE EARTHENWARE FOOD UTENSILS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.. | 21 | 18 | 7,349 | 31,614 | 6,594 | 12,319 | 26,416 | 41,046 | 17,881 | 59,046 | 797 | 8,718 | 36,311 |
| Northeast and North Central. Ohio. | 12 7 | 11 6 | 4,646 2,707 | $\begin{aligned} & 19,832 \\ & 11,232 \end{aligned}$ | $\begin{aligned} & 4,168 \\ & 2,461 \end{aligned}$ | $\begin{aligned} & 7,915 \\ & 4,560 \end{aligned}$ | $\begin{array}{r} 17,034 \\ 9,748 \end{array}$ | $\begin{aligned} & 26,488 \\ & 14,188 \end{aligned}$ | $\begin{array}{r} 11,688 \\ 7,591 \end{array}$ | $\begin{array}{r} 38,220 \\ 21,900 \end{array}$ | $\begin{array}{r} 658 \\ 445 \end{array}$ | $\begin{aligned} & 4,717 \\ & 2,820 \end{aligned}$ | $\begin{aligned} & 22,350 \\ & 11,871 \end{aligned}$ |
| South and West...... West Virginia..... | $\begin{aligned} & 9 \\ & 4 \end{aligned}$ | 7 3 | $\begin{aligned} & 2,703 \\ & 2,215 \end{aligned}$ | $\begin{array}{r} 11,782 \\ 9,763 \end{array}$ | $\begin{aligned} & 2,426 \\ & 2,037 \end{aligned}$ | $\begin{aligned} & 4,404 \\ & 3.679 \end{aligned}$ | $\begin{aligned} & 9,382 \\ & 8,025 \end{aligned}$ | $\begin{aligned} & 14,558 \\ & 11,578 \end{aligned}$ | $\begin{aligned} & 6,193 \\ & 5,222 \end{aligned}$ | $\begin{aligned} & 20,826 \\ & 16,873 \end{aligned}$ | $\begin{array}{r} 139 \\ 90 \end{array}$ | $4,001$ | $\begin{array}{r} 13,961 \\ (2) \end{array}$ |


| Total............ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 79 | 49 | 10,170 | 57,401 | 8,028 | 15,917 | 41,120 | 90,001 | 41,775 | 131,790 | 4,142 | 9,107 | 66,074 |
| Northeast. | 38 | 25 | 3,785 | 21,200 | 3,059 | 6,207 | 15,292 | 33,673 | 18,049 | 51,383 | 1,766 | 3,396 | 24,190 |
| New York... | 7 | 4 | 1,275 | 8,109 | 1,015 | 2,026 | 5,903 | 14,586 | 9,742 | 24,056 | -794 | 1,160 | 11,039 |
| Pennsylvania...... | 8 | 5 | 1,265 | 6,972 | 1,037 | 2,134 | 5,063 | 11,006 | 5,119 | 15,817 | 452 | 1,042 | 6,524 |
| East North Central.. | 14 | 12 | 3,725 | 21,430 | 2,804 | 5,262 | 15,298 | 32,412 | 13,234 | 45,889 | 737 | 3,208 | 23,944 |
| Ohio.............. | 8 | 7 | 1,567 | 9,210 | 1,230 | 2,360 | 6,794 | 18,562 | 8,722 | 27,480 | 349 | 1,692 | 14,929 |
| South. <br> Pacific. | 12 | 10 | 2,540 | 14,124 | 2,068 | 4,254 | 10,059 | 22,725 | 9,970 | 32,782 | 1,513 | 2,417 | 17,573 |
|  | 15 | 2 | 120 | 647 | 97 | 194 | 471 | 1,191 | 522 | 1,736 | 126 | 86 | 367 |
|  | INDUSTRY 3269.-POTTERY PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total........... | 458 | 98 | 9,085 | 37,508 | 7,539 | 14,920 | 27,805 | 62,107 | 34,145 | 95,541 | 3,064 | ${ }^{3} 9,250$ | ${ }^{3} 54,046$ |
| New England | 26 | 2 | 174 | 636 | 150 | 272 | 496 | 1,319 | 409 | 1,708 | 43 | 179 | 1,067 |
| Middle Atlantic. | 74 | r 20 |  | 5,7491,033 | 1,131 | 2,212364 |  | 10,728 | 4,958 |  | 599 | 1,357 | 9,489 |
| New York.........New Jersey....... | 35 |  | 1,347 |  |  |  | 4,728 | 2,035 | 4,976 | 15,628 | 91 | 1,306 | 2,7882,220 |
|  | 20 | 7 | 398 | 1,822 | 317 | 649 | 1,275 | 3,150 | 929 | 4,046 | 306 | 373 |  |
| Pennsylvania. |  | 8 | 729 | 2,894 | 617 | 1,199 | 2,193 | 5,543 | 3,253 | 8,792 | 202 | 578 | 4,481 |
| East North Central..Ohio............Illinois......... | $\begin{aligned} & 88 \\ & 52 \end{aligned}$ | 3625 | 3,3112,097 | 14,0968,949 | $\begin{aligned} & 2,684 \\ & 1,038 \end{aligned}$ | $\begin{aligned} & 5,437 \\ & 3,200 \\ & , 2005 \end{aligned}$ | $\begin{aligned} & 9,787 \\ & 5,814 \end{aligned}$ | $\begin{aligned} & 22,898 \\ & 14,425 \end{aligned}$ | $\begin{aligned} & 16,192 \\ & 11,709 \end{aligned}$ | 38,72225,674 | $\begin{aligned} & 730 \\ & 417 \end{aligned}$ | $(2)$$(2)$2 | $(2)$$(2)$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 20 | 9 | 1,065 | 4,452 | -924 |  | 3,455 | 6,845 | 4,170 | 11,116 | 281 | 1,084 | 6,583 |
| West North Central..South Atlantic..... | $\begin{aligned} & 15 \\ & 42 \\ & 26 \end{aligned}$ | 237 | $\begin{aligned} & 136 \\ & 316 \end{aligned}$ | $\begin{aligned} & 520 \\ & 949 \end{aligned}$ | $\begin{aligned} & 117 \\ & 270 \end{aligned}$ | $\begin{aligned} & 238 \\ & 504 \end{aligned}$ | $\begin{aligned} & 396 \\ & 747 \end{aligned}$ | $\begin{array}{r} 969 \\ 1,703 \end{array}$ | $\begin{array}{r} 361 \\ 1,181 \end{array}$ | $\begin{aligned} & 1,351 \\ & 2,869 \end{aligned}$ | 83 | 397 | $\begin{array}{r} \left({ }^{2}\right) \\ 1,806 \\ 1,936 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| East South Central.. |  | 7 | 518 | 1,618 | 472 | 937 | 1,369 | 2,253 | 1,214 | 3,443 | 152 | 444 |  |
| West South Central.. | $\begin{aligned} & 21 \\ & 16 \end{aligned}$ | 43 | $\begin{aligned} & 235 \\ & 190 \end{aligned}$ | $\begin{aligned} & 698 \\ & 577 \end{aligned}$ | $\begin{aligned} & 203 \\ & 166 \end{aligned}$ | $\begin{aligned} & 380 \\ & 314 \end{aligned}$ | $\begin{aligned} & 565 \\ & 480 \end{aligned}$ | $\begin{array}{r} 1,008 \\ 830 \end{array}$ | $\begin{array}{r} 389 \\ 329 \end{array}$ | $\begin{aligned} & 1,397 \\ & 1,151 \end{aligned}$ | $\begin{aligned} & 119 \\ & 109 \end{aligned}$ | $\begin{aligned} & 307 \\ & 226 \end{aligned}$ | $\begin{aligned} & 1,447 \\ & 1,117 \end{aligned}$ |
| Texas. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West................. | $\begin{aligned} & 166 \\ & 143 \end{aligned}$ | 2422 | $\begin{aligned} & 3,021 \\ & 1,933 \end{aligned}$ | $\begin{array}{r} 13,242 \\ 6,663 \end{array}$ | $\begin{aligned} & 2,512 \\ & 1,746 \end{aligned}$ | $\begin{aligned} & 4,940 \\ & 3,153 \end{aligned}$ | $\begin{array}{r} 10,249 \\ 5,616 \end{array}$ | $\begin{aligned} & 21,229 \\ & 11,209 \end{aligned}$ | $\begin{aligned} & 9,441 \\ & 4,877 \end{aligned}$ | $\begin{aligned} & 30,423 \\ & 15,811 \end{aligned}$ | $\begin{array}{r} 1,222 \\ 603 \end{array}$ | $\begin{aligned} & 2,860 \\ & 2,279 \end{aligned}$ | $\begin{aligned} & 16,759 \\ & 13,191 \end{aligned}$ |
| California........ |  |  |  |  |  |  |  |  |  |  |  |  |  |

## table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

## Footnotes for Table 2-32C

n.e.c. Not elsewhere classified.
$1_{\text {General }}$ statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3261, Vitreous Plumbing Fixtures: New England-Connecticut, 2 (250-499); Middle Atlantic-New York, 2 ( $1-19$ ); Pennsylvania, 3 (1,000-2,499); East North Central-Ohio, 4 (1,000-2,499); Wisconsin, 2 (1,000-2,499); West North Central—Missouri, 1 (20-99); Kansas, 1 (20-99); South AtlanticGeorgia, 1 (20-99); East South Central-Alabama, 1 (20-99); West South Central-Louisiana, 1 (250-499); Texas, 4 (445).
SIC 3262, Vitreous China Food Utensils: Middle Atlantic-New York, 5 (1,000-2,499); New Jersey, 2 (500-999); East North Central-Ohio, 6 (1,000-2,499); Illinois, l (20-99); West North Central—Missouri, l (1-19); South Atlantic-West Virginia, 2 (100-249); Florida, 1 (1-19); West South CentralOklahoma, 1 (1-19); Pacific-California, 8 (468).
SIC 3263, Fine Earthenware Food Utensils: Middle Atlantic-New Jersey, 1 (100-249); Pennsylvania, 1 (100-249); East North Central-Illinois, l (500-999); Michigan, 1 (250-499); West North Central—Minnesota, 1 (100-249); West South Central—Oklahoma, (20-99); Mountain-Arizona, 1 (1-19); Pacific-California, 3 (250-499).
SIC 3264, Porcelain Electrical Supplies: New England-Massachusetts, 3 (20-99); Rhode Island, 1 (1-19); Connecticut, 2 (100-249); Middle AtlanticNew Jersey, 17 (500-999); East North Central-Indiana, l (1-19); Illinois, 2 (250-499); Michigan, l (500-999); Wisconsin, 2 (500-999); South Atlantic—Maryland, 4 (500-999); West Virginia, 4 (289); South Carolina, 1 (20-99); East South Central—Tennessee, 3 (1,000-2,499); PacificWashington, 1 (1-19); California, 14 (100-249).
SIC 3269, Pottery Products, N.E.C.: New England Maine, 4 (1-19); New Hampshire, 4 (1-19); Vermont, 2 (1-19); Massachusetts, 8 (20-99); Rhode Island, 2 (1-19); Connecticut, 6 (20-99); East North Central-Indiana, 5 (20-99); Michigan, 6 (20-99); Wisconsin, 5 (1-19); West North Central-Minnesota, 1 (1-19); Iowa, 2 (1-19); Missouri, 6 (20-99); North Dakota, 1 (1-19); South Dakota, 1 (1-19); Nebraska, 1 (1-19); Kansas, 3 (20-99); South
Atlantic-Maryland, 1 (1-19); Virginia, 4 (20-99); West Virginia, 5 (20-99); North Carolina, 9 (20-99); South Carolina, 1 (1-19); Georgia, 9 (20-99); Florida, 13 (20-99); East South Central-Kentucky, 13 (414); Tennessee, 6 (20-99); Alabama, 3 (1-19); Mississippi, 4 (1-19); West South CentralArkansas, 2 (20-99); Louisiana, 1 (1-19); Oklahoma, 2 (1-19); Mountain-Colorado, 8 (1,023); Arizona, 3 (1-19); Utah, 1 (1-19); Pacific-Washington, 4 (1-19); Oregon, 3 (20-99); Hawaii, 4 (20-99).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.
${ }^{3}$ Revised to include data for Alaska and Hawaii.

## TABLE 3. Detailed Statistics: 1963

| Item | Vitreous plumbing fixtures (SIC 3261) | Vitreous china food utensils (SIC 3262) | Fine earthenware food utensils (SIC 3263) | Porcelain electrical supplies (SIC 3264) | Pottery products, n.e.c. <br> (SIC 3269) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio ${ }^{1} .$. | . 97 | 2.90 | . 92 | . 91 | . 87 |
| Coverage ratio...................................................... . | . 97 | . 91 | . 91 | . 95 | . 89 |
| Establishments, total....................................... number. . | 49 | 31 | 21 | 79 | 458 |
| With 1 to 19 employees.. ................................. . ${ }^{\text {do... }}$ | 6 | 10 | 3 | 30 | 360 |
| With 20 to 99 employees. . . . . . . . . . . . . . . . . . . . . . . . . . . .do.... | 13 | 5 | 3 | 25 | 81 |
| With 100 employees or more..............................do.... | 30 | 16 | 15 | 24 | 17 |
| Proprietors and working partners........................do.. | 2 | 10 | 3 | 21 | 364 |
| All employees (average for the year)....................do... | 9,280 | 6,314 | 7,349 | 10,170 | 9,085 |
| Payroll (all employees), total for year............... $\$ 1,000 .$. | 56,794 | 29,552 | 31,614 | 57,401 | 37,508 |
| Production workers: |  |  |  |  |  |
| Average for the year...................................number.. | 7,893 | 5,288 | 6,594 | 8,028 | 7,539 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 7,845 | 5,275 | 6,491 | 7,956 | 7,417 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . | 7,987 | 5,311 | 6,477 | 8,049 | 7,122 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 7,745 | 5,216 | 6,496 | 8,039 | 7,693 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.... | 7,996 | 5,358 | 6,911 | 8,088 | 7,965 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .1,000. . | 15,519 | 9,817 | 12,319 | 15,917 | 14,920 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 3,777 | 2,405 | 2,871 | 3,920 | 3,684 |
| April-June . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 3,870 | 2,586 | 3,127 | 4,065 | 3,622 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 3,990 | 2,215 | 2,963 | 3,899 | 3,780 |
| October-December......................................... do.... | 3,891 | 2,611 | 3,358 | 4,043 | 4,014 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | 46,588 | 21,773 | 26,416 | 41,120 | 27,805 |
| Cost of materials, etc., total...........................do. | 55,664 | 8,927 | 17,881 | 41,775 | 34,145 |
| Materials, parts, containers, and supplies consumed..do.... Cost of resales. | 440,928 10,155 | 7,269 | 4 14,584 1,446 | 31,845 3,298 | 30,831 |
|  | 3,257 | 1,261 | 1,348 | 2,277 | 2,072 |
| Electric energy: |  |  |  |  |  |
| Purchased: |  |  |  |  |  |
| Quantity million kw. -hrs.. | 107 | 29 | 38 |  | 60 |
| Cost.............................................. \$1,000.. $^{\text {. }}$ | 1,324 | 397 | 503 | 1,347 | 961 |
| Generated less sold......................million kw.-hrs.. | (D) | (D) | - | (D) | - |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | (4) | - | (4) | 1,008 | 259 |
| Value of shipments (including resales), total...........do.... Value of resales............................................................ | 155,658 11,842 | 50,954 | 59,046 | 131,790 4,821 | 95,541 9,795 |
| Value added by manufacture, adjusted....................do. | 101,502 | 42,504 | 41,046 | 90,001 | 62,107 |
| Manufacturers' inventories: |  |  |  |  |  |
| Beginning of year, total..............................do.... | 25,363 | 11,442 | 9,835 | 19,789 | 8,668 |
| Finished products......................... . . . . . . . . . . do.... | 14,878 | 5,573 | 5,610 | 5,260 | 4,818 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 3,902 | 3,640 | 1,431 | 7,299 | 1,154 |
| Materials, supplies, fuel, etc.......................do.... | 6,583 | 2,229 | 2,794 | 7,230 | 2,696 |
| End of year, total......................................do.... | 26,818 | 11,873 | 9,663 | 19,599 | 9,867 |
| Finished products...................................... .do.... | 15,738 | 5,728 | 5,276 | 5,385 | 5,286 |
| Work-in-process......................... . . . . . . . . . . . . do... . | 4,550 | 3,962 | 1,646 | 7,160 | 1,397 |
| Materials, supplies, fuel, etc.......................do.... | 6,530 | 2,183 | 2,741 | 7,054 | 3,184 |
| Expenditures for plant and equipment, total............do.... | 2,508 | 2,365 | 824 | 4,265 | 3,343 |
| New, total............................................... .do.... | 2,442 | 724 | 797 | 4,142 | 3,064 |
| New structures and additions to plant...............do.... | 512 | 39 | 33 | 579 | 894 |
| New machinery and equipment.........................d.do.... | 1,930 | 685 | 764 | 3,563 | 2,170 |
| Used plant and equipment...............................do.... | 66 | 1,641 | 27 | 123 | 279 |
| Selected operating ratios: |  |  |  |  |  |
| Payroll/Total employment.. | 6,120 | 4,680 | 4,302 | 5,644 | 4,129 |
| Production workers/Total employment............................ | . 8.85 | . 84 | . 90 | , .79 | . 83 |
| Man-hours/Production workers............ . . . . . . . . . . . . . . . . . | 1,966 | 1,856 | 1,868 | 1,983 | 1,979 |
| Production worker wages/Man-hours............................. | 3.00 | 2.22 | 2.14 | 2.58 | 1.86 |
| Cost of materials and payrolls/Total value of shipments.... | . 72 | . 76 | . 84 | . 75 | . 75 |
| Costi of materials/Total value of shipments.................. | . 36 | . 18 | . 30 | . 32 | . 36 |
| Adjusted value added/Total employment........................ | 10,938 | 6,732 | 5,585 | 8,850 | 6,848 |
| Salaries and wages/Adjusted value added..................... | . 56 | . 70 | . 77 | . 64 | . 60 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }_{3}^{2}$ This is a minimum percentage. The exact percentage is withheld to avoid disclosing figures for individual companies.
${ }^{3}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufac-
${ }^{\text {turing establishments. }}$ Cost of contract work included with cost of materials, parts, containers, and supplies to avoid disclosing figures of individual companies.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3261. -VITREOUS PLUMBING FIXTURES |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 49 | 2 | 3 | 1 | 4 | 9 | 15 | 12 | 3 | - | - |
| All employees: |  |  | (D) |  |  |  |  |  |  |  |  |
| Total.......................d. ${ }^{\text {do.... }}$ Payroli. | 9,280 56,794 | 1$\frac{41}{85}$ | (D) | (D) | 105 | 641 3,339 | 2,354 13,863 | 4,427 28,205 | 1,712 10,784 | - | - |
| Value added, adjusted.......do.... | 101,502 | 320 | (D) | (D) | 520 | 5,204 | 24,079 | 52,105 | 19,274 | - | - |
| Value of shipments..........do.... | 155,658 | 544 | (D) | (D) | 850 | 7,672 | 41,358 | 77,712 | 27,522 | - | - |
| Capital expenditures, new...do.... | 2,442 |  | (D) | (D) | 15 | 637 | 394 | 1,124 |  | - | - |
|  | INDUSTRY 3262. -VITREOUS CHINA FOOD UTENSIIS |  |  |  |  |  |  |  |  |  |  |
| Establishments............ . umber. . | 31 | 4 | 2 | 4 | 3 | 2 | 6 | 8 | - | 2 | - |
| Total....... . . . . . . . . . . . . do. . . | 6,314 | 7 | 72 | (D) | 267 | (D) | 864 | 5,104 | - | (D) | - |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 29,552 | 11 | 299 | (D) | 964 | (D) | 3,585 | 24,693 | - | (D) | - |
| Value added, adjusted.......do.. | 42,504 | 17 | 488 | (D) | 1,648 | (D) | 4,485 | $\frac{35.866}{2573}$ | - | (D) | - |
| Value of shipments..........do.... | 50,954 | 22 | $\frac{593}{(D)}$ | (D) | 1,798 | (D) | 5,968 | 42,573 | - | (D) | - |
| Capital expenditures, new...do.... | 724 | 5 | (D) | (D) | 37 | (D) | 52 | 630 | - | (D) | - |
|  | INDUSTRY 3263. -FINE EARTHENWARE FOOD UTENSILS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 21 | - | 1 | 2 | 2 | 1 | 5 | 5 | 3 | 2 | - |
| All employees: <br> Total............................... | 7,349 | - | 182 | (D) | (D) | (D) | 819 | 1,840 | 4,508 | (D) | - |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 31,614 | - | 656 | (D) | (D) | (D) | 3,577 | 7,992 | 19.389 | (D) | - |
| Value added, adjusted.......do.... | 41,046 | - | 769 | (D) | (D) | (D) | 4,444 | 10,618 | 25,275 | (D) | - |
| Value of shipments..........do.... | 59,046 | - | 1,399 | (D) | (D) | (D) | 6,967 | 15,386 | 35,294 | (D) | - |
| Capital expenditures, new...do.... | 797 | - | 66 | (D) | (D) | (D) | (D) | 342 | 389 | (D) | - |
|  | INDUSTRY 3264. -PORCELAIN ELECTRICAL SUPPLIES |  |  |  |  |  |  |  |  |  |  |
| Establishments............ . | 79 | 18 | 4 | 8 | 13 | 12 | 13 | 5 | 5 | 1 | - |
| Total....................... . do.... | 10,170 | 30 | 23 | 101 | 382 | 941 | 2,129 | 1,557 | 5,007 | (D) | - |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 57,401 | 172 | 94 | 445 | 1,977 | 4,210 | 11,661 | 7,808 | 31,034 | (D) | - |
| Value added, adjusted.......do.... | 90,001 | 232 | 109 | 561 | 3,062 | 7,120 | 18,318 | 14,065 | 46,534 | (D) | - |
| Value of shipments..........do.... | 131,790 | 324 | 212 | 759 | 4,500 | 9,669 | 28,709 | 18,931 | 68,686 | (D) | - |
| Capital expenditures, new...do.... | 4,142 | 20 | 6 | 93 | 223 | 341 | 684 | 356 | 2,419 | (D) | - |
|  | INDUSTRY 3269.-POTTERY PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 458 | 223 | 94 | 43 | 58 | 23 | 13 | 3 | 1 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................d. ${ }^{\text {do... }}$ | 9,085 | 340 | 622 | 590 | 1,902 | 1,585 | 2,164 | 1,882 | (D) | - | - |
| Payroll. . . . . . . . . . . . . . $\$ 1,000$. . | 37,508 | 951 | 1,997 | 2,194 | 7,644 | 6,278 | 8,280 | 10,164 | (D) | - | - |
| Value added, adjusted.......do.... | 62,107 | 2,096 | 3,699 | 4,183 | 12,556 | 10,579 | 13,103 | 15,891 | (D) | - | - |
| Value of shipments..........do.... | 95,541 | 3,070 | 5,600 | 6,061 | 17,275 | 15,901 | 20,647 | 26,987 | (D) | - | - |
| Capital expenditures, new...do.... | 3,064 | 230 | 335 | 173 | 812 | 245 | 575 | 694 | (D) | - | - |

[^56]
## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\qquad$ <br> Col. B+C <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3261 | Vitreous plumbing fixtures........ 1963.. | $\begin{aligned} & 155,658 \\ & 142,683 \end{aligned}$ | $\begin{aligned} & 139,069 \\ & 126,746 \end{aligned}$ | $\begin{aligned} & 4,721 \\ & 4,074 \end{aligned}$ | $\begin{aligned} & 11,868 \\ & 11,863 \end{aligned}$ | $\begin{aligned} & 97 \\ & 97 \end{aligned}$ | $\begin{aligned} & 143,762 \\ & 130,517 \end{aligned}$ | $\begin{aligned} & 139,069 \\ & 126,746 \end{aligned}$ | $\begin{aligned} & 4,693 \\ & 3,771 \end{aligned}$ | $\begin{aligned} & 97 \\ & 97 \end{aligned}$ |
| 3262 | Vitreous china food utensils...... 1963.. | $\begin{aligned} & 50,954 \\ & 47,695 \end{aligned}$ | $\begin{aligned} & 47,458 \\ & 44,865 \end{aligned}$ | $\begin{array}{r} (\mathrm{D}) \\ 2,033 \end{array}$ |  | $\begin{array}{r} 190 \\ 96 \end{array}$ | $\begin{aligned} & 51,887 \\ & 46,908 \end{aligned}$ | $\begin{array}{r} 47,458 \\ 44,865 \end{array}$ | $\begin{aligned} & 4,429 \\ & 2,043 \end{aligned}$ | 91 96 |
| 3263 | Fine earthenware food utensils.... 1963.. 1958.. | $\begin{aligned} & 59,046 \\ & 50,230 \end{aligned}$ | $\begin{aligned} & 52,920 \\ & 48,450 \end{aligned}$ | $\begin{array}{r} 4,541 \\ 883 \end{array}$ | $\begin{array}{r} 1,585 \\ 897 \end{array}$ | $\begin{aligned} & 92 \\ & 98^{\circ} \end{aligned}$ | $\begin{aligned} & 58,231 \\ & 53,456 \end{aligned}$ | $\begin{aligned} & 52,920 \\ & 48,448 \end{aligned}$ | $\begin{aligned} & 5,311 \\ & 5,008 \end{aligned}$ | $\begin{aligned} & 91 \\ & 91 \end{aligned}$ |
| 3264 | Porcelain electrical supplies.....1963.. ${ }^{\text {1958.. }}$ | $\begin{array}{r} 131,790 \\ 97,475 \end{array}$ | $\begin{array}{r} 114,795 \\ 84,749 \end{array}$ | $\begin{array}{r} 11,714 \\ 7,492 \end{array}$ | $\begin{aligned} & 5,281 \\ & 5,234 \end{aligned}$ | $\begin{aligned} & 91 \\ & 92 \end{aligned}$ | $\begin{array}{r} 121,472 \\ 91,097 \end{array}$ | $\begin{array}{r} 114,795 \\ 84,749 \end{array}$ | $\begin{aligned} & 6,677 \\ & 6,348 \end{aligned}$ | $\begin{aligned} & 95 \\ & 93 \end{aligned}$ |
| 3269 | Pottery products, n.e.c........... 1963. | $\begin{aligned} & 95,541 \\ & 78,755 \end{aligned}$ | $\begin{aligned} & 72,657 \\ & 67,484 \end{aligned}$ | $\begin{array}{r} 10,613 \\ 5,241 \end{array}$ | $\begin{array}{r} 12,271 \\ 6,030 \end{array}$ | $\begin{aligned} & 87 \\ & 93 \end{aligned}$ | $\begin{aligned} & 81,376 \\ & 74,981 \end{aligned}$ | $\begin{aligned} & 72,657 \\ & 67,484 \end{aligned}$ | $\begin{aligned} & 8,719 \\ & 7,497 \end{aligned}$ | 89 <br> 90 |

NOTE: See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable.
n.e.c. Not elsewhere classified.
ihis is a minimum percentage. The exact percentage is withheld to avoid disclosing figures for individual companies.
${ }^{2}$ Does not include data for Alaska and Hawaii

## TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products). (b) products classified in other industries (secondary products), and (c) miscellaneous
recelpts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


[^57](D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ The source of the quantity data for codes 3261014-3261026 is Current Industrial Reports Series M34E(63)-5, Plumbing Fixtures. No separate quantity data for vitreous and semivitreous sinks, laundry trays, sink and laundry tray combinations, and other plumbing fixtures are available since these items were combined with similar items made of other materials in the M34E report.
${ }^{2}$ Represents vitreous china only. In addition, shipments valued at $\$ 2,398,000$ in 1963 and $\$ 2,236,000$ in 1958 were reported for plumbing fixtures made of earthenware, concrete, and composition.
${ }^{3}$ Includes value of metal fittings when shipped as an integral part of the ceramic product.
${ }^{4}$ Does not include data for Alaska and Hawaii.

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 326 | Pottery and related products.................... ${ }^{\text {1963.. }} 19$ | (1) ${ }^{1}$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3261 | Vitreous and semivitreous plumbing fixtures and accessories. ................................................ . . 1963. 1958. . | 140 110 | 88 102 |
| 3262 | Vitreous china and porcelain table and kitchen articles........................................................ . . 1963.. | 90 88 | 119 123 |
| 3263 | Earthenware (semivitreous) table and kitchen articles...................................................... . . 1963.. | 78 60 | 106 127 |
| 3264 | Porcelain, steatite, and other ceramic electrical products........................................................... . . $1963 .$. | $\left(\begin{array}{l}1 \\ (1) \\ \hline\end{array}\right.$ | (1) ${ }^{1}$ |
| 3269 | Pottery products. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1963. | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ | $\left({ }^{1}\right)$ |

[^58]table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962^{1}$ | $1961{ }^{1}$ | $1960^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32610 | Vitreous and semivitreous plumbing fixtures.. | 143,762 | 133,847 | 128,139 | 140,951 | 160,101 | 130,517 | 116,560 | 67,165 |
| 32620 | Vitreous china table and kitchen articles.... | 51,887 | 47,750 | 45,070 | 49,569 | 46,748 | 46,908 | 43,295 | 42,783 |
| 32630 | Fine earthenware (semivitreous) table and kitchen articles. | 58,231 | $(50,174)$ | $(49,449)$ | $(60,206)$ | $(62,673)$ | 53,456 | 71,706 | 68,144 |
| 32640 | Porcelain, steatite and other electrical products ${ }^{2}$ | 121,472 | 119,833 | 113,295 | 109,503 | 108,516 | 91,097 | 83,928 | 68,312 |
| 32690 | Pottery products, including china decorating for the trade, n.e.c............................. | 81,376 | 77,657 | 73,356 | 76,777 | 78,053 | ${ }^{3} 74,981$ | 61,899 | 53,961 |

n.e.c. Not elsewhere classified.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manu-

 in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ Includes value of metal fittings when shipped as an integral part.
${ }^{3}$ Does not include data for Alaska and Hawaii.

## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ miltion and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote I

| Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| POTTERY PRODUCTS, | $1963{ }^{1}$ | POTTERY PRODUCTS, | $1963{ }^{1}$ | POTTERY PRODUCTS | $1963{ }^{1}$ |
| United States, total.... | 81,376 | East North Central......... | 29,114 | East South Central......... | 5,176 |
|  |  | Ohio. | 15,369 | Kentucky.................. | 2,367 |
| New England. | 1,782 | Illinois | 11,216 | Tennessee.... . . . . . . . . . . . | 2,746 |
| Middle Atlantic. | 17,132 |  |  | West South Central.......... Texas | $\begin{aligned} & 1,698 \\ & 1.227 \end{aligned}$ |
| New York. . . . . . . . . . . . . . . . | 2,917 |  |  | Texas......................... | $1,227$ |
| New Jersey. . . . . . . . . . . . . | 6,236 | West North Central.......... | 1,487 | West........................ | 22,451 |
| Pennsylvania.............. | 7,979 | South Atlantic.............. | 2,536 | California............... | 14,953 |

 disclosure of individual company figures: 32690, Michigan and Colorado.

## TABLE 7A. Materials by Kind: 1963


Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Nat applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
$(S)$ Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }_{1}$ Costs are not available in comparable detail for 1958.
${ }^{2}$ Includes cost of contract work to avoid disclosing figures of individual companies.
${ }^{3}$ Represents (a) total cost of materials for small establishments reporting on "short form" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for these establishments which failed to report costs of individual materials on "standard forms."

## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Vitreous plumbing fixtures (SIC 3261) | Vitreous china food utensils (SIC 3262) | Fine earthenware food utensils (SIC 3263) | Porcelain electrical supplies (SIC 3264) | Pottery products, п.e.c. (SIC 3269) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. | 4,496 | 1,611 | 2,101 | 2,997 | 2,613 |
| Total cost of purchased fuels................................do. | 3,219 | 1,208 | 1,546 | 1,895 | 1,911 |
| Bituminous coal, lignite, and anthracite: <br> Quantity. . ............................................ . ., 000 short tons. <br> Cost. <br> . $\$ 1,000$. | 45 382 | (S) | (S) | 36 299 | - |
| Coke and breeze: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons. . <br> Cost. | - | - | - | - | - |
| Fuel oil (distillate and residual): Quantity...........................1,000 barrels of 42 gallons.. Cost. . | 147 476 | (S) | (S) | 83 297 | (S) |
| ```Gas (natural, manufactured, still, blast furnace, and coke oven): Quantity.```  ```.million cu.ft.. Cost.. ....................................................................000.. .``` | $\begin{aligned} & 4,285 \\ & 2,088 \end{aligned}$ | $\begin{aligned} & 1,729 \\ & 1,060 \end{aligned}$ | 2,260 1,275 | 2,060 1,246 | 2,262 1,403 |
| Other fuels......................................................do.... . | 273 | (S) | (S) | 53 | 219 |
| Electric energy: Purchased: |  |  |  |  |  |
| Quantity.......................................million kw. -hrs. . | 108 | 30 | 41 | 94 | 43 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1$ \$1,000. . | 1,277 | 403 | 555 | 1,102 | 702 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . . . . million kw. -hrs. . | (s) | (S) | - | 6 | - |
| Aggregate horsepower of prime movers and electric motors <br> driven by purchased energy (December 31), total.........1,000 hp.. | 46 | 14 | 14 | 51 | 23 |
| Prime movers, total............................................ do.... | 8 | 2 | (z) | 4 | 3 |
| Drjving generators............................................do. . . . | 2 | 2 | (z) | 1 | 1 |
| Not driving generators......................................do.... | 6 | - | (Z) | 3 | 2 |
| Electric motors, total.......................................... . . . . . . . | 38 | 14 | 14 | 50 | 20 |
| Driven by purchased energy................................................ Driven by energy generated at establishment........................ | 38 $(Z)$ | 11 | 14 - | 46 4 | 20 |
| Aggregate horsepower per 100 production workers.................... | 626 | 254 | 235 | 635 | 275 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors ascociated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified. (Z) Tess than 500 horsepower.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| $\begin{gathered} \text { industry } \\ \text { or } \\ \text { product } \\ \text { class } \\ \text { code } \\ \hline \end{gathered}$ | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total (number) | Payroll $(\$ 1,000)$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3269- | POTTERY PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with-- | 458 |  | 37,508 |  | 14,920 | 27,805 | 62,107 | 34, 145 |  | 3,064 |
|  | 90\% or more specialization. | 435 | 6,791 | 24,791 | 5,960 | 11,437 | 19,785 | 41,608 | 19,408 | 60,524 | 2,086 |

[^59]
## CONCRETE, PLASTER, AND CUT STONE PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

## SIC Code and Title

3271--Concrete Brick and Block
3272 --Concrete Products, Except Block and Brick
3273 --Ready Mixed Concrete
3274 --Lime
3275 -Gypsum Products
3281 --Cut Stone and Stone Products

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4 ) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3271-CONCRETE BRICK AND BLOCK

This industry comprises establishments primarily engaged in manufacturing concrete building blocks and brick from a combination of cement and aggregate. Contractors engaged in concrete construction work are classified in the construction industries, and building materials dealers primarily engaged in mixing and delivering ready mixed concrete. in industry 3273 . For a detailed list of products of industry 3271, refer to table 6 A, product codes 3271011 to 3271000 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Concrete Block and Brick Industry totaled $\$ 505$ million. This amount included shipments of concrete block and brick (primary products) valued at $\$ 395$ million, shipments of other products (secondary products) valued at $\$ 36$ million, and miscellaneous receipts. at $\$ 74$ million.

This industry's shipments of concrete block and brick represented 92 percent of its total product shipments. Secondary products shipped by this industry in 1963 consisted mainly of precast concrete products, $\$ 13$ million, and ready mixed concrete, $\$ 11$ million.

Shipments of concrete block and brick by this industry represented 84 percent of all shipments of these products ( $\$ 472$ million) by all industries. Other industries shipping
concrete block and brick (primary products) consisted mainly of industry 3273, Ready Mixed Concrete, $\$ 53$ million, and industry 3272 , Concrete Products, $\$ 22$ million.

The production index for the primary products of the industry increased to 121 in 1963 from the 1958 level of 101. The unit value index for 1963 was 111. Both indexes were computed on a basis of $1954=100$.

## 3272-CONCRETE PRODUCTS, EXCEPT BLOCK AND BRICK

This industry comprises establishments primarily engaged in manufacturing concrete products, except block and brick, from a combination of cement and aggregate. Contractors engaged in concrete construction work are classified in the construction industries and building materials dealers primarily engaged in mixing and delivering ready mixed concrete in industry 3273 . For a detailed list of products of industry 3272 , refer to table 6A, product codes 3272107 to 3272000 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Concrete Products Industry totaled $\$ 926$ million. This amount included shipments of concrete products (primary products) valued at $\$ 807$ million, shipments of other products (secondary products) valued at $\$ 48$ million, and miscellaneous receipts, at $\$ 71$ million.

This industry's shipments of concrete products represented 94 percent of its total product shipments. Secondary products shipped by this industry consisted mainly of concrete brick and block, $\$ 22$ million, and ready mixed concrete, $\$ 10$ million.

Shipments of concrete products by this industry represented 94 percent of all shipments of these products ( $\$ 862$ million) by all industries. Other industries shipping concrete products (primary products) consisted mainly of industry 3271 , Concrete Block and Brick, $\$ 20$ million, and industry 3273, Ready Mixed Concrete, $\$ 24$ million.

## 3273-READY MIXED CONCRETE

This industry comprises establishments primarily engaged in manufacturing Portland cement concrete, manufactured and delivered to a purchaser in a plastic and unhardened state. This industry includes production and sale of central mixed concrete, shrink mixed concrete and transit mixed concrete.

The Ready Mixed Concrete Industry was included for the first time in the census of manufactures for 1958. No comparable figures are available for years prior to 1958. For detailed data on products of industry 3273 , refer to table 6 A, product code 3273011 .

Value of shipments and other receipts of the Ready Mixed Concrete Industry totaled $\$ 2,293$ million. This amount included shipments of ready mixed concrete (primary products) valued at $\$ 1,924$ million, shipments of other products (secondary products) valued at $\$ 173$ million, and miscellaneous receipts, at $\$ 195$ million.

This industry's shipments of ready mixed concrete represented 92 percent of its total product shipments. Secondary products shipped by this industry consisted mainly of common sand and gravel, $\$ 53$ million, and concrete block and brick, $\$ 53$ million.

Shipments of ready mixed concrete by this industry represented 98 percent of all shipments of these products ( $\$ 1,971$ million) by all industries. Other industries shipping ready mixed concrete consisted mainly of industry 3271 , Concrete Block and Brick, $\$ 11$ million, and industry 3272, Concrete Products, $\$ 10$ million.

The production index for the primary products of the industry increased to 182 in 1963 from the 1958 level of 144 . The unit value index for 1963 was 119 compared to 112 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3274--LIME

This industry comprises establishments primarily engaged in manufacturing quicklime, hydrated lime, and dead burned dolomite from limestone, dolomite shells, or other substances. For a detailed list of products of industry 3274 , refer to table 6A, products codes 3274011 to 3274000 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Lime Industry totaled $\$: 64$ million. This amount included shipments of lime (primary products) valued at $\$ 129$ million, shipments of other products (secondary products) valued at $\$ 28$ million, and miscellaneous receipts at $\$ 8$ million.

This industry's shipments of lime represented 82 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. Secondary products shipped by this industry in 1963 consisted mainly of crushed and broken limestone, $\$ 17$ million.

Shipments of lime by this industry represented 94 percent of all shipments of these products ( $\$ 137$ million) by all industries. In 1958, the coverage ratio was 95 percent.

The production index for the primary products of the industry increased to 123 in 1963 from the 1958 level of 111. The unit value index for 1963 was 119 compared to 108 in 1958. Both indexes were computed on a basis of $1954=100$.
ln its annual report. Minerals Yearbook, the U.S. Department of the lnterior, Bureau of Mines, publishes detailed figures on the products listed in table 6A of this report. The variations between Bureau of Mines summary totals and the data appearing in this report are due to (1) inclusion of cost of containers and interplant transfers in Census Bureau figures and (2) differences in the reports submitted to the two agencies by individual companies.

## 3275-GYPSUM PRODUCTS

This industry comprises establishments primarily engaged in manufacturing plaster, plasterboard, and other products composed wholly or chiefly of gypsum. For a detailed list of products of industry 3275, refer to table 6A, product codes 3275111 to 3275000.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Gypsum Products lndustry totaled $\$ 425$ million. This amount included shipments of gypsum products (primary products) valued at $\$ 396$ million, shipments of other products (secondary products) valued at $\$ 13$ million, and miscellaneous receipts at $\$ 17$ million.

This industry's shipments of gypsum products represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent.

Shipments of gypsum products by this industry represented 98 percent of all shipments of these products ( $\$ 405$ million) by all industries. In 1958, the coverage ratio was also 98 percent.

The U.S. Department of the Interior, Bureau of Mines, in its annual Minerals Yearbook. publishes more detailed data on the production, shipment, and consumption of gypsum and gypsum products. The variation between the two sets of data is due primarily to (1) inclusion of cost of containers and interplant transfers in Census Bureau figures and (2) differences in the reports from individual companies submitted to the two agencies.

## 3281 --CUT STONE AND STONE PRODUCTS

This industry comprises establishments primarily engaged in cutting, shaping, and finishing marble, granite, slate, and other stone for building and miscellaneous uses. Establishments primarily engaged in buying or selling partly finished monuments and tombstones, but performing no work on the stones other than lettering, finishing, or shaping to custom order, are classified in trade industries. The cutting of grindstones, pulpstones, and whetstones at the quarry is classified in mining industries. For a detailed list of products of industry 3281 , refer to table 6A, product codes 3281111 to 3281000.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Cut Stone and Stone Products Industry totaled $\$ 217$ million. This amount included shipments of cut stone and stone products (primary products) valued at $\$ 190$ million, shipments of other products (secondary products) valued at $\$ 12$ million, and miscellaneous receipts (mainly resales), at $\$ 15$ million.

This industry's shipments of cut stone and stone products represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 consisted mainly of other rough dimension stone, $\$ 3$ million, and rough dimension limestone, $\$ 2$ million.

Shipments of cut stone and stone products by this industry represented 99 percent of all shipments of these products ( $\$ 191$ million) by all industries. In 1958 the coverage ratio was 97 percent.

CONCRETE AND PLASTER PRODUCTS: SIC 327
Value Added by Manufacture by State: 1963


CUT STONE AND STONE PRODUCTS: SIC 328
CUT STONE AND STONE PRODUCTS: SIC 328
table 1. General Statistics: 1963 and Earlier Years

| Year | Companjes <br> (number) | Establi shments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| INDUSTRY 3271. -CONCRETE BLOCK AND BRICK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1,786 | 1,841 | 367 | 23,759 | 119,543 | 16,702 | 36,081 | 72,748 | 245,525 | 262,765 | 505,194 | 31,143 | 92 | 84 |
|  | (NA) | (NA) | (NA) | 22,282 | 110,662 | 16,234 | 37,437 | 67,431 | 215,265 | 243,604 | 459,135 | 20,512 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 23,201 | 110,571 | 16,957 | 37,749 | 67,047 | 214,388 | 247,721 | 460,687 | 21,171 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 23,906 | 111,787 | 17,574 | 38,120 | 68,138 | 212,391 | 246,843 | 457,423 | 24,757 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 23,517 | 106,124 | 17,381 | 37,386 | 66,368 | 221,416 | 240,204 | 458,782 | 22,921 | (NA) | (NA) |
|  | 1,763 | 1,796 | 336 | 22,766 | 98,103 | 16,404 |  |  |  |  |  |  | 90 | 83 |
|  | INDUSTRY 3272.-OTHER CONCRETE PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 3,130 | 3,451 | 716 | 52,297 | 266,706 | 41,093 | 87,256 | 190,945 | 539,967 | 387,389 | 925,677 | 43,550 | 94 | 94 |
| 1962 ${ }^{1}$......... | (NA) | (NA) | (NA) | 49,322 | 241,822 | 39,331 | 85,582 | 173,417 | 499,465 | 373,454 | 871,625 | 36,824 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 47,939 | 222,905 | 38,069 | 83,145 | 156,310 | 470,871 | 354,891 | 822,442 | $(36,258)$ | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 48,637 | 222,384 | 39,023 | $(85,637)$ | 157,486 | 460,181 | 366,627 | 822,538 | 32,308 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 47,163 | 211,791 | 38,021 | 79,284 | 150,895 | 438,281 | 358,595 | 795,168 | 38,884 | (NA) | (NA) |
| $1958{ }^{2}$ | 3,190 | 3,461 | 619 | 46,283 | 200,231 | 36,267 | 73,567 | 141,575 | 391,366 | 332,224 | 720,111 | 44,310 | 94 | 94 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { industries: } \\ & 1958^{3}(\text { old }) . \end{aligned}$ | 4,947 | 5,251 | 952 | 68,948 | 297,986 | 52,587 | 106,869 | 202,611 | 580,733 | 555,858 | 1,132,213 | 70,072 | (NA) | (NA) |
| $1957{ }^{1}$....... | (NA) | (NA) | (NA) | 69,866 | 271,692 | 53,667 | 111,183 | 184,923 | 660,042 | 503,591 | 1,071,914 | 48,389 | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 69,986 | 266,468 | 54,248 | 114,030 | 183,035 | 674,878 | 427,210 | 1,071,511 | 51,772 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 66,270 | 238,286 | 51,680 | 106,210 | 163,387 | 507,748 | 392,214 | 867,371 | 47,155 | (NA) | (NA) |
| 1954. | 4,879 | 5,090 | 774 | 60,410 | 216,954 | 46,659 | 96,707 | 146,075 | 418,569 | 399,643 | 813,230 | 40,548 | 99 | 99 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 59,200 | 208,016 | 47,725 | 99,961 | 150,446 | 398,552 | 309,833 | 708,385 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 66,444 | 222,674 | 53,526 | 116,729 | 169,591 | 432,615 | 358,681 | 791,296 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 65,107 | 210,116 | 51,676 | 115,299 | 155,122 | 413,074 | 321,429 | 734,503 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 60,886 | 175,879 | 48,658 | 104,064 | 130,125 | 336,064 | 270,611 | 606,677 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 53,787 | 136,723 | 44,293 | 94,764 | 102,734 | 245,290 | 219,324 | 464,614 | (NA) | (NA) | (NA) |
| 1947. | (NA) | 6,158 | 513 | 46,821 | 106,484 | 41,537 | 89,031 | 88,471 | 202,789 | 126,945 | 329,734 | 35,692 | 99 | 99 |
| 1939......... | (NA) | 1,892 | (NA) | (NA) | (NA) | 15,455 | (NA) | 16,324 | 55,372 | 48,188 | 103,560 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3273.-READY MIXED CONCRETE |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963.......... | 3,999 | 4,621 | 1,021 | 71,523 | 410,539 | 46,110 | 96,228 | 244,955 | 981,997 | 1,308,030 | 2,292,504 | 106,010 | 92 | 98 |
| 1962 ${ }^{1} . . . . . . .$. | (NA) | (NA) | (NA) | $(66,725)$ | $(381,693)$ | $(48,045)$ | $(99,223)$ | $(245,317)$ | 786,540 | 1,160,341 | 1,953,719 | 91,486 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | $(65,339)$ | $(360,754)$ | $(45,836)$ | $(96,252)$ | $(228,460)$ | 751,644 | 1,137,181 | 1,889,266 | 75,910 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | $(64,829)$ | $(344,471)$ | $(46,751)$ | $(96,864)$ | $(214,293)$ | 7770,850 | 1,101,071 | 1,869,059 | 70,315 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | $(67,648)$ | $(345,075)$ | $(47,956)$ | $(96,174)$ | $(215,091)$ | 7770,193 | 1,134,484 | 1,903,000 | 83,129 | (NA) | (NA) |
| 19584.......... | 3,130 | 3,657 | 949 | 62,116 | 303,111 | 44,203 | 88,351 | 201,971 | 679,385 | 1,008,814 | 1,687,151 | 71,603 | 92 | 97 |
|  | INDUSTRY 3274.-IIME |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 81 | 125 | 68 | 6,778 | 38,903 | 5,384 | 11,366 | 28,519 | 95,135 | 69,011 | 164,366 | 14,730 | 82 | 94 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 6,922 | 38,624 | 5,656 | 11,432 | 29,219 | 96,795 | 60,282 | 155,901 | $(11,964)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 7,200 | 38,253 | 5,956 | 11,767 | 28,715 | 99,689 | 58,284 | 156,970 | 7,019 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 7,566 | 39,032 | 6,153 | 12,398 | 29,095 | 97,827 | 60,113 | 156,729 | $(12,052)$ | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 7,362 | 36,298 | 6,234 | 13,083 | 28,126 | 91,702 | 65,587 | 157,666 | $(12,663)$ | (NA) | (NA) |
| 1958. | 95 | 137 | 76 | 7,185 | 32,754 | 6,098 | 12,509 | 25,521 | 73,597 | 57,514 | 130,948 | 6,362 | 83 | 95 |
| $1957{ }^{1}$......... | (NA) | (NA) | (NA) | 8,309 | 38,552 | 7,053 | 15,431 | 31,034 | 85,512 | 73,859 | 158,115 | (S) | 89 | 98 |
| 1956¹......... | (NA) | (NA) | (NA) | 8,344 | 36,950 | 7,139 | 15,701 | 29,850 | 82,011 | 68,631 | 150,169 | (S) | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 8,261 | 33,514 | 7,084 | 15,380 | 27,153 | 78,644 | 58,500 | 135,189 | (S) | (NA) | (NA) |
| 1954.......... | 113 | 145 | 81 | 7,989 | 30,645 | 6,835 | 14,456 | 24,454 | 57,986 | 54,868 | 112,854 | 4,835 | 84 | 97 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 7,935 | 30,788 | 6,773 | 14,744 | 24,886 | 63,416 | 54,187 | 117,603 | (NA) | (NA) | (NA) |
| $1952^{1}$. | (NA) | (NA) | (NA) | 8,045 | 26,591 | 6,903 | 14,791 | 21,151 | 54,943 | 49,682 | 104,625 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 7,933 | 26,302 | 6,773 | 15,539 | 21,186 | 55,863 | 49,383 | 105,246 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 7,316 | 23,011 | 6,335 | 14,023 | 18,607 | 48,370 | 42,753 | 91,105 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 7,514 | 21,451 | 6,336 | 13,777 | 17,129 | 40,705 | 42,365 | 83,070 | (NA) | (NA) | (NA) |
| 1947............ | (NA) | 172 | 94 | 7,009 | 18,767 | 6,129 | 14,200 | 15,516 | 39,253 | 33,589 | 72,842 | 10,745 | (NA) ${ }^{3}$ | (NA) |
| 1939.......... | (NA) | 316 | (NA) | (NA) | (NA) | 6,708 | (NA) | 6,688 | 18,574 | 24,901 |  | (NA) | (NA) | (NA) |
|  | INDUSTRY 3275.-GYPSUM PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 60 | 12¢ | 72 | 11,491 | 70,335 | 9,216 | 20,766 | 54,455 | 259,659 | 164,445 | 425,108 | 15,201 | 97 | 98 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 11, 883 | 68,127 | 9,520 | 20,675 | 51,940 | 242,248 | 164,963 | 406,356 | 32,200 | (NA) | (NA) |
| $1961{ }^{1}$. | (NA) | (NA) | (NA) | 11,465 | 63,578 | 9,187 | 19,875 | 48,289 | 224,654 | 154,180 | 375,167 | 25,184 | (NA) | (NA) |
| $1960{ }^{1}$. | (NA) | (NA) | (NA) | 12,229 | 64,562 | 9,774 | 21,029 | 48,996 | 228,505 | 157,303 | 382,087 | 25,214 | (NA) | (NA) |
| 1959¹......... | (NA) | (NA) | (NA) | 12,301 | 65,890 | 10,089 | 22,606 | 52,085 | 241,017 | 170,986 | 410,569 | 21,977 | (NA) | (NA) |
| 1958........... | 74 | 126 | 63 | 11,502 | 57,978 | 9,447 | 20,606 | 45,412 | 218,042 | 146,609 | 364,947 | 12.095 | 95 | 98 |
| 1957 ${ }^{1}$......... | (NA) | (NA) | (NA) | 11,181 | 54,251 | 9,243 | 20,617 | 43,064 | 181,900 | 126,962 | $305,244$ | 12,181 | (NA) | 98 |
| $1956^{1} \ldots . .$. | (NA) | (NA) | (NA) | 12,388 | 57, 823 | 10,419 | 23,334 | 46,360 | 192,324 | 138,875 739,354 | 324,983 329,869 | 38,966 38,698 | (NA) | (NA) |
| 19551.......... | (NA) | (NA) | (NA) | 12,060 | 56,555 | 10,252 | 24,304 | 46,520 | 193,971 | 139,354 | 329,869 | 38,698 | (NA) | (NA) |
| 1954.......... | 48 | 90 | 56 | 10,966 | 48,639 | 9,278 | 21,927 | 39,715 | 165,271 | 130,326 | 295,564 253,302 | 10,227 (NA) | (NA) ${ }^{95}$ | (NA) |
| 1953 ${ }^{1}$......... | (NA) | (NA) | (NA) | 9,901 8,586 | 43,174 35,811 | 8,068 7,160 | 19,472 18,123 | 39,453 29,401 | 138,311 | 114,991 | 253,302 | (NA) | (NA) | (NA) |
| 1952¹......... | (NA) | (NA) | (NA) | 8,586 | 35,811 | 7,160 | 18,123 | 29,401 | 119,883 | 103,650 | 223,533 | (NA) | (NA) | (NA) |

[^60]
## TABLE 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Cov- <br> erage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3275.-GYPSUM PRODUCTS—Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1951{ }^{1}$. | (NA) | (NA) | (NA) | 9,646 | 37,133 | 8,332 | 19,235 | 29,578 | 120,944 | 113,022 | 233,966 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 8,979 | 33,378 | 7,979 | 19,630 | 28,684 | 124,070 | 79,514 | 203,584 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 8,720 | 27,341 | 7,438 | 16,788 | 21,469 | 92,203 | 74,573 | 166,776 | (NA) | (NA) | (NA) |
| 1947. | (NA) | 73 | 50 | 7,472 | 21,384 | 6,543 | 15,552 | 17,911 | 67,879 | 59,664 | 127,543 | 24,386 | 97 | 98 |
| 1939. | (NA) | 68 | (NA) | 5,863 | 8,541 | 4,936 | (NA) | 6,666 | 29,548 | 16,694 | 46,242 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 79 | (NA) | 5,859 | 8,016 | 5,207 | (NA) | 6,591 | 25,936 | 16,681 | 42,617 | (NA) | (NA) | (NA) |
| 1935...... | (NA) | 72 | (NA) | 3,894 | 4,513 | 3,382 | (NA) | 3,444 | 17,367 | 8,921 | 26,288 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3281.-CUT STONE AND STONE PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 857 | 893 | 211 | 18,340 | 85,745 | 15,259 | 30,896 | 66,657 | 131,465 | 86,633 | 217,176 | 6,693 | 94 | 99 |
| $1962^{1}$ | (NA) | (NA) | (NA) | $(21,296)$ | $(93,668)$ | $(17,678)$ | $(36,500)$ | $(75,484)$ | $(150,327)$ | $(84,314)$ | $(232,114)$ | $(4,912)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | $(21,860)$ | $(93,559)$ | $(18,127)$ | $(37,048)$ | $(75,115)$ | $(149,303)$ | $(83,794)$ | $(228,973)$ | $(5,458)$ | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 19,456 | 82,460 | 16,067 | 31,837 | 64,784 | 134,328 | 82,196 | 215,790 | $(3,379)$ | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 19,679 | 81,425 | 16,423 | 32,951 | 61,679 | 1.31,647 | 79,781 | 211,506 | $(5,439)$ | (NA) | (NA) |
| 1958 | 959 | 1,001 | 243 | 20,348 | 83,038 | 16,995 | 33,056 | 63,818 | 129,038 | 77,072 | 206,264 | 8,405 | 95 | 97 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 21, 329 | 83,311 | 18,324 | 35,115 | 63,899 | 140,166 | 76,947 | 215,419 | (S) | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 22,082 | 84,759 | 19,206 | 37,672 | 66,046 | 141,219 | 76,102 | 212,691 | (S) | (NA) | (NA) |
| $1955^{1}$ | (NA) | (NA) | (NA) | 22,295 | 82,235 | 19,530 | 37,752 | 64,481 | 137,788 | 70,532 | 206,158 | (S) | (NA) | (NA) |
| $1954{ }^{5}$. | 961 | 977 | 239 | 21,576 | 78,240 | 18,410 | 36,721 | 60,650 | 121,465 | 70,144 | 191,494 | 4,296 | 93 | 99 |

 table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production

 equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no


 manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1} T h e s e ~ f i g u r e s ~ r e p r e s e n t ~ e s t i m a t e s ~ d e r i v e d ~ f r o m ~ a ~ r e p r e s e n t a t i v e ~ s a m p l e ~ o f ~ m a n u f a c t u r i n g ~ e s t a b l i s h m e n t s ~ c a n v a s s e d ~ i n ~ t h e ~ a n n u a l ~ s u r v e y ~ o f ~ m a n u-~$
 lishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The
 data.
${ }^{2}$ A revision in the definition of this industry was introduced in the 1957 standard industrial classification so that data for the industry prior
 to $\frac{1958}{3}$.
${ }^{3}$ Industries 3271 and 3272 were a single industry in 1957 and earlier years. They are shown combined for 1958 so that historical data may be presented. Data for Alaska and Hawaii are not included.

4 The Ready Mixed Concrete Industry was included for the first time in the 1958 Census of Manufactures. No comparable figures are available for earlier years.
${ }^{5}$ Data for earlier years not comparable because dressing plants operated in conjunction with quarries were not included.

## table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \begin{array}{c} \text { Man- } \\ \text { hours } \end{array} \\ (1,000) \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total.........., | INDUSTRY 3271.-CONCRETE BLOCK AND BRICK |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1,841 | 367 | 23,759 | 119,543 | 16,702 | 36,081 | 72,748 | 245,525 | 262,765 | 505,194 | 31,143 | 22,766 | 190,355 |
| New England........ Massachusetts... . | 92 39 | 14 | 1,179 429 | 7,405 2,586 | 825 308 | 1,859 691 | 4,356 1,662 | 13,387 5,625 | 10,930 4,480 | 24,221 10,067 | 1,832 1,088 | 1,058 492 | $\begin{aligned} & 9,516 \\ & 4,914 \end{aligned}$ |
| Middle Atlantic.. | 306 | 71 | 4,522 | 24,377 | 3,234 | 7,060 | 15,638 | 46,559 | 58,391 | 104,480 | 7,701 | 4,471 | 39,342 |
| New York. . | 90 | 24 | 1,466 | 9,688 | 976 | 2,204 | 5,747 | 17,533 | 19,205 | 36,461 | 3,913 | 1,522 | 14,599 |
| New Jersey.. | 68 | 17 | 1,068 | 5,649 | 776 | 1,701 | 3,732 | 12,562 | 15,981 | 28,404 | 1,476 | 1,045 | 10,184 |
| Pennsylvania..... | 148 | 30 | 1,988 | 9,040 | 1,482 | 3,155 | 6,159 | 16,464 | 23,205 | 39,615 | 2,312 | 1,904 | 14,559 |
| East North Central. | 455 | 67 | 5,137 | 28,313 | 3,554 | 7,474 | 16,691 | 58,539 | 62,986 | 120,747 | 7,332 | 5,286 | 46,012 |
| Ohio.. | 109 | 18 | 1,463 | 7,793 | 1,008 | 2,069 | 4,535 | 15,414 | 17,859 | 33,292 | 2,830 | 1,575 | 13,164 |
| Indiana. | 67 | 8 | 796 | 4,323 | 520 | 1,104 | 2,278 | 9,531 | 9,724 | 19,099 | 948 | 714 | 5,068 |
| Illinois. | 78 | 11 | 802 | 4,499 | 580 | 1,172 | 2,887 | 9,080 | 8,109 | 16,979 | 1,009 | 780 | 7,500 |
| Michigan. | 126 | 19 | 1,392 | 7,735 | 965 | 2,091 | 4,502 | 15,931 | 18,767 | 34,326 | 1,449 | 1,358 | 11,714 |
| Wisconsin. | 75 | 11 | 684 | 3,963 | 481 | 1,038 | 2,489 | 8,583 | 8,527 | 17,051 | 1,096 | 859 | 8,566 |
| West North Central. | 191 | 26 | 1,865 | 9,717 | 1,279 | 2,836 | 5,760 | 18,850 | 19,167 | 37,762 | 2,025 | 1,876 | 16,410 |
| Minnesota. | 66 | 7 | 521 | 3,046 | 373 | 830 | 1,914 | 5,566 | 5,140 | 10,681 | 643 | 526 | 4,593 |
| Iowa..... | 26 | 6 | 332 | 1,774 | 225 | 502 | 1,038 | 4,043 | 3,512 | 7,494 | 199 | 404 | 3,164 |
| Missouri. | 42 | 5 | 360 | 1,673 | 269 | 531 | 1,102 | 3,131 | 4,314 | 7,381 | 368 | 413 | 3,370 |
| South Dakota. | 12 | 3 | 134 | 657 | 91 | 212 | 322 | 1,193 | 872 | 2,034 | 163 | 100 | 964 |
| Nebraska. | 13 | 3 | 257 | 1,442 | 152 | 388 | 721 | 2,484 | 2,302 | 4,712 | 423 | 187 | 1,929 |
| Kansas. | 22. | 1 | 168 | 726 | 101 | 208 | 378 | 1,532 | 1,753 | 3,293: | 102 | 168 | 1,292 |
| South Atlantic. | 302 | 95 | 4,792 | 19,703 | 3,382 | 7,515 | 11,586 | 42,834 | 50,320 | 93,082 | 5,582 | 5,023 | 37,142 |
| Delaware. | 7 | 3 | 130 | 502 | 69 | 131 | 203 | 935 | 1,065 | 1,994 | 94 | (2) | ${ }^{2}$ ) |
| Virginia. | 42 | 18 | 761 | 3,172 | 560 | 1,232 | 1,867 | 7,276 | 7,455 | 14,855 | 592 | 674 | 4,255 |
| West Virginia. | 27 | 2 | 286 | 1,092 | 212 | 464 | 710 | 1,823 | 2,643 | 4,397 | 229 | 338 | 1,838 |
| North Carolina.. | 58 | 19 | 907 | 3,330 | 680 | 1,469 | 2,100 | 7,527 | 9,730 | 17,225 | 797 | 856 | 5,105 |
| South Carolina... | 25 | 9 | 415 | 1,519 | 297 | 661 | 861 | 2,740 | 3,119 | 5,848 | 453 | 250 | 1,248 |
| Ceorgia.......... | 43 | 14 | 725 | 2,760 | 515 | 1,138 | 1,708 | 6,240 | 8,078 | 14,284 | 818 | 516 | 3,528 |
| Florida.......... | 67 | 15 | 853 | 3,588 | 540 | 1,251 | 1,911 | 7,865 | 8,261 | 16,104 | 611 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| East South Central. | 149 | 26 | 1,925 | 7,080 | 1,418 | 3,007 | 4,320 | 15,148 | 16,296 | 31,175 | 1,694 | 1,366 | 8,971 |
| Kentucky. . | 47 | 6 | 516 | 1,895 | 387 | 818 | 1,158 | 3,927 | 4,614 | 8,465 | 427 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Tennessee. | 57 | 11 | 831 | 3,062 | 580 | 1,232 | 1,695 | 7,039 | 6,771 | 13,674 | 820 | 566 | 3,566 |
| Alabama... | 29 | 8 | 427 | 1,699 | 340 | 732 | 1,184 | 3,288 | 3,747 | 6,966 | 294 | 375 | 2,618 |
| Mississippi...... | 16 | 1 | 151 | 424 | 111 | 225 | 283 | 894 | 1,164 | 2,070 | 153 | (2) | ${ }^{2}$ ) |
| West South Central. | 110 | 20 | 1,261 | 5,122 | 921 | 2,099 | 3,327 | 12,178 | 12,792 | 24,846 | 1,100 | 1,203 | 9,126 |
| Louisiana. | 13 | 2 | 148 | 611 | 97 | 222 | 321 | 1,485 | 1,761 | 3,250 | 77 | 183 | 1,448 |
| Texas..... | 57 | 14 | 753 | 3,120 | 525 | 1,190 | 1,882 | 7,255 | 6,883 | 13,977 | 524 | 745 | 5,350 |
| Mountain. .... | 92 | 19 | 1,374 | 6,958 | 926 | 1,859 | 4,407 | 16,063 | 12,642 | 28,096 | 1,750 | 1,193 | 10,841 |
| New Mexico...... | 15 | 4 | 260 | 1,156 | 181 | 379 | 716 | 1,968 | 2,592 | 4,456 | 248 | 259 | 2,025 |
| Arizona. | 16 | 3 | 286 | 1,630 | 187 | 371 | 1,047 | 6,091 | 2,832 | 8,659 | 776 | 240 | 2,857 |
| Utah.. | 8 | 2 | 178 | 761 | 107 | 237 | 420 | 1,216 | 988 | 2,110 | 13 | 126 | 667 |
| Neva | 7 | 3 | 164 | 1,052 | 131 | 255 | 832 | 2,246 | 1,774 | 3,946 | 136 | ${ }^{2}$ ) | $\left.{ }^{2}\right)$ |
| Pacific. | 144 | 29 | 1,704 | 10,868 | 1,163 | 2,372 | 6,663 | 21,967 | 19,241 | 40,794 | 2,127 | 1,290 | 12,995 |
| California | 101 | 20 | 1,191 | 7,722 | 817 | 1,676 | 4,760 | 16,607 | 13,189 | 29,455 | 1,678 | 958 | 10,302 |
|  |  |  |  |  |  | INDUSTRY | 272.-OTH | CONCRETE | ODUCTS |  |  |  |  |
| Total. | 3,451 | 716 | 52,297 | 266,706 | 41,093 | 87,256 | 190,945 | 539,967 | 387,389 | 925,677 | 43,550 | 46,283 | 391,366 |
| New England. | 161 | 25 | 2,139 | 11,713 | 1,650 | 3,643 | 8,327 | 24,130 | 15,649 | 39,378 | 2,314 |  |  |
| Maine. . . . . . . . . . | 9 | 1 | 101 | 424 | 83 | 175 | 304 | 1,030 | 588 | 1,487 | 140 | (2) | $\left({ }^{2}\right)$ |
| New Hampshire... | 19 | 2 | 162 | 758 | 105 | 232 | 453 | 1,343 | 1,012 | 2,302 | 154 | (2) | (2) |
| Massachusetts. | 68 | 13 | 1,090 | 6,266 | 859 | 1,932 | 4,583 | 13,055 | 8,473 | 21,164 | 919 | 690 | 6,025 |
| Rhode Island.... | 13 | 3 | 1, 145 | 762 | 114 | - 262 | 620 | 1,496 | 932 | 2,470 | 96 | 115 | 1,149 |
| Connecticut. | 47 | 6 | 619 | 3,404 | 471 | 1,004 | 2,292 | 7,007 | 4,526 | 11,611 | 991 | 520 | 4,362 |
| Middle Atlantic. | 446 | 104 | 6,586 | 36,791 | 5,090 | 10,811 | 25,852 | 71,094 | 45,341 | 116,351 | 4,862 | 6,769 | 59,521 |
| New York. | 174 | 41 | 2,168 | 13,323 | 1,688 | 3,611 | 9,761 | 26,173 | 15,388 | 42,082 | 1,620 | 2,404 | 20,197 |
| New Jersey....... | 76 | 29 | 2,023 | 11,953 | 1,491 | 3,229 | 7,675 | 24,607 | 15,255 | 39,053 | 1,521 | 2,024 | 20,083 |
| Pennsylvania..... | 196 | 34 | 2,395 | 11,515 | 1,911 | 3,971 | 8,416 | 20,314 | 14,698 | 35,216 | 1,721 | 2,341 | 19,241 |
| East North Central. | 805 | 129 | 9,707 | 56,303 | 7,589 | 16,221 | 40,083 | 116,419 | 75,268 | 192,094 | 8,184 | 9,396 | 91,081 |
| Ohio. . | 202 | 34 | 2,764 | 15,825 | 2,094 | 4,451 | 10,574 | 31,845 | 17,987 | 49,509 | 2,123 | 2,821 | 25,035 |
| Indiana. | 151 | 15 | 1,199 | 5,844 | 957 | 1,963 | 4,178 | 11,101 | 8,601 | 20,052 | 1,149 | 1,585 | 12,495 |
| Illinois. | 160 | 36 | 2,539 | 15,597 | 1,985 | 4,264 | 11,304 | 31,006 | 20,378 | 51,189 | 1,706 | 2,344 | 25,388 |
| Michigan. | 184 | 24 | 1,923 | 10,960 | 1,518 | 3,191 | 8,031 | 28,064 | 17,436 | 46,231 | 2,138 | 1,781 | 18,904 |
| Wisconsin. | 108 | 20 | 1,282 | 8,077 | 1,035 | 2,352 | 5,996 | 14,403 | 10,866 | 25,113 | 1,068 | 865 | 9,259 |
| West North Central. | 352 | 57 | 4,464 | 21,985 | 3,533 | 7,667 | 15,964 | 43,811 | 30,847 | 74,676 | 3,539 | 4,181 | 35,045 |
| Minnesota. | 102 | 19 | 1,402 | 7,495 | 1,109 | 2,428 | 5,516 | 15,080 | 10,381 | 25,331 | 1,202 | 1,428 | 13,529 |
| Iowa. . | 89 | 13 | 970 | 5,076 | 760 | 1,726 | 3,470 | 10,115 | 7,177 | 17,166 | 812 | 763 | 6,374 |
| Missouri. | 86 | 13 | 795 | 3,739 | 614 | 1,325 | 2,795 | 7,276 | 4,359 | 11,844 | 558 | 899 | 6,652 |
| North Dakota. ... | 11 | 2 | 135 | 695 | 114 | 216 | 493 | 1,250 | 1,182 | 2,433 | 50 | 154 | 1,225 |
| Nebraska......... | 19 | 3 | 526 | 1,810 | 465 | 942 | 1,554 | 3,317 | 2,607 | 6,097 | 448 | 398 | 1,956 |

See footnotes at end of table.
table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | $\begin{gathered} \text { Capital } \\ \text { expend- } \\ \text { itures, } \\ \text { new } \\ (\$ 1,000) \\ \hline \end{gathered}$ | All embployees (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| South Atlantic..... Maryland. Virginia. West Virginia. North Carolina... South Carolina... Georgia. Florida........... | INDUSTRY 3272.-OTHER CONCRETE PRODUCTS-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 626 | 153 | 11,084 | 46,298 | $8,848$ | 18,840 | 32,784 | 98,537 | 81,845 | 181,043 | 9,036 |  |  |
|  | 55 | 18 | 1,325 | 4, 6 ,716 |  |  |  | 16,621 | 11,670 | 28,470 | 1,370 | 9,573 933 | 9,532 |
|  | 70 | 23 | 2,087 | $9,458$ | 1,087 | $\begin{aligned} & 2,311 \\ & 3,840 \end{aligned}$ | $7,006$ | 20,021 | 18,296 | 38,133 |  | 1,288 | $\begin{array}{r} 10,390 \\ 1,949 \end{array}$ |
|  | 13 | 24 | 1,416 | -959 | 1,70 | , 361 | , 700 | 1,817 | 1,317 | $\begin{array}{r} 3,531 \\ 18,762 \end{array}$ |  | 274 |  |
|  | 76 |  |  | 5,651 | 1,128 | 2,403 | 3,658 | 9,984 | 9,010 |  | $1,576$ | 1,034 | 6,611 |
|  | 44 | 24 10 | -609 | 2,302 | 1,4981,025 | 1,040 | 1,692 | 5,951 | 5,033 | $\begin{aligned} & 10,928 \\ & 20,486 \end{aligned}$ | $\begin{array}{r} 345 \\ 1,402 \end{array}$ |  | 5,2547,843 |
|  | 95 | 17 | $\begin{aligned} & 1,317 \\ & 3,905 \end{aligned}$ | 4,975 |  |  | 1,35010,859 | 11,649 | 8,858 |  |  |  |  |
|  | 259 | 52 |  | 15,407 | $\begin{aligned} & 1,025 \\ & 3,038 \end{aligned}$ | $\begin{aligned} & 2,151 \\ & 6,422 \end{aligned}$ |  |  | 26,582 | 57,672 | 2,213 | 4,167 | $\begin{array}{r} 7,843 \\ 24,934 \end{array}$ |
| East South Central. | 208 | 48 | 3,020 417 | 11,361 | 2,447 | 4,964 |  |  | 20,903 | 48,220 | $\begin{array}{r}1,850 \\ \hline 265\end{array}$ | 2,801 |  |
| Kentucky......... | 48 | - 76 |  | 1,686 | 337 903 | +659 | $1,239$ | $3,610$ | 2,920 | 6,634 18,554 | 265 | 1,043 |  |
| Ternessee. |  | 16 | 1,137 920 | 4,630 | 903 733 | 1,852 | 2,902 | 9,818 | 8,458 5,248 | 18,554 | 772 523 | 1,015 | $\begin{array}{r} \left({ }^{2}\right) \\ 8,162 \end{array}$ |
| Alabama.......... | 79 27 | 13 | 920 546 | 3,127 1,918 | 733 474 | 1,478 975 | 2,142 | 7,104 | 5,248 4,277 | 12,220 10,812 | 523 290 |  | 7,696 ${ }^{(2)}$ |
| West South Central. | 306 | 81 | 5,833 | 24,406 | 4,580 | 10,043 | 17,251 | 51,748 | 42,885 | 94,473 | 4,853 | 4,388 |  |
| Arkansas.. | 2267 | 6 | 293 | 1,007 | 26382432 | 567 | 850 | 2,000 | 1,993 | 3,968 | 265 | 223872 | 32,638 1,587 |
| Louisiana. |  | 9 | 963 | 4,219 |  |  | 3,379 | 9,461 | 7,716 | 17,134 | 1,061 |  | 6,6082,484 |
| Oklahoma. | 31 | 60 | $\begin{array}{r} 434 \\ 4,143 \end{array}$ | $\begin{array}{r} 2,150 \\ 17,030 \end{array}$ | 3273,166 | $\text { , 885 } 748$ | 1,440 | 4,481 | 3,005 | 7,557 | 1,054 | 312 |  |
| Texas. | 186 |  |  |  |  | 6,843 | 11,582 | 35,806 | 30,171 | 65,814 | 2,473 | 2,981 | 21,959 |
| Mountain. | 141 | 34 | 2,392 | 13,745 | 1,942 | 4,025 | 10,146 | 25,326 | 18,508 | 42,777 | 1,992 | 1,721 | 13,343 |
| Montan | 11 | 3 | 174 | 936 | 142 | 245 | 706 | 1,839 | 1,206 | 3,191 | 104 | (2) | ${ }^{2}$ ) |
| Idaho. . | 9 | 4 | 143 | 859 | 112 | 252 | 561 | 1,497 | 1,407 | 2,727 | 89 | 250 | 2,093 |
| Colorado | 45 | 8 | 688 | 3,816 | 542 | 1,133 | 2,761 | 7,614 | 4,398 | 11,546 | 740 | 512 | 2,029 |
| Arizona | 31 | 6 | 517 | 3,046 | 449 | 901 | 2,465 | 5,309 | 4,491 | 8,908 | 381 | 294 | 2,513 |
| Utah. | 20 | 7 | 544 | 3,191 | 452 | 962 | 2,323 | 5,184 | 3,622 | 9,009 | 371 | 468 | 4,123 |
| Pacific.. | 406 | 85 | 7,072 | 44,104 | 5,414 | 11,042 | 32,744 | 81,589 | 56,143 | 136,665 | 6,920 | 5,827 | 54,627 |
| Washington | 83 | 15 | 1,360 | 8,485 | 1,097 | 2,172 | 6,565 | 14,385 | 10,780 | 24,459 | 1,877 | 1,011 | 8,399 |
| Oregon. ... | 46 | 5 | 567 | 3,296 | +430 | 877 | 2,358 | 7,592 | 4,431 | 12,209 | 473 | 509 | 5,780 |
| California | 270 | 61. | 4,946 | 31,080 | 3,732 | 7,671 | 22,938 | 57,613 | 39,078 | 96,164 | 4,337 | 4,206 | 39,460 |
|  |  |  |  |  |  |  | USTRY 3 | -READY | D CONCRE |  |  |  |  |
| Total. | 4,621 | 1,021 | 71,523 | 410,539 | 46,110 | 96,228 | 244,955 | 981,997 | 1,308,030 | 2,292,504 | 106,010 | 62,116 | 679,385 |
| New Englan | 154 | 46 | 2,723 | 17,734 | 1,815 | 3,792 | 10,435 | 47,018 | 47,058 | 94,167 | 4,874 | 2,371 | 31,931 |
| Maine. . | 20 | 9 | 398 | 1,816 | 282 | 621 | 1,136 | 3,754 | 3,457 | 7,220 | 450 | 254 | 1,874 |
| New Hampshi | 13 | 1 | 152 | 812 | 82 | 165 | 426 | 2,310 | 2,542 | 4,841 | 414 | 107 | 1,020 |
| Vermont. . | 6 | 3 | 148 | 909 | 113 | 275 | 594 | 1,848 | 1,424 | 3,272 | 420 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Massachusetts | 57. | 17 | 1,065 | 7,593 | 660 | 1,421 | 4,288 | 20,339 | 20,847 | 41,289 | 1,871 | 1,014 | 17,203 |
| Rhode Island | 10 | 3 | 130 | 687 | 73 | 143 | 377 | 1,504 | 2,256 | 3,773 | 152 | 156 | 1,722 |
| Connecticut | 48 | 13 | 830 | 5,917 | 605 | 1,167 | 3,614. | 17,263 | 16,532 | 33,772 | 1,567 | 807 | 9,682 |
| Middle Atlant | 505 | 119 | 8,739 | 58,491 | 5,581 | 11,522 | 36,268 | 132,719 | 161,830 | 294,477 | 16,270 | 8,265 | 97,950 |
| New York. | 214 | 43 | 3,543 | 26,781 | 2,128 | 4,061 | 16,091 | 54,274 | 70,591 | 125,070 | 6,712 | 3,128 | 37,933 |
| New Jersey. | 90 | 28 | 2,146 | 15,025 | 1,325 | 3,126 | 9,079 | 35,465 | 42,843 | 78,097 | 2,869 | 1,942 | 23,977 |
| Pennsylvania | 201 | 48 | 3,050 | 16,685 | 2,128 | 4,335 | 11,098 | 42,980 | 48,396 | 91,310 | 6,689 | 3,195 | 36,040 |
| East North Central. | 1,016 | 178 | 12,612 | 82,045 | 7,727 | 16,145 | 45,795 | 191,514 | 266,147 | 460,428 | 18,388 | 12,190 | 145,322 |
| Ohio............. | 247 | 49 | 3,499 | 22,872 | 2,016 | 4,138 | 11,846 | 53,073 | 74,218 | 127,274 | 4,771 | 3,567 | 43,149 |
| Indiana... | 148 | 27 | 1,987 | 12,375 | 1,177 | 2,465 | 6,288 | 26,548 | 37,279 | 63,782 | 2,963 | 1,826 | 18,235 |
| Tllinois. | 268 | 40 | 3,003 | 19,995 | 1,948 | 4,282 | 12,245 | 48,571 | 70,914 | 119,580 | 3,744 | 2,953 | 41,277 |
| Michigan......... | 220 | 36 | 2,545 | 16,867 | 1,616 | 3,319 | 10,180 | 41,733 | 51,593 | 96,098 | 4,295 | 2,507 | 27,877 |
| Wisconsin. | 133 | 26 | 1,578 | 9,936 | 970 | 1,941 | 5,236 | 21,589 | 32,143 | 53,694 | 2,615 | 1,337 | 14,784 |
| West North Central. | 595 | 76 | 6,140 | 34,245 | 4,311 | 8,972 | 22,316 | 82,071 | 115,031 | 197,066 | 8,263 | 5,867 | 69,188 |
| Iowa. .... | 149 | 11 | 1,078 | 5,964 | 766 | 1,607 | 4,048 | 15,225 | 22,204 | 37,464 | 1,554 | 994 | 11,540 |
| Missouri. . . . . | 126 | 24 | 1,880 | 10,863 | 1,408 | 2,861 | 7,787 | 23,866 | 34,095 | 57,962 | 2,761 | 2,154 | 25,264 |
| North Dakota. . | 16 | 1 | 131 | 702 | 77 | 152 | 370 | 1,667 | 2,672 | 4,341 | 189 535 | (2) | (2) |
| South Dakota. | 34 87 | 4 | 268 | 1,246 | 211 | , 394 | 864 | 3,524 | 5,341 | 8,825 | 535 1,018 | 152 848 | 1,532 10,824 |
| Kansas....... | 87 | 13 | 913 | 4,927 | 554 | 1,182 | 2,814 | 10,806 | 15,362 | 26,142 | 1,018 | 848 | 10,824 |
| South Atlantic.... | 571 | 201 | 11,806 |  | 7,815 | 16,750 | 32,522 | 138,203 | 187,638 | 325,701 | 16,512 | 9,737 | 88,512 |
| Delaware......... | 12 | 4 | 284 | 1,426 | 245 | 491 | 1,146 | 3,688 | 4,465 | 8,175 | 471 | 297 | 3,152 |
| Maryland.......... | 53 | 17 | 920 | 5,093 | 503 | 1,065 | 2,287 | 14,151 | 18,315 | 32,584 | 1,388 | 791 | 6,302 |
| Columbia. . . . . . . . | 4 | 4 | 414 | 2,887 | 318 | 664 | 1,874 | 6,375 | 9,314 | 15,690 | 1,140 | 366 | 2,754 |
| Virginia. | 88 | 27 | 1,688 | 8,035 | 1,381 | 2,958 | 6,048 | 23,065 | 29,111 | 52,212 | 3,177 | 1,267 | 14,938 |
| West Virginia... | 26 | 8 | 477 | 2,319 | 327 | 668 | 1,510 | 4,975 | 6,932 | 11,895 | 597 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| North Carolina... | 92 | 25 | 1,454 | 6,025 | 947 | 2,020 | 3,509 | 14,725 | 21,127 | 35,853 | 2,038 | 1,174 | 9,133 |
| South Carolina... | 49 | 10 | 684 | 2,488 | 504 | 1,081 | 1,709 | 5,932 | 9,326 | 15,234 | 1,299 |  | 4,612 |
| Ceorgia... | 85 | 34 | 1,919 | 7,384 | 1,382 | 2,802 | 4,849 | 16,805 | 26,417 | 42,817 | 2,250 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| Florida... | 163 | 72 | 3,966 | 18,370 | 2,208 | 5,001 | 9,590 | 48,487 | 62,631 | 111,241 | 4,152 | 3,696 | 35,227 |
| East South Central. | 306 | 53 | 4,586 | 19,928 | 2,945 | 6,202 | 11,584 | 51,622 | 68,675 | 119,723 | 6,214 | 3,397 | 30,188 |
| Kentucky. ........ | 83 | 10 | 980 | 4,920 | 555 | 1,135 | 2,458 | 11,852 | 16,840 | 28,730 | 1,314 | 836 | 6,450 |
| Ternessee........ | 87 | 18 | 1,532 | 6,553 | 998 | 2,197 | 4,020 | 18,088 | 24,552 | 42,124 | 1,972 | 940 | 10,654 |
| Alabarga.......... | 76 | 18 | 1,304 | 5,431 | 861 | 1,759 | 3,270 | 14,336 | 16,472 | 30,732 | 2,019 | 872 | 8,088 |
| Mississippi. | 60 | 17 | 770 | 3,024 | 531 | 1,111 | 1,836 | 7,346 | 10,811 | 18,137 | 909 | 749 | 4,996 |

[^61]table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


See footnotes at end of table.
table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{\text {² }}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted$(\$ 1,000)$ |
|  | Total (number) | With 20 employees or more (number) | Total (number) | Payroll $(\$ 1,000)$ | Total (number) | Man- <br> $(1,000)$ | Wages $(\$ 1,000)$ |  |  |  |  |  |  |
| South. . | INDUSTRY 3281. -CUT STONE AND STONE PRODUCTS-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 227 | 59 | 5,062 | 19,285 | 4,309 | 8,403 | 15,650 | 30,945 | 19,014 | 49,481 | 2,306 |  |  |
| Maryland |  |  | 144 | 778 | 125 | 244 | 655 | 1,215 | 744 | 1,979 | 186 |  |  |
| Virgin | 11 | 4 | 243 | 863 | 197432 | 402 |  | 1,482 | 855 | 2,388 | 144 | (2) |  |
| North Ca | 18 | 6244 | 4992,065 | 1,789 |  | 753 |  |  | 1,7737,444 | 4,30620,450 | 149 | $(2)$ 641 | 3,235 |
| Georgi | 72 |  |  | 7,811 | $\begin{array}{r} 432 \\ 1,802 \end{array}$ | 3,515 | 1,408 6,555 | 2,570 13,231 |  |  | 808 | 641 2,149 | 12,0194,233 |
|  | 23 | 7 | 854293490 | 3,076 | 732250360 | 3,5171,435738 | 2,4501,0331,578 | 3,3671,849 | 3,053 | 6,3372,511 | 208 | 845339442 |  |
| Alaban | 13 | 3 |  | 1,184 |  |  |  |  |  |  |  |  | 2,397 |
| Tex |  |  |  | 2,151 | 360 |  |  | 3,594 | 2,665 | 6,220 | 131 |  |  |
| West. | 9448 |  | $\begin{aligned} & 799 \\ & 587 \end{aligned}$ |  | 632 | 1,231 |  |  | 3,872 |  | 37 | 442 (2) | $\begin{array}{r}(2) \\ 3,288 \\ \hline\end{array}$ |
|  |  | 10 |  |  | 463 | 914 | 2,24 |  | 3,216 |  | 237 |  |  |
| Standard Notes: - Represents zero. <br> (D) Withheld to avoid disclosing figures for individual campanies. <br> (NA) Not available. <br> (X) Not <br> applicable. <br> ${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that state. SIC 3271, Concrete Block and Brick: New England-Maine, 6 (20-99); New Hampshire, 8 (20-99); Vermont, 6 (20-99); Rhode Island, 8 (20-99); Connecticut, 25 (250-499); West North Central-North Dakota, 10 (20-99); South Atlantic-Maryland, 30 (500-999); District of Columbia, 3 (100-249); West South Central-Arkansas, 22 (184); Oklahoma, 18 (176); Mountain-Montana, 6 (20-99); Idaho, 4 (20-99); Wyoming, 9 (20-99); Colorado, 27 (250-499); Pacific-Washington, 17 (100-249); Oregon, 19 (147); Alaska, 5 (20-99); Hawaii, 2 (20-99). |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SIC 3272, Other Concrete Products: New England-Vermont, 5 (20-99); West North Central—South Dakota, 13 (100-249); Kansas, 32 (250-499); South Atlantic-Delaware, 13 (100-249); District of Columbia, 1 (20-99); Mountain-Wyoming, 7 (20-99); New Mexico, 12 (210); Nevada, 6 (20-99); Pacific-Alaska, 1 (1-19); Hawaii, 6 (100-249); |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SIC 3273, Ready Mixed Concrete: West North Central-Minnesota, 115 ( $1,000-2,499$ ); Nebraska, 68 (500-999); <br> SIC 3274, Lime: New England-Vermont, l (1-19); Massachusetts, 3 (201); Connecticut, 1 (20-99); Middle Atlantic-New York, 2 (1-19); New Jersey, 1 (1-19); Pennsylvania, 20 (1,350); East North Central-Indiana, 1 (1-19); Illinois, 5 (240); Michigan, 2 (20-99); Wisconsin, 5 (103); West North Central-Minnesota, 1 (20-99); Iowa, 1 (20-99); Missouri, 6 (250-499); South Dakota, 1 (1-19); South Atlantic-Maryland, 2 (20-99); Virginia, 8 (250-499); West Virginia, 4 (20-99); Florida, 3 (20-99); East South Central-Tennessee, 2 (20-99); Alabama, 6 (250-499); West South CentralArkansas, 1 (20-99); Louisiana, 3 (20-99); Oklahoma, 1 (20-99); Mountain-Montana, 2 (20-99); Colorado, 1 (1-19); New Mexico, 1 (1-19); Arizona, 3 (20-99); Nevada, 3 (20-99); Pacific—Washington, 1 (20-99); Oregon, 4 (20-99); Califormia, 5 (100-249); Hawaii, 1 (1-19). |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SIC 3275, Gypsum Products: New England-New Hampshire, 1 (100-249); Massachusetts, 3 (148); Connecticut, 1 (100-249); Middle Atlantic-New York, 11 (1,000-2,499); New Jersey, 6 (100-249); Pennsylvania, 3 (222); East North Central—Indiana, 3 (500-999); Illinois, 3 (140); Michigan, 6 (500-999); West North Central-Iowa, 5 (1,000-2,499); Missouri, 2 (1-19); Nebraska, 1 (1-19); Kansas, 2 (250-499); South Atlantic-Delaware, 1 (100-249); Maryland, 2 (250-499); Virginia, 2 (250-499); Georgia, 2 (250-499); Florida, 9 (381); East South Central-Tennessee, 2 (1-19); West South Central-Arkansas, 2 (20-99); Louisiana, 3 (250-499); Oklahoma, 2 (250-499); Mountain-Montana, 1 (20-99); Wyoming, 1 (20-99); Colorado, 1 (20-99); New Mexico, 2 (100-249); Arizona, 4 (120); Utah, 2 (100-249); Nevada, 2 (250-499); Pacific—Washington, 1 (100-249); Oregon, 1 (1-19); California, 18 ( $1,000-2,499$ ). |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SIC 3281, Cut Stone and Stone Products: New England-Rhode Island, 5 (106); Connecticut, 10 (20-99); East North Central-Ohio, 37 (807); Michigan, 23 (162); West North Central-Iowa, 7 (20-99); South Dakota, 2 (100-249); Nebraska, 7 (20-99); South Atlentic-District of Columbia, 1 (20-99); West Virginia, 2 (l-19); South Carolina, 7 (20-99); Florida, 11 (20-99); East South Central-Kentucky, 6 (20-99); Mississippi, 4 (100-249); West South Central-Arkansas, 8 (20-99); Louisiana, 1 (1,19); Oklahoma, 7 (20-99); Mountain-Montana, 1 (1-19); Idaho, 2 (1-19); Colorado, 8 (20-99); New Mexico, 3 (20-99); Arizona, 9 (20-99); Utah, 6 (20-99); Nevada, 2 (1-19); Pacific-Washington, 10. (20-99); Oregon, 4 (1-19); Hawaii, 1 (1-19). <br> showed the number of establishnents and total employment (either actual or in size ranges) for such States. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## table 3. Detailed Statistics: 1963

| Item | All establishments |  | Ready mixed concrete (SIC 3273) |  |  | Lime (SIC 3274) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Concrete block and brick $(\text { SIC 3271) })^{2}$ | $\begin{gathered} \text { Other } \\ \text { concrete } \\ \text { products } \\ (\text { SIC } 3272)^{1} \end{gathered}$ | Total | Subindustry |  | Total | Subindustry |  |
|  |  |  |  | Establishments with mining or quarrying. activity ${ }^{2}$ | Establish- <br> ments with- <br> out mining <br> or quarrying <br> activity |  | Establishments with mining or quarrying activity? | Establishments without mining or quarrying activity ${ }^{2}$ |
| Primary product specialization ratio ${ }^{3}$.......................... | . 92 | . 94 | . 92 | (NA) | (NA) | . 82 | (NA) | (NA) |
| Coverage ratio ${ }^{4}$.................................................... | . 84 | . 94 | . 98 | (NA) | (NA) | . 94 | (NA) | (NA) |
| Establishments, total.....................................number.. | 1,841 | 3,451 | 4,621 | 238 | 4,383 | 125 | 58 | 67 |
| With 1 to 19 employees.................................. do.... | 1,474 | 2,735 | 3,600 | 102 | 3,498 | 57 | 10 | 47 |
| With 20 to 99 employees................................do.... | 362 | 650 | 947 | 112 | 835 | 47 | 29 | 18 |
| With 100 employees or more.............................do.... | 5 | 66 | 74 | 24 | 50 | 21 | 19 | 2 |
| Proprietors and working partners......................do. | 1,140 | 2,205 | 1,992 | (NA) | (NA) | 29 | (NA) | (NA) |
| All employees (average for the year).....................do.. | 23,759 | 52,297 | 71,523 | 9,569 | 61,954 | 6,778 | 5,543 | 1,235 |
| Payroil (all employees), total for year............... $\$ 1,000 .$. | 119,543 | 266,706 | 410,539 | 62,389 | 348,150 | 38,903 | 31,778 | 7,125 |
| Production workers: |  |  |  |  |  |  |  |  |
| Average for the year....................................... | 16,702 | 41,093 | 46,110 | 5,928 | 40,182 | 5,384 | 4,378 | 1,006 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 14,443 | 36,874 | 40,500 | 5,265 | 35,235 | 5,354 | 4,341 | 1,013 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 17,437 | 41,313 | 47,340 | 6,061 | 41,279 | 5,465 | 4,447 | 1,018 |
| August. | 18,190 | 44,271 | 49,834 | 6,332 | 43,502 | 5,443 | 4,441 | 1,002 |
| November | 16,841 | 42,024 | 46,847 | 6,053 | 40,794 | 5,270 | 4,281 | 989 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .1,000. . | 36,081 | 87,256 | 96,228 | 12,454 | 83,774 | 11,366 | 9,238 | 2,128 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 7,218 | 18,444 | 19,829 | 2,611 | 17,218 | 2,748 | 2,214 | 534 |
| April-June. | 9,526 | 22,542 | 25,149 | 3,255 | 21,894 | 2,841 | 2,309 | 532 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 10,238 | 23,934 | 26,849 | 3,450 | 23,399 | 2,892 | 2,355 | 537 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 9,099 | 22,336 | 24,401 | 3,138 | 21,263 | 2,885 | 2,360 | 525 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 72,748 | 190,945 | 244,955 | 36,398 | 208,557 | 28,519 | 22,914 | 5,605 |
| Cost of materials, etc., total...........................do. | 262,765 | 387,389 | 1,308,030 | 120,085 | 1,187,945 | 69,011 | 48,099 | 20,912 |
| Materials, parts, containers, and supplies consumed..do. | 197,172 | 337,280 | 1,155,520 | 106,130 | 1.,049,390 | 37,149 | 25,233 | 11,916 |
| Cost of resales.........................................d. ${ }^{\text {do. }}$ | 53,301 | 28,326 | 105,311 | 6,447 | 98,864 | 5,497 | 3,837 | 1,660 |
| Fuels consumed........................................... . ${ }^{\text {do. }}$ | 7,048 | 9,350 | 29,456 | 4,571 | 24,885 | 20,999 | 14,779 | 6,220 |
| Electric energy:Purchased: |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . .million kw. -hrs. . | 199 | 265 | 506 | 112 | 395 | 402 | 320 | 82 |
| Cost. .............................................. . $\$ 1,000$. . | 4,017 | 4,877 | 10,239 | 2,100 | 8,139 | 4,693 | 3,745 | 948 |
| Generated less sold......................million kw.-hrs. | (2) | (Z) | 1 | (D) | (z) | (D) | - | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 1,227 | 7,556 | 7,504 | 837 | 6,667 | 673 | 505 | 168 |
| Value of shipments (including resales), total............do. Value of resales...................................................... | 505,194 70,218 | 925,677 37,412 | $\begin{array}{r} 2,292,504 \\ 147,832 \end{array}$ | 250,775 7,136 | $2,041,729$ 140,696 | 164,366 7,268 | 121,708 5,114 | 42,658 2,154 |
| Value added by manufacture, adjusted.....................do. | 245,525 | 539,967 | 981,997 | 131,006 | 850,991 | 95,135 | 73,604 | 21,531 |
| Manufacturers' inventories: |  |  |  |  |  |  |  |  |
| Beginning of year, total................................do. | 54,511 | 123,918 | 65,134 | 10,347 | 54,787 | 14,204 | 10,834 | 3,370 |
| Finished products..................................... do. | 46,102 | 79,374 | 28,980 | 5,711 | 23,269 | 3,982 | 3,126 | 856 |
| Work-in-process . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 890 | 13,612 | 1,428 | 439 | 989 | 719 | 669 | 50 |
| Materials, supplies, fuel, etc.......................do | 7,519 | 30,932 | 34,726 | 4,197 | 30,529 | 9,503 | 7,039 | 2,464 |
| End of year, total....................................... . . . | 57,990 | 126,083 | 64,453 | 11,146 | 53,307 | 13,979 | 11,135 | 2,844 |
| Finished products..... . . . . . . . . . . . . . . . . . . . . . . . . . .do | 49,217 | 78,510 | 28,535 | 6,112 | 22,423 | 3,841 | 3,177 | 664 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 872 | 16,154 | 1,463 | 354 | 1,109 | 640 | 613 | 27 |
| Materials, supplies, fuel, etc.......................do. | 7,901 | 31,419 | 34,455 | 4,680 | 29,775 | 9,498 | 7,345 | 2,153 |
| Expenditures for plant and equipment, total...........do. | 33,493 | 48,173 | 117,355 | 15,783 | 101,572 | 15,082 | 9,292 | 5,790 |
| New, total........................................... . . .do.. | 31,143 | 43,550 | 106,010 | 13,485 | 92,525 | 14,730 | 9,025 | 5,705 |
| New structures and additions to plant...............do. | 6,132 | 11,918 | 27,759 | 2,373 | 25,386 | 2,108 | 1,364 | , 744 |
| New machinery and equipment..........................do.... | 25,011 | 31,632 | 78,251 | 11,112 | 67,139 | 12,622 | 7,661 | 4,961 |
| Used plant and equipment............................... do. | 2,350 | 4,627 | 11,345 | 2,298 | 9,047 | 352 | 267 | 85 |
| Selected operating ratios: |  |  |  |  |  |  |  |  |
| Payroll/Total employment.. | 5,031 | 5,100 | 5,740 | 6,511 | 5,619 | 5,740 | 5,733 | 5,769 |
| Production workers/Total employment. | . 70 | . 79 | . 64 | . 62 | . 65 | . 79 | . 79 | . 81 |
| Man-hours/Production workers... | 2,160 | 2,123 | 2,070 | 2,101 | 2,085 | 2,111 | 2,110 | 2,115 |
| Production worker wages/Man-hours.. . . . . . . . . . . . . . . . . . . . . . . | 2.02 | 2.19 | 2.55 | 2.92 | 2.49 | 2.51 | 2.48 | 2.63 |
| Cost of materials and payrolls/Total value of shipments.... | . 76 | . 71 | . 75 | . 73 | . 75 | . 66 | . 66 | . 66 |
| Cost of materials/Total value of shipments................. | . 52 | . 42 | . 57 | . 48 | . 58 | . 42 | . 40 | . 49 |
| Adjusted value added/Total enployment........................ | 10,359 | 10,325 | 13,730 | 13,690 | 13,736 | 14,036 | 13,279 .43 | 17,434 .33 |
| Salaries and wages/Adjusted value added. |  |  |  |  |  |  |  |  |

TABLE 3. Detailed Statistics: 1963-Continued

| Item | Gypsum products (SIC 3275) |  |  | Cut stone and stone products (SIC 3281) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Subindustry |  | Total | Establishments dressing stone and quarrying- |  |  | Establishments dressing stone only ${ }^{5}$ |
|  |  | Establishments with mining or quarrying activity ${ }^{2}$ | Establishments without mining or quarrying activity |  | Limestone ${ }^{5}$ | Granite ${ }^{5}$ | Other stone ${ }^{5}$ |  |
| Primary product specialization ratio ${ }^{3}$. | . 97 | (NA) | (NA) | . 94 | (NA) | (NA) | (NA) | (NA) |
| Coverage ratio ${ }^{4}$............................... | . 98 | (NA) | (NA) | . 99 | (NA) | (NA) | (NA) | (NA) |
| Establishments, total....................................number.. | 122 | 34 | 88 | 893 | 24 | 46 | 48 | 775 |
| With 1 to 19 employees................................. . . . ${ }^{\text {do. }}$ | 50 | - | 50 | 682 | 7 | 16 | 16 | 643 |
| With 20 to 99 employees................................. do | 18 | 6 | 12 | 175 | 10 | 23 | 20 | 122 |
| With 100 employees or more.............................d. ${ }^{\text {do. }}$ | 54 | 28 | 26 | 36 | 7 | 7 | 12 | 10 |
| Proprietors and working partners........................do.. | 36 | ( NA ) | (NA) | 558 | (NA) | (NA) | (NA) | (NA) |
| All employees (average for the year)...................do.... | 11,491 | 6,134 | 5,357 | 18,340 | 1,751 | 2,414 | 4,176 | 9,999 |
| Payroll (all employees), total for year............... $\$ 1,000 .$. | 70,335 | 36,457 | 33,878 | 85,745 | 8,686 | 11,350 | 17,226 | 48,483 |
| Production workers: |  |  |  |  |  |  |  |  |
| Average for the year.................................number.. | 9,216 | 5,014 | 4,202 | 15,259 | 1,501 | 2,032 | 3,732 | 7,994 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 8,868 | 4,795 | 4,073 | 14,363 | 1,212 | 1,966 | 3,524 | 7,661 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 9,405 | 5,183 | 4,222 | 15,522 | 1,689 | 2,063 | 3,688 | 8,082 |
| August.................................................. . do. | 9,385 | 5,166 | 4,219 | 15,866 | 1,695 | 2,076 | 3,897 | 8,198 |
| November.............................................. . . do... . | 9,181 | 4,902 | 4,279 | 15,274 | 1,410 | 2,013 | 3,816 | 8,035 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 20,766 | 11,206 | 9,560 | 30,896 | 3,058 | 4,040 | 7,701 | 16,097 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 4,818 | 2,581 | 2,237 | 6,933 | 564 | 943 | 1,755 | 3,671 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 5,230 | 2,852 | 2,378 | 8,102 | 886 | 1,047 | 1,963 | 4,206 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 5,556 | 3,050 | 2,506 | 8,048 | 884 | 1,032 | 2,029 | 4,103 |
| October-December....................................... . . . ${ }^{\text {do. }}$ | 5,162 | 2,723 | 2,439 | 7,813 | 724 | 1,018 | 1,954 | 4,117 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 54,455 | 28,923 | 25,532 | 66,657 | 7,313 | 8,679 | 14,797 | 35,868 |
| Cost of materials, etc., total..........................do. | 164,445 | 72,569 | 91,876 | 86,633 | 4,482 | 9,396 | 11,392 | 61,363 |
| Materials, parts, containers, and supplies consumed..do. | 133,830 | 58,562 | 75,268 | 70,599 | 3,379 | 7,482 | 9,289 | 50,449 |
| Cost of resales................................... . . . . . . do | 11,863 | (D) | (D) | 6,860 | 360 | 876 | 1,000 | 4,624 |
| Fuels consumed. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 11,660 | 5,704 | 5,956 | 1,698 | (D) | 297 | (D) | 837 |
| Electric energy: |  |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |  |
| Quantity................................million kw.-hrs.. | 601 | 306 | 295 | 227 | 29 | 28 | 47 | 124 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 6,981 | 3,443 | 3,538 | 3,409 | 371 | 459 | 741 | 1,838 |
| Generated less sold......................million kw.-hrs.. | (D) | (D) | - | (D) | - | (D) | (D) | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. | 111 | (D) | (D) | 4,067 | (D) | 282 | (D) | 3,615 |
| Value of shipments (including resales), total............do.... Value of resales............................................................ | $\begin{array}{r} 425,108 \\ 16,788 \end{array}$ | 206,012 | 219,096 (D) | 217,176 9,423 | 17,250 469 | 27,295 1,078 | 34,047 1,125 | $\begin{array}{r} 138,584 \\ 6,751 \end{array}$ |
| Value added by manufacture, adjusted....................do | 259,659 | 133,612 | 126,047 | 131,465 | 12,762 | 17,996 | 22,865 | 77,842 |
| Manufacturers' inventories: |  |  |  |  |  |  |  |  |
| Beginning of year, total.................................do. | 31,035 | 13,404 | 17,631 | 29,779 | 4,414 | 3,312 | 6,805 | 15,248 |
| Finished products....................................... do | 11,604 | 4,430 | 7,174 | 11,861 | 3,051 | 1,236 | 2,231 | 5,343 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 2,894 | 1,818 | 1,076 | 8,010 | 707 | 1,053 | 2,217 | 4,033 |
| Materials, supplies, fuel, etc.......................do. | 16,537 | 7,156 | 9,381 | 9,908 | 656 | 1,023 | 2,357 | 5,872 |
| End of year, total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 36,456 | 14,758 | 21,698 | 31,199 | 4,412 | 3,384 | 7,141 | 16,262 |
| Finished products...................................... . . . . . | 9,717 | 3,945 | 5,772 | 11,761 | 2,918 | 1,063 | 2,147 | 5,633 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 3,777 | 2,472 | 1,305 | 9,032 | 834 | 1,323 | 2,511 | 4,364 |
| Materials, supplies, fuel, etc.......................do. | 22,962 | 8,341 | 14,621 | 10,406 | 660 | 998 | 2,483 | 6,265 |
| Expenditures for plant and equipment, total...........do. | 15,263 | (D) | (D) | 7,676 | (D) | (D) | (D) | 3,958 |
| New, total...................... . . . . . . . . . . . . . . . . . . . . do. | 15,201 | 7,275 | 7,926 | 6,693 | 713 | 744 | 1,682 | 3,554 |
| New structures and additions to plant...............do. | 4,162 | 1,964 | 2,198 | 1,378 | (D) | (D) | (D) | 1,001 |
| New machinery and equipment......................... do. | 11,039 | 5,311 | 5,728 | 5,315 | (D) | (D) | (D) | 2,553 |
| Used plant and equipment................................do. | 62 | (D) | (D) | 983 | (D) | (D) | 309 | 404 |
| Selected operating ratios: |  |  |  |  |  |  |  |  |
| Payroll/Total employment. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,121 | 5,943 | 6,324 | 4,675 | 4,961 | 4,702 | 4,125 | 4,849 |
| Production workers/Total employment. .......................... | . 80 | . 82 | . 78 | . 83 | . 86 | . 84 | . 89 | . 80 |
| Man-hours/Production workers. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2,253 | 2,235 | 2,275 | 2,025 | 2,037 | 1,988 | 2,064 | 2,014 |
| Production worker wages/Man-hours............................. | 2.62 | 2.58 | 2.67 | 2.16 | 2.39 | 2.15 | 1.92 | 2.23 |
| Cost of materials and payrolls/Total value of shipments.... | . 55 | . 53 | . 57 | . 79 | . 76 | . 76 | . 84 | . 79 |
| Cost of materials/Total value of shipments.................. | . 39 | . 35 | . 42 | . 40 | . 26 | . 34 | . 33 | . 4.4 |
| Adjusted value added/Total employment......................... | 22,597 | 21,782 | 23,529 | 7,168 | 7,288 | 7,454 | 5,475 | 7,785 |
| Salaries and wages/Adjusted value added..................... | . 27 | . 27 | . 27 | . 65 | . 68 | . 63 | . 75 | . 62 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
(Z) Less than $500,000 \mathrm{kw}$. -hrs. applicable. (Z) Less than $500,000 \mathrm{kw}$. -hrs.
${ }^{1}$ Iess than 20 establishments (not including establishments reporting on "short forms") reported the operation of a mine or quarry in conjunction with manufacturing activity.
${ }^{2}$ Separate detailed data are not available for "small" establishments that operated mines or quarries in conjunction with manufacturing operations but
${ }_{3}{ }^{3}$ The
${ }^{4}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{4}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.
${ }^{5}$ Separate detailed data are not available for approximately 80 "small" establishments that operated quarries in conjunction with dressing plants and reported on "short forms." Data for these establishments are included with "Establishments dressing stone only." The total value of shipments of these "small" establishments is less than $\$ 7$ million.

TABlE 4. Selected Statistics, by Employment Size of Establishments: 1963


[^62]
## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Total }^{1} \\ & (\$ 1,000) \end{aligned}$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\mathrm{Col} \text { B }}{\text { Cold }}$ <br> Col. B+C <br> (percent) | Total, made in all industries ${ }^{1}$ $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3271 | Concrete block and brick.......... 1963.. $1958 .$. | $\begin{aligned} & 505,194 \\ & 413,670 \end{aligned}$ | $\begin{aligned} & 395,492 \\ & 314,695 \end{aligned}$ | $\begin{aligned} & 35,754 \\ & 34,645 \end{aligned}$ | $\begin{aligned} & 73,948 \\ & 64,330 \end{aligned}$ | $\begin{aligned} & 92 \\ & 90 \end{aligned}$ | $\begin{aligned} & 472,419 \\ & 379,068 \end{aligned}$ | $\begin{aligned} & 395,492 \\ & 314,695 \end{aligned}$ | $\begin{aligned} & 76,927 \\ & 64,375 \end{aligned}$ | $\begin{aligned} & 84 \\ & 83 \end{aligned}$ |
| 3272 | Other concrete products........... $1963 .$. | $\begin{aligned} & 925,677 \\ & 718,543 \end{aligned}$ | $\begin{aligned} & 806,609 \\ & 622,162 \end{aligned}$ | $\begin{aligned} & 47,771 \\ & 38,868 \end{aligned}$ | $\begin{aligned} & 71,297 \\ & 57,513 \end{aligned}$ | 94 | $\begin{aligned} & 861,878 \\ & 661,142 \end{aligned}$ | $\begin{aligned} & 806,609 \\ & 622,162 \end{aligned}$ | $\begin{aligned} & 55,269 \\ & 38,980 \end{aligned}$ | 94 94 |
| 3273 | Ready mixed conerete............... 1963.. $1958 .$. | $\begin{aligned} & 2,292,504 \\ & 1,681,926 \end{aligned}$ | $\begin{aligned} & 1,923,644 \\ & 1,423,544 \end{aligned}$ | $\begin{aligned} & 173,392 \\ & 119,517 \end{aligned}$ | $\begin{aligned} & 195,468 \\ & 138,865 \end{aligned}$ | 92 | $\begin{aligned} & 1,970,701 \\ & 1,463,569 \end{aligned}$ | $\begin{aligned} & 1,923,644 \\ & 1,423,544 \end{aligned}$ | $\begin{aligned} & 47,057 \\ & 40,025 \end{aligned}$ | 98 |
| 3274 |  | $\begin{aligned} & 164,366 \\ & 130,948 \end{aligned}$ | $\begin{aligned} & 128,557 \\ & 103,663 \end{aligned}$ | $\begin{aligned} & 27,954 \\ & 21,516 \end{aligned}$ | $\begin{aligned} & 7,855 \\ & 5,769 \end{aligned}$ | 82 83 | $\begin{aligned} & 136,875 \\ & 108,976 \end{aligned}$ | $\begin{aligned} & 128,557 \\ & 103,663 \end{aligned}$ | $\begin{aligned} & 8,318 \\ & 5,313 \end{aligned}$ | 94 95 |
| 3275 | Gypsum products.................... $1963 .$. | $\begin{aligned} & 425,108 \\ & 364,947 \end{aligned}$ | $\begin{aligned} & 395,611 \\ & 336,009 \end{aligned}$ | $\begin{aligned} & 12,554 \\ & 16,495 \end{aligned}$ | $\begin{aligned} & 16,943 \\ & 12,443 \end{aligned}$ | 97 | $\begin{aligned} & 405,101 \\ & 344,244 \end{aligned}$ | $\begin{aligned} & 395,611 \\ & 336,009 \end{aligned}$ | $\begin{aligned} & 9,490 \\ & 8,235 \end{aligned}$ | 98 98 |
| 3281 | Cut stone and stone products......1963.. $\begin{array}{r}\text { 1958.. }\end{array}$ | $\begin{aligned} & 217,176 \\ & 206,264 \end{aligned}$ | $\begin{aligned} & 189,655 \\ & 185,187 \end{aligned}$ | $\begin{array}{r} 12,696 \\ 8,779 \end{array}$ | $\begin{aligned} & 14,825 \\ & 12,298 \\ & \hline \end{aligned}$ | 94 | $\begin{aligned} & 190,948 \\ & 191,054 \\ & \hline \end{aligned}$ | $\begin{aligned} & 189,655 \\ & 185,187 \end{aligned}$ | $\begin{aligned} & 1,293 \\ & 5,867 \\ & \hline \end{aligned}$ | 99 <br> 97 |

NOTE: See Introduction for an explanation of terms used.

[^63]
## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

| Prod. class code | Class of products and miscellaneous receipts | $\begin{aligned} & \text { All } \\ & \text { industries } \end{aligned}$ | $\begin{aligned} & \text { Concrete } \\ & \text { block } \\ & \text { and } \\ & \text { brick } \\ & \text { (SIC 3271) } \end{aligned}$ | Other concrete products (SIC 3272) | Ready mixed concrete (SIC 3273) | $\underset{(\mathrm{SIC} 3274)}{\text { Lime }}$ | Gypsum products (SIC 3275) | Cut stone and stone products (SIC 3281) | Crushed and broken limestone (SIC 1422) | Construction sand and gravel (SIC 1442) | Other industries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total shipments and receipts of the industry. | (x) | 505,194 | 925,677 | 2,292,504 | 164,366 | 425,108 | 217,176 | (x) | (X) | (X) |
| $\begin{aligned} & 327- \\ & 328- \end{aligned}$ | Conerete, gypsum, stone, and plaster <br> f products......................................... | (X) | 426,177 | (D) | 2,001,957 | 129,001 | 395,611 | (D) | (X) | (X) | (x) |
| 32710 32721 | Concrete brick and block. Concrete pipe........... | 472,419 369,259 | 395,492 3,669 | 21,931 358,051 | 53,051 5,196 | - | - | (Z) | (D) | (D) | 1,436 2,314 |
| 32722 | Precast concrete products | 297,300 | 13,411 | 267,972 | 9,985 | (D) | - | (D) | (D) | - | 4,243 |
| 32723 | Prestressed concrete products | 140,939 | 2,881 | 126,593 | 8,339 | ) | - |  | (D) | - | (D) |
| 32720 | Concrete products, n.s.k. | 54,380 | 202 | 53,993 | (z) | - | - | - | - |  | 120 |
| 32730 | Ready mixed concrete. | 1,970,701, | 10,522 | 10,394 | 1,923,644 | - | - | - | 4,313 | 8,733 | ${ }^{2} 13,095$ |
| 32740 | Lime.. | 136,875 | - |  |  | 128,557 | - | - | (D) | - | (D) |
| 32750 | Gypsum products..... | 405,101 | - | (D) | 1,657 | (D) | 395,611 |  |  |  | 7,519 |
| 32811 | Cut granite and granite products. | 87,822 | - | (D) | - | - | - | (D) | - | - | (D) |
| 32812 | Cut limestone and limestone froducts... | 29,084 | - | - |  | - | - | (D) | (D) | - | (D) |
| 32813 | Cut marble and other cut stone products | 63,606 | - | - | (z) | - | - | 62,623 | (D) | (D) | (D) |
| 32810 | Cut stone and stone products, n.s.k.... | 10,436 | - | - | - | - | - | (D) | - | - | (D) |
|  | Other products. | (X) | 5,069 | (D) | 95,079 | 27,510 | 12,554 | (D) | (X) | (x) | (x) |
| 14222 | Crushed and broken limestone........... | (X) | (D) | - | 6,948 | 17,138 | - | (D) | (x) | (X) | (X) |
| 14292 | Other crushed and broken slate, marble, etc.. | (x) | - | - | 11,692 | (D) | - | 1,947 | ( ${ }^{\text {c }}$ ) | (x) | (X) |
| 14420 | Common sand and gravel. | (x) | 1,743 | 1,885 | 52,736 | ) | - | - | (X) | (x) | (X) |
| 29510 | Paving mixtures and blocks. | (X) | (D) | 2,872 | 14,740 | - | (D) | - | (X) | (X) | (X) |
| 32950 | Minerals and earths, ground or otherwise treated. | (X) | (D) | (D) | 4,104 |  | (D) | (D) | (X) | (x) | (x) |
|  | Other secondary products. | (X) | 1,925 | 9,729 | 4,859 | ${ }^{3} 9,492$ | 46,662 | 59,032 | (X) | (X) | (X) |
|  | Miscellaneous receipts. | (x) | 73,948 | 71,297 | 195,468 | 7,855 | 16,943 | 14,825 | (x) | (X) | (X) |
|  | Resales.. | (X) | 70,218 | 37,412 | 147,832 | 7,268 | 16,788 | 9,423 | (X) | (X) | (X) |
|  | Other miscellaneous receipts | (X) | 3,730 | 33,885 | 47,636 | 587 | 155 | 5,402 | (X) | (X) | (X) |

[^64](D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. (Z) Less than $\$ 100$ thousand.
n.s.k. Not specified by kind.
${ }^{1}$ Includes $\$ 1$ million shipped by industry 3259, Structural Clay Products, N.E.C.
${ }^{2}$ Includes $\$ 7$ million shipped by industry 2951, Paving Mixtures and Blocks; $\$ 3$ million shipped by industry 1429, Crushed and Broken Stone, N.E.C. In addition industry 1423, Crushed and Broken Granite, had shipments which totaled $\$ 2$ million or more. The exact figure is withheld to avoid disclosing individual company figures.
${ }^{3}$ Includes shipments of $\$ 2$ million or more of product class 32970 , Nonclay refractories. The exact amount is withheld to avoid disclosing figures for individual companies.
${ }^{4}$ Includes shipments of $\$ 2$ million or more of product class 14922, Crushed, ground, sereened or dried gypsum. The exact amount is withheld to avoid disclosing figures of individual companies.

Includes $\$ 3$ million for industry 1419, Dimension Stone, N.E.C.; \$2 million for industry 1412, Dimension Limestone, and $\$ 2$ million for industry 1429, Crushed and Broken Stone, N.E.C.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


[^65]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


[^66]
## TABLE 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 327 | Concrete and plaster products................ ${ }^{\text {1963.. }}$ | ${ }^{(1)}$ | $(1)$ $(1)$ |
| 3271 | Concrete block and brick.......................... $19.193 .$. | 121 | 111 |
| 3273 | Ready mixed concrete............................... ${ }^{\text {1963.. }}$ 1958.. | 182 144 | 119 |
| 3274 | Lime....................................................... 1963.. $1958 .$. | $\begin{aligned} & 123 \\ & 111 \end{aligned}$ | 119 |
| 3281 | Cut, stone and stone products.................. ${ }^{\text {1963.. }}$ 1958.. | $\begin{aligned} & \left({ }^{2}\right) \\ & \left(^{2}\right) \end{aligned}$ | $(2)$ $(2)$ |

[^67]table 6C. Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962^{1}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32710 | Concrete block and brick: <br> Quantity........................... 1,000 blocks.. <br> Value. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | $\begin{array}{r} 22,658,545 \\ 472,419 \end{array}$ | $2,235,535$ 441,630 | $2,353,967$ 451,141 | $2,197,541$ 431,634 | $2,271,340$ 433,826 | $\begin{array}{r} 32,228,582 \\ 379,068 \end{array}$ | $2,161,887$ 341,882 | $\begin{array}{r} 1,329,554 \\ 180,280 \end{array}$ |
| 3272- | Other concrete products, except block and brick......................................... $\$ 1,000 .$. | 861,878 | 784,620 | 743,959 | 742,184 | 704,107 | 662,142 | 335,541 | 149,450 |
| 32721 | Concrete pipe........................... ${ }^{\text {do.. }}$ | 369,259 | 336,391 | 317,984 | 321,890 | 314,984 | 294,786 | 184,316 | 82,446 |
| 32722 32723 | Precast concrete products ${ }^{4}$.............d. ${ }^{\text {do.. }}$ Prestressed concrete products........ do. | 297,300 140,939 | \} 387,897 | 365,035 | 336,046 | 305,873 | 287,096 | 151,225 | 67,004 |
| 32720 | Concrete products, n.s.k................do.. | 54,380 | (S) | (S) | (S) | (S) | 80,260 | (X) | (X) |
| 32730 | Ready mixed concrete: <br> Quantity............................ 1,000 cu.yds.. <br> Value......................................... $\$ 1,000$. . | $\begin{array}{r} 5142,867 \\ 1,970,701 \end{array}$ | $\begin{array}{r} 140,406 \\ 1,755,825 \end{array}$ | $\begin{array}{r} 133,055 \\ 1,702,894 \end{array}$ | $\begin{array}{r} 117,252 \\ 1,645,844 \end{array}$ | $\begin{array}{r} 123,465 \\ 1,666,775 \end{array}$ | $\begin{array}{r} 6113,017 \\ 1,468,569 \end{array}$ | (7) $(7)$ | (7) $(7)$ |
| 32740 | Lime.................................... $\$ 1,000 .$. | 136,875 | 126,790 | 126,449 | 124,447 | 124,284 | 108,976 | 90,164 | 65,207 |
| 3275- | Gypsum products........................ $\$ 1,000 .$. | 405,101 | 384,093 | 352,799 | 358,798 | 384,916 | 344,244 | 273,458 | 125,910 |
| $\begin{aligned} & 32751 \\ & 32752 \\ & 32750 \end{aligned}$ | Gypsum building materials....................... <br> Other gypsum products.............................. <br> Gypsum products, n.s.k............................. | \} 405,101 | $\left\{\begin{array}{r}344,543 \\ (\mathrm{~S}) \\ (\mathrm{S})\end{array}\right.$ | 316,182 | 323,690 (S) (S) | $\begin{array}{r} 355,891 \\ (\mathrm{~S}) \\ 4,917 \end{array}$ | $\begin{array}{r} 333,039 \\ 6,604 \\ 4,601 \end{array}$ | $\begin{array}{r} 265,899 \\ 5,750 \\ 1,809 \end{array}$ | $\begin{array}{r} 120,917 \\ 3,710 \\ 1,283 \end{array}$ |
| 3281- | Cut stone and stone products......... $\$ 1,000$. | 190,948 | $(210,828)$ | $(210,285)$ | 188,706 | 201,012 | 191,054 | 166,768 | 867,205 |
| 32811 | Cut granite............................d. ${ }^{\text {do.. }}$ | 87,822 | $(97,256)$ | $(98,011)$ | 95,011 | 93,602 | 87,906 | 67,510 | 840,453 |
| 32812 | Cut limestone.......................... do. . | 29,084 | $(41,108)$ | $(36,216)$ | 32,749 | 36,462 | 35,073 | 40,017 | ${ }^{8} 10,084$ |
| 32813 | Cut marble and other cut stone products............................................ | 63,606 | $(46,686)$ | $(50,488)$ | 50,198 | 52,006 | 55,727 | 48,774 | ${ }^{8} 16,668$ |
| 32810 | Cut stone and stone products, n.s.k....do.. | 10,436 | (S) |  |  | (S) | 12,348 | 10,467 |  |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not

## applicable.

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the
basis of a consistency review.
n.s.k. Not specified by kind.
${ }^{1}$ See footnote 1 , table 1.
${ }^{2}$ Includes estimate for shipments of $\$ 30,452$ thousand of concrete block and brick not specified by kind.
${ }^{3}$ Includes estimate for shipments of $\$ 18,453$ thousand of concrete block and brick not specified by kind.
4 See footnote 2, table 6A.
${ }^{5}$ Includes estimate for shipments of $\$ 195,919$ thousand of ready mixed concrete for which quantity was not reported.
${ }^{6}$ Includes estimate for shipments of $\$ 519,077$ thousand of ready mixed concrete for which quantity was not reported.
${ }^{7}$ See footnote 5 , table 1.
${ }^{8}$ The 1947 data represent only the products of dressing plants not operated in conjunction with quarries.

# TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.


[^68]
## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CUT LIMESTONE AND IIMESTONE PRODUCTS (32812)-Continued | $1963{ }^{1}$ |  | CUT MARBLE AND OTHER CUT STONE PRODUCTS (32813)Continued | $1963{ }^{2}$ | 1958 | T MARBIE AND OTHER | $1963{ }^{1}$ | 1958 |
| South Atlantic... | 1,169 |  |  |  |  |  |  |  |
| East South Central........... |  | 1,364 | Middle Atlantic.............. New York. Pennsylvania | $\begin{array}{r} 13,303 \\ 7,032 \\ 5,704 \end{array}$ | $\begin{array}{r} 11,499 \\ 6,211 \\ 5,029 \end{array}$ | South Atlantic............... <br> Virginia. | $\begin{aligned} & 7,855 \\ & 1,633 \end{aligned}$ | $\begin{aligned} & 7,188 \\ & 1,015 \end{aligned}$ |
| West South Central............ All other divisions.......... |  | 1,044 |  |  |  |  |  |  |
| CUT MARBLE AND OTHER CUT STONE PRODUCTS (32813) | $1963{ }^{3}$ | 1958 |  | 10,366 | 14,068 | East South Central.......... Tennessee. $\qquad$ | 7,140 | 7,1775,654 |
|  |  |  | East North Central......... |  |  |  | 4,860 |  |
| United States, total.... | 63,606 | 55,727 | Ohio.... | 5,032 | 5,881 | West South Central......... | 1,397 | (z) |
| New England.. | 13,382 | 7,348 | Illinois.................. | 2,080 | 4,072 |  |  |  |
| Vermont.. | 11,147 | 6,720 |  |  |  | West......................... | 3,339 | ${ }^{2}$ ) |
| Massachusetts . | 1,043 | - | West North Central. | 6,824 | 5,355 | California. | 2,625 | 1,837 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than \$1 million.
${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 32721, North Dakota, South Dakota, Nebraska, West Virginia, Wyoming, New Mexico, Arizona, Nevada and Hawaii; 32722, Utah; 32723, Nebraska, Louisiana, Montana, Colorado and Utah; 32811, New Hampshire, Phode Island, Pennsylvania and South Dakota; 32813, Missouri, Georgia and Alabama.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

# TABLE 6E. Concrete Block—Quantity and Value of Shipments, by Geographic Areas: 1963 

| Geographic area | Lightweight aggregate (Product code 3271011) |  | Heavyweight aggregate (Product code 3271015) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity $\begin{gathered} (1,000 \text { block } \\ 8^{\prime \prime} \times 8^{n} \times 16^{n} \\ \text { equivalent } \end{gathered}$ | Value <br> $(\$ 1,000)$ | Quantity $\begin{gathered} (1,000 \text { block } \\ 8^{n} \times 8^{n} \times 16^{n} \\ \text { equivalent) } \end{gathered}$ | Value $(\$ 1,000)$ |
| UNITED STATES, TOTAL... | 1,216,458 | 261,509 | 845,930 | 167,024 |
| New Ensl:ind. . Maine. | 43,675 $(z)$ | 10,666 | 42,061 | $8,790$ $(Z)$ |
| New Hampshire.. | (z) | (z) | (z) | (z) |
| Vermont......... | (2) | (Z) | (Z) | (z) |
| Massachi-et-s. | 18,386 | 4,441 | 16,758 | 3,433 |
| Rhode Island. | (Z) | (z) | (z) | (Z) |
| Connecticut. | 18,763 | 4,690 | 12,700 | 2,701 |
| Middle Atlantic. | 257,775 | 51,851 | 143,042 | 28,130 |
| New York.. | 72,523 | 17,542 | 53,271 | 11,407 |
| New Jersey. | 85,055 | 17,166 | 14,439 | 2,561 |
| Penrsylvania.. | 100,197 | 17,143 | 75,332 | 14,162 |
| East North Central.. | 227,530 | 50,117 | 199,311 | 40,121 |
| Ohio.. | 74,630 | 15,629 | 56,740 | 10,383 |
| Indiana.. | 24,691 | 5,061 | 33,103 | 7,271 |
| Illinois. | 49,706 | 10,775 | 26,770 | 5,556 |
| Michigan. | 54,368 | 13,273 | 45,016 | 9,138 |
| Wisconsin. | 24,135 | 5,379 | 37,682 | 7,773 |
| West North Central. | 57,577 | 13,586 | 101,136 | 20,797 |
| Minnesota. | 13,174 | 3,212 | 41,005 | 8,466 |
| Iowa.... | 9,165 | 2,327 | 18,497 | 3,870 |
| Missouri. | 15,514 | 3,365 | 13,592 | 2,565 |
| North Dakota. | 5,572 | 1,285 | (Z) | (Z) |
| South Dakota. | (z) | (z) | (X) | (z) |
| Nebraska. | (z) | (z) | 18,045 | 3,728 |
| Kansas.. | 7,222 | 1,702 | (Z) | ( Z ) |
| South Atlantic. | 256,040 | 54,009 | 211,885 | 40,064 |
| Delaware..... | 7,517 | 1,557 | (z) | (Z) |
| Maryland.......... | 42,830 | 9,169 | 13,963 | 2,585 |
| District of Columbia. | 14,997 | 3,021 | (z) | (Z) |
| Virginia.......... | 61,021 | 13,400 | (D) | (D) |
| West Virginia.... | 9,660 | 2,068 | 8,449 | 1,874 |
| North Carolina... | 53,336 | 11,295 | 13,644 | 2,631 |
| South Carolina.... | 12,479 | 2,608 | 15,496 | 2,900 |
| Georgia........... | 36,127 18,073 | 7,530 3,361 | 27,571 122,154 | 5,206 22,603 |
| Florida.... | 18,073 | 3,361 | 122,154 | 22,603 |
| East South Central. | 89,319 | 17,288 | 64,669 | 12,043 |
| Kentucky.... | 13,974 | 2,958 | 19,985 | 3,817 |
| Tenriessee... | 27,358 | 5,700 | 37,509 | 6,910 |
| Alabama .. | 39,128 | 6,718 | 6,389 | 1,169 |
| Mississippi. | 8,859 | 1,912 | (Z) | (z) |
| West South Central.. | 74,689 | 18,225 | 19,579 | 3,829 |
| Arkansas.. | 7,439 | 1,552 | 8,034 | 1,518 |
| Louisiana.. | 10,408 | 2,802 | (z) | ( Z ) |
| Oklahoma.. | 14,132 | 3,132 | 7,284 | 1,445 |
| Texas. | 42,710 | 10,739 | (Z) | (Z) |
| Mountain.. | 119,518 | 22,909 | 8,416 | 1,701 |
| Montana. . | (Z) | (z) | (z) | (Z) |
| Idaho. . | 5,565 | 1,402 | (z) | (z) |
| Wyoming. . | (Z) | (z) | (z) | (Z) |
| colorado.. | 19,707 | 4,587 | (z) | (z) |
| New Mexico. | 13,481 | 3,033 | (z) | (z) |
| Arizona.. | (D) | (D) | (z) | (z) |
| Utah. | 10,413 | 2,576 | (z) | (Z) |
| Nevada. | 17,085 | 3,960 | (z) | (Z) |
| Pacific... | 90,335 | 22,858 | 55,831 | 11,549 |
| Washington. | 10,503 | 2,665 | 8,376 | 2,048 |
| Oregon... | 10,555 | 2,526 | (z) | (z) |
| California. | 59,894 | 15,064 | 41,350 | 8,172 |
| Alaska. | (D) | (D) | (D) | (D) |
| Hawaii. . | (D) | (D) | (D) | (D) |
| Standard Notes: - Represents zero. <br> applicable. (Z) Less than $\$ 1$ million. | figures for in | al companies. | (NA) Not availab | (X) Not |

## table 7A. Materials by Kind: 1963 and 1958



See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958-Continued


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
(S) Withheld because the estimate did not meet publication standards.
n.s.k. Not specified by kind.
${ }^{1}$ Comparable detailed data not available for 1958.

 forms."

## tABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Concrete block and brick (SIC 3271) | Other concrete products (SIC 3272) | Ready mixed concrete (SIC 3273) | Lime (SIC 3274) | Gypsum products (SIC 3275) | Cut stone and stone products (SIC 3281) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000$. | 14,425 | 14,082 | 38,467 | 21,306 | 17,972 | 4,999 |
| Total cost of purchased fuels................................do. | 9,453 | 8,804 | 28,436 | 17,296 | 11,265 | 1,708 |
| Bituminous coal, lignite, and anthracite: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons. . | (S) | 52 | (S) | (S) | 117 | 18 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | (S) | 333 | (S) | (S) | 948 | 183 |
| Coke and breeze: <br> Quantity. ............................................. 1,000 short tons. <br> Cost. <br> .\$1,000. | - | - | - | (S) | - | (S) |
| Fuel oil (distillate and residual): Quantity. ........................... . 1,000 barrels of $42^{\circ}$ gallons. Cost. $\qquad$ | $\begin{array}{r} 756 \\ 2,853 \end{array}$ | $\begin{array}{r} 443 \\ 2,022 \end{array}$ | 1,113 5,669 | 318 950 | 1,203 3,543 | 177 884 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |
| Quantity. $\qquad$ .million cu.ft. Cost. $\qquad$ | 5,646 2,633 | 4,744 2,480 | 5,300 2,571 | 15,154 5,074 | $\begin{array}{r} 17,984 \\ 6,678 \end{array}$ | 132 112 |
| Other fuels....................................................do.... | 3,420 | 3,969 | 19,914 | 237 | 96 | 502 |
| Electric energy: |  |  |  |  |  |  |
| Purchased: <br> Quantity. million kw. -hrs.. |  |  |  | 355 | 570 | 195 |
| Cost.................................................. . $\$ 1,000 .$. | 4,972 | 5,278 | 10,031 | 4,010 | 6,707 | 3,291 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . .million kw. -hrs. . | - | (S) | (S) | - | (S) | 42 |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.........1,000 hp.. | 319 | 410 | 776 | 243 | 414 | 276 |
| Prime movers, total...........................................do.... . | 104 | 156 | 249 | 35 | 93 | 58 |
| Driving generators. $\qquad$ .do. | 21 | 14 | 11 | 1 | 3 | 16 |
| Not driving generators. ...................................................... | 83 | 142 | 238 | 34 | 90 | 42 |
| Electric motors, total........................................ . . . . . . | 216 | 255 | 528 | 208 | 322 | 229 |
| Driven by purchased energy.................................................. Driven by energy generated at establishment........................ | $\underset{(Z)}{215}$ |  | $\begin{aligned} & 528 \\ & (2) \end{aligned}$ | 208 | 321 | 218 11 |
| Aggregate horsepower per 100 production workers. | 1,973 | 1,042 | 1,615 | 4,296 | 4,349 | 1,494 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishnents. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies,
(NA) Not available.
(X) Not applicable. (Z) Less than 500 horsepower.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

table 9A. Selected Statistics for Establishments With Mining Activities: 1963

| Item | Ready mixed concrete (SIC 3273) | $\begin{gathered} \text { Lime } \\ \text { (SIC 3274) } \end{gathered}$ | $\begin{gathered} \text { Gypsum } \\ \text { products } \\ \text { (SIC 3275) } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Establishments ${ }^{1}$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .number. . | 238 | 58 | 34 |
| Production workers wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1.00 .0$. . | 11,200 | 6,433 | 3,604 |
| Man-hours of production workers............. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 4,195 | 2,606 | 1,430 |
| Cost of supplies, fuels, electric energy and contract work.........................do.... | 15,879 | 5,832 | 2,785 |

${ }^{1}$ See footnotes 1 and 2, table 3.

## table 9b. Cut Stone and Stone Products-Establishments and Man-Hours for Quarrying and Dressing Stone Operations at the Same Location: 1963


(NA) Not available.
(X) Not
${ }^{1}$ See footnote 3, table 3.

## AbRASIVE, ASBESTOS, AND MISCELLANEOUS NONMETALLIC MINERAL PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3291-Abrasive Products<br>3292-Asbestos Products<br>3293-Steam and Other Packing, and Pipe and Boiler Covering<br>3295-Minerals and Earths, Ground or Otherwise Treated<br>3296-Mineral Wool<br>3297-Nonclay Refractories<br>3299-Nonmetallic Mineral Products, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3291-ABRASIVE PRODUCTS

This industry comprises establishments primarily engaged in manufacturing abrasive grinding wheels of natural or synthetic materials, and other abrasive products. The cutting of grindstones, pulpstones, and whetstones at the quarry is classified in mining industries. For a detailed list of products of industry 3291, refer to table 6A, product codes 3291117 to 3291498 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Abrasive Products Industry totaled $\$ 704$ million. This amount included shipments of abrasive products (primary products) valued at $\$ 541$ million.

This industry's shipments of abrasive products represented over 70 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. The exact percentage for 1963 is withheld to avoid disclosing figures for individual companies.

Shipments of abrasive products by this industry represented 95 percent of all shipments of these products ( $\$ 572$ million) by all industries. In 1958, the coverage ratio was 96
percent. Other industries shipping abrasive products included industry 3541 , MetalCutting Machine Tools, and industry 3545, Machine Tool Accessories.

## 3292-ASBESTOS PRODUCTS

This industry comprises establishments primarily engaged in manufacturing asbestos textiles, asbestos friction materials, vinyl asbestos floor tile, and other commodities composed wholly or chiefly of asbestos, except asbestos paper (industry 2661), steam and other packing, pipe and boiler covering, and gaskets (industry 3293). For a detailed list of products of industry 3292, refer to table 6 A , product codes 3292211 to 3292798.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Asbestos Products lndustry totaled $\$ 509$ million. This amount included shipments of asbestos products (primary products) valued at $\$ 459$ million, shipments of other products (secondary products) valued at $\$ 24$ million, and miscellaneous receipts at $\$ 26$ million.

This industry's shipments of asbestos products represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 89 percent. Secondary products shipped by this industry in 1963 consisted mainly of packing (except leather, rubber, and metal) and asbestos insulations and gaskets, all types.

Shipments of asbestos products by this industry represented 91 percent of all shipments of these products ( $\$ 506$ million) by all industries. In 1958 the coverage ratio was 92 percent. Other industries shipping asbestos products included industry 2952, Asphalt Felts and Coatings, and industry 3293, Gaskets and Insulations.

The production index for the primary products of the industry increased to 136 in 1963 from the 1958 level of 112 . The unit value index for 1963 was 112, the same level as in 1958. Both indexes were computed on a basis of $1954=100$.

## 3293-STEAM AND OTHER PACKING, AND PIPE AND BOILER COVERING

This industry comprises establishments primarily engaged in manufacturing gaskets (all types); packing for steam, water, and other pipe joints, and for engines, air compressors, etc.; and asbestos insulating materials. Establishments primarily engaged in manufacturing leather packing are classified in industry 3121, rubber packing in industry 3069, and metal packing in industry 3599 . Establishments primarily engaged in manufacturing mineral wool and insulation products,therefore, are classified in industry 3296. For a detailed list of products of industry 3293, refer to table 6A, product codes 3293211 to 3293351 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Gaskets and lnsulations lndustry totaled $\$ 279$ million. This amount included shipments of gaskets and insulations (primary products) valued at $\$ 206$ million, shipments of other products (secondary products) valued at $\$ 48$ million, and miscellaneous receipts at $\$ 26$ million.

This industry's shipments of gaskets and insulations represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 consisted mainly of mechanical rubber goods ( $\$ 12$ million), and carburetors, pistons, and other machine shop products.

Shipments of gaskets and insulations by this industry represented 78 percent of all shipments of these products ( $\$ 262$ million) by all industries. In 1958 the coverage ratio was 69 percent. Other industries shipping gaskets and insulations consisted mainly of industry 3069, Rubber Products, N.E.C., and industry 3292, Asbestos Products.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product class of industry 3293, e.g., 32933 Packing, except leather, rubber, and metal and asbestos insulation, 67 percent.

## 3295-MINERALS AND EARTHS, GROUND OR OTHERWISE TREATED

This industry comprises establishments operating without a mine and primarily engaged in crushing, grinding, pulverizing, or otherwise preparing clay, ceramic, and refractory minerals (of the type in minerals Group 145); barite (mined by industry 1472); miscellaneous nonmetallic minerals, except fuels (talc, gypsum, graphite, and other minerals of the type classified in minerals Group 149); or in crushing slag or preparing roofing granules. However, establishments preparing such nonmetallic minerals or roofing granules in conjunction with a mine at the site are classified in the mineral industries. The crushing and grinding of stone; the preparation of sand and gravel (minerals Group 144) and of chemical and fertilizer minerals, except barite (minerals Group 147, except industry 1472) are classified in the mineral industries whether or not the establishment includes a mine. The beneficiation or preparation of metallic ores and the cleaning and grading of coal at the mine or at separately operated preparation plants are classified in the mineral industries. For a detailed list of products of industry 3295, refer to table 6A, product codes 3295011 to 3295098.
The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to (1) the reclassification of exfoliated vermiculate from industry 3296 to industry 3295 (1958 data have been revised to reflect this change) and (2) the inclusion of roofing granules produced in conjunction with mining operations in the mineral industries for 1963. In prior years these roofing granule plants were included in industry 3295. Data for prior years have not been revised to avoid disclosing figures for individual companies.
Value of shipments and other receipts of the Minerals, Ground or Treated,1ndustry totaled $\$ 204$ million. This amount included shipments of minerals and earths, ground or otherwise treated (primary products), valued at $\$ 175$ million, shipments of other products (secondary products) valued at $\$ 11$ million, and miscellaneous receipts at $\$ 18$ million.

This industry's shipments of minerals and earths, ground or otherwise treated,represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent.

Shipments of minerals and earths, ground or otherwise treated, by this industry represented 86 percent of all shipments of these products ( $\$ 203$ million) by all industries. In 1958 the coverage ratio was 85 percent. Other industries shipping minerals and earths, ground or otherwise treated, are industry 3275, Gypsum Products, $\$ 6$ million; and industry 3273, Ready-Mixed Concrete, $\$ 4$ million.

## 3296-MINERAL WOOL

This industry comprises establishments primarily engaged in manufacturing mineral wool and mineral wool insulation products made of such silicious materials as rock, slag, and glass, or combinations thereof. Establishments primarily engaged in manufacturing asbestos insulation products are classified in industries 3292 and 3293;
textile type glass fibers in industry 3229 and exfoliated vermiculite products in industry 3295. For a detailed list of products of industry 3296, refer to table 6A, product codes 3296111 to 3296298.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to the reclassification of exfoliated vermiculite from industry 3296 to industry 3295 . The 1958 data have been revised to reflect this change.

Value of shipments and other receipts of the Mineral Wool Industry totaled $\$ 392$ million. This amount included shipments of mineral wool (primary products) valued at $\$ 342$ million, shipments of other products (secondary products) valued at $\$ 37$ million, and miscellaneous receipts, at $\$ 13$ million.

This industry's shipments of mineral wool represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 consisted mainly of industrial plastics products and general industrial machinery.

Shipments of mineral wool by this industry represented 96 percent of all shipments of these products ( $\$ 356$ million) by all industries. In 1958 the coverage ratio was 95 percent. Other industries shipping mineral wool include industry 2661, Building Paper and Board Mills; and industry 3293, Gaskets and Insulations.

The production index for the primary products of the industry increased to 283 in 1963 from the 1958 level of 168 . The unit value index for 1963 was 76 compared to 86 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3297-NONCLAY REFRACTORIES

This industry comprises establishments primarily engaged in manufacturing refractories and crucibles made of materials other than clay. This industry also includes establishments primarily engaged in manufacturing all graphite refractories, whether of carbon bond or ceramic bond. Establishments primarily engaged in manufacturing clay refractories are classified in industry 3255. For a detailed list of products of industry 3297, refer to table 6A, product codes 3297012 to 3297098 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Nonclay Refractories lndustry totaled $\$ 250$ million. This amount included shipments of nonclay refractories (primary products) valued at $\$ 226$ million, shipments of other products (secondary products) valued at $\$ 15$ million, and miscellaneous receipts, at $\$ 9$ million.

This industry's shipments of nonclay refractories represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 consisted mainly of clay refractories (\$8 million), and minerals and earths, ground or treated ( 43 million).

Shipments of nonclay refractories by this industry represented 88 percent of all shipments of these products ( $\$ 257$ million) by all industries. In 1958 the coverage ratio was 89 percent. Other industries shipping nonclay refractories include industry 3255, Clay Refractories, $\$ 9$ million; and industry 3291, Abrasive Products. Quarterly information on the shipments of refractories by type is collected on Form M32C and published
in Current Industrial Reports Series M32C. Manufacturers were required to report total value of refractories shipped only in the 1963 Census of Manufactures. The detailed product information published in table 6A was obtained from Current Industrial Reports Series M32C(64)-5, Refractories. The total value as reported in the census of manufactures is also shown in table 6A.

The production index for the primary products of the industry increased to 154 in 1963 from the 1958 level of 120 . The unit value index for 1963 was 130 compared to 122 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3299-NONMETALLIC MINERALS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in the factory production of statuary and art goods made of plaster of paris and papier-mache; in manufacturing sand lime products, sheet mica products, and other nonmetallic mineral products, n.e.c. For a detailed list of products of industry 3299, refer to table 6A, product codes 3299053 to 3299098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Nonmetallic Products, N.E.C., Industry totaled $\$ 96$ million. This amount included shipments of nonmetallic mineral products, n.e.c., (primary products) valued at $\$ 80$ million, shipments of other products (secondary products) valued at $\$ 13$ million, and miscellaneous receipts, at $\$ 4$ million.

This industry's shipments of nonmetallic products, n.e.c., represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 consisted mainly of industrial product finishes, except lacquers and mineral wool for industrial and equipment insulation.

Shipments of nonmetallic products, n.e.c., by this industry represent 96 percent of all shipments of these products ( $\$ 83$ million) by all industries. In 1958 the coverage ratio was 85 percent.

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies | Establi shments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new ( $\$ 1,000)$ | Spe-cialization ratio (per- | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |


| 1963 | 340 | 378 | 149 | 28,170 | 186,971 | 18,583 | 36,695 | 107,628 | 416,415 | 287,458 | 704,212 | 15,506 | ${ }^{170}$ | 95 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1962{ }^{2}$ | (NA) | (NA) | (NA) | 28,498 | 187,925 | 18,074 | 35,159 | 100,869 | 398,328 | 266,613 | 659,527 | 12,148 | (NA) | (NA) |
| $1961{ }^{2}$. | (NA) | (NA) | (NA) | 27,135 | 169,240 | 16,925 | 33,224 | 88,993 | 357,377 | 238,209 | 594,925 | 14,113 | (NA) | (NA) |
| $1960{ }^{2}$. | (NA) | (NA) | (NA) | 27,955 | 172,741 | 18,265 | 34,729 | 91,693 | 354,447 | 253,442 | 605,924 | 16,368 | (NA) | (NA) |
| $1959{ }^{2}$. | (NA) | (NA) | (NA) | 27,354 | 165,564 | 18,416 | 35,928 | 94,061 | 351,632 | 253,912 | 599,472 | 20,164 | (NA) | (NA) |
| 1958. | 317 | 354 | 130 | 23,955 | 127,912 | 15,971 | 30,891 | 75,499 | 277,706 | 211,163 | 490,752 | 21,098 | 83 | 96 |
| $1957{ }^{2}$ | (NA) | (NA) | (NA) | 24,377 | 130,214 | 16,672 | 33,107 | 78,554 | 276,761 | 173,450 | 438,067 | (S) | 95 | 89 |
| $1956{ }^{2}$. | (NA) | (NA) | (NA) | 24,835 | 129,891 | 17,104 | 34,743 | 79,544 | 261,932 | 181,761 | 438,094 | 13,489 | (NA) | (NA) |
| $1955^{2}$. | (NA) | (NA) | (NA) | 24,607 | 122,114 | 17,437 | 35,743 | 79,456 | 263,146 | 176,358 | 426,494 | 8,989 | (NA) | (NA) |
| 1954.. | 290 | 312 | 132 | 22,345 | 101,218 | 15,756 | 30,417 | 62,040 | 198,983 | 153,649 | 349,184 | 9,857 | 94 | 87 |
| $1953{ }^{2}$. | (NA) | (NA) | (NA) | 24,754 | 113,543 | 18,512 | 37,381 | 75,149 | 231,231 | 174,133 | 405,364 | (NA) | (NA) | (NA) |
| $1952^{2}$. | (NA) | (NA) | (NA) | 23,333 | 99,578 | 16,589 | 32,749 | 61,027 | 195,860 | 130,752 | 326,432 | (NA) | (NA) | (NA) |
| $1951{ }^{2}$. | (NA) | (NA) | (NA) | 23,695 | 99,309 | 17,761 | 36,516 | 66,158 | 208,167 | 152,395 | 360,382 | (NA) | (NA) | (NA) |
| $1950{ }^{2}$. | (NA) | (NA) | (NA) | 19,572 | 77,306 | 14,966 | 30,836 | 51,320 | 170,684 | 116,860 | 287,364 | (NA) | (NA) | (NA) |
| $1949{ }^{2}$. | (NA) | (NA) | (NA) | 17,193 | 60,359 | 12,720 | 23,328 | 37,975 | 123,422 | 79,744 | 202,807 | (NA) | (NA) | (NA) |
| 1947. | 236 | 254 | (NA) | 21,042 | 67,114 | 16,068 | 31,642 | 45,674 | 127,954 | 98,109 | 225,399 | (NA) | 94 | 86 |
| 1939. | (NA) | 124 | (NA) | 11,321 | 20,491 | 7,734 | (NA) | 10,683 | 44,765 | 26,506 | 71,271 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 103 | (NA) | 11,376 | 18,771 | 9,670 | (NA) | 14,250 | 48,615 | 29,339 | 77,954 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 94 | (NA) | 8,693 | 12,806 | 6,776 | (NA) | 8,351 | 33,133 | 20,734 | 53,867 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 77 | (NA) | 5,867 | 6,653 | 4,890 | (NA) | 4,981 | 18,810 | 11,349 | 30,159 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 73 | (NA) | (NA) | (NA) | 4,614 | (NA) | 5,540 | 19,920 | 11,727 | 31,647 | (NA) | (NA) | (NA) |




| 282 | 295 |
| :---: | :---: |
| (NA) | (NA) |
| (NA) | (NA) |
| (NA) | (NA) |
| (NA) | (NA) |
| 271 | 282 |
| (NA) | (NA) |
| (NA) | (NA) |
| (NA) | (NA) |
| (NA) | 237 |
|  |  |
| (NA) | $(\mathrm{NA})$ |
| (NA) | (NA) |
| (NA) | (NA) |
| (NA) | (NA) |
| (NA) | (NA) |
| (NA) | 193 |
| (NA) | 134 |
| (NA) | 125 |
| (NA) | 124 |
| (NA) | 118 |

$$
\begin{array}{r|r|r|}
\hline & & \\
\hline \text { I11 } & 16,825 & 94,441 \\
\text { (NA) } & 14,689 & 79,916 \\
\text { (NA) } & 13,722 & 73,105 \\
\text { (NA) } & 13,807 & 70,739 \\
\text { (NA) } & 14,377 & 73,179 \\
99 & 13,494 & 65,078 \\
\text { (NA) } & 12,898 & 61,204 \\
\text { (NA) } & 13,252 & 61,192 \\
\text { (NA) } & 13,788 & 59,303 \\
87 & 12,807 & 55,115 \\
& & \\
\text { (NA) } & 15,758 & 63,443 \\
\text { (NA) } & 16,632 & 70,305 \\
\text { (NA) } & 18,575 & 72,295 \\
\text { (NA) } & 15,581 & 52,838 \\
\text { (NA) } & 14,112 & 45,573 \\
74 & 13,178 & 36,667 \\
\text { (NA) } & 7,531 & 11,169 \\
\text { (NA) } & 7,038 & 9,537 \\
\text { (NA) } & 5,755 & 7,062 \\
\text { (NA) } & \text { (NA) } & \text { (NA) }
\end{array}
$$

$$
\begin{array}{|r|}
\hline 12,684 \\
10,984 \\
9,903 \\
9,955 \\
10,749 \\
9,925 \\
9,827 \\
10,186 \\
10,767 \\
10,128 \\
\\
13,233 \\
13,701 \\
15,771 \\
12,811 \\
11,224 \\
10,923 \\
5,907 \\
5,934 \\
4,774 \\
4,285
\end{array}
$$

$$
\begin{array}{r}
25,906 \\
23,067 \\
21,107 \\
20,987 \\
21,820 \\
19,502 \\
19,482 \\
20,842 \\
22,320 \\
20,340 \\
26,299 \\
28,705 \\
33,991 \\
27,088 \\
22,940 \\
21,780 \\
\text { (NA) } \\
\text { (NA) } \\
\text { (NA) } \\
\text { (NA) }
\end{array}
$$

$$
\begin{array}{r}
62,301 \\
49,526 \\
43,585 \\
42,538 \\
48,410 \\
41,518 \\
38,200 \\
39,546 \\
40,519 \\
37,241 \\
48,451 \\
52,416 \\
55,059 \\
38,799 \\
32,281 \\
27,476 \\
7,190 \\
6,930 \\
4,742 \\
3,785
\end{array}
$$

$$
\begin{array}{r}
160,734 \\
132,186 \\
121,164 \\
114,318 \\
122,575 \\
105,211 \\
91,781 \\
91,609 \\
92,854 \\
87,253 \\
102,063 \\
112,518 \\
119,909 \\
87,365 \\
76,922 \\
66,568 \\
19,562 \\
17,506 \\
12,490 \\
10,662
\end{array}
$$

116,978
108,914
101,908
95,501
98,921
82,976
7,378
74,793
79,902
78,615
80,732
88,169
104,902
79,586
66,888
53,503
17,608
15,048
11,768
8,728
279,226
238,46
222,708
210,435
219,452
188,684
163,752
163,204
167,793
166,073
182,795
200,713
224,837
166,777
137,836
120,093
37,170
32,554
24,258
19,390

78
(NA)
(NA)
(NA)
(NA)
69
(NA)
(NA)
(NA)
70
(NA)
(NA)
(NA)
(NA)
(NA)
75
(NA)
(NA)
(NA)
(NA)


INDUSTRY 3292.-ASBESTOS PRODUCTS

See footnotes at end of table.

TABLE 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Cov- <br> erage <br> ratio <br> (per- <br> cent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3293.-GASKETS AND INSULATIONS-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1931 | (NA) | 131 | (NA) | (NA) | (NA) | 4,120 | (NA) | 4,545 | 12,394 | 10,253 | 22,647 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 163 | (NA) | 7,799 | 12,714 | 6,477 | (NA) | 8,746 | 22,454 | 20,602 | 43,056 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 159 | (NA) | 7,479 | 12,142 | 5,946 | (NA) | 7,905 | 23,251 | 19,794 | 43,045 | (NA) | (NA) | (NA) |
| 1925 | (NA) | 172 | (NA) | 7,680 | 12,066 | 6,086 | (NA) | 8,072 | 23,499 | 20,372 | 43,871 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 142 | (NA) | 6,322 | 9,311 | 5,064 | (NA) | 6,432 | 17,142 | 15,849 | 32,991 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 157 | (NA) | 6,074 | 8,447 | 4,877 | (NA) | 5,329 | 13,128 | 15,984 | 29,112 | (NA) | (NA) | (NA) |
| 1919. | (NA) | 169 | (NA) | 7,689 | 10,366 | 6,147 | (NA) | 7,103 | 17,800 | 22,725 | 40,525 | (NA) | (NA) | (NA) |
| 1914. | (NA) | 149 | (NA) | 5,260 | 4,000 | 4,213 | (NA) | 2,525 | 6,037 | 8,176 | 14,213 | (NA) | (NA) | (NA) |
| 1909. | (NA) | 153 | (NA) | 4,886 | 3,168 | 3,648 | (NA) | 1,811 | 5,510 | 6,650 | 12,160 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 106 | (NA) | 3,184 | 1,868 | 2,734 | (NA) | 1,273 | 5,056 | 3,896 | 8,952 | (NA) | (NA) | (NA) |
| 1899. | (NA) | 97 | (NA) | 1,437 | 851 | 1,147 | (NA) | 525 | 1,948 | 1,546 | 3,494 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3295.-MINERALS, GROUND OR TREATED |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1963{ }^{3} 4$. | 313 | 415 | 97 | 7,330 | 41,567 | 5,688 | 11,749 | 29,643 | 102,079 | 101,881 | 204,393 | 11,873 | 94 | 86 |
| $1962^{2} 4$ | (NA) | (NA) | (NA) | $(8,570)$ | $(48,954)$ | $(6,535)$ | $(13,955)$ | $(35,161)$ | $(128,286)$ | $(102,569)$ | $(226,267)$ | $(21,118)$ | (NA) | (NA) |
| $1961{ }^{2}$ | (NA) | (NA) | (NA) | $(8,674)$ | $(47,742)$ | $(6,552)$ | $(14,248)$ | $(34,256)$ | $(126,658)$ | $(104,751)$ | $(232,709)$ | $(35,515)$ | (NA) | (NA) |
| $1960{ }^{2}$ | (NA) | (NA) | (NA) | $(9,276)$ | $(50,328)$ | $(7,190)$ | $(15,160)$ | $(36,372)$ | $(137,322)$ | $(102,036)$ | $(236,520)$ | $(14,612)$ | (NA) | (NA) |
| $1959{ }^{2}$ | (NA) | (NA) | (NA) | $(8,910)$ | $(47,805)$ | $(6,990)$ | $(14,454)$ | $(34,721)$ | $(136,744)$ | (107,588) | $(244,565)$ | $(26,581)$ | (NA) | (NA) |
| $1958{ }^{4}$ | 300 | 424 | 111 | 8,302 | 42,277 | 6,496 | 13,512 | 30,504 | 115,538 | 101,530 | 219,086 | 9,486 | 95 | 85 |
| 1958 (old) ${ }^{4}$ | (NA) | 386 | 100 | 7,557 | 38,288 | 5,988 | 12,487 | 28,180 | 104,688 | 88,635 | 195,032 | 6,400 | 95 | 84 |
| $1957{ }^{2} . . . .$. | (NA) | (NA) | (NA) | 8,905 | 44,965 | 7,415 | 15,794 | 34,708 | 123,642 | 87,870 | 207,183 | (S) | 95 | 90 |
| 1956 | (NA) | (NA) | (NA) | 8,594 | 41,953 | 7,183 | 15,369 | 32,252 | 116,072 | 79,604 | 194,871 | 23,224 | (NA) | (NA) |
| $1955{ }^{2}$ | (NA) | (NA) | (NA) | 8,447 | 38,280 | 6,998 | 15,025 | 28,376 | 105,327 | 65,816 | 170,739 | (S) | (NA) | (NA) |
| 1954 | 284 | 353 | 108 | 7,699 | 32,404 | 6,401 | 13,784 | 24,312 | 90,752 | 63,477 | 154,014 | 10,226 | 98 | 87 |
| $1953{ }^{2}$ | (NA) | (NA) | (NA) | 9,963 | 39,315 | 8,424 | 18,156 | 30,458 | 96,961 | 62,361 | 159,322 | (NA) | (NA) | (NA) |
| $1950{ }^{2}$ | (NA) | (NA) | (NA) | 10,291 | 33,136 | 7,884 | 18,133 | 23,070 | 79,405 | 59,732 | 139,137 | (NA) | (NA) | (NA) |
| 1947 .......... | (NA) | 217 | (NA) | 8,873 | 24,126 | 7,417 | (NA) | 18,356 | 55,556 | 34,643 | 90,199 | 8,780 | 94 | 88 |
| 1939........... | (NA) | 229 | (NA) | (NA) | (NA) | 5,229 | (NA) | 5,347 | 23,445 | 14,496 | 37,941 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3296. -MINERAL WOOL |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1963{ }^{4}$. | 89 | 123 | 67 | 14,733 | 92,347 | 11,647 | 24,781 | 69,089 | 206,846 | 186,772 | 391,873 | 37,956 | 90 | 96 |
| $1962{ }^{2}$ | (NA) | (NA) | (NA) | $(14,788)$ | $(93,342)$ | $(11,869)$ | $(24,762)$ | $(66,728)$ | $(212,901)$ | (188, 379 ) | $(398,466)$ | $(15,129)$ | (NA) | (NA) |
| $1961{ }^{2}$ | (NA) | (NA) | (NA) | $(13,460)$ | $(78,191)$ | $(10,807)$ | $(22,970)$ | $(57,835)$ | $(186,152)$ | $(163,602)$ | $(347,363)$ | $(13,560)$ | (NA) | (NA) |
| $1965^{2}$ | (NA) | (NA) | (NA) | $(12,849)$ | $(70,514)$ | $(10,288)$ | $(20,583)$ | $(51,636)$ | $(165,179)$ | (144,160) | $(307,105)$ | $(15,254)$ | (NA) | (NA) |
| $1959{ }^{\text {2 }}$ | (NA) | (NA) | (NA) | $(13,358)$ | $(71,625)$ | (10,414) | $(22,491)$ | $(52,599)$ | $(166,595)$ | (144,856) | $(309,009)$ | $(13,834)$ | (NA) | (NA) |
| $1958{ }^{4}{ }^{5} \ldots \ldots$. | 74 | 102 | 62 | 11,893 | 59,109 | 9,026 | 18,705 | 42,742 | 133,453 | 107,543 | 240,922 | 10,405 | 95 | 95 |
| 1958 (old) ${ }^{4} 5^{5}$. | (NA) | 95 | 61 | 11,831 | 58,839 | 8,970 | 18,599 | 42,526 | 132,533 | 106,299 | 238,764 | 10,383 | 94 | 95 |
| $1957{ }^{2}$. | (NA) | (NA) | (NA) | 12,016 | 58,486 | 9,403 | 18,899 | 42,800 | 113,855 | 93,569 | 206,900 | 13,323 | 95 | 96 |
| $1956{ }^{2}$ | (NA) | (NA) | (NA) | 11,645 | 56,680 | 9,113 | 18,734 | 41,503 | 109,527 | 90,661 | 197,606 | 25,884 | (NA) | (NA) |
| $1955^{2}$. | (NA) | (NA) | (NA) | 12,300 | 53,787 | 9,411 | 19,573 | 39,861 | 117,434 | 85,057 | 200,754 | 9,404 | (NA) | (NA) |
| 1954. | 65 | 85 | 56 | 10,244 | 44,049 | 7,555 | 15,931 | 31,191 | 91,681 | 71,816 | 162,682 | 6,068 | 95 (NA) | 93 (NA) |
| $1953{ }^{19}$ | (NA) | (NA) | (NA) | 10,506 10,340 | 43,110 37,201 | 8,661 | 18,354 18,236 | 34,075 28,702 | 83,035 71,572 | 65,252 63,386 | 149,287 134,958 | (NA) | (NA) | (NA) |
| $1951{ }^{2}$ | (NA) | (NA) | (NA) | 10,374 | 34,787 | 8,583 | 18,924 | 26,597 | 70,862 | 59,516 | 130,378 | (NA) | (NA) | (NA) |
| $1950^{2}$. | (NA) | (NA) | (NA) | 9,244 | 28,731 | 7,544 | 15,630 | 21,873 | 67,955 | 44,594 | 112,549 | (NA) | (NA) | (NA) |
| $1949^{2}$ | (NA) | (NA) | (NA) | 8,294 | 24,872 | 6,573 | 13,547 | 17,841 | 49,414 | 40,856 | -90,270 | (NA) | (NA) | (NA) |
| 1947. | 73 | 91 | 66 | 8,874 | 22,924 | 7,363 | 15,519 | 18,134 | 36,840 | 36,291 | 73,131 | 13,191 | (D) | (D) |
| 1937........... | (NA) | 49 | (NA) | (NA) | (NA) | 1,848 | (NA) | 1,796 | 4,536 | 3,377 | 7,913 | (NA) | (NA) | (NA) |
|  | (NA) | 32 | (NA) | (NA) | (NA) | 1,701 | (NA) | 1,835 | 4,330 | 3,129 | 7,459 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3297.-NONCLAY REFRACTORIES |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | 250,195 |  | ${ }^{94}$ | 88 |
| $1962^{2} \ldots \ldots .$ | (NA) | (NA) | (NA) | (7,634) | $(44,943)$ | (5,978) | $(11,517)$ | $(32,044)$ | $(102,910)$ | $(94,816)$ | $(197,694)$ | $(6,272)$ | (NA) | (NA) |
| 1961 ${ }^{2}$......... | (NA) | (NA) | (NA) | $(8,065)$ | $(46,187)$ | $(6,325)$ | $(11,868)$ | $(33,053)$ | $(106,264)$ | $(92,271)$ | $(199,817)$ | $(9,349)$ | (NA) | (NA) |
| 1960ㄹ........ | (NA) | (NA) | (NA) | $(9,380)$ | $(51,096)$ | $(7,558)$ | $(14,072)$ | $(37,658)$ | $(118,634)$ | $(97,597)$ | $(213,396)$ | $(7,068)$ | (NA) | (NA) |
| 1959 ${ }^{2} \cdot \ldots$ | (NA) | (NA) | (NA) | $(9,388)$ | $(51,643)$ | $(7,619)$ | $(14,530)$ | $(39,028)$ | $(121,401)$ | $(94,960)$ | $(209,580)$ | $(10,010)$ | (NA) | (NA) |
| 19584 ${ }^{5}$....... | 50 | 84 | 66 | 8,013 | 41,167 | 6,325 | 11,657 | 30,352 | 102,362 | 73,770 | 177,643 | 14,933 | 95 | 89 |
| 1958 (old) ${ }^{5}$... | (NA) | 89 | 71 | 8,459 | 43,855 | 6,660 | 12,309 | 32,179 | 111,408 | 81,655 | 194,953 | 17,371 | 94 | 90 |
| $1957^{2} \ldots . . .$ | (NA) | (NA) | (NA) | 10,714 | 52,014 | 8,997 | 16,743 | 41,176 | 128,490 | 88,676 | 212,324 | 19,751 | 93 | 86 |
| 1956²......... | (NA) | (NA) | (NA) | 10,770 | 50,868 | 9,129 | 17,470 | 40,001 | 126,876 | 87,520 | 210,692 | 16,366 | (NA) | (NA) |
| 1955 ${ }^{\text {². }}$ | (NA) | (NA) | (NA) | 9,542 | 43,063 | 8,128 | 15,891 | 34,038 | 109,168 | 74,759 | 180,862 | 4,200 | (NA) | (NA) |
| 1954. | 49 | 77 | 59 | 8,559 | 34,260 | 7,150 | 12,890 | 26,124 | 77,443 | 78,717 | 132,130 | 3,739 | 96 | 90 |
| $1953{ }^{2}$ | (NA) | (NA) | (NA) | 11,953 | 49,159 | 10,269 | 19,840 | 39,825 <br> 34 | 108,696 | 77,538 | 186,234 155,130 | (NA) | (NA) | (NA) |
| 19522........ | (NA) | (NA) | (NA) | 11,498 | 43,068 | 10,048 | 18,701 | 34,787 | 84,861 | 70,256 | 155,130 | (NA) | (NA) | (NA) |
| 19512 ${ }^{2}$........ | (NA) | (NA) | (NA) | 11,696 | 44,404 | 10,295 | 20,944 | 36,927 | 95,553 | 80,795 55,611 | 176,363 | (NA) | (NA) | (NA) |
| 19502........ | (NA) | (NA) | (NA) | 9,818 | 32,129 | 8,653 | 16,275 | 26,478 | 67,759 53,907 | 55,611 40,179 | 122,930 93,753 | (NA) | (NA) | (NA) |
| 19492........ | (NA) 4 4 | (NA) | (NA) | 9,553 10,273 | 27,341 27,783 | 8,506 8,951 | 14,297 17,626 | 22,243 22,963 | 53,907 58,022 | 40,179 35,774 | 93,753 90,337 | (NA) 5,772 | $\begin{array}{r}\text { (NA) } \\ 94 \\ \hline\end{array}$ | (NA) 91 |
| 1939. | (NA) | 41 | (NA) | (NA) | (NA) | 4,542 | (NA) | 4,936 | 13,464 | 9,760 | 23,224 | (NA) | (NA) | (NA) |

[^69]
## table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establi ishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted <br> ( $\$ 1,000$ ) | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (per(ent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> ( $\$ 1,000$ ) |  |  |  |  |  |  |
| INDUSTRY 3299.-NONMETALLIC PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 313 | 320 | 56 | 5,471 | 27,094 | 4,361 | 8,266 | 18,231 | 53,289 | 43,408 | 96,188 | 2,187 | 86 | 96 |
| $1962{ }^{2}$ | (NA) | (NA) | (NA) | $(2,031)$ | $(5,623)$ | $(1,773)$ | $(2,369)$ | $(3,743)$ | $(18,737)$ | $(23,792)$ | $(43,091)$ | $(1,322)$ | (NA) | (NA) |
| $1961{ }^{2}$ | (NA) | (NA) | (NA) | $(1,870)$ | $(5,769)$ | $(1,557)$ | $(2,980)$ | $(4,321)$ | $(19,800)$ | $(26,898)$ | $(48,261)$ | $(1,480)$ | (NA) | (NA) |
| $1960{ }^{2}$ | (NA) | (NA) | (NA) | $(2,250)$ | $(11,518)$ | (1,701) | $(5,676)$ | $(5,628)$ | $(23,366)$ | $(29,106)$ | $(52,571)$ | $(1,421)$ | (NA) | (NA) |
| $1959{ }^{2}$ | (NA) | (NA) | (NA) | $(7,210)$ | $(25,117)$ | $(6,077)$ | $(13,802)$ | $(18,999)$ | $(42,325)$ | $(37,028)$ | $(79,863)$ | (1,071) | (NA) | (NA) |
| $1958{ }^{4}$ | 252 | 254 | 51 | 4,316 | 16,982 | 3,406 | 6,535 | 11,586 | 31,973 | 26,865 | 58,947 | 1,194 | 85 | 85 |
| 1958 (old) ${ }^{4}$ | (NA) | 148 | 39 | 3,503 | 14,839 | 2,610 | 5,056 | 9,168 | 29,578 | 30,351 | 60,020 | 1,034 | 82 | 84 |
| $1957{ }^{2}$ | (NA) | (NA) | (NA) | 4,391 | 17,746 | 3,364 | 6,767 | 11,648 | 29,944 | (NA) | 53,758 | (S) | (NA) | (NA) |
| $1956{ }^{2}$ | (NA) | (NA) | (NA) | 4,723 | 19,504 | 3,703 | 7,483 | 13,182 | 35,295 | 26,469 | 61,073 | (S) | (NA) | (NA) |
| $1955{ }^{2}$. | (NA) | (NA) | (NA) | 4,683 | 17,827 | 3,750 | 7,450 | 12,085 | 30,203 | 25,962 | 55,665 | (S) | (NA) | (NA) |
| 1954. | 96 | 121 | 38 | 4,483 | 15,835 | 3,605 | 7,126 | 10,943 | 30,261 | 26,054 | 56,604 | 1,574 | 84 | 94 |
| $1953{ }^{1}$. | (NA) | (NA) | (NA) | 4,292 | 13,771 | 3,590 | 7,272 | 10,601 | 29,344 | 20,548 | 49,892 | (NA) | (NA) | (NA) |
| 1947. | (NA) | 99 | (NA) | 2,579 | 6,459 | 2,184 | (NA) | 4,744 | 13,855 | 12,087 | 25,942 | (NA) | (NA) | (NA) |
| 1939. | (NA) | (NA) | (NA) | (NA) | (NA) | 1,563 | (NA) | 1,467 | 5,002 | 3,345 | 8,347 | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior a 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{2}$ This is a minimum percentage; the exact percentage is withheld to avoid disclosing figures of individual companies.
${ }^{2}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data
${ }^{3}$ Plants producing roofing granules and plants producing dead-burned magnesia or magnesite in conjunction with mining operations are classified in the mineral industries for 1963. In prior years these plants were included in industry 3295, Minerals, Ground or Treated. Prior years' data have not been revise to avoid disclosing figures of individual comoanies.
${ }^{4}$ Establishments primarily engaged in producing exfoliated vermiculate were reclassified from industry 3296, Mineral Wool, to industry 3295 , Minerals, Ground or Treated, in 1963. For 1958 the data have been revised to reflect this change; however, data for the years 1959-1962 have not. The value of shipments of these plants was approximately $\$ 11$ million in 1958.
${ }^{5}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that data for the industry prior to 1958 are not directly comparable. Details of this revision are described in the 1958 Census of Manufactures Volume II, Industry Statistics.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geograpic area ${ }^{2}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estabi stame |  | All employes |  | Production workers |  |  | Value added bymanufacture, adjusted $(\$ 1,000)$ | Cost ofmaterials ( 81,000 ) | Value of shipments <br> $(\$ 1,000)$ | Capital expendnew$(\$ 1,000)$ | All em- <br> ployees <br> (number) | Value added by manufacadjusted $(\$ 1,000)$ |
|  | Total (number) | With 20 <br> employ- <br> ees <br> or more <br> (number) | ${ }_{\text {Total }}^{\text {(number) }}$ | Payroll (\$1,000) | (number) | $\begin{gathered} \text { Marr } \\ \text { Mours } \\ (1,000) \end{gathered}$ | Wages $(\$ 1,000)$ |  |  |  |  |  |  |
|  | industry 3291. -abrasive products |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 378 | 149 | 28,170 | 186,971 | 18,583 | 36,695 | 107,62 | 416,415 | 287,458 | 704, 2 | 15,506 | 23,955 | 277,706 |
|  | $\begin{aligned} & 47 \\ & 26 \\ & 16 \end{aligned}$ | $\begin{array}{r} 24 \\ 15 \\ 6 \end{array}$ | $\begin{aligned} & 6,041 \\ & 5,267 \\ & 531 \end{aligned}$ | $\begin{array}{r} 41,406 \\ 3,3,38 \\ 2,932 \end{array}$ | $\begin{aligned} & \begin{array}{l} 3,9696 \\ 3,407 \\ 362 \end{array}, ~ \end{aligned}$ | $\begin{aligned} & 7,636 \\ & 6,549 \\ & 719 \end{aligned}$ | $\begin{aligned} & 23,163 \\ & 20,657 \\ & 1,728 \end{aligned}$ | $\begin{gathered} 83,822 \\ 7,8,80 \\ 6,994 \end{gathered}$ | $\begin{aligned} & 55,759 \\ & 48,100 \\ & 6,32 \end{aligned}$ | $\begin{aligned} & 140,624 \\ & 123,963 \\ & 12,943 \end{aligned}$ | $\begin{aligned} & 3,350 \\ & 3,128 \\ & 137 \end{aligned}$ | $\begin{gathered} 6,519 \\ 5,655 \\ 529 \end{gathered}$ | $\begin{gathered} 61,193 \\ 53,222 \\ 5,737 \\ 5,27 \end{gathered}$ |
| Midale Atlantic <br> New Jork... <br> Pennsylvania. | $\begin{gathered} 110 \\ 51 \\ 26 \\ 33 \end{gathered}$ | $\begin{aligned} & 49 \\ & 23 \\ & 9 \\ & 17 \end{aligned}$ | $\begin{gathered} 10,423 \\ 8,42.57 \\ 1,651 \\ 1,651 \end{gathered}$ | $\begin{aligned} & 68,988 \\ & 5,933 \\ & 4,960 \\ & 10,385 \end{aligned}$ | ¢7,130 <br> 5,483 <br> 512 <br> 1,135 <br> , 08 | $\begin{array}{r} 14,288 \\ 11,03 \\ 1,0,03 \\ 1,2,254 \\ 2,254 \end{array}$ | $\begin{gathered} 42,609 \\ 3,29 \\ 2,81 \\ 2,40 \\ 6,478 \end{gathered}$ | $\begin{array}{r} 132,917 \\ 107,364 \\ 6,981 \\ 18,572 \end{array}$ | $\begin{array}{r} 105,4,47 \\ 85,243 \\ 5,966 \\ 14,218 \end{array}$ | $\begin{gathered} 238,556 \\ 193,353 \\ 12,920 \\ 32,283 \end{gathered}$ | 5,535 4,548 224 763 7, | 9,353 7,219 591 1,543 7,2 | 98,215 <br> 78,817 <br> 4,789 <br> 14,615 <br> 180 |
| North Central. <br> Indiana. <br> Michigan | $\begin{array}{r} 168 \\ 53 \\ 53 \\ 52 \end{array}$ | $\begin{aligned} & 62 \\ & 2 \\ & 22 \\ & 28 \\ & 18 \end{aligned}$ | $\begin{gathered} 10,620 \\ 119 \\ 1,944 \\ 1,679 \end{gathered}$ | $\begin{aligned} & 70,513 \\ & 502 \\ & 10,222 \\ & 10,114 \end{aligned}$ | $\begin{aligned} & 6,698 \\ & 97 \\ & 1,431 \\ & 1,182 \end{aligned}$ | $\begin{array}{r} 13,1,168 \\ 1.89 \\ 2,89 \\ 2,299 \end{array}$ | $\begin{array}{r} 37,960 \\ 7,55 \\ 7,54 \\ 6,043 \end{array}$ | $\begin{array}{r} 185,231 \\ 1,277 \\ 38,79 \\ 31,359 \end{array}$ | $\begin{gathered} 112,658 \\ 1,50,0 \\ 2,98 \\ 17,203 \end{gathered}$ | $\begin{array}{r} 296,794 \\ 2,290 \\ 61,49 \\ 38,745 \\ 38,745 \end{array}$ | $\begin{aligned} & 5,789 \\ & 109 \\ & 1,639 \\ & 1,600 \end{aligned}$ | $\begin{aligned} & 7,219 \\ & \begin{array}{l} (2) \\ 1,355 \\ 1,488 \end{array} \end{aligned}$ | $\begin{aligned} & 110,012 \\ & 25,012 \\ & 25,174 \\ & 15,672 \end{aligned}$ |
| South................West.............. | $\begin{aligned} & 22 \\ & 32 \end{aligned}$ |  | $\begin{aligned} & 403 \\ & 683 \\ & 683 \end{aligned}$ | $\begin{aligned} & 1,839 \\ & 4,255 \end{aligned}$ | 329 470 | $\begin{aligned} & 62 \\ & 941 \\ & 941 \end{aligned}$ | $\begin{gathered} 1,228 \\ 2,668 \end{gathered}$ | $\begin{array}{r} 3,613 \\ 10,832 \end{array}$ | $\begin{gathered} 5,054 \\ 8,540 \end{gathered}$ | $\begin{array}{r} 8,762 \\ 19,476 \end{array}$ | ${ }_{719}^{113}$ | 158 706 | $\xrightarrow{1,028}$ |
|  | INDUSTRY 3292, -ASEESTOS PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 124 | 84 | 19,516 | 118,024 | 15,738 | ,88 | 89,76 | 269,0 | 240,7 | 509,236 | 2,38 | 1,29 | 235,487 |
| New Ennlana........ | 14 7 |  | 2,203 | $\begin{array}{r} 13,567 \\ 1,253 \end{array}$ | 1,743 | 3,586 | 10,425 894 | $\begin{gathered} 24,5,58 \\ 2,757 \end{gathered}$ | $\begin{gathered} 18,469 \\ 2,249 \end{gathered}$ | $\begin{gathered} 43,233 \\ 5,051 \\ \hline \end{gathered}$ | 516 18 | $\stackrel{2,119}{217}$ | $\begin{array}{r}\text { 29,45 } \\ 2,524 \\ \hline, 54\end{array}$ |
| West North Central. |  |  | 452 | 2,805 | 375 | 760 | 2,219 | 7,374 | 5,785 | ,41 | 232 | 729 | 8,019 |
|  | 29 | $20$ | $\begin{aligned} & 4,450 \\ & 1,453 \\ & 1,043 \end{aligned}$ | $\begin{gathered} 22,89 \\ 5,59 \\ 5,594 \\ 5, \end{gathered}$ | $\begin{gathered} 3,731 \\ 792 \\ 745 \\ 845 \end{gathered}$ | $\begin{aligned} & 7,664 \\ & 1,646 \\ & 1,883 \end{aligned}$ | $\begin{gathered} 17,733 \\ 4,831 \\ 4,470 \end{gathered}$ | $\begin{aligned} & 53,944 \\ & 12,44 \\ & 18,425 \end{aligned}$ | $\begin{aligned} & 45,773 \\ & 11,723 \\ & 18,099 \end{aligned}$ | $\begin{aligned} & 99,332 \\ & 23,207 \\ & 35,977 \end{aligned}$ | $\begin{aligned} & 3,039 \\ & 1,643 \\ & 1,282 \end{aligned}$ |  | $\begin{array}{r}37,796 \\ 11,092 \\ 8,282 \\ \hline\end{array}$ |
| $\underset{\substack{\text { west } \ldots \text { c.i.......... } \\ \text { Caisornia..... }}}{ }$ | $\begin{aligned} & 18 \\ & 18 \end{aligned}$ | $\begin{array}{r} 13 \\ 13 \\ \hline \end{array}$ | $\begin{aligned} & 1,938 \\ & 1,938 \end{aligned}$ | $\begin{aligned} & 13,773 \\ & 13,773 \end{aligned}$ | 1,507 | $\begin{aligned} & 3,328 \\ & 3,328 \end{aligned}$ | $\begin{aligned} & 10,199 \\ & 10,199 \end{aligned}$ | $\begin{aligned} & 41,302 \\ & 41,302 \end{aligned}$ | $\begin{aligned} & 38,615 \\ & 38,615 \end{aligned}$ | $\begin{aligned} & 80,084 \\ & 80,084 \end{aligned}$ | $\begin{aligned} & 2,467 \\ & 2,467 \end{aligned}$ | 2,807 ${ }_{\text {(2) }}$ | $\begin{array}{r}30,946 \\ (2) \\ \hline(2)\end{array}$ |
|  | INUUSTRY 3293. - GASSETS AND INSULAATIONS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 295 | 111 | 16,825 | 94,441 | 12, | 25,906 | ,301 | 160,734 | 116,978 | 279,226 | 8,865 | 3,494 | 105,211 |
|  | $\begin{aligned} & 17 \\ & 13 \end{aligned}$ |  | $\begin{aligned} & 933 \\ & 461 \\ & 469 \\ & 469 \end{aligned}$ | $\left.\begin{aligned} & 5,356 \\ & 2,930 \\ & 2,426 \end{aligned} \right\rvert\,$ | $\begin{aligned} & 639 \\ & \text { ang } \\ & 341 \end{aligned}$ | $\begin{array}{r} 1,273 \\ 585 \\ 688 \end{array}$ | $\begin{aligned} & 2,903 \\ & 1,383 \\ & 1,520 \end{aligned}$ | $\begin{aligned} & 9,214 \\ & 5,022 \\ & 4,192 \end{aligned}$ | $\begin{aligned} & 6,082 \\ & 4,219 \\ & 1,863 \end{aligned}$ | $\begin{gathered} 15,1144 \\ 9,007 \\ 6,057 \\ \hline \end{gathered}$ |  | $\begin{aligned} & 911 \\ & \begin{array}{l} 423 \\ \left({ }^{2}\right) \end{array} \end{aligned}$ | 6,687 $\substack{3,277 \\(2)}$ |
| Middle Atlantic New York. Pennsylvania | $\begin{aligned} & 77 \\ & 34 \\ & 24 \\ & 19 \\ & 19 \end{aligned}$ | $\begin{gathered} 28 \\ 8 \\ 12 \\ 12 \\ 8 \end{gathered}$ | $\begin{aligned} & 4,299 \\ & 2,492 \\ & 2,328 \\ & 1,480 \end{aligned}$ |  | $\begin{aligned} & 3,269 \\ & 3 \times 1 \\ & 1,804 \\ & 1,124 \end{aligned}$ | $\begin{aligned} & 6,704 \\ & 3,736 \\ & 3,7365 \\ & 2,245 \end{aligned}$ | $\begin{aligned} & 18,739 \\ & 1,242 \\ & 11,256 \\ & 10,259 \end{aligned}$ | $\begin{aligned} & 45,480 \\ & 4,300 \\ & 27,108 \\ & 14,072 \end{aligned}$ | $\begin{aligned} & 29,900 \\ & 5,9,91 \\ & 13,920 \\ & 10,069 \end{aligned}$ | $\begin{aligned} & 76,426 \\ & 10,203 \\ & \hline 1,2001 \\ & 44,500 \\ & 24,532 \end{aligned}$ | $\begin{aligned} & 1,690 \\ & 145 \\ & 1,063 \\ & 1,062 \end{aligned}$ | 3,188 479 522 2,187 7,88 | $\begin{array}{r} 24,905 \\ 3,358 \\ 5,317 \\ 16,220 \end{array}$ |
| East North | 106 |  | 8,682 |  | 6,60¢ |  |  |  |  |  |  | ,619 | 281 |
| Ohio...... |  | 12 | 1, $1 \times 14$ | 5,346 |  | 1,640 | ${ }_{3,542}$ | $\begin{aligned} & 8,903 \\ & 8,993 \end{aligned}$ |  |  |  |  | cis,5,422 <br> 5,362 |
| Indiana......... | 10 43 | $2{ }^{3}$ | ¢,1,147 <br> 5,364 | 5,423 30,663 | coin | 2,100 <br> 7,827 | 4,424 18,911 | ${ }_{49}^{10,544}$ |  |  | 1, 3,112 | $\begin{array}{r}749 \\ \hline, 768 \\ \hline\end{array}$ | 5,362 37,167 che |
| Michigan.................. | 21 | 8 | (170 | ¢,562 | $\begin{array}{r}\text { } \\ \\ \\ 134 \\ \hline 184 \\ \hline\end{array}$ | - | - | 10,20 1,208 1,468 | $\begin{aligned} & 3,658 \\ & 8,58 \\ & 1,348 \end{aligned}$ | $\begin{gathered} 8,983 \\ 18,883 \\ 2,814 \end{gathered}$ | 357 94 | $\begin{array}{r}1,124 \\ 188 \\ \hline 1\end{array}$ | ¢ |
| West North Central. Minnesota........ | 17 |  | $\left.\begin{aligned} & 256 \\ & 127 \end{aligned} \right\rvert\,$ | $1,163$ | $\begin{aligned} & 210 \\ & 111 \end{aligned}$ | $\begin{aligned} & 421 \\ & 214 \end{aligned}$ | $\begin{aligned} & 823 \\ & 429 \end{aligned}$ | $\begin{aligned} & 2,034 \\ & 1,032 \end{aligned}$ | $2,424$ | $\begin{aligned} & 4,408 \\ & 1,850 \end{aligned}$ | $\begin{aligned} & 62 \\ & 26 \\ & 26 \end{aligned}$ | ${ }^{\left({ }^{7}\right)}$ | ( $\begin{gathered}703 \\ (2)\end{gathered}$ |
| $\begin{gathered} \substack{\text { South..... } \\ \text { Texas. }} \end{gathered}$ | $\begin{aligned} & 33 \\ & 13 \end{aligned}$ | 13 <br> 7 | ${ }^{1,527} 5$ | $\begin{aligned} & 6,887 \\ & 2,796 \end{aligned}$ | $\xrightarrow{1,242}$ | ${ }^{2,618} 9$ | $\begin{aligned} & 4,731 \\ & 1,692 \end{aligned}$ | $\begin{gathered} 11,582 \\ 5,017 \end{gathered}$ | $\begin{gathered} 11,710 \\ 3,409 \end{gathered}$ | $\begin{gathered} 23,425 \\ 8,477 \end{gathered}$ | $\begin{aligned} & 1,057 \\ & (\mathcal{D}) \end{aligned}$ | 864 <br> 448 | ¢, $\begin{array}{r}\text { 5,605 } \\ 3,290 \\ \hline\end{array}$ |
| Mountain, |  |  |  | 28 |  | 8 | 20 | 45 | 116 | 164 | 5 |  | ,030 |
| Pacific........ Cali ifornia... | 42 36 | $\begin{aligned} & 13 \\ & 13 \end{aligned}$ | $\begin{aligned} & 1,125 \\ & 1,114 \end{aligned}$ | $\begin{aligned} & 6,545 \\ & 6,489 \end{aligned}$ | $\begin{aligned} & 716 \\ & 707 \end{aligned}$ | $\begin{aligned} & 1,505 \\ & 1,486 \end{aligned}$ | $\begin{aligned} & 3,586 \\ & 3,540 \end{aligned}$ | $\substack{111,424 \\ 12,323}$ | $\begin{aligned} & 7,399 \\ & 7,306 \end{aligned}$ | $\begin{aligned} & 19,009 \\ & 18,800 \end{aligned}$ | ${ }_{4}^{472}$ | 782 | 8,601 |

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All em. ployees(number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| INDUSTRY 3295.-MINERALS, GROUND OR TREATED ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 415 | 97 | 7,330 | 41,567 | 5,688 | 11,749 | 29,643 | 102,079 | 101,881 | 204,393 | 11,873 | 8,302 | 115,538 |
| New England........ | 10 | 1 | 121 | 718 | 90 | 177 | 363 | 1,249 | 1,076 | 2,357 | 81 | (D) | (D) |
| Middle Atlantic.... | 91 | 23 | 1,742 | 10,632 | 1,335 | 2,811 | 7,589 | 21,942 | 25,233 | 47,037 | 2,750 | (D) | (D) |
| New York......... | 17 | 4 | 305 | 1,694 | 239 | 498 | 1,321 | 3,137 | 2,674 | 5,866 | 270 | (D) | (D) |
|  | 23 | 5 | 479 | 3,115 | 327 | 686 | 1,933 | 7,149 | 9,049 | 16,101 | 918 | (D) | (D) |
| New Jersey. $\qquad$ <br> Pennsylvania..... | 51 | 14 | 958 | 5,823 | 769 | 1,627 | 4,335 | 11,657 | 13,510 | 25,070 | 1,562 | (D) | (D) |
| East North Central. | 73 | 26 | 1,558 | 9,880 | 1,178 | 2,382 | 6,498 | 22,706 | 22,917 | 45,752 | 1,808 | (D) | (D) |
| East North Central. | 27 | 10 | 463 | 2,820 | 386 | 816 | 2,276 | 6,848 | 2,772 | 9,723 | 660 | 495 | 6,459 |
| Indiana $\qquad$ <br> Illinois $\qquad$ | 7 | 2 | 149 | 1,126 | 115 | 241 | 777 | 2,024 | 1,398 | 3,436 | (D) | 310 | 4,412 |
|  | 21 | 9 3 | 563 219 | 3,450 | 408 | 783 353 | 2,125 869 | 7,057 4,507 | 7,357 | 14,421 13,559 | 329 371 | $\left(\begin{array}{l}2 \\ (2) \\ (2)\end{array}\right.$ | $\left(\begin{array}{l}(2) \\ (2)\end{array}\right.$ |
| Illinois.......... <br> Michigan. | 11 7 | 3 2 | 219 164 | 1,356 | 171 98 | 353 189 | 869 451 | 4,507 2,270 | 9,044 2,346 | 13,559 4,613 | (D) | $(2)$ $(2)$ | $(2)$ $(2)$ |
| West North Central. | 19 | - | 133 | 643 | 101 | 197 | 437 | 2,646 | 1,658 | 4,295 | 25 | (D) | (D) |
| South Atlantic..... | 49 | 15 | 1,128 | 5,599 | 913 | 1,931 | 4,352 | 13,055 | 10,776 | 23,870 | 1,194 | (D) | (D) |
| South Atlantic..... | 6 | 2 | 165 | 955 | 122 | 265 | 704 | 2,104 | 1,214 | 3,321 | 241 | (D) | (D) |
| Virginia.......... | 8 | 3 | 124 | 554 | 101 | 228 | 450 | 1,131 | 1,297 | 2,4,45 | 114 | ${ }^{2}$ ) | $\left.{ }^{2}\right)$ |
| North Carolina... | 11 | 3 | 215 | 946 | 166 | 354 | 634 | 2,062 | 2,025 | 3,986 | 179 | (D) | (D) |
|  | 6 | 4 | 431 | 2,118 | 375 | 748 | 1,813 | 5,290 | 3,788 | 9,202 | 379 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| East South Central. Alabama........... | 27 | 9 | 581 | 2,486 | 503 | 918 | 1,958 | 8,713 | 5,100 | 13,776 | 384 | (D) | (D) |
|  | 14 | 5 | 302 | 1,004 | 268 | 397 | 811 | 4,030 | 1,505 | 5,569 | 59 | (D) | (D) |
| West South Central. Texas. $\qquad$ | 46 | 11 | 753 | 3,707 | 595 | 1,290 | 2,661 | 11,080 | 15,527 | 27,397 | 2,238 | (D) | (D) |
|  | 33 | 8 | 528 | 2,591 | 424 | 945 | 1,866 | 5,838 | 7,194 | 13,374 | 2,099 | $\left({ }^{2}\right)$ | (2) |
| Mountain. . . . . . . . . | 36 | 3 | 332 | 1,802 | 264 | 521 | 1,415 | 4,662 | 4,224 | 8,751 | 485 | 559 | 9,989 |
| Pacific. $\qquad$ California....... | 64 | 9 | 982 | 6,100 | 709 | 1,522 | 4,370 | 16,026 | 15,370 | 31,158 | 2,908 | 1,075 | 18,088 |
|  | 49 | 9 | 887 | 5,648 | 643 | 1,392 | 4,070 | 14,936 | 14,289 | 28,978 | 2,751 | (D) | (D) |
|  | INDUSTRY 3296. -MINERAI WOOL |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 123 | 67 | 14,733 | 92,347 | 11,647 | 24,781 | 69,089 | 206,846 | 186,772 | 391,873 | 37,956 | 11,898 | 133,453 |
| Middle Atlantic.... New York. New Jersey. Pennsylvania..... | 24 | 13 | 2,406 | 15,397 | 1,874 | 3,974 | 11,106 | 36,293 | 31,509 | 67,643 | 5,753 | (D) | (D) |
|  | 8 | 2 | 122 | 598 | 96 | 188 | 457 | 1,016 | 924 | 1,930 | 33 | 150 | 997 |
|  | 7 | 6 | 1,521 | 10,443 | 1,160 | 2,521 | 7,446 | 23,097 | 25,538 | 48,503 | 5,277 | (D) | (D) |
|  | 9 | 5 | 763 | 4,356 | 618 | 1,265 | 3,203 | 12,180 | 5,047 | 17,210 | 443 | (D) | (D) |
| North Central....... <br> Indiana. $\qquad$ | 47 | 30 | 8,436 | 51,456 | 6,847 | 14,665 | 41,501 | 105,807 | 106,052 | 209,790 | 12,528 | 7,767 | 85,494 |
|  | 13 | 10 | 1,757 | 9,946 | 1,461 | 3,086 | 7,813 | 18,530 | 15,187 | 33,085 | 1,823 | 1,907 | 19,247 |
| East South Central. Alabama. $\qquad$ | 10 | 8 | 460 | 2,318 | 349 | 743 | 1,439 | 5,336 | 4,826 | 10,153 | (D) | (D) | (D) |
|  | 3 | 3 | 220 | 1,233 | 178 | 407 | -870 | 3,075 | 1,940 | 5,018 | 95 | 187 | 1,559 |
| West South Central. Pacific. $\qquad$ All other divisions |  |  | 352 | 1,766 | 217 | 432 | 997 | 3,734 | 3,679 | 7,214 | (D) | (D) | (D) |
|  | 19 | 7 | 1,956 | 14,852 | 1,458 | 3,155 | 8,977 | 34,107 | 29,407 | 63,611 | 4,168 | 1,217 | 15,643 |
|  | 14 | 4 | 1,123 | 6,558 | 902 | 1,812 | 5,069 | 21,569 | 11,299 | 33,462 | 1,048 | 388 | 3,860 |
| All other divisions | INDUSTRY 3297.-NONCIAY REFRACTORIES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 93 | 68 | 8,572 | 53,367 | 6,810 | 13,485 | 38,673 | 129,139 | 123,124 | 250,195 | 9,346 | 8,013 | 102,362 |
| New England........ | 5 | 4 | 190 | 1,176 | 134 | 279 | 725 | 2,383 | 1,802 | 4,328 | 94 | 198 | 1,904 |
| Middle Atlantic.... <br> New York. ......... <br> New Jersey. ...... <br> Pernsylvania..... | 36 | 25 | 3,416 | 21,762 | 2,485 | 4,865 | 14,344 | 41,636 | 37,281 | 79,458 | 2,388 | 3,598 | 36,325 |
|  | 5 | 4 | 589 | 4,128 | 363 | 744 | 2,330 | 9,627 | 6,451 | 16,115 | 777 | $(2)$ | ${ }^{(2)}$ |
|  | 7 | 4 | 782 | 5,224 | 487 | 995 | 2,722 | 8,948 | 10,389 | 19,321 | 56.1 | ${ }^{2}$ ) | (2) |
|  | 24 | 17 | 2,045 | 12,410 | 1,635 | 3,126 | 9,292 | 23,061 | 20,441 | 44,022 | 1,050 | 2,432 | 25,279 |
| East North Central. Ohio. Indiana $\qquad$ | 27 | 21 | 2,015 | 11,970 | 1,720 | 3,286 | 9,216 | 37,429 | 33,947 | 70,588 | 1,646 | 1,759 | 25,941 |
|  | 13 | 11 | 995 | 6,134 | 838 | 1,632 | 4,499 | 15,452 | 14,556 | 29,971 | , 925 | 807 | 11,414 |
|  | , | , | 605 | 3,641 | 531 | 1,021 | 3,031 | 14,359 | 12,473 | 25,983 | 520 | $\left(^{2}\right)$ | ${ }^{(2)}$ |
| South <br> West $\qquad$ | 16 | 12 | 2,500 | 15,814 | 2,096 | 4,323 | 12,342 | 39,398 | 40,176 | 76,915 | 5,021 | 1,997 | 29,703 |
|  | 9 | 6 | 451 | 2,645 | 375 | 732 | 2,046 | 8,293 | 9,918 | 18,906 | 197 | 461 | 8,489 |

[^70]
# table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued 

| Geographic area ${ }^{2}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | $\begin{gathered} \begin{array}{c} \text { Man- } \\ \text { hours } \end{array} \\ (1,000) \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| INDUSTRY 3299.-NONMETALIIC PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 320 | 56 | 5,471 | 27,094 | 4,361 | 8,266 | 18,231 | 53,289 | 43,408 | 96,188 | 2,187 | 4,316 | 31,973 |
| Middle Atlantic.... New York........ | 91 47 | 21 9 | 1,884 1,104 | 10,480 6,546 | 1,404 788 | 2,633 1,473 | 6,528 3,863 | 19,813 12,579 | 16,755 10,567 | 36,724 23,331 | 949 505 | 1,528 | 13,583 |
| New Jersey....... | 21 | 5 | 1,356 | 1,985 | 270 | 1,425 | 1,297 | 4,065 | 10,942 | 6,987 | 372 | (2) | (2) |
| Pernsylvania..... | 23 | 7 | 424 | 1,949 | 346 | 635 | 1,368 | 3,169 | 3,246 | 6,406 | 72 | 422 | 3,053 |
| East North Central. | 64 | 13 | 1,334 | 6,248 | 1,119 | 2,168 | 4,758 | 13,872 | 10,581 | 24,293 | 571 |  |  |
| Ohio............. | 19 | 5 | 541 | 2,221 | 431 | 755 | 1,503 | 5,368 | 5,214 | 10,506 | 122 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Illinois.......... | 23 | 5 | 576 | 3,078 | 515 | 1,116 | 2,622 | 6,679 | 4,234 | 10,845 | 420 | 296 | 2,685 |
| Michigan......... | 11 | 2 | 123 | 625 | 104 | 168 | 413 | 1,283 | 550 | 1,856 | 19 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ |
| West North Central. | 25 | 1 | 132 | 578 | 111 | 203 | 468 | 1,056 | 544 | 1,571 | 19 | 211 | 999 |
| East South Central. | 9 | 1 | 104 | 353 | 92 | 183 | 293 | 576 | 434 | 1,056 | 27 | 102 | 1,057 |
| West South Central. | 16 | 1 | 218 | 1,043 | 178 | 359 | 825 | 2,311 | 2,505 | 4,492 | 170 | 74 | 502 |
| Pacific............ | 63 | 6 | 452 | 2,973 | 324 | 582 | 1,576 | 6,100 | 5,848 | 11,920 | 184 | 220 | 2,318 |
| California...... | 54 | 5 | 388 | 2,660 | 269 | 482 | 1,350 | 5,536 | 5,597 | 11,107 | 179 | 208 | 2,243 |
| All other divisions | 52 | 13 | 1,347 | 5,419 | 1,133 | 2,138 | 3,783 | 9,561 | 6,741 | 16,132 | 267 | 1,393 | 7,817 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3291, Abrasive Products: New England-New Hampshire, 3 (100-249); Phode Island, 2 (100-249); East North Central-Ohio, 43 (1,000-2,499);
Wisconsin, 8 (250-499); West North Central-Minnesota, 2 (2,500-4,999); Missouri, 2 (20-99); Kansas, 1 (1-19); South Atlantic-North Carolina, 3
(103); Georgia, 5 (20-99); Florida, 2 (1-19); East South Central-Tennessee, 4 (20-99); Alabama, 2 (20-99); Mississippi, 2 (100-249); West South

Central—Arkansas, 2 (1-19); Texas, 1 (1-19); Mountain-Idaho, 2 (1-19); New Mexico, 1 (1-19); Pacific—Washington, 2 (100-249); Oregon, 2 (20-99); Califormia, 25 (466).
SIC 3292, Asbestos Products: New England-New Hampshire, 2 (250-499); Connecticut, 5 (1,000-2,499); East North Central-Ohio, 4 (250-499); Michigan, 1 (1-19); Wisconsin, l (1-19); West North Central-Missouri, 5 (250-499); Kansas, 1 (1-19); South Atlantic-Virginia, 3 (505); North Carolina, 3 (500-999); South Carolina, 2 (500-999); Georgia, 3 (163); Florida, 1 (1-19); East South Central—Alabama, 1 (20-99); Mississippi, 2 (100-249).
SIC 3293, Gaskets and Insulations: West North Central-Missouri, 7 (20-99); Nebraska, l (1-19); Kansas, 3 (20-99); South Atlantic-Maryland, 3 (20-99); Virginia, 1 (250-499); West Virginia, 1 (20-99); North Carolina, 2 (1-19); Georgia, 3 (1-19); Florida, 1 (1-19); East South CentralTennessee, 3 (250-499); Alabama, 2 (20-99); Mississippi, 1 (1-19); West South Central-Oklahoma, 3 (20-99); Mountain-Colorado, 2 (1-19); New Mexico, 1 (1-19); Pacific-Washington, 5 (1-19); Oregon, 1 (1-19).
SIC 3295, Minerals, Ground or Treated: New England-New Hampshire, i (1-19); Massachusetts, 8 (100-249); Connecticut, 1 (1-19); West North CentralMinnesota, 5 (20-99); Missouri, 7 (20-99); North Dakota, 1 (1-19); South Dakota, 2 (1-19); Nebraska, 3 (20-99); Kansas, 1 (1-19); South AtlanticDelaware, l (1-19); West Virginia, 7 (20-99); South Carolina, 3 (20-99); Florida, 7 (20-99); East South Central—Kentucky, 3 (20-99); Tennessee, 9 (20-99); Mississippi, 1 (100-249); West South Central-Arkansas, 3 (20-99); Louisiana, 9 (100-249); Oklahoma, 1 (1-19); Mountain-Montana, 8 (20-99); Idaho, 2 (1-19); Colorado, 8 (20-99); New Mexico, 2 (1-19); Arizona, 8 (20-99); Utah, 7 (141); Nevada, 1 (1-19); Pacific—Washington, 9 (20-99); Oregon, 5 (20-99); Hawaii, 1 (1-19).
SIC 3296, Mineral Wool: New England-Massachusetts, 2 (20-99); Rhode Island, 1 (1-19); East North Central-Ohio, 13 (3,306); Illinois, 6 (113); Michigan, 3 (20-99); Wisconsin, 2 (100-249); West North Central-Minnesota, 3 (130); Missouri, 2 (250-499); South Dakota, 1 (1-19); Kansas, 4 (1,000-2,499); South Atlantic-Virginia, 1 (1-19); West Virginia, 2 (250-499); South Carolina, 1 (1-19); Georgia, 1 (1-19); Florida, 3 (504); East South Central-Kentucky, 2 (20-99); Tennessee, 5 (100-249); West South Central-Arkansas, 1 (20-99); Louisiana, 1 (1-19); Texas, 7 (100-249); Mountain-Colorado, 2 (100-249); Arizona, 1 (1-19); Pacific-Washington, 4 (20-99); California, 14 (1,872); Hawaii, 1 (1-19).
SIC 3297, Nonclay Refractories: New England-Massachusetts, 2 (20-99); Connecticut, 3 (100-249); East North Central-IIlinois, 7 (248); Michigan, 3 (167); South Atlantic-Delaware, 1 (1-19); Maryland, 3 (1,000-2,499); West Virginia, 1 (20-99); North Carolina, 2 (20-99); East South CentralKentucky, 2 (500-999); Tennessee, 2 (100-249); Alabama, 2 (20-99); Mississippi, 1 (250-499); West South Central-Texas, 2 (20-99); MountainMontana, 1 (1-19); Colorado, 2 (100-249); Utah, 2 (20-99); Pacific-California, 4 (235).
SIC 3299, Nonmetallic Products, N.E.C.: New England-New Hampshire, 1 (250-499); Massachusetts, 11 (291); East North Central-Indiana, 3 (1-19); Wisconsin, 8 (20-99); West North Central-Minnesota 5 (20-99); Iowa, 3 (1-19); Missouri, 14 (20-99); South Dakota, 1 (1-19); Nebraska, 1 (1-19); Kansas, l (1-19); South Atlantic-Maryland, 2 (1-19); District of Columbia, 2 (20-99); Virginia, 4 (250-499); West Virginia, 2 (1-19); North Carolina, 4 (175); Georgia, 5 (136); Florida, 11 (20-99); East South Central-Kentucky, 4 (20-99); Tennessee, 1 (1-19); Alabama, 1 (1-19); Mississippi, 3 (20-99); West South Central-Arkansas, 1 (100-249); Louisiana, 1 (1-19); Oklahoma, 4 (1-19); Texas, 10 (20-99); MountainWyoming, 1 (1-19); Colorado, 4 (1-19); New Mexico, I (1-19); Arizona, 2 (20-99); Utah, 1 (1-19); Nevada, 1 (1-19); Pacific—Washington, 5 (20-99); Oregon, 3 (1-19).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report
showed the number of establishments and total employment (either actual or in size ranges) for such States.
${ }^{3}$ See footnotes 3 and 4 on table 1 .

## TABLE 3. Detailed Statistics: 1963

| Item | Abrasive products (SIC 3291) | Asbestos products (SIC 3292) | Gaskets and insulations (SIC 3293) | Minerals, ground or treated (SIC 3295) | Mineral wool (SIC 3296) | Nonclay refractories (SIC 3297) | Nonmetallic products, n.e.c. (SIC 3299) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio. ${ }^{1}$ | . 70 | . 95 | . 81. | . 94 | . 90 | . 94 | . 86 |
| Coverage ratio. ${ }^{2}$...................... | . 95 | . 91 | . 78 | . 86 | . 96 | . 88 | . 96 |
| Establishments, total............................................. | 378 | 124 | 295 | 415 | 123 | 93 | 320 |
| With 1 to 19 employees...................................do. | 229 | 40 | 184 | 318 | 56 | 25 | 264 |
| With 20 to 99 employees................................. . do | 104 | 23 | 74 | 85 | 36 | 41 | 44 |
| With 100 employees or more.............................d. ${ }^{\text {do. }}$ | 45 | 61 | 37 | 12 | 31 | 27 | 12 |
| Proprietors and working partners.......................do.... | 111 | 14 | 90 | 123 | 18 | 4 | 217 |
| All employees (average for the year)....................do.... | 28,170 | 19,516 | 16,825 | 7,330 | 14,733 | 8,572 | 5,471 |
| Payroll (all employees), total for year...............\$1,000.. | 186,971 | 118,024 | 94,441 | 41,567 | 92,347 | 53,367 | 27,094 |
| Production workers: |  |  |  |  |  |  |  |
| Average for the year...................................number.. | 18,583 | 15,738 | 12,684 | 5,688 | 11,647 | 6,810 | 4,361 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do.... . | 18,463 | 15,228 | 12,369 | 5,739 | 11,061 | 6,830 | 4,207 |
| Мау. ....................................................do. | 18,447 | 15,700 | 12,725 | 5,969 | 11,338 | 6,973 | 4,343 |
| August..... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 18,707 | 16,238 | 12,958 | 5,557 | 11,983 | 6,889 | 4,450 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 18,755 | 15,778 | 12,696 | 5,501 | 12,189 | 6,555 | 4,460 |
| Man-hours . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 36,695 | 32,884 | 25,906 | 11,749 | 24,781 | 13,485 | 8,266 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . | 9,237 | 7,829 | 6,520 | 2,891 | 5,805 | 3,268 | 1,965 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 9,276 | 8,315 | 6,375 | 3,122 | 6,008 | 3,635 | 2,110 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 8,887 | 8,339 | 6,231 | 2,888 | 6,605 | 3,361 | 2,021 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 9,295 | 8,401 | 6,780 | 2,848 | 6,362 | 3,221 | 2,170 |
| Wages . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 107,628 | 89,766 | 62,301 | 29,643 | 69,089 | 38,673 | 18,231 |
| Cost of materials, etc., total..........................do. | 287,458 | 240,725 | 116,978 | 101,881 | 186,772 | 123,124 | 43,408 |
| Materials, parts, containers, and supplies consuned..do. | 247,394 | 212,128 | 97,292 | 79,504 | 157,512 | 107,668 | 38,771 |
| Cost of resales..........................................do | 28,198 | 19,505 | 14,750 | 10,206 | 9,851 | 6,789 | 2,452 |
| Fuels consumed. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ${ }^{\text {do. }}$ | 4,598 | 3,670 | 2,297 | 6,880 | 11,167 | 5,320 | 1,304 |
| Electric energy: |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |
| Quantity................................million kw.-hrs. . | 606 | 425 | 125 | 293 | 596 |  | 53 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 5,557 | 4,906 | 1,781 | 3,688 | 5,405 | 3,284 | 770 |
| Generated less sold......................million kw.-hrs.. | (D) | (D) | (D) | (D) | (D) | - | (D) |
| Contract work. ......................................... ${ }^{\text {d }}$ \$1,000.. | 1,711 | 516 | 858 | 1,603 | 2,837 | 63 | 111 |
| Value of shipments (including resales), total.........do.. | 704,212 | 509,236 | 279,226 | 204,393 | 391,873 | 250,195 | 96,188 |
| Value of resales........................................ . do | (D) | 25,966 | 24,615 | 13,955 |  | 7,744 | 3,189 |
| Value added by manufacture, adjusted....................do. | 416,415 | 269,067 | 160,734 | 102,079 | 206,846 | 129,139 | 53,289 |
| Manufacturers' inventories: |  |  |  |  |  |  |  |
| Beginning of year, total............................... do. | 115,182 | 83,202 | 40,939 | 23,485 | 30,125 | 67,809 | 11,098 |
| Finished products..................................... . ${ }^{\text {do }}$ | 50,653 | 49,342 | 18,925 | 10,706 | 13,721 | 28,125 | 3,832 |
| Work-in-process................................ . . . . . . . do. | 24,529 | 11,746 | 7,797 | 3,391 | 2,387 | 4,515 | 1,654 |
| Materials, supplies, fuel, etc........................do. | 40,000 | 22,114 | 14,217 | 9,388 | 14,017 | 35,169 | 5,612 |
| End of year, total......................................... do. | 115,017 | 82,827 |  |  |  |  |  |
| Finished products. | 49,397 | 49,551 | 17,329 | 10,810 | 15,898 | 29,678 | 3,936 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.... | 25,441 | 12,093 | 7,879 | 2,854 | 1,955 | 5,030 | 2,059 |
| Materials, supplies, fuel, etc.......................do.... | 40,179 | - 21,183 | 15,327 | 9,824 | 14,535 | 36,571 | 5,301 |
| Expenditures for plant and equipment, total...........d. ${ }^{\text {do. }}$ |  | 13,670 | 9,331 | 12,934 | 38,179 | 9,484 | 4,622 |
| New, total............................................... do. | 15,506 | 12,381 | 8,865 | 11,873 | 37,956 | 9,346 | 2,187 |
| New structures and additions to plant....................... | 2,562 | 2,613 | 2,849 | 2,559 | 10,225 | 2,316 | 599 |
| New machinery and equipment..........................do. | 12,944 | 9,768 | 6,016 | 9,314 | 27,731 | 7,030 | 1,588 |
| Used plant and equipment. . . . . . . . . . . . . . . . . . . . . . . . . do. | 862 | 1,289 | 466 | 1,061 | 223 | 138 | 2,435 |
| Selected operating ratios: |  |  |  |  |  |  |  |
| Payroll/Total employment. | 6,637 | 6,048 | 5,613 | 5,671 | 6,268 | 6,226 | 4,941 |
| Production workers/Total employment. | . 66 | . 81 | . 75 | . 78 | . 79 | . 79 | . 80 |
| Man-hours/Production workers. | 1,975 | 2,089 | 2,042 | 2,066 | 2,128 | 1,980 | 1,884 |
| Production worker wages/Man-hours. | 2.93 | 2.73 | 2.40 | 2.52 | 2.79 | 2.87 | 2.21 |
| Cost of materials and payrolls/Total value of shipments.... | . 67 | . 70 | . 76 | . 70 | . 71 | . 71 | . 74 |
| Cost of materials/Total value of shipments................. | . 41 | . 47 | . 42 | . 50 | . 48 | . 49 | . 45 |
| Adjusted value added/Total employment........................ | 14,782 | 13,787 | 9,553 | 13,926 | 14,040 | 15,065 | 9,582 |
| Salaries and wages/Adjusted value added.................... | . 45 | . 44 | . 59 | . 41 | . 45 | . 41 | . 52 |

 in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies, (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
 turing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & 1 \text { to } 4 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 10 \text { to } 19 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 20 \text { to } 49 \\ & \text { employees } \end{aligned}$ | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employes } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
| Establishments.................number. . <br> All employees: <br> Total. <br> Payroll. <br> .do.... <br> Value added, adjusted. $\qquad$ .do... <br> Value of shipments <br> ........ .d <br> Capital expenditures, new...do.... | INDUSTRY 3291.-ABRASIVE PRODUCTS |  |  |  |  |  |  |  |  |  |  |
|  | 378 | 107 | 62 | 60 | 72 | 32 | 26 | 11 | 4 | 1 | 3 |
|  | 28,170 | 182 | 427 | 852 | 2,122 | 2,148 | 3,866 | 3,789 | 14,784 | (D) |  |
|  | 186,971 | 982 | 2,380 | 4,724 | 11,882 | 12,274 | 22,584 | 22,468 | 109,677 | (D) | (D) |
|  | 416,415 | 2,103 | 4,734 | 10,583 | 25,244 | 25,329 | 45,321 | 62,339 | 240,762 | (D) | (D) |
|  | 704,212 | 4,549 | 9,170 | 19,823 | 52,322 | 49,439 | 84,776 | 99,314 | 384,819 | (D) | (D) |
|  | 15,506 | 313 | 529 | 611 | 1,189 | 759 | 2,095 | 1,681 | 8,329 | (D) | (D) |
|  | Industry 3292. -ASEESTOS PRODUCTS |  |  |  |  |  |  |  |  |  |  |
| Establishments............... . number. . <br> All employees: <br> Total. . <br> Payroll.. <br> . . . . . . . . . . . . .do. . <br> ded, adjusted. ......... <br> Value of shipments...........do..... <br> Capital expenditures, new...do.... | 124 | 17 | 6 | 17 | 10 | 13 | 34 | 21 | 4 | 2 |  |
|  | 19,516 | 31 | 42 | 235 | 336 | 978 | 5,279 | 7,340 | 5,275 | (D) |  |
|  | 118,024 | 167 | 231 | 1,172 | 1,834 | 5,009 | 37,485 | 44,691 | 33,435 | (D) |  |
|  | 269,067 | 181 | 295 | 2,247 | 3,140 | 10,823 | $\begin{array}{r}79,637 \\ \hline 159 \\ \hline\end{array}$ | 106,807 | 㐌,937 | (D) |  |
|  | 509,236 12,381 | 559 19 | 652 24 | 5,372 $\mathbf{1 8 6}$ | 6,159 72 | $\begin{array}{r}19,573 \\ \hline 291\end{array}$ | 159,589 5,722 | 213,401 4,637 | $\frac{103,931}{1,430}$ | (D) | - |
|  | Industry 3293. -GASKETS AND INSULATIONS |  |  |  |  |  |  |  |  |  |  |
| Establishments. $\qquad$ number. . <br> All employees: <br> Total. <br> Payroll. . . . . . . . . . . . . . . . $\$ 1,000$. <br> Value added, adjusted........do. <br> Value of shipments...........do. <br> Capital expenditures, new...do.... | 295 | 91 | 51 | 42 | 53 | 21 | 22 | 10 | 2 | 3 |  |
|  | 16,825 | 160 | 353 | 573 | 1,711 | 1,464 | 3,043 | 3,660 | 5,861 | (D) |  |
|  | 94,441 | 931 | 1,742 | 3,154 | 9,534 | 7,460 | 16,894 | 19,909 | 34,817 | (D) |  |
|  | 160,734 | 1,863 | 3,321 | 5,020 | 16,628 | 14,172 | 32,101 | 35,668 | 51,961 | (D) |  |
|  | 279,226 | 3,665 | 7,194 | 10,449 | 33,709 | 27,044 | 54,954 | 58,353 | 83,858 | (D) |  |
|  | 8,865 | ${ }^{1} 529$ | 151 | 194 | 942 | (D) | 1,100 | 2,518 | 3,431 | (D) |  |
|  | INDUSTRY 3295.-MINERALS, GROUND OR TREATED |  |  |  |  |  |  |  |  |  |  |
| Establishments $\qquad$ number. . <br> All employees: <br> Total. $\qquad$ . .do. . <br> Payroll. <br> Value added <br> Value of shipments...........do.... <br> Capital expenditures, new...do.... | 415 | 127 | 89 | 102 | 63 | 22 | 11 | 1 | - |  |  |
|  | 7,330 | 235 | 633 | 1,411 | 1,895 | 1,478 | 1,678 | (D) | - | - |  |
|  | 41,567 | 1,202 | 3,016 | 7,621 | 10,682 | 8,892 | 10,154 | (D) | - |  |  |
|  | 102,079 | 3,674 | 7,427 | 17,678 | 26,101 | 19,740 | $\frac{27,459}{57,59}$ | (D) | - | - |  |
|  | 204,393 | 6,940 | 15,822 | 37, 248 | 48,317 | 38,548 | 57,518 | (D) | - |  |  |
|  | 11,873 | ${ }^{2} 1,791$ | 704 | 1,542 | 2,475 | 1,294 | 4,067 | (D) |  | - |  |
|  | INDUSTRY 3296. -MINERAL WOOL |  |  |  |  |  |  |  |  |  |  |
| Establishments $\qquad$ number. . <br> All employees: <br> Total.. . .do. <br> Payroll.. <br> Value added, adjusted. .....\$1,000. <br> Value of shipments............do... <br> Capital expenditures, new...do.... | 123 | 30 | 9 | 17 | 14 | 22 | 16 | 8 | 5 | 2 |  |
|  |  | 33 | 60 | 228 | 413 | 1,584 | 2,726 | 2,713 |  |  |  |
|  | 92,347 | 216 | 292 | 1,226 | 1,870 | 8,664 | 16,280 | 15,366 | 48,433 | (D) |  |
|  | 206,846 | 399 | 609 | 2,317 | 6,049 | 19,465 | 40,726 | 41,791 | 95,490 | (D) |  |
|  | 391,873 | 1,220 | 1,560 |  | 11,906 | 36,708 | 65,813 | 66,945 | 202,027 | (D) |  |
|  | 37,956 | 33,500 | (D) | (D) | (D) | 15,654 | 3,801 | 2,969 | 12,032 | (D) |  |
|  | Industry 3297. - NONCLAY ReFractories |  |  |  |  |  |  |  |  |  |  |
|  | 93 | 10 | 6 | 9 | 20 | 21 | 18 | 7 | 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | 8,572 53,367 | 10 64 | 41 257 | 126 700 | 636 3,702 | 8,429 | 2,856 17,656 | $\frac{3,474}{22,429}$ | (D) |  |  |
| Payroll................ ${ }^{\text {di, }}$, 000.. | 53,367 129,139 | 192 | 252 | 1,685 | -3,702 | 8,599 22,380 | 45,074 | $\frac{22,324}{50,324}$ | (D) |  |  |
| Value of shipments..........do..... | 250,195 | 423 | 1,119 | 3,312 | 17,496 | 43,388 | 83,990 | 100,467 | (D) | - |  |
| Capital expenditures, new...do..... | 9,346 | $\stackrel{101}{ }$ | (D) | 32 | 382 | 1,661 | 4,367 | 2,803 | (D) |  |  |

## TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963-Continued

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | 5 to 9 employees | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employess } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 1,000 \text { to } \\ & 2,499 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3299.-NONETALLIC PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments. . . . . . . . . . number. . | 320 | 152 | 60 | 52 | 32 | 12 | 8 | 4 | - | - | - |
| All employees: <br> Total. $\qquad$ do.. | 5,471 | 203 | 401 | 649 | 994 | 821 | 1,125 | 1,278 | - | - | - |
| Payroll. . . . . . . . . . . . . . . \$1,000. . | 27,094 | 893 | 1,700 | 2,980 | 5,161 | 3,708 | 4,947 | 7,705 | - | - | - |
| Value added, adjusted. ......do.... | 53,289 | 1,868 | 3,225 | 6,325 | 10,058 | 6,761 | 8,865 | 16,172 | - | - | - |
| Value of shipments..........do.... | 96,188 | 3,158 | 5,675 | 10,812 | 17,213 | 12,604 | 17,331 | 29,395 | - | - | - |
| Capital expenditures, new...do.... | 2,187 | 63 | 90 | 243 | 245 | 214 | 408 | 924 | - | - | - |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. $n$.e.c. Not elsewhere classified.
${ }^{1}$ Includes capital expenditures between $\$ 200$ thousand and $\$ 500$ thousand for plants under construction but not in operation.
${ }^{2}$ Includes capital expenditures between $\$ 1$ million and $\$ 2$ million for plants under construction but not in operation.
${ }^{3}$ Includes capital expenditures between $\$ 2$ million and $\$ 5$ million for plants under construction but not in operation.
${ }^{4}$ Includes capital expenditures between $\$ 50$ million and $\$ 100 \mathrm{million}$ for plants under construction but not in operation.


# TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958 

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\text { Col. B }}{\operatorname{col}}$ Col. B+C <br> (percent) | Total, made in all industries <br> $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries <br> $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | I |
| 3291 | Abrasive products.................. 1963.. | $\begin{aligned} & 704,212 \\ & 490,752 \end{aligned}$ | $\begin{aligned} & 541,261 \\ & 383,648 \end{aligned}$ | $(D)$ 79,789 | (D) 27,315 | $\begin{array}{r} 170 \\ 83 \end{array}$ | $\begin{aligned} & 572,246 \\ & 399,802 \end{aligned}$ | $\begin{aligned} & 541,261 \\ & 383,648 \end{aligned}$ | $\begin{aligned} & 30,985 \\ & 16,154 \end{aligned}$ | $\begin{aligned} & 95 \\ & 96 \end{aligned}$ |
| 3292 | Asbestos products. . . . . . . . . . . . . . $1963 .$. 1958.. | $\begin{aligned} & 509,236 \\ & 453,488 \end{aligned}$ | $\begin{aligned} & 458,514 \\ & 385,425 \end{aligned}$ | $\begin{array}{r} 24,370 \\ 46,058 \end{array}$ | $\begin{aligned} & 26,352 \\ & 22,005 \end{aligned}$ | $\begin{aligned} & 95 \\ & 89 \end{aligned}$ | $\begin{aligned} & 506,119 \\ & 419,667 \end{aligned}$ | $\begin{aligned} & 458,514 \\ & 385,425 \end{aligned}$ | $\begin{array}{r} 47,605 \\ 34,242 \end{array}$ | 91 92 |
| 3293 | Gaskets and insulations........... 1963.. | $\begin{aligned} & 279,226 \\ & 188,684 \end{aligned}$ | $\begin{aligned} & 205,635 \\ & 147,950 \end{aligned}$ | $\begin{aligned} & 48,015 \\ & 22,822 \end{aligned}$ | 25,576 17,912 | $\begin{aligned} & 81 \\ & 87 \end{aligned}$ | $\begin{aligned} & 262,195 \\ & 214,136 \end{aligned}$ | $\begin{aligned} & 205,635 \\ & 147,950 \end{aligned}$ | $\begin{aligned} & 56,560 \\ & 66,186 \end{aligned}$ | 78 69 |
| 3295 | Minerals, ground or treated ${ }^{2} \ldots .$. . $1963 .$. | $\begin{aligned} & 204,393 \\ & 219,086 \end{aligned}$ | $\begin{aligned} & 175,399 \\ & 185,734 \end{aligned}$ | 10,850 7,626 | $\begin{aligned} & 18,144 \\ & 25,726 \end{aligned}$ | $\begin{aligned} & 94 \\ & 96 \end{aligned}$ | $\begin{aligned} & 203,061 \\ & 218,053 \end{aligned}$ | $\begin{aligned} & 175,399 \\ & 185,734 \end{aligned}$ | $\begin{aligned} & 27,662 \\ & 32,319 \end{aligned}$ | 86 85 |
| 3296 | Mineral wool³. .......................... 1963.. | $\begin{aligned} & 391,873 \\ & 240,922 \end{aligned}$ | 342,420 225,322 | $\begin{aligned} & 36,564 \\ & 11,963 \end{aligned}$ | $\begin{array}{r} 12,889 \\ 3,637 \end{array}$ | $\begin{aligned} & 90 \\ & 95 \end{aligned}$ | $\begin{aligned} & 355,989 \\ & 236,436 \end{aligned}$ | $\begin{aligned} & 342,420 \\ & 225,322 \end{aligned}$ | $\begin{aligned} & 13,569 \\ & 11,114 \end{aligned}$ | 96 95 |
| 3297 | Nonclay refractories................. 1963. . 1958.. | $\begin{aligned} & 250,195 \\ & 177,643 \end{aligned}$ | $\begin{aligned} & 225,524 \\ & 165,528 \end{aligned}$ | $\begin{array}{r} 15,349 \\ 7,983 \end{array}$ | $\begin{aligned} & 9,322 \\ & 4,132 \end{aligned}$ | $\begin{aligned} & 94 \\ & 95 \end{aligned}$ | $\begin{aligned} & 256,832 \\ & 185,241 \end{aligned}$ | $\begin{aligned} & 225,524 \\ & 165,528 \end{aligned}$ | $\begin{aligned} & 31,308 \\ & 19,713 \end{aligned}$ | $\begin{aligned} & 88 \\ & 89 \end{aligned}$ |
| 3299 | Nonmetallic products, n.e.c........1963.. 1958. . | $\begin{aligned} & 96,188 \\ & 58,947 \\ & \hline \end{aligned}$ | $\begin{array}{r} 79,677 \\ 45,815 \\ \hline \end{array}$ | $\begin{array}{r} 12,946 \\ 8,332 \\ \hline \end{array}$ | $\begin{aligned} & 3,565 \\ & 4,800 \\ & \hline \end{aligned}$ | $\begin{aligned} & 86 \\ & 85 \\ & \hline \end{aligned}$ | $\begin{array}{r} 83,008 \\ 53,717 \\ \hline \end{array}$ | $\begin{array}{r} 79,677 \\ 45,815 \\ \hline \end{array}$ | $\begin{aligned} & 3,331 \\ & 7,902 \\ & \hline \end{aligned}$ | $\begin{aligned} & 96 \\ & 85 \\ & \hline \end{aligned}$ |

Note: See Introduction for an explanation of terms used.
Standari Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ This is a minimum percentage. The exact percentage is withheld to avoid disclosing figures for individual companies.
${ }^{2}$ See footnotes 3 and 4, table 1.
${ }^{3}$ See footnote 4, table 1 .

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars except for tanges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary nroducts). (b) products classified in other industries (secondary products), and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


Standard Notes: - Represents zero. (D) Witrheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not appljcable. n.e.c. Not elsewhere classified.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


[^71]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Value of shipments including interplant transfers $(\$ 1,000)$ |  |
| :---: | :---: | :---: | :---: |
|  |  | 1963 | 1958 |
| 3299- -- | NONMETALLIC MINERAL PRODUCTS, N.E.C. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 83,008 | 53,717 |
| 3299053 | Built-up sheet mica products........................................................................................ | 14,061 | ) 22,459 |
| 3299055 | Other sheet mica products. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 14,046 | \} 22,459 |
| 3299061 | Sand-line brick, block, and tile................................................................................ | 4,864 | 9,496 |
| 3299081 | Statuary and arts goods (factory production)............................................................... | 13,879 | 10,987 |
| 3299098 | Other nonmetallic mineral products, n.e.c., including stucco, sapphire boule, magnesite floor composition, etc...................................................................................................................... | 30,252 | 6,927 |
| 3299000 | Nonmetallic mineral products, n.e.c., n.s.k................................................................. | 5,906 | 3,848 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
$1_{\text {Not }}$ directly comparable. In 1958 synthetic diamonds were classified in industry 3913, Lapidary Work. The amount is withheld to avoid disclosing figures for individual companies.
${ }_{3}^{2}$ See footnote 4 , table 1
${ }^{3}$ See footnote 3, table 1.
${ }^{4}$ Included in figure for code 3296098 for 1958.
${ }^{5}$ Included in figures for codes 3296128 and 3296298 for 1963.
${ }^{6}$ Molten cast brick and shapes are included with "Forsterite, pyrophillite, molten cast and other nonclay brick and shapes."
${ }^{7}$ Molten cast refractories are made by fusing refractory oxides as in an electric furnace and pouring the molten material into molds to form finished shapes
${ }^{8}$ Fused as applied to bauxite and alumina means complete melting, as in an electric furnace; the product is crushed and graded for use in the refractory. Dense-sintered alumina refers to heat treatment (short of melting) to render it relatively volume-stable for use in a refractory.
${ }^{9}$ Represents shipments for direct use as finished refractory products by establishments classified in "manufacturing" industries, and excludes shipments to refractory producers for processing in the manufacture of brick and other refractories.

TABLE 6B. Product Classes-Indexes of Production and Unit Value for Primary Products
Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  | Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |  |  | Production | Unit value |
| 329-- | Nonmetallic mineral products..... $\begin{array}{r}\text { 1963.. } \\ \text { 1958.. }\end{array}$ | $(2)$ <br> $(1)$ | $(2)$ <br> $(1)$ <br> 1 | 3293- | Gaskets and insulations.............. 1963. 1958.. | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ | $\left(\begin{array}{l}1 \\ \text { (1) }\end{array}\right.$ |
| 3291- | $\begin{array}{r} \text { Abrasive products. ........................... } 1963 . . \\ \text { 1958.. } \end{array}$ | $\left(\begin{array}{l}1 \\ (1) \\ (1)\end{array}\right.$ | $\begin{aligned} & \left(\begin{array}{l} 1 \\ (1) \\ (1) \end{array}\right) \end{aligned}$ | 32933 | Packing, except leather, rubber, and metal and asbestos insula- |  |  |
| 32911 | Nonmetallic artificial (synthetic) <br> sized grains, powders, and flour abrasives. $\qquad$ 1958.. <br> Nonmetallic coated abrasive products and buffing wheels, polishing wheels, and laps.........1963.. 1958. | (3) | 111 |  | tions.................................... . 1963. . $1958 .$. | 78 93 | 111 |
| 32913 |  | (1) | 125 | 3295- | Minerals, ground or treated.......... 1963.. | $\left(\begin{array}{l}(2) \\ (3)\end{array}\right.$ | ${ }^{(1)}$ |
|  |  | 131 104 | 120 109 | 3296- | Mineral wool............................ $1963 .$. | $\begin{aligned} & 283 \\ & 168 \end{aligned}$ | 76 86 |
| 3292- | $\begin{array}{r} \text { Asbestos products. ......................... . } 1963 . . \\ \text { 1958.. } \end{array}$ | 136 112 | 112 | 32961 | Mineral wool for structural insulation from rock, slag or glass (for insulating homes, commercial and industrial buildings for human |  |  |
| 32922 | Asbestos friction materials........ $1963 .$. | 148 113 | 107 108 |  |  | 145 | 110 |
| 32924 | Asbestos-cement shingles and clapboard................................. . 1963.. 1958. . | 49 70 | 129 127 | 32962 | Mineral wool for industrial and equipment insulation from rock, | 137 | 90 |
| 32925 | Asphalt floor tile.................. $1963 .$. | 101 | 118 |  | slag or glass.............................1963.. | $422$ | 60 |
|  |  | 148 | 104 |  | 1958.. | $189$ | 83 |
| 32926 | Vinyl asbestos floor tile.......... 1963.. | 281 152 | 111 |  | Nonclay refractories................... 1963. . | 154 | 130 |
| 32927 | Asbestos textiles and other asbestos and asbestos-cement products...... 1963.. $\begin{array}{r}\text { 1958.. }\end{array}$ | 143 | 102 | 3299_ | Nonmetallic minerals...................... 1963. | 120 $(2)$ $(2)$ | 122 $(12)$ $(1)$ |
|  |  | 105 | 214 |  |  |  | (3) |

[^72]TABLE 6C. Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962^{1}$ | $1961{ }^{1}$ | $1960^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3291- | Abrasive products..................... . $\$ 1,000 .$. | 572,246 | 555,624 | 492,881 | 511,609 | 510,419 | 399,802 | 355,849 | 244,713 |
| 32911 | Nonmetallic artifical sized grains, powders, and flour abrasives.........do.... | 274,322 | 61,821 | 52,590 | 50,736 | 53,387 | 38,822 | 32,652 | 19,357 |
| 32912 | Nonmetallic bonded abrasive products, inc. diamond abrasives................do. | 247,275 | 244,598 | 210,757 | 220,260 | 228,234 | 164,406 | 158,067 | 108,359 |
| 32913 | Nonmetallic coated abrasive products.do. | 176,273 | 179,054 | 160,287 | 158,795 | 151,649 | 127,387 | 111,893 | 88,719 |
| 32914 | Metal abrasives........................do. | 63,242 | 54,410 | 53,904 | 61,580 | 58,660 | 54,697 | 45,923 | 28,278 |
| 32910 | Abrasive product, n.s.k...............do. | 11,134 | (S) | (S) | (S) | (S) | 14,490 | 7,314 | ( X ) |
| 3292- | Asbestos products........................do.... | 506,119 | 475,487 | 463,644 | 473,666 | 488,020 | 419,667 | 323,093 | 198,603 |
| 32922 | Asbestos friction material...........do.... | 117,653 | 112,118 | 101,906 | 104,340 | 111,713 | 89,844 | 73,852 | 58,606 |
| 32924 | Asbestos-cement shingles and clapboard: <br> Quantity....................... ., 000 squares.. <br> Value. <br> .................................... . $\$ 1,000$. | $\begin{array}{r} 3,064 \\ 34,703 \end{array}$ | $\begin{array}{r} 3,059 \\ 36,509 \end{array}$ | $\begin{array}{r} 3,150 \\ 38,433 \end{array}$ | $\begin{array}{r} 3,756 \\ 45,453 \end{array}$ | $\begin{array}{r} 4,302 \\ 49,909 \end{array}$ | $\begin{array}{r} 4,372 \\ 49,152 \end{array}$ | $\begin{array}{r} 6,116 \\ 53,263 \end{array}$ | $\begin{array}{r} 5,770 \\ 37,528 \end{array}$ |
| 32925 | Asphalt floor tiles: <br> Quantity........................ 1,000 sq. yds.. <br> Value. $\qquad$ | $\begin{aligned} & 74,331 \\ & 59,245 \end{aligned}$ | $\begin{aligned} & 91,658 \\ & 65,007 \end{aligned}$ | $\begin{aligned} & 97,780 \\ & 70,299 \end{aligned}$ | $\begin{aligned} & 99,096 \\ & 71,705 \end{aligned}$ | $\begin{array}{r} 112,165 \\ 78,606 \end{array}$ | $\begin{array}{r} 109,494 \\ 77,348 \end{array}$ | $\begin{array}{r} 109,679 \\ 90,672 \end{array}$ | $\begin{aligned} & 45,924 \\ & 41,972 \end{aligned}$ |
| 32926 | Vinyl asbestos floor tile: <br> Quantity........................1,000 sq. yds. . <br> Value..................................... $\$ 1,000$. . | $\begin{aligned} & 106,653 \\ & 131,145 \end{aligned}$ | $\begin{array}{r} 93,732 \\ 110,651 \end{array}$ | $\begin{array}{r} 82,806 \\ 102,582 \end{array}$ | $\begin{aligned} & 82,184 \\ & 99,784 \end{aligned}$ | $\begin{aligned} & 76,449 \\ & 91,600 \end{aligned}$ | $\begin{aligned} & 57,662 \\ & 66,591 \end{aligned}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ |
| 32927 | Asbestos textiles and other asbestos and asbestos cement products.........do.... | 162,231 | 143,350 | 145,302 | 146,645 | 150,989 | 131,782 | 104,205 | 60,497 |
| 32920 | Asbestos products, n.s.k.............do.... | 1,142 | (S) |  | (S) | (S) | 4,950 | 1,101 | (X) |
| 3293- | Caskets and insulations................do. | 262,195 | 253,303 | 247,347 | 245,110 | 246,045 | 214,136 | 184,112 | 128,440 |
| 32932 | Gaskets, all types...................do.... | 199,729 | 191,285 | 186,723 | 177,570 | 180,632 | 143,271 | 112,781 | 78,330 |
| 32933 | Packing, except leather, rubber and metal, and asbestos insulation......do.... | 51,178 | 51,352 | 50,920 | 57,453 | 55,486 | 62,398 | 63,395 | 50,110 |
| 32930 | Gaskets and insulations, n.s.k.......do.... | 11,288 | (S) | (S) | (S) | (S) | 8,467 | 7,936 | - |
| 32950 | Minerals and earths, ground, or otherwise treated......................................... | ${ }^{3} 203,061$ | ${ }^{4}(217,395)$ | ${ }^{4}(233,304)$ | ${ }^{4}(237,548)$ | $4(251,591)$ | 4218,053 | 4181,966 | 4111,281 |
| 3296- | Mineral wool. . . . . . . . . . . . . . . . . . . . . . . do. | 355,989 | ${ }^{4}(370,450)$ | ${ }^{4}(339,949)$ | ${ }^{4}(301,078)$ | ${ }^{4}(296,714)$ | 4236,436 | 4 160,383 | 479,094 |
| 32961 | Mineral wool for structural <br> insulation. ....................................... | 107,678 | ${ }^{4}(121,146)$ | $4(105,264)$ | ${ }^{4}(91,698)$ | $4(98,059)$ | 477,839 | 459,437 | 444,264 |
| 32962 | Mineral wool for industrial and equipment insulation....................do.... | 240,798 | ${ }^{4}(236,718)$ |  |  |  | 4141,966 | 493,760 | 431,811 |
| 32960 | Mineral wool, n.s.k...................do.... | 7,513 | (S) | $(S)^{\prime}$ | (S) | (S) | 22,631 | 7,186 | 3,019 |
| 32970 | Nonclay refractories, except dead-burned magnesia............................................... | 256,832 | 5221,408 | ${ }^{5} 226,118$ | ${ }^{5} 226,283$ | ${ }^{5} 219,140$ | 185,241 | 127,621 | 84,181 |
| 32990 | Other nonmetallic mineral products, n.e.c. .................................................. | 83,008 | $(65,827)$ | $(66,154)$ | $(75,273)$ | $(78,973)$ | $(53,717)$ | 48,056 | 32,254 |

[^73] applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
$(S)$ Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{2}$ See footnote 2 , table 1 .
${ }^{2}$ See footnote 1 , table $6 A$.
${ }^{2}$ See footnote 1 , table 6 .
${ }^{4}$ Figures for 1959-1962 do not reflect the reclassification of exfoliated vermiculate from industry 3296, Mineral Wool to industry 3295 , Minerals, Ground or Treated. Figures for 1947, 1954, and 1958 have been revised.
${ }^{5}$ Source: Current Industrial Reports, Series M32C(64)-5, Refractories.

## TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NONMETALLIC ARTIFICIAL | $1963{ }^{1}$ |  | ASBESTOS FRTCTION MATERIALS(32922) | $1963{ }^{1}$ | 1958 | PACKING, EXCEPT LEATHER; | $1963{ }^{1}$ | 1958 |
| LOUR ABRASIVES (32911) | 74,322 |  |  | 117,653 | 89,844 | ASBESTOS INSULATIONS (32933) |  |  |
| United States, total... |  |  | Northeast. . . . . . . . . . . . . . . . . <br> New Jersey. | $\begin{aligned} & 71,630 \\ & 18,043 \end{aligned}$ | $\begin{aligned} & 53,895 \\ & 16,262 \end{aligned}$ | United States, total... | 51,178 | 62,398 |
| Northeast. <br> New York. . . . . . . . . . . . . . . . |  | $\begin{aligned} & 57,307 \\ & 38,577 \end{aligned}$ |  |  |  | Northeast. | 2,520 | 3,892 |
| North Central, South, and West. | 17,015 |  | East North Central.......... Indiana. $\qquad$ | 31,04611,007 | 25,46710,850 | Middle Atlantic $\qquad$ <br> New York. $\qquad$ <br> New Jersey. $\qquad$ <br> Pennsylvania. | 28,780 | 34,093 |
|  |  |  | 7,273 11,300 |  |  |  | 4,694 43,917 |
| NONMETALLIC BONDED ABRASIVE PRODUCTS, INCLUDING DIAMOND ABRASIVES (32912) | $1963{ }^{1}$ | 1958 |  | South. . . . . . . . . . . . . . . . . | 12,849 |  | $\left(^{2}\right)$ | 10,207 | 15,482 |
|  |  |  | Pacific. Califormia. | $\begin{aligned} & 2,128 \\ & 2,128 \end{aligned}$ | 2,5962,596 | North Central. $\qquad$ Illinois. $\qquad$ | $\begin{array}{r} 11,156 \\ 8,843 \end{array}$ | $\begin{array}{r} (2) \\ 13,019 \end{array}$ |
| United States, total... | 247,275 | 164,406 | ASBESTOS TEXTILES AND OTHER ASBESTOS AND ASBESTOS CEMENT PRODUCTS (32927) |  |  |  |  |  |
| Northeast. Massachusetts.............. | 92,652 81,303 | $\begin{aligned} & 72,335 \\ & 65,263 \end{aligned}$ |  |  |  | South. <br> West. | $\begin{array}{r} 4,920 \\ 3,802 \end{array}$ | $(2)$ $(2)$ |
| Middle Atlantic............ | 69,68737,887 | 44,430 | United States, total... | 162,231 | 131,782 | MINERAL WOOL FOR STRUCTURAL INSULATION ${ }^{3}$ (32961) |  |  |
| New York. . . . . . . . . . . . . . . . |  | 24,148 |  |  |  |  |  |  |
| New Jersey.. | 9,322 | 5,695 |  |  | $\begin{array}{r} 46,842 \\ \left(^{2}\right) \\ 7,566 \\ (2) \end{array}$ |  |  |  |
| Pennsylvania. | 23,278 | 14,587 | Northeast. . . . . . . . . . . . . . . . . . <br> East North Central. | $\begin{array}{r} 48,614 \\ 25,118 \\ 7,773 \\ 80,726 \end{array}$ |  | United States, total... | 107,678 | 71,839 |
| East North Central. | 70,847 | 39,278 | West North Central........... South and West. $\qquad$ |  |  |  |  |  |
| Ohio......... | 23,321 | 10,935 |  |  |  | Northeast.. | 24,757 | (D) |
| Illinois. | $\begin{aligned} & 22,394 \\ & 23,015 \end{aligned}$ | $\begin{array}{r} 9,274 \\ 15,754 \end{array}$ | GASKETS, ALL TYPES (32932) |  |  | New Jersey. | 24,019 | (Z) |
| Michigan. |  |  | United States, total... | 199,729 | 143,271 | East North Central...........Ohio...................... | $\begin{aligned} & 30,265 \\ & 22,212 \end{aligned}$ | (D) |
| West North Central | 1,857 | (z) |  |  |  |  |  | ${ }^{2}$ ) |
| South. | 2,826 |  | Northeast. ....................Massachusetts............ | $\begin{array}{r} 13,881 \\ 8,213 \end{array}$ | $\begin{array}{r} 12,041 \\ 7,541 \end{array}$ | West North Central......... | 15,615 |  |
| West. | 9,406 | ${ }^{2}$ ) |  |  |  |  |  | (D) |
| NONMETALLIC COATED ABRASIVE PRODUCTS (32913) |  |  |  |  |  | South....................... | 18,608 | (D) |
|  |  |  | Middle Atlantic. New York..... | 36,479 10,436 | 28,981 8,802 | Alabama................... Texas................ | 4,821 6,290 | (2) |
| United States, total... | 176,273 | 127,387 | New Jersey. Pennsylvania. | $\begin{aligned} & 16,021 \\ & 10,022 \end{aligned}$ | $\begin{array}{r} 10,850 \\ 9,329 \end{array}$ | West. | 18,433 | 9,203 |
|  |  |  |  |  |  |  |  |  |
| Northeast. | $\begin{aligned} & 10,802 \\ & 69,451 \end{aligned}$ | $\begin{aligned} & 12,924 \\ & 53,805 \end{aligned}$ |  | 104,763 | 80,643 |  |  |  |
| Middle Atlantic.............. |  |  | East North Central......... |  |  | MINERAL WOOL FOR INDUSTRIAL AND EQUIPMENT INSULATION ${ }^{3}$ (32962) |  |  |
| All other divisions........ | $\begin{array}{r} 96,020 \\ 6,130 \end{array}$ | $(2)$5,370 | Ohio. <br> Indiana. | $\begin{aligned} & 14,745 \\ & 14,120 \end{aligned}$ | $\begin{array}{r} 11,602 \\ 8,077 \end{array}$ |  |  |  |
| 0hio...................... |  |  |  | 14,120 55,583 | $\begin{array}{r} 8,077 \\ 41,755 \end{array}$ |  |  |  |
| Michigan. | 8,162 | 5,155 | Illinois. <br> Michigan..................... <br> Wisconsin. | $\begin{aligned} & 55,583 \\ & 17,348 \end{aligned}$ | $\begin{array}{r} 41,755 \\ 17,553 \\ 1,656 \end{array}$ | United States, total... | 240,798 | 141,966 |
| METAL ABRASIVES (32914) |  |  |  |  |  | Northeast. | 39,712 | ${ }^{2}$ ) |
|  |  | 54,697 |  |  |  | New Jersey. | 20,753 | 6,019 |
| United States, total... | 63,242 |  | West North Central. Minnesota. $\qquad$ Missouri. $\qquad$ | $\begin{aligned} & 4,443 \\ & 1,745 \\ & 1,284 \end{aligned}$ | $\begin{array}{r} 1,610 \\ (\mathrm{Z}) \\ (\mathrm{Z}) \end{array}$ | Pennsylvania............. | 17,461 | 15,360 |
| Northeast. | $\begin{array}{r} 22,288 \\ 16,805 \\ 4,418 \end{array}$ | $\left({ }^{2}\right)$ $\left({ }^{2}\right)$ $(2)$ <br> (z) |  |  |  | East North Central......... | 101,460 | 74,394 |
| New York. |  |  |  |  |  | Indiana. | $\begin{array}{r} 23,886 \\ 3,883 \end{array}$ | $\begin{aligned} & \text { (D) } \\ & \left.\mathbf{n}^{2}\right) \end{aligned}$ |
| Pennsylvania. |  |  | South. | 24,813 | $(2)$$(2)$2 | Illinois. |  |  |
| East North Central. | $\begin{array}{r} 40,954 \\ 9,418 \\ 3,570 \end{array}$ | $\begin{array}{r} 34,435 \\ 9,554 \\ \left({ }^{2}\right) \end{array}$ | Texa | 6,379 |  |  | 48,579 |  |
| Ohio..... |  |  | West. <br> California | $\begin{array}{r} 15,350 \\ 14,739 \\ \hline \end{array}$ | $\begin{aligned} & \left(\begin{array}{l} 2 \\ (2) \\ (2) \end{array}\right) \end{aligned}$ | West North Central.......... <br> South. <br> West. $\qquad$ | 19,927 | ${ }^{2}$ ( $)$ |
| Michigan. |  |  |  |  |  |  | 31,120 | (D) |

[^74]
## table 7A. Materials by Kind: 1963 and 1958



## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Abrasive products (SIC 3291) | Asbestos products (SIC 3292) | Gaskets and insulations (SIC 3293) | Minerals, ground or treated (SIC 3295) | $\begin{gathered} \text { Mineral } \\ \text { wool } \\ \text { (SIC } 3296 \text { ) } \end{gathered}$ | Nonclay refractories (SIC 3297) | Nonmetallic products, n.e.c. (SIC 3299) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy.........\$1,000.. | 9,590 | 8,765 | 4,001 | 15,902 | 16,660 | 6,800 | 1,194 |
| Total cost of purchased fuels..................................d. ${ }^{\text {c }}$. | 4,366 | 3,799 | 2,231 | 10,051 | 11,708 | 4,443 | 736 |
| Bituminous coal, lignite, and anthracite: <br> Quantity.......................................... 1,000 short tons.. | 108 | (S) | 32 | (S) | (S) | (S) | (S) |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | 1,108 | (S) | 288 | (S) | (S) | (S) | (S) |
| Coke and breeze: <br> Quantity 1,000 short tons | - | (S) | - | - | (S) | - | - |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | - | (S) | - | - | (S) | - | - |
| Fuel oil (distillate and residual): <br> Quantity. .......................... 1,000 barrels of 42 gallons. | 288 | (S) | 407 | 1,070 | 288 | 297 | (S) |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 1,131 | (S) | 1,245 | 3,805 | 946 | 1,081 | (S) |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million cu.ft. . | 4,476 | 2,960 | 652 | 8,880 | 19,593 | 6,076 | 234 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 1,792 | 1,427 | 441 | 3,577 | 7,604 | 3,070 | 122 |
| Other fuels. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 335 | 271 | 257 | 1,592 | 210 | (S) | 241 |
| Electric energy: |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million kw. -hrs . . | 684 5 | 438 4966 | 1 111 |  | 516 4,952 |  | 27 458 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . l $^{\text {, 000. . }}$ | 5,224 | 4,966 | 1,770 | 5,851 | 4,952 | 2,357 | 458 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . . . .million kw. -hrs. . | 34 | 30 | 17 | - | (S) | - | - |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.........1,000 hp.. | 160 | 263 | 93 | 534 | 121 | 133 | - |
| Prime movers, total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 17 | 30 | 23 | 252 | 11 | 23 | - |
| Driving generators........................................... ${ }^{\text {do. }}$. . . | 13 | 13 | 21 | 26 | 2 | (z) | - |
| Not driving generators. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 4 | 17 | 2 | 225 | 9 | 23 | - |
| Electric motors, total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 158 | 245 | 77 | 282 | 110 | 110 | - |
| Driven by purchased energy. . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 143 | 232 | 70 | 282 | 110 | 110 | - |
| Driven by energy generated at establishment..............do.... | 15 | 12 | 7 | - | (Z) | - | - |
| Aggregate horsepower per 100 production workers. | 885 | 1,485 | 847 | 8,171 | 1,019 | 2,309 | - |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for l962 and horsepower of power
 fore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)~6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
(Z) Less than 500 horsepower.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated
 consistency review.

## table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| $\begin{gathered} \text { Industry } \\ \text { or } \\ \text { product } \\ \text { class } \\ \text { code } \\ \hline \end{gathered}$ | Industry or product class by percent of specialization | Establish. ments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3296- | MINERAL WOOL |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry | 123 | 14,733 | 92,347 | 11,647 | 24,781 | 69,089 | 206,846 | 186,772 | 391,873 | 37,956 |
|  | 90\% or frore specialization. . <br> 75-89\% specialization....... | 109 4 | 12,447 142 | $\begin{array}{r} 76,208 \\ 959 \end{array}$ | 9,791 104 | 20,887 242 | $\begin{array}{r} 58,612 \\ 591 \end{array}$ | $\begin{array}{r} 177,752 \\ 2,233 \end{array}$ | $\begin{array}{r} 157,271 \\ 2,516 \end{array}$ | $\begin{array}{r} 332,546 \\ 4,818 \end{array}$ | $\begin{array}{r} 33,205 \\ 239 \end{array}$ |
| 32961 | Mineral wool for structural insulation (primary product class of estab.). Establishments with-- | 37 | 3,973 | 23,989 | 3,049 | 6,434 | 17,076 | 53,964 | 50,767 | 104,918 | 17,839 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | 24 6 | $\begin{array}{r} 1,317 \\ 668 \end{array}$ | $\begin{aligned} & 6,870 \\ & 4,098 \end{aligned}$ | $\begin{aligned} & 985 \\ & 481 \end{aligned}$ | $\begin{aligned} & 1,985 \\ & 1,048 \end{aligned}$ | $\begin{aligned} & 4,504 \\ & 2,716 \end{aligned}$ | $\begin{array}{r} 15,404 \\ 8,493 \end{array}$ | $\begin{array}{r} 14,002 \\ 8,499 \end{array}$ | $\begin{aligned} & 29,229 \\ & 17,153 \end{aligned}$ | $\begin{array}{r} 14.816 \\ 1,186 \end{array}$ |
| 32962 | Mineral wool for industrial and equipment insulation (primary product class of estab.).......... Establishments with-- | 44 | 10,484 | 66,897 | 8,393 | 17,939 | 51,056 | 149,674 | 131,227 | 278,866 | 16,872 |
|  | $90 \%$ or more specialization. . <br> 75-89\% specialization........ | $\begin{array}{r} 30 \\ 7 \end{array}$ | $\begin{aligned} & 3,120 \\ & 3,765 \end{aligned}$ | $\begin{aligned} & 17,108 \\ & 24,607 \end{aligned}$ | $\begin{aligned} & 2,503 \\ & 3,036 \end{aligned}$ | $\begin{aligned} & 5,479 \\ & 6,509 \end{aligned}$ | $\begin{aligned} & 13,031 \\ & 19,930 \end{aligned}$ | $\begin{aligned} & 50,571 \\ & 49,573 \end{aligned}$ | $\begin{aligned} & 26,744 \\ & 50,693 \end{aligned}$ | $\begin{aligned} & 76,821 \\ & 99,024 \end{aligned}$ | $\begin{aligned} & 3,083 \\ & 6.793 \end{aligned}$ |
| 3299- | NONMETALLIC MINERALS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with-- | 320 | 5,471 | 27,094 | 4,361 | 8,266 | 18,231 | 53,289 | 43,408 | 96,188 | 2,187 |
|  | $90 \%$ or more specialization. | 301 | 4,359 | 19,900 | 3,575 | 6,671 | 14,199 | 37,602 | 30,136 | 67,175 | 1,322 |

# Primary Metal Industries 

33A Blast furnaces, steel works, and rolling and finishing mills<br>33B Iron and steel foundries<br>33C Smelting and refining of nonferrous metals alloys<br>33D Nonferrous metal mill and foundry products.<br>33E Forgings and misc. primary metal industries

This major group includes establishments engaged in the smelting and refining of ferrous and nonferrous metals from ore, pig, or scrap; in the rolling, drawing, and alloying of ferrous and nonferrous metals; in the manufacture of castings, forgings, and other basic products of ferrous and nonferrous metals; and in the manufacture of nails, spikes, and insulated wire and cable. This major group also includes the production of coke.

Primary Metal Industries: Major Group 33
Value Added by Manufacture by State: 1963


## table 1. General Statistics: 1963 and Earlier Years



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for
 shnents who were engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known. For the period 1954 to 1963, figures represent ad justed value added by manuf acture and for earlier years, madjusted value added. Ad justed value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no ad justment is made for changes in inventories of finished products and work-in-process during the year. See Introduction, "Value Added by Manufacture."
it) ind digit) include extensive duplication arising from shipprents between establishments in the same industry classification. For a more complete explanation, see Introduction, not yet in operation.
${ }_{5}$ In addition to data for operating establishments, figures for employment and payroll for manufacturing central administrative office and auxiliary units are show for the
years 1949 to 1953 in the annual survey of manufactures volumes. Data for these units are not available for the years 1955 to 1957-1959 to 1962, and prior to 1949. ${ }^{6}$ The 1957 edition of the Standard Industrial Classification classifies beehive coke included in Major Group 29, Petroleum and Coal Products. However, this change was reflected in the tabulations for the 1955 to 1957 annual surveys of manufactures. Data for 1954 were retabulated on this basis and are the source of the data labeled "Revised." ${ }^{7}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
${ }^{8}$ The figures for 1939 to 1958 are not entirely comparable with those for 1937 because the 1937 figures (a) include data for establishments primarily engaged in producing certain nonferrous bearings and aluminum products (ship bunks, ornamental metal work,
stampings, novelties, valves and fittings, machined castings and tags), and (b) exclude starnpings, novelties, valves and fittings, machined castings and tags), and (b) exclude data $o r$ establishments primarily engaged making electrometallugical products, ing of
 because of large elements of noncomparability in the earlier statistics of a number of industries included in the primary metal group.

## table 2. General Statistics, by Geographic Areas: 1963 and 1958



[^75]TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958_Continued


See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{Code} \& \multirow[b]{3}{*}{Industry group and geographic area} \& \multicolumn{9}{|c|}{1963} \& \multicolumn{2}{|c|}{1958} \\
\hline \& \& \multicolumn{2}{|l|}{Establishments} \& \multicolumn{2}{|l|}{All employees} \& \multicolumn{3}{|c|}{Production workers} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)} \& \multirow[t]{2}{*}{Capital expend tures, new
\[
(\$ 1,000)
\]} \& \multirow[b]{2}{*}{\[
\begin{gathered}
\text { All } \\
\text { employees } \\
\text { (number) } \\
\hline
\end{gathered}
\]} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)} \\
\hline \& \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& With 20 employees or more (number) \& \[
\begin{gathered}
\text { Total } \\
\text { (number) }
\end{gathered}
\] \& Payroll
\((\$ 1,000)\) \& \begin{tabular}{c} 
Total \\
(number) \\
\hline
\end{tabular} \& Man-hours
\((1,000)\) \& \begin{tabular}{l}
Wages \\
\((\$ 1,000)\)
\end{tabular} \& \& \& \& \\
\hline \multirow[t]{10}{*}{333} \& Primary nonferrous metal, total. . \& 119 \& 109 \& 48789 \& 327814 \& 39652 \& 80832 \& 251432 \& 1012581 \& 87439 \& 47247 \& 708523 \\
\hline \& NORTHEAST NEW YORK \& 24
7 \& 17
6 \& 9567
2265 \& 64517
15777 \& 7272
1822 \& 15339
\(3 \quad 732\) \& \(\begin{array}{ll}46 \& 202 \\ 12142\end{array}\) \& 141984
57893 \& 7319
731 \& 8651
2235 \& \[
\begin{aligned}
\& 85979 \\
\& 24476
\end{aligned}
\] \\
\hline \& NORTH CENTRAL
ILLINOIS..........\(~\) \& 18
4 \& 17
4 \& 5059
840 \& \(\begin{array}{rrr}34 \& 515 \\ 5 \& 191\end{array}\) \& \(\begin{array}{r}1988 \\ \hline 708\end{array}\) \& \(\begin{array}{ll}8 \& 167 \\ 1 \& 422\end{array}\) \& 25412
4046 \& 85579
10523 \& 20475
743 \& 3690
1561 \& 40500
12160 \\
\hline \& SOUTH \& 36 \& 35 \& 18530 \& 125521 \& 15504 \& 31556 \& 99505 \& 393432 \& 43579 \& 18244 \& 342520 \\
\hline \& SOUTH ATLANTIC \& 7 \& 7 \& 3075 \& 20687 \& 2448 \& 4966 \& 15849 \& 63806 \& (0) \& 2726 \& 48095 \\
\hline \& East south \& 6 \& 6 \& 2947 \& 20611 \& 2362 \& 4781 \& 15784 \& 62973 \& (0) \& 3221 \& 55082 \\
\hline \& WEST SOUTH CENTRAL. \& 23
13 \& 22
13 \& 12508
6977 \& 84223
46977 \& 10694
5947 \& 21809
12250 \& 67872
38358 \& 266653
148049 \& (10)
5098 \& 12297
6822 \& 239343
125479 \\
\hline \& hest. . \& 41 \& 40 \& 15633 \& 103261 \& 12938 \& 25770 \& 80313 \& 391164 \& 16052 \& 16662 \& 239524 \\
\hline \& \(\underset{\text { MOUNTAIN. }}{\substack{\text { ARIZONA }}}\) \& 27
8 \& 27
8 \& \[
\begin{aligned}
\& 9454 \\
\& 2407
\end{aligned}
\] \& \[
\begin{aligned}
\& 59211 \\
\& 16952
\end{aligned}
\] \& 8006
2048 \& 15845
4
404 \& \[
\begin{array}{ll}
47 \& 217 \\
13 \& 154
\end{array}
\] \& \[
\begin{array}{r}
220684 \\
56961
\end{array}
\] \& 9305
101 \& 10
777
(D) \& \(126 \begin{aligned} \& 163 \\ \& (\mathrm{D})\end{aligned}\) \\
\hline \& PACIFIC WASHINGTON \& 14
8 \& 13
7 \& 6179
4234 \& \(\begin{array}{ll}44 \& 050 \\ 31 \& 142\end{array}\) \& \begin{tabular}{l}
4 \\
4 \\
3 \\
\hline
\end{tabular} \& 9925
7081 \& 33096
24568 \& 170480
138061 \& \[
\begin{array}{ll}
6 \& 747 \\
4 \& 510
\end{array}
\] \& 5885

(D) \& 113361 <br>
\hline 334 \& SECONOARY NONFERROUS METALS, TOTAL ${ }^{1}$. \& 459 \& 179 \& 15445 \& 96302 \& 11336 \& 23779 \& 60510 \& 228190 \& 17891 \& 14441 \& 147262 <br>
\hline \multirow[t]{24}{*}{335} \& nonferrous rolling ano drawingitotal \& 748 \& 539 \& 167005 \& 1094356 \& 130419 \& 271348 \& 793596 \& 2127688 \& 191376 \& 155679 \& 1687195 <br>
\hline \& NORTHEAST \& 350 \& 264 \& 73284 \& 458691 \& 56603 \& 115823 \& 323962 \& 845183 \& 62104 \& 75119 \& 747107 <br>
\hline \& NEW ENGLANO $\begin{gathered}\text { VERMONT } \\ \text { NRGO }\end{gathered}$ \& 143
3 \& 118
3 \& 30759
405 \& 181
1880
2
4 89 \& $\begin{array}{r}24 \quad 593 \\ \hline 299\end{array}$ \& 49732

596 \& 132673

1693 \& | 333 |
| ---: |
| 952 |
| 3092 | \& $21 \quad 299$

222
4 \& $\begin{array}{rl}30 & 984 \\ \\ \\ \text { (D) }\end{array}$ \& 297 ( 281 <br>
\hline \& MASSACHUSETTS. \& 47 \& 40 \& 8162 \& 42710 \& 6424 \& 12527 \& 29140 \& 72035 \& 4726 \& 6814 \& 55894 <br>
\hline \& RHOOE ISLANO. \& 25 \& 20 \& 6425 \& 32824 \& 5312 \& 10662 \& 24503 \& 60 568 \& 3536
12 \& ${ }_{6}^{6} 086$ \& 53584 <br>
\hline \& CONNECTICUT. \& 62 \& 49 \& 15250 \& 101307 \& 12199 \& 25257 \& 76188 \& 192859 \& 12409 \& 16883 \& 174505 <br>
\hline \& MIODLE ATLANTIC \& 207 \& 146 \& 42525 \& 276711 \& 32010 \& 66091 \& 191289 \& 511231 \& 40805 \& 44135 \& 449826 <br>
\hline \& NEW YORK. \& 85 \& 55 \& 17046 \& 108554 \& 13043 \& 26083 \& 76248 \& 211215 \& 11190 \& 15658 \& 163553 <br>
\hline \& NEW JERSEY: \& 75
47 \& 55
36 \& 13702

11777 \& | 89 |
| :--- |
| 78 |
| 785 |
| 172 | \& 10200

$8 \quad 767$ \& 21
18873 \& 62931
52110 \& 163588
136428 \& 10708
18907 \& 14614
13863 \& 166
120
120 <br>
\hline \& NORTH CENTRAL \& 216 \& 161 \& 53265 \& 359620 \& 41356 \& 87397 \& 261914 \& 732895 \& 61005 \& 44129 \& 527083 <br>
\hline \& EAST NORTH CENTRAL. \& 197 \& 150 \& 48115 \& 320042 \& 37424 \& 78314 \& 233366 \& 623915 \& 51229 \& (D) \& (D) <br>
\hline \& inoiana. . . . \& 33 \& 26 \& 12676 \& 84869 \& 9968 \& 21518 \& 63559 \& 179955 \& 13365 \& 11365 \& 117465 <br>

\hline \& ILLINOIS. \& 60 \& 42 \& 13872 \& 92880 \& 10647 \& | 22 |
| :--- |
| 3 | \& 66063 \& 174586 \& \& \& <br>

\hline \& WISCONSIN. \& 6 \& 5 \& 1859 \& 12350 \& \& 3371 \& 10282 \& 28123 \& 1
1
1 \& 1702 \& 23021 <br>
\hline \& Est north central. \& 19 \& 11 \& 5150 \& 39578 \& 3932 \& 9083 \& 28548 \& 108980 \& 9776 \& (D) \& (D) <br>
\hline \& SOUTH - \& 92 \& 61 \& 26332 \& 180468 \& 21162 \& 44525 \& 136186 \& 374512 \& 54162 \& 21412 \& 242086 <br>
\hline \& SOUTH ATLANTIC. \& 51 \& 32 \& 13834 \& 94273 \& 10683 \& 22130 \& 66136 \& 191761 \& 33091 \& 11253 \& <br>
\hline \& MARYLANO NORTH CAROLINA \& 6

10 \& | 5 |
| :--- |
| 7 | \& 13360

1349 \& $\begin{array}{r}31285 \\ 78677 \\ \hline\end{array}$ \& $\begin{array}{ll}3 & 365 \\ 1 & 073\end{array}$ \& 68860
2881 \& 22900
5936 \& 50703
25729 \& 5199

101 \& (D) \& (D) <br>
\hline \& NORTH CAROLINA
GEORGIA. \& 10
11 \& 7 \& 13349
1215 \& \& $\begin{array}{r}1073 \\ \\ \\ \\ \\ \hline 37\end{array}$ \& 2381
2091 \& 5326
3688 \& 25729
11529 \& 101
1411 \& (D)
600 \& (D)
3762 <br>
\hline \& FLORIOA. . - \& 10 \& 4 \& -686 \& 3702 \& 582 \& 1368 \& 3003 \& 12603 \& 982 \& 639 \& 6162 <br>
\hline \& EASt south central. \& 22 \& 16 \& 10584 \& 75390 \& 8919 \& 18882 \& 61818 \& 156324 \& 19043 \& 8993 \& 117587 <br>
\hline \& WEST SOUTH CENTRAL. \& 19
15 \& 13

10 \& $$
\begin{array}{ll}
1 & 914 \\
1 & 492
\end{array}
$$ \& \[

$$
\begin{array}{r}
10805 \\
8438
\end{array}
$$

\] \& \[

$$
\begin{array}{ll}
1 & 560 \\
1 & 240
\end{array}
$$

\] \& \[

$$
\begin{array}{ll}
3 & 513 \\
2 & 803
\end{array}
$$

\] \& \[

$$
\begin{array}{ll}
8 & 232 \\
6 & 623
\end{array}
$$

\] \& \[

$$
\begin{array}{ll}
26 & 427 \\
21 & 676
\end{array}
$$

\] \& \[

$$
\begin{array}{ll}
2 & 028 \\
1 & 614
\end{array}
$$

\] \& $1 \begin{aligned} & 1 \\ & 1 \\ & \text { (D) }\end{aligned}$ \& \[

$$
\begin{array}{r}
13710 \\
(\mathrm{D})
\end{array}
$$
\] <br>

\hline \& WEST. . \& 93 \& 56 \& 14683 \& 99590 \& 11639 \& 24556 \& 74245 \& 185485 \& 14308 \& 15019 \& 170919 <br>
\hline \& pacific . . . . . . . . . . . . \& 85 \& 52 \& 12289 \& 84339 \& 9781 \& 21141 \& 63108 \& 153089 \& 12366 \& (D) \& (D) <br>
\hline \multirow[t]{9}{*}{336} \& NONFERROUS FOUNORIES, TOTAL. \& 1894 \& 679 \& 69243 \& 412050 \& 58426 \& 119804 \& 317697 \& 656485 \& 30571 \& 62159 \& 470741 <br>
\hline \& northeast . . . . . . \& 570 \& 188 \& 20069 \& 117542 \& 16894 \& 34625 \& 90158 \& 184249 \& 6263 \& 18521 \& 133342 <br>
\hline \& NEW ENGLANO • . - \& 169 \& 50 \& 4133 \& 22160 \& 3552 \& 7166 \& 16906 \& 35589 \& 1401 \& (D) \& (D) <br>
\hline \& MASSACHUSETTS. - \& 76 \& 22 \& 1613 \& 8377 \& 1391 \& 2770 \& 6475 \& 13744 \& 573 \& 1690 \& 10793 <br>
\hline \& RHOOE ISLANO
CONVECTICUT, \& 21
62 \& 4
21 \& 1240
1874 \& $\begin{array}{rr}1 & 071 \\ 10 & 787\end{array}$ \& 1207
1594 \& 379
310 \& 790
$8 \quad 069$ \& 1
16415
16412 \& 106
652 \& 192

1810 \& $$
\begin{array}{r}
943 \\
12 \quad 663
\end{array}
$$ <br>

\hline \& MIODLE ATLANTIC \& 401 \& 138 \& 15936 \& 95382 \& 13342 \& 27459 \& 73252 \& 148660 \& \& (D) \& (D) <br>
\hline \& NEW YORK . . . . . . . . . \& 163 \& 62 \& 6179 \& 37223 \& 5137 \& 10618 \& 28702 \& 59896 \& 2067 \& 5407 \& 38775 <br>
\hline \& NEW JERSEY . . . . . . . . . . \& . 99 \& 34 \& 3784 \& 23364 \& 3130 \& 6390 \& 17.734 \& 33936
54 \& 1
1
1 \& (D) \& (D) <br>
\hline \& PENNSYLVANIA . . . . . . . . \& 139 \& 42 \& 5973 \& 34795 \& 5075 \& 10451 \& 26816 \& \& \& \& <br>
\hline
\end{tabular}

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{Code} \& \multirow[b]{3}{*}{Industry group and geographic area} \& \multicolumn{9}{|c|}{1963} \& \multicolumn{2}{|c|}{1958} \\
\hline \& \& \multicolumn{2}{|l|}{Establishments} \& \multicolumn{2}{|c|}{All employees} \& \multicolumn{3}{|c|}{Production workers} \& \multirow[t]{2}{*}{\(\qquad\)} \& \multirow[t]{2}{*}{Capital expenditures, new \((\$ 1,000)\)} \& \multirow[b]{2}{*}{All employees (number)} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)} \\
\hline \& \& \[
\begin{gathered}
\text { Total } \\
\text { (number) }
\end{gathered}
\] \& With 20 employees or more (number) \& \[
\begin{gathered}
\text { Total } \\
\text { (number) }
\end{gathered}
\] \& \begin{tabular}{l}
Payroll \\
\((\$ 1,000)\)
\end{tabular} \& \[
\begin{gathered}
\text { Total } \\
\text { (number) }
\end{gathered}
\] \& Man-hours
\((1,000)\) \& \[
\begin{gathered}
\text { Wages } \\
(\$ 1,000)
\end{gathered}
\] \& \& \& \& \\
\hline \multirow[t]{28}{*}{336} \& NONFERROUS FOUNDRIES--CONTINUED \& \& \& \& \& \& \& \& \& \& \& \\
\hline \& NORTH CENTRAL \& 807 \& 338 \& 36600 \& 224396 \& 30998 \& 63571 \& 173355 \& 351164 \& 17533 \& 33983 \& 264180 \\
\hline \& EAST NORTH CENTRAL. \& 689 \& 285 \& 32426 \& 202185 \& 27380 \& 56
18
180 \& 155514 \& 313597 \& \(\begin{array}{r}15954 \\ 3 \\ \hline\end{array}\) \& 29837 \& 232883 \\
\hline \& OHIO . . . . . . . . \& 207 \& 78 \& 10614 \& 66
572
23
572 \& 8838
8 \& \(\begin{array}{r}18 \\ \hline 695\end{array}\) \& \begin{tabular}{l}
51 \\
\hline 18 \\
\hline 185
\end{tabular} \& 109398
33 \& \begin{tabular}{l}
3761 \\
3 \\
\hline
\end{tabular} \& \(\begin{array}{r}10 \\ 1029 \\ \hline\end{array}\) \& 76074 \\
\hline \&  \& \(\begin{array}{r}56 \\ 193 \\ \hline\end{array}\) \& 28
79 \& 3408
7554 \& 23572
45290 \& 2874
68460 \& 6127
13145 \& \(\begin{array}{lll}18 \& 325 \\ 35140\end{array}\) \& 33416
67698 \& 3969
3987
3 \& 2329
7017 \& 15288
52098 \\
\hline \& MICHIGAN \& 165 \& 68 \& 7194 \& 44819 \& 6094 \& \begin{tabular}{l}
12186 \\
\hline 6377
\end{tabular} \& 34137 \& 70281 \& 3055 \& 7529 \& 69051 \\
\hline \& WISCONSIN. \& \({ }_{68}\) \& 32 \& 3656 \& 21932 \& 3114 \& 6 377 \& 16647 \& 32804 \& 1782 \& 2933 \& 20372 \\
\hline \& WEST NORTH CENTRAL. \& 118 \& 53 \& 4174 \& 22211 \& 3618 \& 7441 \& 17841 \& 37567 \& 1579 \& 4146 \& 31297 \\
\hline \& MINNESOTA. . \& \({ }^{1} 1\) \& 16 \& 1219 \& 7244
7 \& \& \& 17967 \& \& + 368 \& 921 \& 5992 \\
\hline \& MISSOURI
KANSAS \& 46
11 \& 16
20
5 \& \(\begin{array}{r}1279 \\ 1785 \\ \\ \hline 199\end{array}\) \& 9
968
907 \& \(\begin{array}{r}1538 \\ 15183 \\ \\ \\ \hline 1580\end{array}\) \& 7099
302 \& 7566
767 \& 15914
1642 \& 603
87 \& \(2{ }^{562}\) (D) \& 21

( D ) <br>
\hline \& SOUTH - \& 202 \& 54 \& 5181 \& 27720 \& 4360 \& 8979 \& 21443 \& 47721 \& 4213 \& 3007 \& 18657 <br>
\hline \& SOUTH ATLANTIC. . . . . . . . . \& 80 \& 19 \& 1288 \& 5704 \& 1093 \& 2143 \& 4315 \& 8 708 \& 555 \& 889 \& 4948 <br>

\hline \& MARYLAND \& 7 \& 3 \& 232 \& 1144 \& 181 \& 361 \& 780 \& | 1 |
| ---: |
| 1051 |
| 1 | \& 71 \& \& <br>

\hline \& west virginia. . . . . . . . \& 7 \& 3 \& 149 \& 837 \& 119 \& 220 \& 542 \& 1653 \& 32 \& (D) \& (D) <br>
\hline \& NORTH CAROLINA
SOUTH CAROLINA \& 11
6 \& 3
2 \& 139
100 \& 556
385
77 \& 124
90 \& 250
191 \& 453
308 \& 654
586 \& (D) \& (D) \& (D) <br>
\hline \&  \& 6
15 \& 2
4
4 \& 100
185 \& 385
774 \& 90
162 \& 191 \& 308
649 \& 586
1265 \& (D) 79 \& (D) \& (D) <br>
\hline \& FLorida, . . . . \& 27 \& 3 \& 316 \& 1086 \& 276 \& 481 \& 911 \& 1465 \& 112 \& 175 \& 1089 <br>

\hline \& | EAST SOUTH CENTRAL. . . . . . . . |
| :--- |
| TENNESSEE. . . . . . . . . . | \& 33

17 \& 9
2
2 \& 1603
158 \& 10952
716 \& 1345
142 \& 2892

286 \& 8685

614 \& 17428

1097 \& $\begin{array}{r}1909 \\ \\ \\ \hline 69\end{array}$ \& $$
\begin{aligned}
& 817 \\
& (\mathrm{D})
\end{aligned}
$$ \& $4 \begin{array}{r}4302 \\ \text { (D) }\end{array}$ <br>

\hline \& WEST SOUTH CENTRAL. . . . . . . . \& \& \& \& \& 1922 \& 3944 \& 8443 \& 21585 \& 1749 \& 1301 \& 9407 <br>
\hline \& arkansas . . . . . . . . . \& 9 \& 8 \& 1057 \& 5 186 \& - 866 \& 1758 \& 3915 \& 11517 \& 1239 \& 302 \& 3067 <br>

\hline \& OKLAHOMA . . . . . \& 15 \& | 4 |
| :---: |
| 14 | \& 288 \& 1419

4
4 \& 249
787 \& 528

+619 \& | 1 |
| :--- | \& 2602

7218 \& 46
449 \& 123
839 \& 801
5441 <br>
\hline \& TEXAS. . . . . . . . \& \& \& 919 \& \& 787 \& \& \& \& \& 839 \& <br>
\hline \& WEST. \& 315 \& 99 \& 7393 \& 42392 \& 6174 \& 12629 \& 32741 \& 73351 \& 2561 \& 6648 \& 54562 <br>
\hline \& MOUNTAIN. - \& 26 \& 4 \& 301 \& 1406 \& 263 \& 511 \& 1133 \& 1781 \& 51 \& 419 \& 2625 <br>
\hline \& colorado \& 18 \& 3 \& 220 \& 990 \& 195 \& 377 \& 826 \& 1238 \& 34 \& 307 \& 2035 <br>
\hline \& PACIFIC ${ }^{\text {a }}$ \& 289 \& 95 \& 7092 \& 40986 \& 5911 \& 12118 \& 31608 \& $\begin{array}{rr}71570 \\ \\ 1 & 434\end{array}$ \& 2510 \& 6229 \& <br>
\hline \& ${ }_{\text {WASHINGTON }}^{\text {OREGON }}$ : \& 15
17 \& 2
4
4 \& 140
270 \& $\begin{array}{r}902 \\ 1529 \\ \hline\end{array}$ \& 122
245 \& 260
485 \& 757
1407 \& 1434
2883 \& 96
122 \& (D) \& (D) <br>
\hline \& $\underset{\text { CALIFORNIA }}{\text { OREGON }}$ ! ! \& 257 \& 89 \& 170
6682 \& 15529
3855 \& 5544 \& 11373 \& 29444 \& $67 \quad 253$ \& 2292 \& 5941 \& 50207 <br>
\hline \multirow[t]{24}{*}{339} \& PRIMARY METAL INDUSTRIES, NEC, TOTAL \& 1060 \& 426 \& 57570 \& 402124 \& 45365 \& 93038 \& 296170 \& 658930 \& 35721 \& 52183 \& 443344 <br>
\hline \& NORTHEAST MASSACHUSETTS. \& 318
30 \& 120 \& \& $\begin{array}{ll}94 & 308 \\ 30 & 406\end{array}$ \& \& \& \& \& \& \& <br>
\hline \& MASSACHUSETTS

RHODE ISLAND \& $$
\begin{aligned}
& 30 \\
& 14
\end{aligned}
$$ \& \[

$$
\begin{array}{r}
17 \\
3
\end{array}
$$
\] \& 4316

233 \& 30
10906
1 \& $\begin{array}{r}3111 \\ \\ \hline 185\end{array}$ \& 6432
348 \& $\begin{array}{r}20 \quad 653 \\ \hline 774\end{array}$ \& 38356
1972 \& $\begin{array}{r}1717 \\ \hline 97\end{array}$ \& 3900
(D) \& 32
(D) <br>
\hline \& CONNECTICUT. \& 49 \& 12 \& 1180 \& 7785 \& 888 \& 1910 \& 5166 \& 15250 \& 1002 \& 1513 \& 12276 <br>
\hline \& NE* YORK \& 72 \& 28 \& 2362 \& 14638 \& 1873 \& 3801 \& 10714 \& 22892 \& 1254 \& 4236 \& 24395 <br>
\hline \& NORTH CENTRAL \& 476 \& 218 \& 34923 \& 252081 \& 28303 \& 57437 \& 192568 \& 400943 \& 21751 \& 30682 \& 266214 <br>
\hline \& EAST NORTH CENTRAL. \& 435 \& 205 \& 34119 \& 247725 \& 27654 \& 56146 \& 189472 \& 393672 \& 21064 \& 30324 \& 262826 <br>

\hline \& OHIO ${ }^{\text {a }}$ \& 131 \& 56 \& 9137 \& 66554 \& 7411 \& $15 \quad 223$ \& 51597 \& 99363 \& | 61 |
| :--- |
| 6 | 173 \& 8342 \& 64453 <br>

\hline \& Indiana. - \& 41 \& 16 \& 4219 \& 29020 \& 3530 \& $\begin{array}{r}7162 \\ \hline 1059\end{array}$ \& $\begin{array}{r}22 \\ 35 \\ \hline 18\end{array}$ \& 49470 \& 3173
3026
3 \& 3119
5 \& 26877 <br>
\hline \& ILLINOIS. \& 93 \& 49 \& 6540 \& 47778 \& 5340 \& 10599 \& 35707 \& 79416 \& 3334 \& 5932 \& 55902 <br>

\hline \& MICHIGAN. \& 145 \& 70 \& | 7887 |
| :--- |
| 636 | \& 59285 \& 6479 \& $\begin{array}{r}13828 \\ \hline 9\end{array}$ \& | 45 |
| :--- | \& 99143 \& 4069

4 \& ${ }_{6} 650$ \& 57916 <br>
\hline \& WISCONSIN. \& 25 \& 14 \& 6336 \& 45088 \& 4894 \& 9334 \& 34121 \& 66280 \& 4462 \& 6681 \& 57678 <br>
\hline \& WEST NORTH CENTRAL. \& 41 \& 13 \& 804 \& \& 649 \& 1291 \& 3096 \& 7271 \& 687 \& 358 \& 3388 <br>
\hline \& MINNESOTA... \& 14 \& 13
5
7 \& 265 \& 1601 \& 204 \& 407 \& 1
1
1 \& 2580

3 \& 452 \& 134 \& | 1567 |
| :--- |
| 1 |
| 1 |
| 197 | <br>

\hline \& missouri . . . . \& 13 \& 7 \& 414 \& 2142 \& 344 \& \& \& \& 185 \& 148 \& <br>
\hline \& SOUTH. \& 100 \& 38 \& 4328 \& 28265 \& 3145 \& 6958 \& 18689 \& 48430 \& 3125 \& 1646 \& 15767 <br>
\hline \& OUTH ATLANTIC. \& 34 \& 4 \& 265 \& 1320 \& 201 \& 419 \& 922 \& 2142 \& 173 \& 169 \& 1301 <br>

\hline \& | EAST SOUTH CENTRAL. . . . . . . . |
| :--- |
| TENNESSEE. . . . . . . . . . . | \& \[

$$
\begin{aligned}
& 19 \\
& 11
\end{aligned}
$$
\] \& 8

4
4 \& 650

382 \& $$
\begin{aligned}
& 4005 \\
& 2226
\end{aligned}
$$ \& 553

333 \& 1135

700 \& $$
\begin{aligned}
& 3046 \\
& 1 \quad 653
\end{aligned}
$$ \& \[

$$
\begin{array}{r}
10522 \\
5835
\end{array}
$$
\] \& 527

288 \& $$
\begin{aligned}
& 470 \\
& \text { (D) }
\end{aligned}
$$ \& $4 \begin{array}{r}615 \\ \text { (D) }\end{array}$ <br>

\hline \& WEST SOUTH CENTRAL. \& 47 \& 26 \& 3413 \& 22940 \& 2391 \& 5404 \& 14721 \& 35766 \& 2425 \& 1007 \& 9851 <br>
\hline \& TEXAS. - \& 35 \& 22 \& 3111 \& 21315 \& 2177 \& 4943 \& 13742 \& 32980 \& 2292 \& 771 \& 7609 <br>
\hline \& WEST. - \& 166 \& 50 \& 3866 \& 27470 \& 2899 \& 6142 \& 18970 \& 51756 \& 3798 \& 3350 \& 32290 <br>
\hline \& mountain. - \& 11 \& 4 \& 208 \& 1251 \& 183 \& 368 \& 1001 \& 2862 \& 179 \& 18 \& 443 <br>
\hline \& PACIFIC CALIFORNIA $\quad . . .!$ \& 155
143 \& 46

45 \& $$
\begin{aligned}
& 3658 \\
& 3566
\end{aligned}
$$ \& \[

$$
\begin{array}{ll}
26 & 219 \\
25 & 606
\end{array}
$$

\] \& \[

$$
\begin{aligned}
& 2716 \\
& 2644 \\
& \hline
\end{aligned}
$$

\] \& \[

$$
\begin{array}{ll}
5 & 774 \\
5 & 627
\end{array}
$$

\] \& \[

$$
\begin{aligned}
& 17969 \\
& 17486
\end{aligned}
$$

\] \& \[

$$
\begin{array}{ll}
48 & 894 \\
47 & 969
\end{array}
$$

\] \& \[

$$
\begin{array}{ll}
3 & 619 \\
3 & 447
\end{array}
$$

\] \& \[

$$
\begin{array}{ll}
3 & 332 \\
3 & 108
\end{array}
$$

\] \& \[

$$
\begin{aligned}
& 31847 \\
& 29902
\end{aligned}
$$
\] <br>

\hline \& CALIFORNIA . . . . . . . . \& 143 \& 45 \& 3566 \& 25606 \& 2644 \& \& \& \& \& \& <br>
\hline
\end{tabular}

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Not applicable. ${ }^{1}$ This industry group consists of a single 4-digit industry. Detailed data by State are included in the 4-digit industry tables.

## TABLE 3. Detailed Statistics: 1963

| Item | Primary metal industries (SIC 33) | Steel rolling and finishing (SIC 331) | Iron and steel foundries (SIC 332) | Primary nonferrous metal (SIC 333) | Secondary nonferrous metals (SIC 334) | Nonferrous rolling and drawing (SIC 335) | Nonferrous foundries (SIC 336) | Primary metal industries, n.e.c. (SIC 339) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ESTABLISHMENTS, TOTAL . . . . . . . . NUMBER. | 6513 | 746 | 1487 | 119 | 459 | 748 | 1894 | 1060 |
| WITH 1 TO 19 EMPLUYEES. . . . . . . . . . DO. | 2930 | 153 | 429 | 10 | 280 | 209 | 1215 | 634 |
| WITH 20 TU 99 EMPLUYEES . . . . . . . . . DO. | 2005 | 180 | 592 | 19 | 136 | 223 | 540 | 315 |
| WITH 100 EMPLUYEES OR MORE. . . . . . . DU. | 1578 | 413 | 466 | 90 | 43 | 316 | 139 | 111 |
| PROPRIETURS AND WURKING PARTNERS. . . . . . DU. | 1916 | 56 | 440 | 3 | 174 | 92 | 863 | 288 |
| ALL EMPLOYEES (AVERAGE FOR THE YEAR). . . DO. | $1 \begin{array}{lll}126 & 536\end{array}$ | 568849 | 199635 | 48789 | 15445 | 167005 | 69243 | $57 \quad 570$ |
| PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR $\$ 1,000$. | 7734129 | 4167859 | 1233624 | 327814 | 96302 | 1094356 | 412050 | 402124 |
| PRUDUCTIUN WORKERS: |  |  |  |  |  |  |  |  |
| AVERAGE FOR THE YEAR. . . . . . . . . NUMBER. . | 922160 | 466263 | 170699 | 39652 | 11336 | 130419 | 58426 | 45365 |
| MARCH . . . . . . . . . . . . . . . . . DO. . | 897355 | 446789 | 168889 | 38195 | 11212 | 129143 | 57968 | 45159 |
| MAY . . . . . . . . . . . . . . . . . . DO. . | 947080 | 489698 | 171514 | 39225 | 11343 | 131824 | 58223 | 45 453 |
| AUGUST. . . . . . . . . . . . . . . DO. . | 942887 | 488066 | 168329 | 40409 | 11319 | 131204 | 58390 | 45170 |
| NOVEMBER. . . . . . . . . . . . . . . . DO. | 901545 | 440788 | 174065 | 40770 | 11449 | 129472 | 59123 | 45878 |
| MAN-HOURS . . . . . . . . . . . . $1,000$. | 1838970 | 901989 | 348180 | 80832 | 23779 | 271348 | 119804 | 93038 |
| JANUARY -MARCH . . . . . . . . . . . . . DO. | 448731 | 218094 | 84504 | 19502 | 5847 | 67748 | 29875 | 23161 |
| APRIL-JUNE. . . . . . . . . . . . . . . DO. | 488207 | 248160 | 89848 | 20127 | 6007 | 69611 | 30364 | 24090 |
| JULY-SEPTEMBER. . . . . . . . . . . . . DO. | 444780 | 217527 | 84034 | 20268 | 5836 | 65933 | 29207 | 21975 |
| OCTOBER-DECEMBER. . . . . . . . . . . . DU. | 457317 | 218238 | 89794 | 20939 | 6089 | 68087 | 30358 | 23812 |
| WAGES . . . . . . . . . . . . . . . . \$1,000. | 5933628 | 3225011 | 989212 | 251432 | 60510 | 793596 | 317697 | 296170 |
| COST UF MATERIALS, ETC., TOTAL². . . . . . DU. . MATERIALS, PARTS, CUNTAINERS, AND | 20474219 | 10570536 | 1214194 | 2059812 | 823132 | 4570495 | 578149 | 657901 |
| SUPPLIES CONSUMED. . . . . . . . . . . . DO. . | 18345144 | 9463418 | 994655 | 1838041 | 676580 | 4309017 | 498683 | 564750 |
| COST OF RESALES . . . . . . . . . . . . . DO. | 495022 | 152367 | 49091 | 10289 | 125853 | 123977 | 10653 | 22792 |
| FUELS CONSUMED. . . . . . . . . . . . . . DO . . | 870929 | 620214 | 82635 | 69095 | 10081 | 43083 | 14552 | 31269 |
| ELECTRIC ENERGY: <br> FURCHASED: |  |  |  |  |  |  |  |  |
| OUANT ITY. . . . . . . . .MILLION KW. -HRS. . | 76470 | 31336 | 4026 | 32359 | 320 | 6130 | 1042 | 1257 |
| CUST. . . . . . . . . . . . . . . \$1,000. | 531309 | 265966 | 48524 | 123366 | 4167 | 58983 | 13154 | 17149 |
| Generated less sold . . . . Million kw. -hrs. . | 28156 | 10031 | 23 | (D) | - | 121 | (0) | (0) |
| CONTRACT WORK . . . . . . . . . . . . \$1,C00. | 235030 | 71786 | 39289 | 19021 | 6451 | 35435 | 41107 | 21941 |
| Value of shipments (including resales), rOTAL ${ }^{1}$. . . . . . . . . . . . . . . . . . DO. |  |  |  |  |  |  |  |  |
| VALUE UF RESALES. . . . . . . . . . DO. | 35 621 581943 | $\begin{array}{rrr}19 & 146 & 114 \\ & 181 & 131\end{array}$ | $\begin{array}{rrr}3 & 173 & 520 \\ & 55 & 032\end{array}$ | 3094219 17721 | 045522 139311 | 6612870 138473 | 1230458 14741 | 1318755 24106 |
| Value adoed by manufacture, adjusted. . . . Do. | 15261089 | 8617266 | 1959949 | 1012581 | 228190 | 2127688 | 656485 | 658930 |
| MANUFACTURERS' INVENTORIES: |  |  |  |  |  |  |  |  |
| HEG INNING UF YEAR, TOTAL. . . . . . . . . DU. | 6014043 |  | 322581 | 450169 | 123983 | 1184554 | 97594 | 182604 |
| FINISHED PRODUCTS . . . . . . . . . . . DU. . | 1722432 | 1019022 | 101371 | 163656 | 58429 | 335071 | 19600 | 25283 |
| WORK-IN-PROCESS . . . . . . . . . . DO. . | 1794362 | 848431 | 85914 | 175544 | 34217 | 547906 | 35407 | 66943 |
| MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. . | 2497250 | 1785106 | 135296 | 110969 | 31337 | 301577 | 42587 | 90378 |
| END OF YEAR, TOTAL. . . . . . . . . . . . DO. | 6057254 | 3612137 | 317985 | 424709 | 143083 | 1275494 | 102852 | 180994 |
| FINISHED PRODUCTS . . . . . . . . . . . DO. | 1739440 | 1024850 | 106243 | 115659 | 66341 | 379742 | 21113 | 25492 |
| WORK-IN-PRUCESS . . . . . . . . . . . DO. | 1893725 | 886091 | 81665 | 201715 | 32105 | 588572 | 38070 | 65507 |
| MATERIALS, SUPPLIES, FUEL, ETC. . . . . DO. | 2424089 | 1701196 | 130077 | 107335 | 44637 | 307180 | 43669 | 89995 |
| EXPENDITURES FOR PLANT AND EOUIPMENT, TOTAL DO. | 1498380 | 997652 | 115151 | 89073 |  |  | 34003 |  |
|  | 1446303 | 974367 | 108938 | 87439 | 17891 | 191376 | 30571 | 35721 |
| NEW STRUCTURES AND ADDITIUNS TO PLANT. DO. | - 386988 | 291528 | 16127 | 34486 | 17324 | 27213 | 6 280 | 6030 |
| NEW MACHINERY AND EQUIPMENT . . . . . . DO. | 1059315 | 682839 | 92811 | 52953 | 12567 | 164163 | 24291 | 29691 |
| USED PLANT AND EOUIPMENT. . . . . . . . . DO. | 52077 | 23285 | 6213 | 1634 | 1091 | 9638 | 3432 | 6784 |
| SELECTED UPERATING RAT IOS: |  |  |  |  |  |  |  |  |
| PAYRULL/TOTAL EMPLOYMENT. | 6865 | 7327 | 6179 | 6719 | 6235 | 6553 | 5951 | 6985 |
| PRODUCT ION WORKERS/TOTAL EMPLUYMENT ... . . . . | . 82 | . 82 | . 86 | . 81 | . 73 | . 78 | . 84 | . 79 |
| MAN-HOURS/PRODUCTION WORKERS. . . . . . . . . . | 1994 | 1.935 | 2040 | 2039 | 2098 | 2081 | 2051 | 2051 |
| PRODUCT ION WORKER WAGES/MAN-HUJRS . . . . . | 3.23 | 3.58 | 2.84 | 3.11 | 2.54 | 2.92 | 2.65 | 3.18 |
| COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS. |  | . 77 |  | . 77 | . 88 | . 86 | . 80 | . 80 |
| COST OF MATERIALS/TOTAL VALUE JF Shipments. . . | .79 .57 | . 77 | .77 .38 | . 77 | . 88 | . 86 | . 87 | . 80 |
| ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT . . . . . | $13 \quad 547$ | 15149 | 9818 <br> 8 | $20 \quad 754$ | 14760 | 12740 | 9481 | 11446 |
| Salaries and wages/adjusted value added | . 51 | 15.48 | . 63 | 20.32 | . 42 | 12.51 | .63 | . 61 |

Standari Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
${ }^{1}$ The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same
inousiry. For a more complete explanation, see Introduction.

## BLAST FURNACES, STEEL WORKS, AND ROLLING AND FINISHING MILLS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

## SIC Code and Title

3312-Blast Furnaces (Including Coke Ovens), Steel Works, and Rolling Mills
3313-Electrometallurgical Products
3315-Steel Wire Drawing and Steel Nails and Spikes
3316-Cold Rolled Sheet, Strip, and Bars
3317-Steel Pipe and Tubes
The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3312-BLAST FURNACES (INCLUDING COKE OVENS), STEEL WORKS, AND ROLLING MILLS

This industry comprises establishments primarily engaged in manufacturing hot metal, pig iron, silvery pig iron, and ferroalloys from iron ore and iron and steel scrap; converting pig iron, scrap iron, and scrap steel into steel; and in hot rolling iron and steel into basic shapes such as plates, sheets, strips, rods, bars, and tubing. Merchant blast furnaces and byproduct or beehive coke ovens are also included in this industry. For a detailed list of products of industry 3312, refer to table 6A, product codes 3312011 to 3312965.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Included in this industry are all establishments engaged in the manufacture of blast furnace ferroalloys. However, establishments which manufacture ferro or nonferrous additive alloys by electrometallurgical process are classified in industry 3313, Electrometallurgical Products. Also, establishments which draw wire from purchased rod and bar; establishments which perform only cold rolling, drawing, or finishing operations; and establishments which produce welded, seamless, and heavy riveted pipe from purchased materials are not included in industry 3312, but are included in industry 3315 , Steel Wire Drawing, Etc.; industry 3316, Cold Finishing of Steel Shapes; and industry 3317, Steel Pipe and Tube, respectively.

Total cost of materials and the total value of shipments in industry 3312 include extensive duplication resulting from the use of the products of some establishments as materials by others. Some quantities of coke are transferred to blast furnaces which have no affiliated coke ovens, and considerable quantities of pig iron are transferred from blast furnaces to partially integrated mills. In addition, steel ingots, semifinished shapes, and finished shapes and forms are transferred from one establishment to another for further processing. The value of such shipments appears twice in the total value of shipments; and a corresponding duplication enters into the total cost of materials, etc. This duplication does not exist in the data on value added by manufacture.

As a means of developing a net value of shipments figure, the cost of steel shapes received by establishments in industry 3312 was collected as a separate materials consumed item, and, as shown in table 7A, totaled approximately $\$ 1.68$ billion. In addition, the cost of pig iron consumed in this industry totaled approximately $\$ 0.38$ billion. Also, the cost of coke used as a fuel in this industry totaled $\$ 0.22$ billion. On this basis, the value of materials shipped or transferred between plants within this industry totaled approximately $\$ 2.28$ billion. Subtracting this value from the total value of shipments of approximately $\$ 16.61$ billion gives a net value (excluding duplication) of $\$ 14.33$ billion. A similar adjustment to the total cost of materials, supplies, etc., figure provides a net cost figure of $\$ 5,924$ million. Adjusting the cost of fuels on this same basis provides a net cost of fuels of $\$ 360$ million.

As stated in the opening paragraph above, this industry includes a variety of operations ranging from coke ovens through steel producing facilities to fabricating activities. Accordingly, in order to provide a measure of the relative importance of these departments data were collected on man-hours worked and production worker wages paid for each of several departments. The resulting data are shown in table 9A.

Also, based on the data for these various departmental operations it was possible to further classify the establishments of this industry into four subindustries, i.e., fully integrated establishments, partially integrated establishments with blast furnaces, partially integrated establishments without blast furnaces, and nonintegrated establishments. For purposes of this classification system an establishment was defined as follows: fully integrated if the establishment consisted of coke ovens, blast furnaces, steel furnaces, and rolling and finishing mills; partially integrated establishment with blast furnaces if the establishment consisted of blast furnaces, steel furnaces, and rolling and finishing mills; partially integrated establishment without blast furnaces if the establishment consisted of steel furnaces and either rolling and finishing mills or a forging department; nonintegrated for all other establishments including beehive coke ovens, byproduct coke ovens operated independently of blast furnaces and steel departments, merchant blast furnaces and establishments with hot rolling and finishing operations.

In a few cases, operations which are in fact fully integrated are classified as partially integrated or nonintegrated because separate reports were collected either because the operations are conducted in different cities or counties, or the company treats the operations separately for their own administrative reasons.

The subindustry data shown in tables $1,2,3,4.5 \mathrm{~B}, 7 \mathrm{~A}, 8$, and 9 are based on this sytem of classification.

The 1963 census obtained data on shipments of steel mill shapes at broad product class levels only. This is the source of the data in table 6A described "As reported in census of manufactures." More detailed product data were obtained on Annual Survey Form MA-33B, and published in Current lndustrial Reports Series M33B, Steel Mill Products. These data are shown in tables 6A-2 and 6A-3.

Annual Survey Form MA-33B obtained data on the total production of steel at three broad levels of output: ingots; semifinished shapes and forms (blooms, billets, wire rods, skelp, etc.); and finished mill shapes and forms. For each of these groups, the steel mills were requested to report production in the form in which the shape (a) passed from one group to the next, (b) was shipped from the establishment, or (c) was consumed in the establishment in the manufacture of fabricated products. The production figures shown in tables 6A-2 and 6A-3 include data on production derived from this method of reporting. Production figures shown for ingots represent the total production of ingots. Production figures shown for finished shapes and forms are the tonnages of these shapes produced at the steel mill for shipments (either outside the steel industry, or to other steel mills) or for consumption in the manufacture of fabricated products. The production of all semifinished shapes and forms combined represent total production of semifinished shapes and forms for sale and transfer and also for use in the same plant in the manufacture of either other steel mill shapes or fabricated products.

Net shipments of steel products (as derived from Survey Form MA-33B) including both the shipments to establishments outside the steel industry and the amounts consumed in the steel mills in the production of fabricated products and for maintenance, repair, and operating supplies, are shown in table 6A-4.

The figures on steel mill shapes shown in tables 6A-1 to 6A-4 include the manufacture of these products in separate cold rolling and drawing establishments, wire drawing plants, and pipe mills as well as steel mills. The receipts of steel at these plants have been taken into account in deriving the net shipment figures shown in table 6A-4.

While the primary products of the industry include a broad range of products, the establishments tend to group themselves into specific product classes within the industry. The extent of this specialization is indicated in table 8. Approximately 32 percent in hot rolled bars and bar shapes, plates, structural shapes, and piling, and 27 percent of the total value added by manufacture are represented by plants specializing in hot rolled sheet and strip, including tin mill products.

Data on shipments of pig iron, by grade, are published by the Bureau of Mines in its Minerals Yearbook. These data are reprinted in table 6A-5 and differ from the data reported in the census in that they include the tonnages of pig iron produced and consumed in the same establishment. Other differences of minor consequence also exist.

The production index for the primary products of the industry increased to 118 in 1963 from the 1958 level of 95 . The unit value index for 1963 was 120 compared to 123 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3313—ELECTROMETALLURGICAL PRODUCTS

This industry comprises establishments primarily engaged in manufacturing ferro and nonferrous additive alloys by electrometallurgical processes, including high percentage ferroalloys and high percentage nonferrous additive alloys. For a detailed list of products of industry 3313 , refer to table 6A, product codes 3313111 to 3313498 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electrometallurgical Products Industry totaled $\$ 382$ million. This amount included shipments of electrometallurgical products (primary products) valued at $\$ 317$ million.

This industry's shipments of electrometallurgical products represented 85 to 90 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent.

Shipments of electrometallurgical products by this industry represented 77 percent of all shipments of these products ( $\$ 412$ million) by all industries. In 1958 the coverage ratio was 76 percent. Other industries shipping electrometallurgical products consisted mainly of industry 3312, Blast Furnaces and Steel Mills, $\$ 69$ million.

The production index for the primary products of the industry increased to 126 in 1963 from the 1958 level of 105 . The unit value index for 1963 was 89 compared to 117 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3315-STEEL WIRE DRAWING AND STEEL NAILS AND SPIKES

This industry comprises establishments primarily engaged in drawing wire from purchased iron or steel rods, bars, or wire and which may be engaged in the further manufacture of products made from wire; and those primarily engaged in manufacturing steel nails and spikes from purchased material. Rolling mills engaged in the production of ferrous wire from wire rods or hot rolled bars produced in the same establishment are classified in industry 3312. Establishments primarily engaged in drawing nonferrous wire are classified in Group 335. For a detailed list of products of industry 3315, refer to table 6A, product codes 3315111 to 3315998.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Steel Wire Drawing, Etc., Industry totaled $\$ 592$ million. This amount included shipments of steel wire and fabricated wire products (primary products) valued at $\$ 509$ million, shipments of other products (secondary products) valued at $\$ 62$ million, and miscellaneous receipts at $\$ 22$ million.

This industry's shipments of steel wire and fabricated wire products represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent.

Shipments of steel wire and fabricated wire products by this industry represented 30 percent of all shipments of these products ( $\$ 1,672$ million) by all industries. In 1958 the coverage ratio was 26 percent. Other industries shipping steel wire and fabricated wire products consisted mainly of industry 3312, Blast Furnaces and Steel Mills, $\$ 626$ million; and industry 3481, Fabricated Wire Products, N.E.C., $\$ 463$ million.

The production index for the primary products of the industry increased to 99 in 1963 from the 1958 level of 94 . The unit value index for 1963 was 123 compared to 122 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3316-COLD ROLLED SHEET, STRIP, AND BARS

This industry comprises establishments primarily engaged in (1) cold rolling steel sheets and strip from purchased hot rolled sheets; (2) cold drawing steel bars and steel shapes from purchased hot rolled steel bars; and (3) producing other cold finished steel. Establishments primarily engaged in the production of steel, including hot rolled steel sheets, and further cold rolling such sheets are classified in industry 3312. For a detailed list of products of industry 3316, refer to table 6A, product codes 3316701 to 3316801.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Cold Finishing of Steel Shapes Industry totaled $\$ 752$ million. This amount included shipments of cold rolled sheet, strip, and bars (primary products) valued at $\$ 661$ million, shipments of other products (secondary products) valued at $\$ 43$ million, and miscellaneous receipts (mainly resales) at $\$ 47$ million.

This industry's shipments of cold rolled sheet, strip, and bars represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 63 percent of the total industry shipments are represented by plants specializing in product class 33167 , Cold rolled sheet and strip.

Shipments of cold rolled sheet, strip, and bars by this industry represented 20 percent of all shipments of these products ( $\$ 3,333$ million) by all industries. In 1958 the coverage ratio was 18 percent. Other industries shipping cold rolled sheet, strip, and bars consisted mainly of industry 3312 , Blast Furnaces and Steel Mills, $\$ 2,647$ million.

The production index for the primary products of the industry increased to 138 in 1963 from the 1958 level of 103 . The unit value index for 1963 was 126 compared to 125 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3317-STEEL PIPE AND TUBES

This industry comprises establishments primarily engaged in the production of welded or seamless steel pipe and tubes and heavy riveted steel pipe from purchased materials. Establishments primarily engaged in the production of steel, including steel skelp or steel blanks, tube rounds, or pierced billets are classified in industry 3312.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Steel Pipe and Tube Industry totaled $\$ 809$ million. This amount included shipments of steel pipe and tube (primary products) valued at $\$ 707$ million, shipments of other products (secondary products) valued at $\$ 73$ million, and miscellaneous receipts (mainly resales) at $\$ 28$ million.

This industry's shipments of steel pipe and tube represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent.

Shipments of steel pipe and tube by this industry represented 37 percent of all shipments of these products ( $\$ 1,887$ million) by all industries. In 1958 the coverage ratio was 40 percent. Other industries shipping steel pipe and tube consisted mainly of industry 3312 , Blast Furnaces and Steel Mills, $\$ 1,137$ million.

The production index for the primary products of the industry increased to 99 in 1963 from the 1958 level of 90 . The unit value index for 1963 was 120 compared to 127 in 1958. Both indexes were computed on a basis of $1954=100$.

table 1. General Statistics: 1963 and Earlier Years

| Year | Com.panies(number) | Establishments |  | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new 1$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3312.-BLAST FURNACES AND STEEL MILLS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 161 | 288 | 247 | 500,550 | 3,711,639 | 412,311 | 791,364 | 2,892,006 | 7,699,535 | ${ }^{2} 8,958,663$ | 216,611, 083 | 908,440 | (NA) | ( NA) |
| $62^{3}$ | (NA) | ( NA ) | ( NA) | 502,202 | 3,612,064 | 406,627 | 764,643 | 2,753,197 | 6,620,897 | 28,698,774 | 215,571,583 | 707,767 | (NA) | (NA) |
| $361{ }^{3}$ | (NA) | (NA) | (NA) | 503,417 | 3,523,170 | 409,098 | 767,626 | 2,670,185 | 6,546,304 | $28,529,911$ | ${ }^{2} 14,873,318$ | 805,462 | (NA) | (NA) |
| $960^{3}$ | (NA) | (NA) | (NA) | 549,956 | 3,629,384 | 449,616 | 831,797 | 2,777,234 | 6,844,374 | 28,917,313 | 215,738,776 | 1,190,707 | (NA) | (NA) |
| 9593 | (NA) | (NA) | ( NA) | 507,540 | 3,448,374 | 419,385 | 776,515 | 2,636,672 | 6,823,398 | ${ }^{2} 8,533,145$ | 215,628, 664 | 669,266 | (NA) | (NA) |
| 958. | 148 | 291 | 260 | 511,392 | 3,183,483 | 417,216 | 765,941 | 2,415,959 | 6,062,227 | 27,472,015 | ${ }^{2} 13,422,585$ | 959,033 | (NA) | (NA) |
| 3573 | (NA) | (NA) | (NA) | 616,792 | 3,645,252 | 513,039 | 990,837 | 2,886,108 | 7,204,822 | 210,553,000 | 217,614,000 | 1,423,609 | (NA) | (NA) |
| 956 | (NA) | (NA) | (NA) | 644,499 | 3,475,508 | 545,534 | 1,042,231 | 2,806,705 | 7,135,612 | 210,515,000 | ${ }^{2} 17,523,000$ | 1,098,027 | (NA) | (NA) |
| 955 | (NA) | (NA) | (NA) | 621,540 | 3,269,732 | 527,524 | 1,059,870 | 2,659,921 | 6,773,325 | ${ }^{2} 9,558,000$ | ${ }^{2} 16,345,000$ | 572,177 | (NA) | (NA) |
| 54 | (NA) | (NA) | (NA) | 553,850 | 2,581,270 | 470,823 | 883,057 | 2,059,515 | 5,055,409 | (NA) | (NA) | 580,530 | (NA) | (NA) |
| 47. | (NA) | (NA) | (NA) | 568,915 | 1,804,157 | 499,709 | 1,006,733 | 1,516,321 | 2,844,595 | (NA) | (NA) | (NA) | (NA) | (NA) |
| 39 | (NA) | (NA) | (NA) | 460,128 | 749,129 | 410,134 | (NA) | 630,517 | 1,320,392 | (NA) | (NA) | (NA) | (NA) | (NA) |
| $37^{5}$ | (NA) | (NA) | (NA) | (NA) | (NA) | 481,721 | (NA) | 788,529 | 1,588,359 | (NA) | (NA) | ( NA) | (NA) | (NA) |
| 9295 | (NA) | (NA) | (NA) | (NA) | (NA) | 400,389 | (NA) | 697,904 | 1,615,306 | (NA) | (NA) | (NA) | (NA) | (NA) |
| 63. | 161 | 288 | 247 | 500,550 | 3,711,639 | 412,311 | 791,364 | 2,892,006 | 7,699,535 | 28,958,663 | 216,611,083 | 908,440 | (NA) | (NA) |
| Fuily integrated works ${ }^{6}$ | (NA) | 34 | 34 | 268,642 | 2,001,950 | 221,899 | 425,369 | 1,573,019 | 4,426,518 | 23,786,183 | 28,192,193 | 431,448 | (NA) | (NA) |
| Partially integrated works: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| With blast furnaces... Without | (NA) | 12 | 12 | 53,262 | 394,522 | 44,944 | 84,406 | 314,388 | 847,471 | 2975,965 | ${ }^{2} 1,804,266$ | 219,478 | (NA) | (NA) |
| blast furnaces... | (NA) | 80 | 80 | 112,025 | 839,299 | 90,704 | 177,857 | 637,170 | 1,574,020 | ${ }^{2} 1,821,510$ | 23,380,122 | 101,300 | (NA) | (NA) |
| Nonintegrated works ${ }^{6}$....... | (NA) | 162 | 121 | 66,621 | 475,868 | 54,764 | 103,732 | 367,429 | 851,526 | 22,375,005 | 23,234,502 | 156,214 | (NA) | (NA) |
|  | 148 | 291 | 260 | 511,392 | 3,183,483 | 417,216 | 765,941 | 2,415,959 | 6,062,227 | 7,472,015 | 13,422,585 | 959,033 | (NA) | (NA) |
| Fully integrated works ${ }^{6}$ Partially | (NA) | 37 | 37 | 272,859 | 1,692,810 | 255,585 | 414,645 | 1,312,044 | 3,410,478 | (NA) | (NA) | 446,185 | (NA)) | (NA) |
| integrated works ${ }^{6}$.... | (NA) | 93 | 93 | 164,274 | 1,029,942 | 131,806 | 241,046 | 759,276 | 1,768,571 | (NA) | (NA) | 386,134 | (NA) | (NA) |
| $\text { works }{ }^{6} \text {. . . . . . . }$ | (NA) | 161 | 130 | 74,259 | 460,731 | 59,825 | 110,250 | 314,639 | 883,178 | (NA) | (NA) | 117,737 | (NA) | (NA) |
| INDUSTRY 3313.-ELECTROMETALLURGICAL PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 63. | 20 | 36 | 30 | 10,437 | 68,880 | 8,155 | 16,563 | 50,767 | 145,503 | 227,977 | 382,132 | 13,412 | 85-90 | 77 |
| $62^{3}$ | (NA) ${ }^{\prime}$ | (NA) | (NA) | 10,954 | 72,450 | 8,345 | 17,488 | 51,516 | 160,897 | 231,519 | 386,440 | 15,891 | (NA) | (NA) |
| $61^{3}$ | (NA) | (NA) | (NA) | 11,075 | 70,257 | 8,423 | 16,955 | 48,998 | 146,885 | 231,636 | 399,563 | 8,971 | (NA) | (NA) |
| $60^{3}$ | (NA) | (NA) | (NA) | 12,54,4 | 76,062 | 9,305 | 18,378 | 52,479 | 145,278 | 242,395 | 380,726 | 17,185 | (NA) | (NA) |
| $59^{3}$ | (NA) | (NA) | (NA) | 13,337 | 80,081 | 10,081 | 20,429 | 55,977 | 184,610 | 266,057 | 456,846 | 14,335 | (NA) | (NA) |
| 58. | 19 | 37 | 35 | 12,689 | 71,883 | 9,304 | 18,961 | 48,988 | 178,880 | 221,509 | 399,122 | 16,969 | 91 | 76 |
| $57^{3}$ | (NA) | (NA) | (NA) | 15,491 | 83,256 | 12,053 | 24,249 | 59,598 | 208,264 | 280,824 | 480,085 | 22,315 | (NA) | (NA) |
| $56^{3}$ | (NA) | (NA) | (NA) | 16,081 | 80,822 | 13,086 | 26,617 | 61,059 | 213,639 | 298,676 | 491,681 | 24,724 | (NA) | (NA) |
| $555^{3}$ | (NA) | (NA) | ( NA) | 14,161 | 66,302 | 11,626 | 23,443 | 50,306 | 176,422 | 227,935 | 417,933 | 24,495 | (NA) | (NA) |
| 54. | 17 | 31 | 29 | 11,361 | 51,332 | 8,834 | 17,614 | 36,895 | 118,785 | 157,957 | 272,751 | 22,313 | 92 | 68 |
| $53^{3}$ | (NA) | (NA) | (NA) | 15,570 | 65,621 | 12,965 | (NA) | 51,476 | 145,209 | 255,948 | 401,157 | (NA) | (NA) | (NA) |
| $522^{3}$ | (NA) | (NA) | (NA) | 12,968 | 52,991 | 10,821 | (NA) | 41,496 | 107,452 | 204,965 | 312,417 | (NA) | (NA) | (NA) |
| $851^{3}$ | (NA) | (NA) | (NA) | 12,081 | 49,124 | 10,874 | (NA) | 39,338 | 124,990 | 182,317 | 307,307 | (NA) | (NA) | (NA) |
| $50^{3} \ldots . . . . .$. | (NA) | (NA) | (NA) | 10,304 | 37,567 | 8,627 | (NA) | 28,699 | 115,885 | 126,275 | 242,160 | (NA) | (NA) | (NA) |
| 349 447 | (NA) | (NA) | (NA) | 8,702 | 29,731 | 7,168 | (NA) | 22,630 | 67,305 | 86,831 | 154,136 | (NA) | (NA) | (NA) |
| 3477 739 | 10 | 19 | (NA) | 9,628 | 29,285 | 8,175 | 16,678 | 23,449 | 55,493 | 95,411 | 150,904 | (NA) | 88 | (NA) |
| 9397 | (NA) | 18 | (NA) | (NA) | (NA) | 2,774 | (NA) | 4,234 | 15,868 | 25,119 | 40,987 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3315.-STEEL WIRE DRAWING, ETC. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 963. | 171 | 200 | 133 | 21,280 | 134,636 | 16,904 | 34,367 | 97,055 | 253,009 | 336,651 | 592,263 | 14,002 | 89 | 30 |
| $762^{3}$ | (NA) | (NA) | (NA) | 19,826 | 126,454 | 15,491 | 30,847 | 90,625 | 224,688 | 296,143 | 517,215 | 14,895 | (NA) | (NA) |
| $61^{3} \ldots . .$. | (NA) | (NA) | (NA) | 19,801 | 121,928 | 15,483 | 30,720 | 87,270 | 221,342 | 282,990 | 500,339 | 12,438 | (NA) | (NA) |
| 3 ${ }^{3}$ | (NA) | (NA) | (NA) | 20,566 | 122,066 | 16,725 | 31,950 | 86,932 | 218,466 | 284,722 | 498,326 | 12,778 | (NA) | (NA) |
| 9593 | (NA) | (NA) | (NA) | 20,969 | 124,953 | 16,770 | 32,616 | 90,079 | 234,353 | 304,202 | 536,165 | 11,295 | (NA) | (NA) |
| 958 | 151 | 170 | 103 | 19,250 | 110,184 | 15,129 | 29,147 | 78,432 | 196,200 | 260,490 | 452,062 | 11,980 | 88 | 26 |
|  | INDUSTRY 3316.-COLD FINISHING OF STEEL SHAPES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 963. | 59 | 81 | 68 | 13,700 | 99,557 | 10,623 | 21,833 | 71,527 | 223,977 | 529,954 | 751,627 | 14,925 | 94 | 20 |
| $962^{3}$ | (NA) | (NA) | (NA) | 12,029 | 87,550 | -9,344 | 19,277 | 75,787 | 194,154 | 495,763 | 690,238 | $(13,988)$ | (NA) | (NA) |
| 961 | (NA) | (NA) | (NA) | 11,393 | 79,582 | 8,808 | 17,688 | 58,414 | 158,079 | 439,845 | 597,614 | 12,754 | (NA) | (NA) |
| $960^{3}$ 959 | (NA) | (NA) | (NA) | 12,439 | 83,171 | 9,754 | 19,254 | 62,167 | 173,492 | 472,189 | 634,937 | 13,095 | (NA) | (NA) |
| $959^{9} 95{ }^{4}$ | . $\begin{array}{r}\text { (NA) } \\ 58 \\ \hline\end{array}$ | (NA) 78 | (NA) | 12,058 | 82,176 | 9,387 | 18,616 | 58,567 | 191,192 | 451,646 | 645,646 | 10,211 | (NA) | (NA) |
| $958^{4}$ 954 | \|ras $\begin{array}{r}58 \\ \text { (NA) }\end{array}$ | 78 75 | 63 $(N A)$ | 10,943 10,685 | 67,084 51,600 | 8,528 8,535 | 16,039 16,919 | 47,225 37,603 | 141,516 $(\mathrm{NA})$ | 338,495 (NA) | 477, 824 (NA) | 25,706 7,498 | 95 (NA) | 18 ( NA$)$ |

[^76]table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | $\qquad$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new ${ }^{1}$$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3317.-STEEL PIPE AND TUBE |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 114 | 141 | 115 | 22,882 | 153,147 | 18,270 | 37,862 | 113,656 | 295,242 | 517,291 | 809,009 | 23,588 | 91 | 37 |
| $1962^{3}$ | (NA) | (NA) | (NA) | 25,003 | 163,488 | 19,543 | 38,973 | 116,198 | 311,083 | 582,398 | 907,486 | 26,027 | (NA) | (NA) |
| $1961{ }^{3}$ | (NA) | (NA) | (NA) | 24,759 | 156,369 | 19,644 | 38,553 | 112,393 | 290,303 | 548,363 | 825,563 | 25,784 | (NA) | (NA) |
| $1960{ }^{3}$ | (NA) | (NA) | (NA) | 26,210 | 160,020 | 20,858 | 40,567 | 114,681 | 322,227 | 588,419 | 886,859 | 22,347 | (NA) | (NA) |
| $1959{ }^{3}$ | (NA) | (NA) | (NA) | 25,568 | 161,769 | 20,403 | 40,833 | 117,113 | 366,398 | 625,822 | 981,452 | 18,389 | (NA) | (NA) |
| 1958.. | 112 | 136 | 101 | 23,911 | 138,144 | 19,402 | 37,988 | 103,848 | 284,096 | 496,141 | 780,684 | 15,133 | 92 | 40 |
| 195734 | (NA) | ( NA) | (NA) | 26,391 | 150,712 | 21,780 | 44,342 | 115,829 | 302,690 | 524,849 | 815,857 | 22,555 | 88 | 26 |
| $1956{ }^{3}$ | (NA) | (NA) | (NA) | 25,719 | 140,865 | 21,346 | 44,599 | 109,436 | 293,155 | 477,406 | 764,890 | 15,898 | (NA) | (NA) |
| $1955{ }^{3}$ | ( NA) | (NA) | ( NA) | 23,897 | 125,572 | 20,078 | 42,560 | 98,421 | 263,817 | 410,151 | 661,699 | 15,549 | (NA) | (NA) |
| 1954. | 78 | 88 | 69 | 22,085 | 108,374 | 18,388 | 37,473 | 83,472 | 207,643 | 330,309 | 535,772 | 9,134 | 91 | 30 |
| $1953{ }^{3}$ | (NA) | (NA) | (NA) | 26,535 | 133,624 | 22,170 | 45,768 | 103,210 | 238,306 | 374,726 | 613,032 | (NA) | (NA) | (NA) |
| 19523 | (NA) | (NA) | (NA) | 17,731 | 78,194 | 15,334 | 29,814 | 62,823 | 155,247 | 263,406 | 418,653 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 19,524 | 81,554 | 16,983 | 33,867 | 65,964 | 189,327 | 308,454 | 497,781 | (NA) | (NA) | (NA) |
| $1950{ }^{3}$ | (NA) | (NA) | (NA) | 19,274 | 79,213 | 16,633 | 33,822 | 60,418 | 168,433 | 300,798 | 469,231 | (NA) | (NA) | (NA) |
| $1949{ }^{3}$ | ( NA ) | ( NA) | (NA) | 18,323 | 71,015 | 15,580 | 30,640 | 54,273 | 138,712 | 235,857 | 374,569 | (NA) | (NA) | (NA) |
| 1947. | (NA) | 52 | (NA) | 15,711 | 52,651 | 13,517 | (NA) | 41,225 | 100,356 | 143,858 | 244, 214 | (NA) | (NA) | (NA) |
| 1939 | (NA) | 49 | (NA) | 9,670 | 15,794 | 8,370 | (NA) | 12,306 | 34,008 | 41,857 | 75,865 | (NA) | (NA) | (NA) |
| 1937 | (NA) | 53 | (NA) | 15,267 | 22,690 | 14,125 | (NA) | 19,436 | 45,140 | 68,629 | 113,769 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 48 | (NA) | 11,790 | 14,731 | 10,720 | (NA) | 11,793 | 31,564 | 42,285 | 73,849 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 44 | (NA) | 7,269 | 6,890 | 6,552 | (NA) | 5,580 | 14,136 | 20,821 | 34,957 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 51 | (NA) | (NA) | (NA) | 8,045 | (NA) | 9,890 | 32,750 | 42,291 | 75,041 | (NA) | (NA) | (NA) |
| 192 | (NA) | 50 | (NA) | 12,836 | 23,157 | 11,417 | (NA) | 18,762 | 54,538 | 70,121 | 124,659 | (NA) | (NA) | (NA) |
| 1927 | (NA) | 44 | (NA) | 12,194 | 19,580 | 11,083 | (NA) | 16,066 | 42,407 | 55,779 | 98,186 | (NA) | (NA) | (NA) |
| 1925 | (NA) | 42 | (NA) | 12,042 | 20,615 | 10,871 | (NA) | 17,157 | 35,554 | 59,142 | 94,696 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 53 | (NA) | 11,713 | 20,670 | 10,633 | (NA) | 17,705 | 32,857 | 57,966 | 90,823 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 57 | (NA) | 9,814 | 13,746 | 8,728 | (NA) | 11,234 | 19,569 | 37,093 | 56,662 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 50 | (NA) | 11,770 | 17,775 | 10,426 | (NA) | 14,920 | 30,713 | 51,156 | 81,869 | (NA) | (NA) | (NA) |
| 1914 | (NA) | 36 | (NA) | 9,680 | 6,995 | 8,845 | (NA) | 5,750 | 11,359 | 26,296 | 37,655 | (NA) | (NA) | (NA) |
| 1909 | (NA) | 28 | (NA) | 7,292 | 4,620 | 6,817 | (NA) | 3,963 | 7,944 | 22,942 | 30,886 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 27 | (NA) | 5,712 | 2,841 | 5,416 | (NA) | 2,473 | 4,654 | 12,747 | 17,401 | (NA) | (NA) | (NA) |
| 1899...... | (NA) | 19 | (NA) | 5,729 | 2,672 | 5,536 | (NA) | 2,496 | 5,768 | 15,524 | 21,292 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3312 and 3323.-BLAST FURNACES, STEEL MILLS AND STEEL FOUNDRIES ${ }^{5}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | (NA) | 555 | 467 | 107,360 | 4,073,007 | 459,939 | 886,470 | 3,172,439 | 8,055,658 | 29,247,458 | ${ }^{2} 17,289,029$ | 936,272 | (NA) | (NA) |
| $1962{ }^{3}$ | (NA) | (NA) | (NA) | 552,708 | 3,915,264 | 451,831 | 848,416 | 2,989,180 | 7,105,149 | 28,948,456 | ${ }^{2} 16,301,271$ | 731,336 | (NA) | (NA) |
| $1961{ }^{3}$ | (NA) | (NA) | (NA) | 550,227 | 3,793,024 | 450,750 | 842,040 | 2,874,596 | 6,957,113 | 28,754,959 | ${ }^{2} 15,502,963$ | 828,321 | (NA) | (NA) |
| $1960{ }^{3}$ | (NA) | (NA) | (NA) | 600,763 | 3,917,457 | 494,839 | 913,613 | 2,996,987 | 7,283,473 | ${ }^{2} 9,166,023$ | ${ }^{2} 16,439,264$ | 1,210,018 | (NA) | (NA) |
| 1959 | (NA) | (NA) | (NA) | 561,569 | 3,749,324 | 470,929 | 865,515 | 2,868,055 | 7,312,642 | 28,789,879 | ${ }^{2} 16,367,837$ | 694,524 | (NA) | (NA) |
| 1958 | (NA) | 547 | 476 | 560,525 | 3,437,821 | 457,350 | 840,331 | 2,602,737 | 6,446,097 | 27,575,698 | ${ }^{2} 14,018,861$ | 981,272 | (NA) | (NA) |
| $1957{ }^{3} 4$ | (NA) | ( NA) | (NA) | 684,278 | 4,003,083 | 570,114 | 1,104,445 | 3,160,198 | 7,775,474 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ | 1,459,644 | (NA) | (NA) |
| $1956{ }^{3}$. | (NA) | (NA) | (NA) | 714,911 | 3,840,603 | 605,839 | 1,167,013 | 3,095,422 | 7,729,715 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ | 1,129,794 | (NA) | (NA) |
| 19553. | (NA) | (NA) | (NA) | 681,804 | 3,557,455 | 578,300 | 1,162,596 | 2,881,419 | 7,213,905 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ | 592,555 | (NA) | (NA) |
| 1954 | (NA) | (NA) | (NA) | 608,923 | 2,823,575 | 516,478 | 968,741 | 2,238,876 | 5,361,095 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ | 596,956 | (NA) | (NA) |
| 1947. | (NA) | (NA) | (NA) | 631,250 | 1,990,818 | 553,916 | ( NA) | 1,667,357 | 3,107,530 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ | (NA) | (NA) | (NA) |
| 1939 | (NA) | (NA) | (NA) | 495,695 | 804,544 | 440,222 | (NA) | 672,459 | 1,410,626 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ | (NA) | (NA) | (NA) |
| 1937 | (NA) | (NA) | (NA) | (NA) | (NA) | 523,020 | (NA) | 850,880 | 1,708,791 | (2) | $\left({ }^{2}\right)$ | (NA) | (NA) | (NA) |
| 1935. | (NA) | (NA) | (NA) | 424,574 | 561,393 | 391,502 | (NA) | 480,160 | 951,827 | (2) | $\left(2^{2}\right.$ | (NA) | (NA) | (NA) |
| 1933 | (NA) | (NA) | (NA) | 327,907 | 336,550 | 302,011 | (NA) | 285,894 | 523,984 | (2) | (2) | (NA) | (NA) | ( NA ) |
| 1931. | (NA) | (NA) | (NA) | (NA) | (NA) | 292,589 | (NA) | 379,780 | 686,914 | (2) | $\left({ }^{2}\right)$ | (NA) | (NA) | ( NA ) |
| 1929 | (NA) | (NA) | (NA) | 482,390 | 882,094 | 440,086 | (NA) | 764,363 | 1,757,593 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ | (NA) | (NA) | (NA) |
| 1927. | (NA) | ( NA) | (NA) | 451,654 | 791,437 | 410,352 | (NA) | 679,701 | 1,314,818 | $\left({ }^{2}\right)$ | (2) | (NA) | (NA) | (NA) |
| 1925 | (NA) | (NA) | (NA) | 464,552 | 801,794 | 423,105 | (NA) | 697,059 | 1,382,859 | $(2)$ | $\left(\begin{array}{c}2 \\ 2\end{array}\right.$ | (NA) | (NA) | (NA) |
| 1923. | (NA) | (NA) | (NA) | 501,573 | 865,023 | 453,277 | (NA) | 744,868 | 1,452,803 | (2) | (2) | (NA) | (NA) | (NA) |
| 1921 | (NA) | ( NA ) | (NA) | 304,585 | 486,571 | 270,283 | ( NA ) | 378,190 | 587,777 | $\left({ }^{2}\right)$ | (2) | (NA) | (NA) | (NA) |
| 191 | (NA) | (NA) | (NA) | 503,408 | 877,839 | 447,703 | (NA) | 756,382 | 1,420,937 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ | (NA) | (NA) | (NA) |
| 19 | (NA) | (NA) | (NA) | 330,716 | 271,499 | 299,179 | (NA) | 225,212 | 411,050 | (2) | (2) | (NA) | (NA) | (NA) |
| 190 | (NA) | (NA) | (NA) | 334,853 | 238,049 | 307,778 | (NA) | 203,262 | 430,685 | (2) | $\left(\begin{array}{c}2 \\ 2\end{array}\right.$ | (NA) | (NA) | (NA) |
| 190 | (NA) | (NA) | (NA) | 279,568 | 127,728 | 261,621 | (NA) | 150,731 | 307,486 | (2) | $\left({ }^{2}\right)$ | (NA) | (NA) | (NA) |
| 1899 | (NA) | ( NA ) | (NA) | 249,615 | 140,441 | 239,489 | (NA) | 127,906 | 297,489 | (2) | (2) | ( Na (1) | (NA) | (NA) |

## table 1. General Statistics: 1963 and Earlier Years-Continued

## Footnotes for table 1-33A

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable
Includes expenditures for plants under construction but not in operation. T'nis information was not collected in 1939 and 1947 and is not available by 4 -digit industry for 1954.
${ }^{2}$ The value of shipments and cost of materials for this industry includes extensive duplication arising from shipments between establishments in the same industry classification. For further explanation see text.
${ }^{3}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

4Data for Alaska and Hawaii are excluded for 1957 and earlier years.
${ }^{5}$ Prior to 1939 "Steel works and rolling mills" and "Steel foundries" constituted a single industry. Separate figures for these two industries were obtained for 1937 and 1929 from special tabulations of the returns for those years. Separate data for subsequent years have been combined in order that statistics may be shown for other years. Data for "Steel foundries" for 1963 are shown in MC63(2)-33B, Iron and Steel Foundries.
${ }^{6}$ Definitions are as follows: Fully integrated works are establishments having coke ovens, blast furnaces, steel works, and rolling and finishing mills or a forging department; partially integrated works with blast furnaces are establishments having blast furnaces, steel works, and rolling and finishing mills or a forging department; partially integrated works without blast furnaces are establishnents having steel works, and rolling and finishing mills or a forging department; nonintegrated works represent all other types of establishments in this industry including beehive coke ovens, byproduct coke ovens operated independently of blast furnaces and steel departments; merchant blast furnaces, and establishments with hotrolling and finishing operations. In a few cases, operations which are, in fact, fully integrated, are classified as partially integrated or nonintegrated because separate establishment reports were collected either because the operations are conducted in different cities or towns, or the company treats the operations separately for their own administrative reasons.
${ }_{8}^{7}$ No comparable data are available for earlier years.
${ }^{8}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that comparable data for prior year are not available.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials ${ }^{2}$$(\$ 1,000)$ | Value of shipments ${ }^{2}$$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | All em. ployees (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3312.-BLAST FURNACES AND STEEL MLLIS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 288 | 247 | 500,550 | 3,711,639 | 412,311 | 791,364 | 2,892,006 | 7,699,535 | 8,958,663 | 16,611,083 | 908,440 | 511,392 | 6,062,227 |
| New England.. | 6 | 5 | 2,719 | 19,802 | 2,082 | 4,023 | 14,216 | 33,729 | 37,414 | 74,698 | 1,449 | 3,784 | 29,920 |
| Middle Atlantic.. | 105 | 93 | 180,445 | 1,299,531 | 146,682 | 279,582 | 1,000,325 | 2,437,451 | 3,142,680 | 5,565,254 | 214,582 | 194,521 | 2,043,799 |
| New York... | 19 | 18 | 27,417 | 198,784 | 22,589 | 43,789 | 156,613 | 395,415 | 349,247 | 734,768 | 24,397 | 27,279 | 301,593 |
| New Jersey.. | 4 | 4 | 2,752 | 19,276 | 2,015 | 4,009 | 13,779 | 31,947 | 29,966 | 61,487 | 1,419 | 3,316 | 37,758 |
| Pennsylvania..... | 82 | 71 | 150,276 | 1,081,471 | 122,078 | 231,784 | 829,933 | 2,010,089 | 2,763,467 | 4,768,999 | 188,766 | 163,926 | 1,704,448 |
| North Central.,.... | 89 | 76 | 206,932 | 1,581,488 | 173, 192 | 335,552 | 1,249,946 | 3,382,528 | 4,297,059 | 7,665,771 | 489,350 | 202,654 | 2,497,233 |
| Ohio............. | 35 | 32 | 79,558 | 586,690 | 68,535 | 130,482 | 479,740 | 1,268,778 | 1,669,115 | 2,927,652 | 153,003 | 82,748 | 979,211 |
| Indiana. . | 12 | 10 | 57,010 | 438,878 | 46,777 | 91,718 | 343,077 | 1,019,338 | 1,140,592 | 2,131,131 | 203,807 | 56,338 | 765,896 |
| Illinois.. | 21 | 19 | 41,569 | 321,539 | 34,217 | 66,602 | 247,363 | 547,175 | 702,564 | 1,246,602 | 45,911 | 38,345 | 442,602 |
| Michigan. . | 11 | 8 | 21,288 | 178,322 | 17,799 | 35,640 | 140,421 | 433,560 | 707,554 | 1,135,160 | 83,569 | 17,347 | 219,511 |
| South.............. | 61 | 53 | 82,010 | 593,422 | 67,303 | 128,574 | 464,484 | 1,401,062 | 1,077,608 | 2,462,033 | 167,193 | 81,009 | 1,077,359 |
| Virginia......... | 13 | 10 | 644 | 3,646 | 587 | 1,309 | 3,112 | 7,451 | 9,358 | 16,904 | 588 | $\left(\begin{array}{l}3 \\ 3\end{array}\right.$ | $\left(\begin{array}{l}3 \\ \text { ) }\end{array}\right.$ |
| Kentucky......... | 5 | 5 | 6,415 | 47,541 | 5,406 | 10,612 | 38,074 | 100,329 | 110,084 | 208,599 | (D) | (3) | (3) |
| Tennessee........ | 5 | 5 | 1,367 | 5,635 | 1,192 | 2,241 | 4,825 | 10,323 | 9,209 | 20,250 | 251 | (3) | ${ }^{3}$ ) |
| West..................California....... | 27 | 20 | 28,444 | 217,396 | 23,052 | 43,633 | 163,035 | 444,765 | 403,902 | 843,327 | 35,866 | 29,424 | 413,916 |
|  | 17 | 12 | 15,834 | 122,450 | 12,966 | 24,509 | 92,511 | 228,249 | 240, 166 | 469,173 | 28,276 | 15,605 | 225,725 |
|  | Subindustry 3312-11. -Blast Furnaces and Steel Mills-FULY INTEGRATED WORKS ${ }^{4}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 34 | 34 | 268,642 | 2,001,950 | 221,899 | 425,369 | 1,573,019 | 4,426,518 | 3,786,183 | 8,192,193 | 431,448 | 272,859 | 3,410,478 |
| Middle Atlantic. | 10 | 10 | 83,021 | 596,929 | 67,725 | 127,685 | 462,351 | 1,203,315 | 1,106,917 | 2,308,508 | 101,481 | (NA) | (NA) |
| North Central. | 15 | 15 | 107,818 | 826,939 | 90,953 | 177,771 | 663,966 | 1,832,591 | 1,737,531 | 3,567,082 | 230,944 | (NA) | (NA) |
| Ohio. . | 7 | 7 | 40,025 | 295,312 | 34,670 | 66,061 | 244,678 | 618,683 | 741,023 | 1,348,607 | 41,095 | (NA) | (NA) |
| Indiana. | 3 | 3 | 45,287 | 345,271 | 37,316 | 73,271 | 270,422 | 850,702 | 662,671 | 1,519,501 | 134,307 | (NA) | (NA) |
| South. | 6 | 6 | 59,913 | 440,467 | 48,642 | 92,073 | 343,627 | 1,104,683 | 708,408 | 1,801,359 | 81,149 | (NA) | (NA) |
| West............... | 3 | 3 | 17,890 | 137,615 | 14,579 | 27,840 | 103,075 | 285,929 | 233,327 | 515,244 | 17,874 | (NA) | (NA) |
|  | Subindustry 3312-12. - Blast Furnaces and Steel Mills-PARTIALLY INTEGRATED WORKS WITH BLAST FURNACES ${ }^{4}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 12 | 12 | 53,262 | 394,522 | 44,944 | 84,406 | 314,388 | 847,471 | 975,965 | 1,804,266 | 219,478 | (NA) | (NA) |
| Middle Atlantic... | 5 | 5 | 17,900 | 130,516 | 15,178 | 28,529 | 105,469 | 251,220 | 315,562 | 559,009 | 53,078 | (NA) | ( NA ) |
| North Central and South. | 7 | , | 35,362 | 264,006 | 29,766 | 55,877 | 208,919 | 596,251 | 660,403 | 1,245,257 | 166,400 | (NA) | ( NA ) |
| Ohio. | 4 | 4 | 19,158 | 139,981 | 16,108 | 30,622 | 113,227 | 317,031 | 289,027 | 602,841 | 77,357 | (NA) | (NA) |
|  | Subindustry 3312-13.-Blast Furnaces and Steel Mills-PARTIALIY INTEGRATED WORKS WITHOUT BLAST FURNACES ${ }^{4}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.. | 80 | 80 | 112,025 | 839,299 | 90,704 | 177,857 | 637,170 | 1,574,020 | 1,821,510 | 3,380,122 | 101,300 | (NA) | (NA) |
| Northeast.......... | 34 | 34 | 54,026 | 395,780 | 43,235 | 85,308 | 300,128 | 685,065 | 831,092 | 1,505,449 | 37,810 | (NA) | (NA) |
| New York. ........ | 5 | 6 | 6,588 | 48,420 | 5,186 | 10,862 | 37,642 | 77,044 | 65,417 | 137,974 | 2,481 | (NA) | (NA) |
| Pennsylvania..... | 26 | 26 | 44,554 | 324,923 | 35,815 | 69,684 | 245,685 | 560,064 | 739,679 | 1,294,644 | 33,499 | (NA) | (NA) |
| North Central and South.......... | 35 | 35 | 48,597 | 371,474 | 39,924 | 78,465 | 282,773 | 744,379 | 839,808 | 1,580,477 | 46,019 | (NA) | (NA) |
| Ohio.. | 4 | 4 | 8,295 | 62,368 | 7,422 | 14,455 | 49,955 | 171,501 | 148,173 | 325,592 | 12,957 | (NA) | (NA) |
| Illinois | 7 | 7 | 13,434 | 106,611 | 10,669 | 21,202 | 79,849 | 195,043 | 168,539 | 357,752 | 16,489 | (NA) | (NA) |
| Pacific........... | 11 | 11 | 9,402 | 72,045 | 7,545 | 14,084 | 54,269 | 144,576 | 150,610 | 294,196 | 17,471 | (NA) | (NA) |
|  | Subindustry 3312-14. -Blast Furnaces and Steel Mills-NONINTEGRATED WORKS ${ }^{4}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 162 | 121 | 66,621 | 475,868 | 54,764 | 103,732 | 367,429 | 851,526 | 2,375,005 | 3,234,502 | 156,214 | 74,259 | 883,178 |
| Northeast.......... | 62 | 49 | 28,217 | 196,108 | 22,626 | 42,083 | 146,593 | 331,580 | 926,523 | 1,266,986 | 23,662 | (NA) | (NA) |
| Pennsylvania..... | 44 | 33 | 23,741 | 166,199 | 19,221 | 35,842 | 125,901 | 282,092 | 832,215 | 1,119,997 | 22,027 | (NA) | (NA) |
| North Central..... | 51 | 38 | 28,822 | 221,220 | 23,775 | 46,016 | 172,423 | 404,496 | 1,263,008 | 1,667,785 | 128,871 | (NA) | (NA) |
| Ohio............. | 20 | 17 | 12,080 | 89,029 | 10,335 | 19,344 | 71,880 | 161,563 | 490,892 | 650,612 | 21,594 | (NA) | (NA) |
| Illinois........ | 10 | 8 | 4,297 | 32,042 | 3,575 | 7,176 | 25,762 | 71,630 | 137,611 | 209,628 | 5,689 | (NA) | (NA) |
| South. . . . . . . . . . . | 36 | 28 | 8,430 | 50,804 | 7,435 | 13,924 | 42,722 | 101, 190 | 165,509 | 265,844 | 3,160 | (NA) | (NA) |
| West................ | 13 | 6 | 1,152 | 7,736 | 928 | 1,709 | 5,691 | 14,260 | 19,965 | 33,887 | 521 | (NA) | (NA) |

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials ${ }^{2}$$(\$ 1,000)$ | Value of shipments ${ }^{2}$$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3313. -ELECTROMETALLURGICAL PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 36 | 30 | 10,437 | 68,880 | 8,155 | 16,563 | 50,767 | 145,503 | 227,977 | 382,132 | 13,412 | 12,689 | 178,880 |
| Middle Atlantic.... | 5 | 4 | 1,732 | 11,972 | 1,185 | 2,512 | 7,548 | 24,156 | 28,427 | 51,428 | 1,419 | 2,986 | 33,569 |
| North Central...... Ohio............... | 14 8 | 8 | 3,736 | 25,168 | 2,885 | 5,718 | 18,406 | 52,584 | 84,200 | 143, 835 | 5,524 | 3,578 | 53,470 |
| South............... | 10 | 10 | 3,786 | 23,909 | 3,133 | 6,402 | 19,057 | 49,424 | 83,629 | $\begin{gathered} 137,050 \\ 24,913 \end{gathered}$ | $\begin{array}{r} 4,415 \\ 495 \end{array}$ | $\begin{aligned} & 4,474 \\ & 1,145 \end{aligned}$ | $\begin{aligned} & 58,898 \\ & 25,975 \end{aligned}$ |
| West............... | $7 \quad 4$ |  | 636 | 4,404 | 533 | 1,096 | 3,507 | 6,225 | 15,909 |  |  |  |  |
|  | INDUSTRY 3315.-STEEL WIRE DRAWING, ETC. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 200 | 133 | 21,280 | 134,636 | 16,904 | 34,367 | 97,055 | 253,009 | 336,651 | 592,263 | 14,002 | 19,250 | 196,200 |
| Northeast.......... | 88 | $\begin{aligned} & 55 \\ & 17 \end{aligned}$ | $\begin{aligned} & 9,807 \\ & 2,909 \end{aligned}$ | $\begin{aligned} & 62,994 \\ & 19,724 \end{aligned}$ | $\begin{aligned} & 7,782 \\ & 2,352 \end{aligned}$ | 15,213 | 45,221 | 110,301 | 113,196 | 221,681 | 6,098719 | 9,6253,260 | 86,99928,073 |
| Mas eachusetts.... | 21 |  |  |  |  | 4,655 | $\begin{array}{r} 15,103 \\ 3,941 \end{array}$ | $\begin{array}{r} 28,647 \\ 9,414 \end{array}$ | $\begin{aligned} & 30,281 \\ & 10,811 \end{aligned}$ | $\begin{aligned} & 58,562 \\ & 20,084 \end{aligned}$ |  |  |  |
| New York. . | 20 | 8 | 289 | 5,4169,064 | 8341,050 | 1,716 |  |  |  |  | 455 | 431 | 3,328 |
| New Jersey. | 18 | 9 | 1,394 |  |  | 1,987 | 5,954 | 18,950 | 20,992 | 40,020 | 716 | ${ }^{3}$ ) | $\left({ }^{3}\right)$ |
| East North Central. Ohio............... | $\begin{aligned} & 60 \\ & 16 \end{aligned}$ | 4413 | $\begin{aligned} & 8,273 \\ & 1,474 \end{aligned}$ | $\begin{array}{r} 53,637 \\ 8,606 \end{array}$ | $\begin{aligned} & 6,519 \\ & 1,216 \\ & 3,787 \end{aligned}$ | $\begin{array}{r} 13,722 \\ 2,596 \\ 7,905 \end{array}$ | $\begin{array}{r} 38,584 \\ 6,518 \\ 21,905 \end{array}$ | $\begin{array}{r} 106,161 \\ 22,010 \\ 47,531 \end{array}$ | $\begin{array}{r} 163,385 \\ 27,385 \\ 98,422 \end{array}$ | $\begin{aligned} & 271,734 \\ & 49,247 \\ & 1 \end{aligned}$ | $\begin{array}{r} \text { (D) } \\ 1,060 \\ 2,141 \end{array}$ | $\begin{array}{r}7,332 \\ \hline 939\end{array}$ | $\begin{aligned} & 81,045 \\ & 10,725 \\ & 45,951 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Illinois......... | 32 | 22 | 4,764 | 30,064 |  |  |  |  |  | 149,277 |  | 4,362 |  |
| West North Central. | 4 | 3 | 350 | 1,947 | 279 | 580 | 1,395 | 4,193 | 2,870 | 7,383 | (D) | 1,288 | 16,273 |
| Soutin Atlantic..... | 155 | 134 | $\begin{aligned} & 813 \\ & 351 \end{aligned}$ | $\begin{aligned} & 4,321 \\ & 1,958 \end{aligned}$ | 707 | 1,507 | 3,351 | 10,804 | 18,531 7 | 29,904 | 955 |  |  |
| Msryland......... |  |  |  |  | 310 | 671 | 1,497 | 5,199 | 7,368 | 12,539 | 713 |  |  |
| East South Central. | 4 | 3 | $\begin{array}{r} 573 \\ 225 \\ 1,239 \end{array}$ | $\begin{aligned} & 2,713 \\ & 1,198 \\ & 7,826 \end{aligned}$ | 476 | 957 | 2,061 | 4,586 | 5,661 | 10,402 | 143 |  |  |
| West South Central. | 6 | 3 |  |  | 186 | 496 | 930 | 3,767 | 5,910 | 9,431 | 91. |  |  |
| West................ | 23 | 12 |  |  | 955 | 1,892 | 5,513 | 13,197 | 27,098 | 41,728 | 1,678 |  |  |
|  | INDUSTRY 3316. - COLD FINISHING OF STEEL SHAPES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 81 | 68 | 13,700 | 99,557 | 10,623 | 21,833 | 71,527 | 223,977 | 529,954 | 751,627 | 14,925 | 10,943 | 141,516 |
| New England........ | 15 | 15 | 3,476 | 22,658 | 2,642 | 5,401 | 16,248 | 49,136 | 73,315 | 126,023 | 2,906 | 1,689 | 20,973 |
| Connecticut...... | 8 | 8 | 2,600 | 17,383 | 1,936 | 3,934 | 12,288 | 38,183 | 57,731 | 99,463 | 1,950 | 1,082 | 14,745 |
| Middle Atlantic.... | 21 | 20 | 4,020 | 30,077 | 3,207 | 6,683 | 21,834 | 78,616 | 115,577 | 192,631 | 2,562 | 3,682 | 44,351 |
| New York. . . . . . . | 4 | 4 | 1,333 | 10,766 | 1,118 | 2,497 | 8,306 | 38,246 | 31,192 | 68,811 | 1,223 | 1,127 | 13,554 |
| New Jersey....... | 4 | 3 | 494 | 3,710 | 372 | 743 | 2,406 | 7,983 | 13,842 | 21,366 | 403 | 494 | 6,257 |
| Pennsylvania..... | 13 | 13 | 2,193 | 15,601 | 1,717 | 3,443 | 11,122 | 32,387 | 70,543 | 102,454 | 936 | 2,061 | 24,540 |
| East North Central. | 30 | 25 | 5,647 | 42,953 | 4,359 | 8,922 | 30,878 | 88,599 | 321,533 | 405,725 | 8,743 | 4,880 | 69,762 |
| Ohio............ | 8 | 7 | 2,171 | 15,767 | 1,678 | 3,282 | 11,632 | 28,499 | 68,413 | 95,798 | 1,025 | 2,103 | 22,155 |
| Indiana... | 6 | 4 | 992 | 7,624 | 742 | 1,599 | 5,474 | 17,669 | 53,742 | 71,753 | 329 | 956 | 13,648 |
| Michigan.. | 11 | 10 | 1,528 | 12,379 | 1,212 | 2,514 | 8,643 | 27,498 | 157,278 | 180,782 | (D) | $\left({ }^{3}\right)$ | ${ }^{(3)}$ |
| South Atlantic..... | 3 | 3 | 308 | 2,101 | 223 | 424 | 1,325 | 3,767 | 9,116 | 12,587 | (D) | 692 |  |
| Pacific.... | 12 | 5 | 249 | 1,768 | 192 | 403 | 1,242 | 3,859 | 10,413 | 14,661 |  |  | 6,430 |
|  |  |  |  |  |  | INDUSTR | 3317.-ST | L. PIPE AND | TUBE |  |  |  |  |
| Total.. | 141 | 115 | 22,882 | 153,147 | 18,270 | 37,862 | 113,656 | 295,242 | 517,291 | 809,009 | 23,588 | 23,911 | 284,096 |
| Northeast.......... | 47 | 39 | 7,897 | 51,542 | 6,265 | 12,927 | 38,551 | 103,777 | 154,202 | 253,175 | 8,850 | 9,438 | 103,240 |
| Pennsylvania..... | 27 | 25 | 6,628 | 44,223 | 5,336 | 11,132 | 33,927 | 88,175 | 134,925 | 217,620 | 8,119 | 7,992 | 86,355 |
| East North Central. | 50 | 42 | 10,427 | 73,054 | 8,458 | 17,609 | 55,119 | 136,008 | 244,409 | 379,927 | (D) | (3) | ${ }_{45}{ }^{(3)}$ |
| Ohio..... | 17 | 16 | 5,213 | 37,125 | 4,269 | 8,968 | 28,552 | 66,431 | 136,945 | 201,603 | 5,155 | 4,019 | 45,790 |
| Illinois. | 13 | 10 | 879 | 6,128 | 744 | 1,380 | 4,503 | 11,831 | 21,735 | 33,448 | 2,421 | 751 | 7,358 |
| Michigan. . | 13 | 10 | 2,367 | 17,359 | 1,876 | 4,096 | 12,711 | 34,617 | 40,604 | 75,420 | 1,188 | 2,065 | 26,477 |
| West North Central. | 3 | 2 | 263 | 1,500 | 179 | 377 | 971 | 2,953 | 4,293 | 7,264 | (D) | $\left({ }^{3}\right)$ | $\left({ }^{3}\right)$ |
| South. . . . . . . . . . . | 18 | 16 | 2,165 | 12,311 | 1,704 | 3,550 | 8,314 | 29,750 | 57,130 | 87,275 | 1,473 | 2,670 | 38,992 |
| Texas.. | 7 | 6 | 1,062 | 6,775 | 793 | 1,578 | 4,284 | 16,360 | 37,176 | 53,982 | 1,116 | 1,843 | 30,892 |
| West............... | 23 | 16 | 2,130 | 14,740 | 1,664 | 3,399 | 10,701 | 22,754 | $57,257$ | 81,368 | $\begin{aligned} & 2,761 \\ & 2,385 \end{aligned}$ | 2,764 | 31,942 |
| California....... | 19 | 12 | 1,837 | 12,645 | 1,454 | 2,926 | 9,292 | 19,283 | 46,243 | 66,713 | 2,385 | ${ }^{(3)}$ | (3) |

## table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

Footnotes for Table 2-33A

Standard Notes: - Represents zero.
applicable
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3312, Blast Furnaces and Steel Mills: New England—Massachusetts, 2 (1,000-2,499); Rhode Island, 1 (500-999); Connecticut, 3 (l,006); East North Central-Wisconsin, 2 ( $250-499$ ); West North Central—Minnesota, 3 (2,500-4,999); Missouri, 5 (2,500-4, 999); South Atlantic-Delaware, l
(1,000-2,499); Maryland, 4 (10,000 and over); West Virginia, 7 (12,795); North Carolina, 2 (100-249); South Carolina, 1 (20-99); Georgia, 1 (1,000-2,499); Florida, 2 (100-249); East South Central-Alabama, 14 (10,000 and over); Mississippi, 1 (100-249); West South Central-0kiahoma, 1 (250-499); Texas, 4 ( 7,511 ); Mountain-Colorado, 2 ( $5,000-9,999$ ); Arizona, 2 (20-99); Utah, 1 (2,500-4,999); Pacific-Washington, 3 (1,168); Oregon, 1 (250-499); Hawaii, 1 (100-249).
SIC 3312-11, Fully integrated works: Middle Atlantic-New York, l (10,000 and over); Pennsylvania, 9 (10,000 and over); East North Central-Illinois, (10,000 and over); Michigan, l (5,000-9,999); West North Central-Minnesota, l (1,000-2,499); South Atlantic-Maryland, l (10,000 and over); West Virginia, l (10,000 and over); East South Central-Alabama, 2 (10,000 and over); West South Central-Texas, 2 (5,000-9,999); Mountain-Colorado, 1 ( $5,000-9,999$ ); Utah, 1 ( $2,500-4,999$ ) ; Pacific-California, 1 ( $5,000-9,999$ ).
SIC 3312-12, Partially integrated works with blast furnaces: Middle Atlantic-New York, 2 (2,500-4,999); Pennsylvania, 3 (10,000 and over); East North Central-Illinois, 1 (5,000-9,999); Michigan, 1 (2,500-4,999); East South Central-Kentucky, 1 (2,500-4, 999).
SIC 3312-13, Partially integrated works without blast furnaces: New England-Rhode Island, l (500-999); Connecticut, l (500-999); Middle AtlanticNew Jersey, 1 (1,000-2,499); East North Central-Indiana, 3 (2,500-4,999); Michigan, 2 (5,000-9,999); West North Central-Missouri, 1(2,500-4,999); South Atlantic-Maryland, 2 (2,500-4,999); Virginia, 2 (250-499); West Virginia, 1 (500-999); North Carolina, 1 (100-249); South Carolina, l (20-99); Georgia, 1 (1,000-2,499); Florida, 1 (100-249); East South Central-Kentucky, 2 (1,000-2,499); Tennessee, 1 (250-499); Alabama, 3 (1,000-2,499); Mississippi, 1 (100-249); West South Central-Oklahoma, 1 (250-499); Texas, 1 (500-999); Pacific—Washington, 1 (500-999); Oregon, 1 (250-499); California, 8 ( $5,000-9$, 999); Hawaii, 1 (100-249).
SIC 3312-14, Nonintegrated works: New England-Massachusetts, 2 ( $1,000-2,499$ ); Connecticut, 2 (250-499); Middle Atlantic-New York, 11 (1,000-2,499); New Jersey, 3 (1,000-2,499) ; East North Central-Indiana, 6 (5,000-9,999); Michigan, 7 (2,500-4,999); Wisconsin, 2 (250-499); West North CentralMinnesota, 2 (100-249); Missouri, 4 (250-499); South Atlantic—Delaware, l (1,000-2,499); Maryland, l (1-19); Virginia, 11 (250-499); West Virginia, 5 (1,000-2,499); North Carolina, l (1-19); Florida, 1 (20-99); East South Central-Kentucky, 2 (250-499); Tennessee, 4 (1,000-2,499); Alabama, 9 (2,500-4,999); West South Central-Texas, 1 (100-249); Mountain-Colorado, 1 (20-99); Arizona, 2 (20-99); Pacific-Washington, 2 (100-249) ; California, 8 (500-999).
SIC 3313, Electrometallurgical Products: Middle Atlantic-New York, 3 (1,000-2,499); New Jersey, l (100-249); Pennsylvania, 1 (20-99); East North Central-Indiana, I (1-19); Illinois, 3 (100-249); Michigan, I (20-99); West North Central-Iowa, I (250-499); South Atlantic- West Virginia, 10 (1,000-2,499); South Carolina, 1 (250-499); East South Central-Kentucky, 1 (500-999); Tennessee, 3 (500-999); Alabama, 1 (250-499); West South Central-Texas, 1 (100-249); Mountain-Montana, l (1-19); Pacific-Washington, 1 (20-99); Oregon, 3 (520); California, 2 (1-19);
SIC 3315, Steel Wire Drawing, Etc.: New England-New Hampshire, 3 (348); Rhode Island, 2 (500-999); Connecticut, 9 (1,000-2,499); Middle AtlanticPennsylvania, 15 (1,000-2,499); East North Central-Indiana, 4 (500-999); Michigan, 5 (500-999); Wisconsin, 3 (427); West North CentralMinnesota, I (1-19); Iowa, 2 (_00-249); Missouri, 1 (100-249); South Atlantic-West Virginia, 1 (20-99); North Carolina, 1 (100-249); Georgia, 2 (20-99); Florida, 6 (100-249); East South Central-Kentucky, 2 (250-499); Tennessee, 2 (100-249); West South Central-Louisiana, 1 (20-99); Texas, 5 (100-249); Mountain-Colorado, 2 (20-99); Pacific-Washington, 1 (1-19); California, 20 (1,184).
SIC 3316, Cold Finishing of Steel Shapes: New England-Massachusetts, 6 (500-999); Rhode Island, 1 (250-499); East North Central-Illinois, 4 (500-999); Wisconsin, 1 (20-99); South Atlantic—Maryland, 2 (100-249); West Virginia, 1 (100-249); Pacific-Washington, 2 (20-99); California, 10 (100-249).
SIC 3317, Steel Pipe and Tube: New England-Massachusetts, l (20-99); Connecticut, l (1-19); Middle Atlantic-New York, 7 (250-499); New Jersey, 11 (500-999) ; East North Central—Indiana, 4 (446); Wisconsin, 3 (1,522); West North Central-Minnesota, 1 (20-99); Iowa, 1 (100-249); Missouri, 1 (1-19); South Atlantic-Georgia, 3 (20-99); East South Central-Kentucky, 1 (100-249); Tennessee, 2 (250-499); Alabama, 1 (100-249); Mississippi, 2 (20-99); West South Central-Louisiana, 2 (250-499); Mountain-Colorado, 2 (20-99); Utah, 1 (100-249); Pacific-Washington, l (20-99).
${ }^{2}$ Figures on cost of materials and value of shipments for industry 3312, Blast Furnaces and Steel Mills, include extensive duplication arising
from shipments between establishments in the same industry classification. This also applies to the subindustries of industry 3312. ${ }^{3}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958
report showed the number of establishnents and total employment (either actual or in size ranges) for such States.
${ }^{4}$ See footnote 6 , table 1 for definition of these industries.

TABLE 3. Detailed Statistics: 1963

| Item | Blast furnaces and steel mills (SIC 3312) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Fully integrated works ${ }^{1}$ (3312-11) | Partially integrated works ${ }^{\text {² }}$ |  | $\begin{gathered} \text { Nonintegrated } \\ \text { works } \\ (3312-14) \end{gathered}$ |
|  |  |  | With blast furnaces $(3312-12)$ | Without blast <br> furnaces <br> $(3312-13)$ |  |
| Primary product specialization ratio ${ }^{2} . . . . . . . . . . . . . . . . . . . . . . . . . . ~$ . | $(3)$ $(3)$ | $(3)$ $(3)$ | $(3)$ <br> $(3)$ | $\left(\begin{array}{l}(3) \\ (3)\end{array}\right.$ | $(3)$ $(3)$ |
| Establishments, total...................................number.. | 288 | 34 | 12 | 80 | 162 |
| With 1 to 19 employees............ . . . . . . . . . . . . . . . . . . . do. | 41 | - | - | - | 41 |
| With 20 to 99 employees................................. . . . . . . . | 26 | - | - | 2 | 24 |
| With 100 employees or more.............................do.... | 221 | 34 | 12 | 78 | 97 |
| Proprietors and working partners...................................... | 14 | (NA) | (NA) | (NA) | (NA) |
| All employees (average for the year)............................... | 500,550 | 268,642 | 53,262 | 112,025 | 66,621 |
| Payroll (all employees), total for year............... $\$ 1,000$. | 3,711,639 | 2,001,950 | 394,522 | 839,299 | 475,868 |
| Production workers: |  |  |  |  |  |
| Average for the year.............................................. | 412,311 | 221,899 | 44,944 | 90,704 | 54,764 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.. . . | 393,603 | 211,424 | 41,147 | 88,054 | 52,978 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 434,738 | 226,846 | 56,719 | 92,285 | 58,888 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 434,188 | 241,523 | 42,960 | 93,923 | 55,782 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 386,694 | 207,794 | 38,952 | 88,569 | 51,379 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000. . | 791,364 | 425,369 | 84,406 | 177,857 | 103,732 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 191,272 | 101,462 | 20,375 | 43,815 | 25,620 |
| April-June . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 218,905 | 117,448 | 24,307 | 47,986 | 29,164 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 190,786 | 103,190 | 20,427 | 42,390 | 24,779 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 190,399 | 103,266 | 19,297 | 43,666 | 24,170 |
| Wages . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 2,892,006 | 1,573,019 | 314,388 | 637,170 | 367,429 |
| Cost of materials, etc., total...........................do. | 38,958,663 | 33,786,183 | 3975,965 | ${ }^{3} 1,821,510$ | $3^{3} 2,375,005$ |
| Materials, parts, containers, and supplies consumed..do.. | 37,983,724 | 33,424,787 | ${ }^{(3)}$ | (3) | ( ${ }^{3}$ ) |
| Cost of resales..........................................d. ${ }^{\text {do }}$ | 106,984 | 14,450 | 24,816 | 51,233 | 16,485 |
| Fuels consumed. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . | 591,689 | 242,909 | 141,651 | 95,891 | 111,238 |
| Electric energy: |  |  |  |  |  |
| Purchased: |  |  |  |  |  |
| Quantity...............................million kw.-hrs.. | 24,208 | 9,793 | 2,589 | 8,225 | 3,600 |
| Cost. ............................................... $\$ 1,000 .$. | 221,107 | 85,378 | 22,804 | 75,667 | 37,258 |
| Generated less sold......................million kw.-hrs.. | 8,192 | 7,035 | 604 | 183 | 370 |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $11,000 .$. | 58,374 | 21,420 | 8,475 | 22,815 | 5,664 |
| Value of shipments (including resales), total...........do.... |  |  |  |  |  |
| Value of resales......................................................... | 109,631 | 13,855 | $24,377$ | $53,005$ | $18,394$ |
| Value added by manufacture, adjusted....................do.... | 7,699,535 | 4,426,518 | 847,471 | 1,574,020 | 851,526 |
| Nanufacturers' inventories: |  |  |  |  |  |
| Beginning of year, total............................... .do. | 3,175,474 | 1,571,065 | 345,795 | 586,704 | 671,910 |
| Finished products...................................... . do. | 838,184 | 392,522 | 77,420 | 161,456 | 206,786 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 742,219 | 290,611 | 50,497 | 217,852 | 183,259 |
| Materials, supplies, fuel, etc.......................do. | 1,595,072 | 887,932 | 217,878 | 207,396 | 281,866 |
| End of year, total......................................do.. | 3,146,552 | 1,574,875 | 359,581 | 580,699 | 631,397 |
| Finished products..... . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 843,487 | 399,445 | 89,288 | 162,175 | 192,579 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 784,031 | 304,196 | 57,799 | 232,541 | 189,495 |
| Materials, supplies, fuel, etc.......................do.. | 1,519,034 | 877,234 | 212,494 | 185,983 | 249,323 |
| Expenditures for plant and equipment, total............do.... | 923,988 | 437,787 | 220,208 | 106,746 | 159,247 |
| New, total................................................do... . | 908,440 | 431,448 | 219,478 | 101,300 | 156,214 |
| New structures and additions to plant...............do.... | 277,810 | 98,115 | 91,270 | 18,041 | 70,384 |
| New machinery and equipment...........................do.... | 630,630 | 333,333 | 128,208 | 83,259 | 85,830 |
| Used plant and equipment..............................do.... | 15,548 | 6,339 | 730 | 5,446 | 3,033 |
| Selected operating ratios: |  |  |  |  |  |
| Payroll/Total employment.......... | 7,415 | 7,452 | 7,407 | 7,492 | 7,142 |
| Production workers/Total employment. | . 82 | . 83 | . 84 | . 81 | . 82 |
| Man-hours/Production workers..... | 1,919 | 1,917 | 1,878 | 1,961 | 1,894 |
| Production worker wages/Man-hours........................... | 3.65 | 3.70 | 3.72 | 3.58 | 3.54 |
| Cost of materials and payrolls/Total value of shipments.... | . 76 | . 71 | . 76 | . 79 | . 79 |
| Cost of materials/Total value of shipments.................. | . 54 | . 46 | . 54 | . 54 | . 73 |
| Adjusted value added/Total employment........................ | 15,382 | 16,477 | 15,911 | 14,051 | 12,794 |
| Salaries and wages/Adjusted value added..................... |  | . 45 | . 47 | . 53 | . 56 |

See footnotes at end of table.

## TABLE 3. Detailed Statistics: 1963-Continued



[^77]TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963


See footnotes at end of table.

## table 4. Selected Statistics, by Employment Size of Establishments: 1963-Continued

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | 5 to 9 employees | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{aligned} & 100 \text { to } \\ & 249 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 250 \text { to } \\ & 499 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 500 \text { to } \\ & 999 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 1,000 \text { to } \\ & 2,499 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3315.-STEEL WIRE DRAWING, ETC. ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 200 | 22 | 24 | 21 | 36 | 35 | 33 | 24 | 4 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do.... | 21,280 | 47 | 156 | 312 | 1,181 | 2,594 | 4,732 | 7,869 | 4,389 | (D) | - |
| Payroll. . . . . . . . . . . . . $\$ 1,000 .$. | 134,636 | 265 | 788 | 1,815 | 6,196 | 14,907 | 27,524 | 52,326 | 30,815 | (D) | - |
| Value added, adjusted.......do.... | 253,009 | 510 | 1,560 | 3,828 | 15,425 | 32,071 | 55,757 | 97,569 | 46,289 | (D) | - |
| Value of shipments ${ }^{1}$........d. do.... | 592,263 | 1,277 | 3,385 | 11,469 | 38,537 | 74,707 | 139,395 | 200,213 | 123,280 | (D) | - |
| Capital expenditures, new...do.... | 14,002 | ${ }^{41,217}$ | (D) | 513 | 926 | 1,701 | 3,458 | 3,977 | 2,210 |  | - |
|  | INDUSTRY 3316. -COLD FINISHING OF STEEL SHAPES ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
|  | 81 | 6 | 4 | 3 | 15 | 11 | 25 | 11 | 5 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total. . . . . . . . . . . . . . . . . . do. . . . | 13,700 | 11 | 30 | 39 | 540 | 786 | 4,137 | 3,700 | 4,457 | (D) | - |
| Payroll. . . . . . . . . . . . . . \$1,000. . | 99,557 | 99 | 183 | 274 | 3,552 | 5,679 | 29,263 | 26,666 | 33,841 | (D) | - |
| Value added, adjusted........do.... | 223,977 | 284 | 323 | 95 | 8,165 | 15,257 | 74,456 | 52,625 | 72,772 | (D) | - |
| Value of shipments ${ }^{1}$. ........d. do.... | 751, 627 | 486 | 817 | 1,025 | 39,308 | 51,081 | 223,271 | 173,049 | 262,590 | (D) | - |
| Capital expenditures, new...do.... | 14,925 | 12 | 20 | (D) | 304 | 995 | 2,998 | 2,196 | 8,400 | (D) |  |
|  | INDUSTRY 3317.-STEEL PIPE AND TUBE ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number.. | 141 | 10 | 6 | 10 | 29 | 20 | 40 | 15 | 9 | 2 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total..................... . do. . . | 22,882 | 19 | 38 | 167 | 954 | 1,557 | 6,382 | 4,668 | 9,097 | (D) | - |
| Payroll. . . . . . . . . . . . . $\$ 1,000$. | 153, 147 | 95 | 223 | 1,057 | 5,146 | 9,451 | 40,376 | 32,584 | 64,215 | (D) | - |
| Value added, adjusted........do.... | 295,242 | 191 | 442 | 1,336 | 16,570 | 18,117 | 82,290 | 65,035 | 111,255 | (D) | - |
| Value of shipments ${ }^{1} . . . . . .$. .do.... | 809,009 | 617 | 961 | 7,052 | 31,116 | 49,870 | 241,697 | 209,008 | 268,688 | (D) | - |
| Capital expenditures, new...do.... | 23,588 | 5213 | (D) | 115 | 1,191 | 1,649 | 5,850 | 4,805 | 9,765 | (D) | - |

[^78]
## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representin the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\text { Col. B }}{\text { Col. B+C }}$ <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3312 | Blast furnaces and steel mills.... $\begin{array}{r}\text { 1963.. } \\ \text { 1958.. }\end{array}$ | $\begin{aligned} & { }^{1} 16,611,083 \\ & { }^{1} 13,422,855 \end{aligned}$ | $\begin{aligned} & 15,459,136 \\ & 12,653,182 \end{aligned}$ | $\begin{aligned} & 807,902 \\ & 647,796 \end{aligned}$ | $\begin{aligned} & 344,045 \\ & 291,174 \end{aligned}$ | $\begin{aligned} & \binom{1}{\left({ }^{1}\right)} \end{aligned}$ | $\begin{aligned} & 17,553,735 \\ & 14,588,530 \end{aligned}$ | $\begin{aligned} & 15,459,136 \\ & 12,653,182 \end{aligned}$ | $\begin{aligned} & 2,094,599 \\ & 1,905,348 \end{aligned}$ | $\begin{aligned} & \left(\begin{array}{l} 1 \\ 1 \\ (1) \end{array}\right) \end{aligned}$ |
| 3313 | Electrometellurgical products..... 1963.. | 382,132 399,122 | $\begin{array}{r} 2317,361 \\ 354,797 \end{array}$ | $\begin{array}{r} 364,771 \\ 35,129 \end{array}$ | $\begin{array}{r} \left({ }^{3}\right) \\ 9,196 \end{array}$ | $\begin{array}{r} 85-90 \\ 91 \end{array}$ | $\begin{aligned} & 411,580 \\ & 468,117 \end{aligned}$ | $\begin{array}{r} 2317,361 \\ 354,797 \end{array}$ | $\begin{array}{r} 94,219 \\ 113,320 \end{array}$ | 77 |
| 3315 | Steel wire drawing, etc........... $\begin{array}{r}\text { 1963.. } \\ \text { 1958.. }\end{array}$ | $\begin{aligned} & 592,263 \\ & 452,062 \end{aligned}$ | $\begin{array}{r} 2508,514 \\ 386,786 \end{array}$ | $\begin{aligned} & 61,513 \\ & 54,326 \end{aligned}$ | $\begin{aligned} & 22,236 \\ & 10,950 \end{aligned}$ | $\begin{aligned} & 89 \\ & 88 \end{aligned}$ | $\begin{aligned} & 1,672,445 \\ & 1,490,977 \end{aligned}$ | $\begin{array}{r} 2508,514 \\ 386,786 \end{array}$ | $\begin{aligned} & 1,163,931 \\ & 1,104,191 \end{aligned}$ | 30 26 |
| 3316 | Cold finishing of steel shapes.... 1963.. | 751,627 477,824 | $\begin{aligned} & 661,136 \\ & 449,574 \end{aligned}$ | $\begin{aligned} & 43,044 \\ & 22,114 \end{aligned}$ | $\begin{array}{r} 47,447 \\ 6,136 \end{array}$ | $\begin{aligned} & 94 \\ & 95 \end{aligned}$ | $3,332,558$ $2,430,547$ | $\begin{array}{r} 2661,136 \\ \quad 449,574 \end{array}$ | $\begin{aligned} & 2,671,422 \\ & 1,980,973 \end{aligned}$ | 20 18 |
| 3317 | Steel pipe and tube............... 1963.. | $\begin{aligned} & 809,009 \\ & 780,684 \end{aligned}$ | $\begin{aligned} & 707,371 \\ & 691,734 \end{aligned}$ | $\begin{array}{r} 73,422 \\ 63,267 \end{array}$ | $\begin{aligned} & 28,216 \\ & 25,683 \end{aligned}$ | $\begin{aligned} & 91 \\ & 92 \end{aligned}$ | $\begin{aligned} & 1,887,495 \\ & 1,723,643 \end{aligned}$ | $\begin{aligned} & 707,371 \\ & 691,734 \end{aligned}$ | $\begin{aligned} & 1,180,124 \\ & 1,031,909 \end{aligned}$ | 37 40 |

NOTE: See Introduction for an explanation of terms used.
${ }^{1}$ The value of shipments for the industry in 1963 totaled $\$ 16,611$ million. This value, however, includes duplication in that the products of some establishments are used as materials by others. See text for fuller explanation. Specialization ratio computed on the basis of net value of shipments would approximate 94 percent. A coverage ratio for this industry cannot be precisely computed. However, such a ratio would exceed 86 percent. Comparable ratios for 1958 were: specialization, 94 percent; coverage, 84 percent.

Includes small amount of primary products made in other industries to avoid disclosing individual company figures. This amount, however, constitutes less than 2 percent of the total.
${ }^{3}$ Miscellaneous receipts included with secondary products.
TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963
In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions receipts. The value of shipments of the primary products of the specified industry reported by
of dollars. The "All industries" column shows the total value of shipments of the primary prod-
establishments not classified in that industry is shown under the caption "Other industries." In-
 columns provided that the figures for individual companies are not thereby disclosed.


TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963-Continued

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


## TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958



See footnotes at end of table.

# TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 



## TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



[^79]
## table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | $\begin{aligned} & \hline \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
|  | STEEL WIRE DRAWING AND STEEL NAILS AND SPIKES-Continued |  |  |  |  |  |
| $\begin{array}{r} 33156 \\ 34816 \end{array} \text {-- }$ | \}Fencing and fence gates............................................... |  | (X) | 115,480 | (X) | 103,309 |
| $33156 \text {-- }$ | Made in industries 3312 and 3315................................ |  | (X) | 58,331 | (X) | 48,045 |
| 34816 -- | Made in fabricated wire products, n.e.c. (industry 3481) and other industries. |  | (X) | 57,149 | (X) | 55,264 |
| $\begin{array}{ll} 33156 & 13 \\ 34816 & 13 \end{array}$ | ) Chain link fencing, excluding post, gates and fittings....... | Short tons..... | (NA) | 37,458 | (NA) |  |
| $\begin{aligned} & 315635 \\ & 3481635 \end{aligned}$ | \} Fence gates, posts, and fittings.............................. | ..do.......... | 125,883 | 38,467 | (NA) | 56,277 |
| $33156 \quad 13 \text {, }$ | \} Made in industries 3312 and 3315.............................. | ..do.......... | (NA) | 30,231 | 51,456 | 11,654 |
| $3481613 \text {, }$ | \} Made in industry 3481 and other industries................. | ..do.......... | (NA) | 45,694 | (NA) | 42,599 |
| $\begin{array}{ll} 33156 & 21 \\ \ll 816 \quad 21 \end{array}$ | $\}$ Wire fence, woven and welded................................... | do | 132,190 | 33,294 | (NA) | 34,363 |
| $\begin{array}{ll} 33156 & 21 \\ 3481621 \end{array}$ | Made in industries 3312 and 3315. <br> Made in industry 3481 and other industries................................ | $\begin{aligned} & \text {. .do. . . . . . . . . . } \\ & \text {. .do......... } \end{aligned}$ | 109,694 22,496 | 26,256 7,038 | 127,770 (NA) | 30,194 4,169 |
| $\begin{array}{r} 315671 \\ 3481671 \end{array}$ | \} Ornamental lawn fence........................................... | . .d | 11,011 | 3,452 | 19,754 | 5,695 |
| 3315671 | Made in industries 3312 and 3315.............................. | do | 5,781 | 1,844 | 17,995 | 5,134 |
| : 81671 | Made in industry 34816 and other industries................ | ..do.......... | 5,230 | 1,608 | 1,759 | 561 |
| $\begin{aligned} & 315600 \\ & 481600 \end{aligned}$ | ) Fencing and fence gates, n.s.k................................. |  | (X) | 2,809 | (X) | 6,974 |
| $13157 \text {-- }$ | \}Ferrous wire cloth and other woven ferrous wire products......... |  | (X) | 72,328 | (X) | 1097,899 |
| 3157 -- | Made in industries 3312 and 3315. |  | (X) | 24,317 | (X) | 25,943 |
| 18814 -- | Made in fabricated wire products, n.e.c. (industry 3481) and other industries.. |  | (X) | 48,011 | (X) | 71,956 |
| $\begin{aligned} & 315711 \\ & 341411 \end{aligned}$ | ) Insect wire screening, steel, including stainless steel..... | 1,000 sq. ft... | 168,633 | 7,454 | 217,660 | 9,791 |
| $\begin{array}{r} 315731 \\ 481431 \end{array}$ | ) Hardware cloth........................................................ | Short tons..... | 8,637 | 6,277 | 10,162 | 7,218 |
| 1315761 | ) Industrial wire cloth, steel..................................... | 1,000 sq. ft... | (NA) | 23,713 | 48,508 | 24,675 |
| 315761 | Made in industries 3312 and 3315. | ..do. | (NA) | 4,603 | 17,041 | 3,200 |
| 481461 | Made in industry 3481 and other industries.................. | do. | 25,872 | 19,110 | 31,467 | 21,475 |
| $\begin{aligned} & 315771 \\ & 481471 \end{aligned}$ | \} Woven wire netting (poultry, fur farm, stucco, etc.)........ | Short tons..... | (NA) | 13,617 | 52,189 | 16,460 |
| $\begin{aligned} & 315798 \\ & 481498 \end{aligned}$ | Other wire cloth and woven wire products including diamond |  | (X) | 20,058 | (X) | ${ }^{10} 16,679$ |
| $\begin{aligned} & 315700 \\ & 481400 \end{aligned}$ |  |  | (X) | 1,209 | (X) | ${ }^{11} 23,076$ |
| $\begin{aligned} & 3159-- \\ & 4819-- \end{aligned}$ | \}other fabricated wire products........................................ |  | (X) | 501,529 | (X) | 405,656 |
| 3159 -- | Made in industries 3312 and 3315................................ |  | (X) | 181,560 | (X) | 143,168 |
| 4819 -- | Made in fabricated wire products, n.e.c. (industry 3481) and other industries. |  | (X) | 319, 969 | (X) | 262,488 |
|  | Wire chain: |  |  |  |  |  |
| 315941 481941 | \} Tire........................................................ | Short tons..... | 20,899 | 14,834 | 28,844 | 20,141 |
| 315941 | Made in industries 3312 and 3315......................... | .do. | 7,772 | 5,609 | 9,626 | 7,018 |
| 481941 | Made in industry 3481 and other industries................ | ...do.......... | 13,127 | 9,225 | 19,218 | 13,123 |
| 315949 481949 | ) Other. | ...do. | 61,465 | 44,652 | 47,944 | 34,553 |
| 315949 | Made in industries 3312 and 3315........................... | . . .do. | 19,740 | 14,161 | 14,557 | 11,649 |
| 481949 | Made in industry 3481 and other industries................ | . . .do.......... | 41,725 | 30,491 | 33,387 | 22,904 |
| $\begin{aligned} & 315951 \\ & 481951 \end{aligned}$ | \} Barbed and twisted steel wire................................... | .do. | 110,613 | 20,348 | 57,388 | 12,131 |
| 315955 481955 | \} Wire bale ties.................................................. | ...do. | 17,340 | 17,340 | 71,260 | 15,682 |
| 315955 | Made in industries 3312 and 3315............................. | ..do. | 73,184 | 13,932 | 56,717 | 12,181 |
| 481955 | Made in industry 3481 and other industries....................... Welded steel wire fabric: | .do | 13,750 | 3,408 | 14,543 | 3,501 |
| 315961 481961 | \} Concrete reinforcing mesh..................................... | .do. | 486,664 | 94,172 | 516,694 | 97,539 |
| $315961$ | Made in industries 3312 and 3315.............................................. | ...do........... | 379,350 | $74,160$ | $435,148$ | $80,106$ |
| 481961 | Made in industry 3481 and other industries...................... |  | $107,314$ | 20,012 | $81,546$ | $17,433$ |
| 315965 481965 | \} Other welded steel wire fabric.. | do | 127,661 | 31,191 | 74,392 | 19,454 |
| 315965 | Made in industries 3312 and 3315............................ | ...do. | 116,676 | 27,305 | 64,145 | 16,207 |
| 481965 | Made in industry 3481 and other industries.................. |  | 10,985 | 3,886 | 10,247 | 3,247 |

## TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Excludes quantities produced in byproduct coke ovens operated in conjunction with utilities manufacturing and distributing gas.
${ }^{2}$ Data for product code 3312183 included with product codes 3312192,3312193 and 3312194 . The 1958 total for product class 33121 and 33130 includes ferrochrome and ferrosilicon which are excluded from the comparable 1963 total.
${ }^{3}$ Excludes shipments of steel processed on a conversion basis from nonsteel producing companies. Detailed data by shape and grade and net shipments figures appear in tables 6A-2, 6A-3 and 6A-4.
${ }^{4}$ Data reported in the census of manufactures differ from comparable figures reported in Annual Survey MA-33B chiefly due to companies not included in the annual survey. In addition there were minor differences between figures for a few companies reporting in the two surveys.
${ }^{5}$ These figures are not strictly comparable with tonnage shipments shown in Current Industrial Reports Series M-33c, Comnercial Steel Forgings, in that the latter includes only forgings for sale, whereas the 1963 and 1958 Censuses of Manufactures include interplant transfers of forgings. Accordingly, a direct comparison with the monthly Current Industrial Reports Series is not possible. Forgings produced and consumed within the same plant are not included in either the census or the Current Industrial Reports figures. The estimated annual totals reported in the monthly current Industrial Reports survey for commercial steel forgings were as follows:

|  | 1963 | 1958 |
| :--- | ---: | ---: |
|  | Short tons | Short tons |
| Carbon....................... | 156,074 | 92,096 |
| Alloy, including stainiess. | 219,936 | 163,480 |

${ }^{6}$ In 1958 product codes 3312921, 3391921, 3312961 and 3391941 were combined.
${ }^{7}$ In 1958 product codes $3312923,3391922,3312963$ and 3391942 were combined.
${ }^{8}$ In 1958 product codes 3312925, 3391923, 3312965 and 3391943 were combined.
${ }^{9}$ For detailed data see products of industry 3312 above.
${ }^{10}$ For 1958, data for product code 3481519, Nonferrous metal insect wire screening, other than copper and copper-base alloy, and aluminum, is included with product code 3481490 , Other wire cloth and woven wire products.
${ }^{11}$ For 1958 , data for product code 3481400 , Wire cloth and woven wire products, not specified by kind, includes data for product code 3481500 , Nonferrous wire cloth and other woven nonferrous wire products, not specified by kind.
TABLE 6A-2. Steel Mill Products-Receipts, Production, Consumption, and Shipments: 1963
 See footnotes at end of table.
TABLE 6A-2. Steel Mill Products-Receipts, Production, Consumption, and Shipments: 1963-Continued



[^80]Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
 ${ }^{3}$ Represents the quantity and value of shipnents by steel works and wire drawing plants. Total shipments of these products by all establishments in 1963 are shown in table 6 .

TABLE 6A-3. Steel Mill Products-Receipts, Production, Consumption, and Shipments: 1958

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{3}{*}{Product} \& \multirow[t]{3}{*}{Receipts \({ }^{1}\)} \& \multirow[t]{3}{*}{\begin{tabular}{l}
Production \\
(short tons)
\end{tabular}} \& \multicolumn{3}{|l|}{\multirow[t]{2}{*}{Products consumed in producing plants (short tons)}} \& \multicolumn{6}{|l|}{Shipments \({ }^{1}\)} \\
\hline \& \& \& \& \& \& \multicolumn{2}{|l|}{Total} \& \multicolumn{2}{|l|}{To other companies} \& \multicolumn{2}{|l|}{Transfers to other plants of the same company} \\
\hline \& \& \& In the manufacture of other steel basic shapes and forms \& \[
\begin{aligned}
\& \text { In the } \\
\& \text { manufacture } \\
\& \text { of } \\
\& \text { falricated } \\
\& \text { products }
\end{aligned}
\] \& As maintenance, repair, and operating supplies \& Quantity
(short tons) \& Value f.o.b. plant \((\$ 1,000)\) \& Quantity
(short tons) \& Value f.o.b. plant
\[
(\$ 1,000)
\] \& Quantity
(short tons) \& \[
\begin{aligned}
\& \text { Value } \\
\& \text { fo.0.b. } \\
\& \text { plant } \\
\& (\$ 1,000)
\end{aligned}
\] \\
\hline \multicolumn{12}{|l|}{CARBON STEEI} \\
\hline Ingots. \& 376,691 \& 78,578,866 \& 78,426,002 \& 76,181 \& 12,721 \& 377,869 \& 26,946 \& 4,406 \& 4,050 \& 333,563 \& 22,896 \\
\hline \multicolumn{12}{|l|}{Semifinished shapes and forms:} \\
\hline Blooms, billets, slabs, sheet bars, and tinplate bars.....
Tube rounds.......................................... \& 10,317,226 \& 58,194,460
2,132,882 \& 57,552,332
2,157,238
3, \& 62,664 \& 47,260
632 \& \(10,724,376\)
708,997 \& \(1,013,799\)
91,795 \& 2,345,982
175,180 \& 242,419
22,831 \& 8,378,394 \& 771,380
68,964 \\
\hline Skelp.. \& 876,778 \& 3,430,286 \& 3,455,027 \& \& 2,832 \& 864,370 \& 97,213 \& 665,624 \& 72,200 \& 198,746 \& 625,013 \\
\hline Wire rods \& 859,423 \& 4,164,930 \& 3,546,130 \& 27,902 \& 2,906 \& 1,400,738 \& 212,971 \& 929,994 \& 137,402 \& 470,744 \& 75,569 \\
\hline Finished shapes and forms: Plates: \& \& \& \& \& \& \& \& \& \& \& \\
\hline Floor plates.......... \& 1,801 \& 147,408 \& 667 \& 199 \& 2,667 \& 147,248 \& 20,745 \& 141,133 \& 19,976 \& 6,115 \& 769 \\
\hline Plates, other than floor plates. \& 910,666 \& 5,793,828 \& 925,890 \& 60,830 \& 87,812 \& 5,675,555 \& 734,443 \& 5,048,708 \& 651,321 \& 626,847 \& 83,122 \\
\hline \multicolumn{12}{|l|}{\multirow[t]{2}{*}{Sheets and strip: Sheets:}} \\
\hline \& \& \& \& \& \& \& \& \& \& \& \\
\hline Cold-rolled.............. \& 1,235,837 \& 11,308,623 \& 2,994,042 \& 87,985 \& 23,568 \& 11,318,684 \& 1,539,307 \& 9,532,192 \& 1,320,256 \& 1,786,492 \& 219,051 \\
\hline Galvanized. \& 1, 37,456 \& 2,802,601 \& 18,195 \& 121,931 \& 4,661 \& 2,680,361 \& 457,490 \& 2,589,622 \& -443,363 \& 90,739 \& 14,127 \\
\hline Electrical (sheets and strip)..................................................................... \& 1,203 \& 42,478
125,804 \& \({ }_{819}\) \& 121, \& - \& 41,269
125,702 \& 9,777
23,821 \& 41,269

2125,702 \& r $\begin{array}{r}9,777 \\ 223,821\end{array}$ \& $\left(2^{-}{ }^{-}\right.$ \& (2) <br>
\hline \multicolumn{12}{|l|}{Strip:} <br>
\hline Hot-rolled.......................................... \& 453,794 \& 1,381,738 \& 437,159 \& 165,553 \& 2,691 \& 1,204,990 \& 167,120 \& 1,101,902 \& 153,241 \& 103,088 \& 13,879 <br>
\hline Cold-rolled.................................................................................... \& 213,758
1,633 \& 848,856
202,083 \& 193,633 \& 29,318 \& 2,554
63 \& 824,658
178,436 \& 187,256 \& 768,585
178,086 \& 175,894
36,435 \& 56,073
350 \& 11,362 65 <br>
\hline Tin mill products: \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Black plate (including chemically treated black plate).. \& 17,872 \& 579,943 \& 8,355 \& 2,227 \& 662 \& 616,564 \& 89,293 \& 595,793 \& 86,186 \& 20,771 \& 3,107 <br>
\hline Tin plate: \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Hot dipped. . Electrolytic \& - \& 426,068 \& - \& - \& 104 \& 442,505 \& 87,372 \& 442,505 \& 87,372 \& - \& - <br>
\hline Terne plates (short ternes)........................... \& \& 4,852,868 \& (D) \& - \& 2,019 \& 5,081,353 \& 919,442 \& 5,081,353 \& 919,442 \& - \& - <br>
\hline Structural shapes and piling. \& 39,006 \& 4,486,611 \& 6,344 \& 47,733 \& 35,989 \& 4,434,416 \& 577,276 \& 4,109,519 \& 515,127 \& 324,897 \& 42,149 <br>

\hline \multicolumn{12}{|l|}{| Bars: |
| :--- |
| Hot rolled bars, except concrete reinforcing: |} <br>


\hline | Hot rolled bars, except concrete reinforcing: Hollow drill steel. |
| :--- |
| All other. | \& ) 881,547 \& 5,426,433 \& 822,846 \& 353,820 \& 32,561 \& 5,020,711 \& 715,716 \& 4,476,063 \& 639,195 \& 544,648 \& 76,521 <br>

\hline Concrete reinforcing bars: \& \& \& \& \& \& \& \& \& \& \& <br>

\hline | Rolled from new billets. |
| :--- |
| Rolled from old materials (rails, axles, etc.).......... | \& \[

$$
\begin{aligned}
& 11,518 \\
& 13,075
\end{aligned}
$$

\] \& \[

$$
\begin{array}{r}
2,276,719 \\
186,036
\end{array}
$$

\] \& \} 4,698 \& 71,273 \& 9,096 \& \[

\left\{$$
\begin{array}{r}
2,166,546 \\
186,252
\end{array}
$$\right.

\] \& \[

$$
\begin{array}{r}
279,782 \\
25,929
\end{array}
$$

\] \& \[

\left.$$
\begin{array}{r}
1,909,160 \\
186,252
\end{array}
$$ \right\rvert\,

\] \& \[

$$
\begin{array}{r}
249,015 \\
25,929
\end{array}
$$
\] \& 257,386 \& 30,767 <br>

\hline | Cold finished bars. |
| :--- |
| Tool-steel bars. | \& \[

$$
\begin{array}{r}
10,385 \\
432
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
927,925 \\
6,856
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
88 \\
394
\end{array}
$$

\] \& 1,067 \& \[

$$
\begin{aligned}
& 402 \\
& 149
\end{aligned}
$$

\] \& \[

$$
\begin{array}{r}
942,442 \\
7,118
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
210,942 \\
6,010
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
907,422 \\
6,160
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
203,790 \\
5,158
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
35,020 \\
958
\end{array}
$$
\] \& 7,152 <br>

\hline \multicolumn{12}{|l|}{Rails, wheels, and track accessories: Rails:} <br>

\hline Standard tee (over 60 lb . per yard)........................ All other light tee, girder, guard. etc.). \& $$
\begin{array}{r}
21,061 \\
372
\end{array}
$$ \& \[

$$
\begin{array}{r}
553,649 \\
35,910
\end{array}
$$
\] \& (D) \& 5,441

1,179 \& 11,026 \& $$
\begin{array}{r}
533,648 \\
38,188
\end{array}
$$ \& 60,803

5,813 \& 521,095
34,323 \& 59,452
5,230 \& 12,553
3,865 \& 1,351
583 <br>
\hline
\end{tabular}

See footnotes at end of table.

| Product | Receipis ${ }^{1}$ | Production | Products consumed in producing plants (short tons) |  |  | Shipments ${ }^{1}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Total |  | To other companies |  | Transfers to other plants of the same company |  |
|  |  |  | In the manufacture of other steel basic shapes and forms | In the manufacture of fatricated products | As maintenance, repair, and operating supplies | Quantity <br> (short tons) | Value f.o.b. plant $(\$ 1,000)$ | Quantity <br> (short tons) | Value f.o.b. plant $(\$ 1,000)$ | Quantity <br> (short tons) | Value f.o.b. plant $(\$ 1,000)$ |
| CARBON STEEL-Continued |  |  |  |  |  |  |  |  |  |  |  |
| Finished shapes and forms-Continued |  |  |  |  |  |  |  |  |  |  |  |
| Rails, wheels, and track accessories-Continued Rail joints and tie plates................. | 248 | 153,499 | - | 3,612 | 2,092 | 146,661 | 21,266 | 146,661 | 21,266 | - | - |
| Wheels, rolled (including tires and rims).... | (D) | 169,599 | - | (D) | 1,576 | 165,765 | 43,140 | 161,149 | 41,114 | 4,616 | 2,026 |
| Pipe and tubes: |  |  |  |  |  |  |  |  |  |  |  |
| Standard pipe. | 36,939 | 2,238,807 | $\mathrm{D}^{-}$ | 29,353 | 9,727 | 2,220,801 | 418,680 | 2,150,584 | 405,647 | 70,217 | 13,033 |
| Line pipe..... | 2,452 | 2,422,514 | (D) | 2,802 | 341 | 2,392,996 | 438,249 | 2,374,692 | 435,105 | 18,304 | 3,144 |
| Oil country goods. | 1,738 | 1,117,900 | - | (D) | (D) | 896,942 | 189,994 | 896,942 | 189,994 | - | - |
| Pressure tubing. . | 6,525 | 212,068 | 3,510 | 4,099 | 215 | 219,584 | 84,443 | 192,239 | 74,540 | 27,345 | 9,903 |
| Mechanical tubing. | 37,513 | 655,925 | 12,518 | 21,564 | 179 | 630,048 | 189,041 | 616,314 | 185,710 56,883 | 13,734 | 3,331 5,404 |
| Miscellaneous..... | 19,308 | 254,234 |  | 1,272 | 80 | 266,405 | 62,287 | 241,998 | 56,883 | 24,407 | 5,404 |
| Wire: |  |  |  |  |  |  |  |  |  |  |  |
| Plain wire. | 77,160 | 2,114,065 | 65,696 | 489,630 | 8,235 | 1,613,850 | 366,709 | 1,471,453 | 332,331 | 142,397 | 34,378 |
| Galvanized wire. | 11,403 | 351,130 | 9,888 | 25,073 | 1,735 | 312,460 | 81,255 | 267,312 | 69,701 | 45,148 | 11,554 |
| Other coated wire. | 3,952 | 88,800 | 1,737 | 5,298 | 1,735 | 82,720 | 35,352 | 80,897 | 34,574 | 1,823 | 778 |
| Wire products: ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |
| Nails and staples....... | 3,299 | 426,537 | - | 3,307 | 493 | 429,020 | 99,229 | 415,146 | 96,032 211 | 13,874 | 3,197 |
| Barbed and twisted wire. | 37 | 56,382 | - |  | 31 | 57,616 | 11,807 | 257,616 | ${ }^{2} 11,807$ |  |  |
| Wire fence, woven and welded. | 1,138 | 129,585 53,336 | - | 1,198 | (D) | 137,834 55,034 | 30,609 12,082 | 137,834 54,535 | 30,609 11,974 | 499 | 108 |
| Bale ties........... | (D) 344 | 53,336 75,769 | (D) ${ }^{-}$ | - | (D) | 55,034 77,676 | 12,082 53,998 | 54,535 58,925 | 11,974 | 499 18,754 | 11,874 |
| Wire strand ${ }^{4} . . . . .$. | (D) | 74,272 | (D) | (D) | (D) | 71,295 | 28,673 | 69,916 | 28,181 | 1,379 | 492 |
| Woven wire netting. | (D) | 50,365 | - | (D) | (D) | 49,770 | 14,555 | 49,770 | 14,555 | - | - |
| Other rolled and drawn carbon steel products. | 1,754 | 157,358 | - | 8,116 | 802 | 148,645 | 30,403 | 145,520 | 29,157 | 3,125 | 1,246 |
| Ingots. | 63,283 | 5,669,114 | 5,443,774 | 200,245 | 1,239 | 71,375 | 13,717 | 17,574 | 3,105 | 53,801 | 10,612 |
| Semifinished shapes and forms: |  |  |  |  |  |  |  |  |  |  |  |
| Tube rounds and skelp.................. | 636,295 260,007 | $3,717,183$ 444,134 | 3,378,818 | 70,117 | 3,404 | 233,364 | 155,333 | 32,013 | 7,765 | 201,351 | 42,568 |
| Wire rods............. | 16,058 | 65,845 | 45,090 | 7,907 | - | 27,494 | 6,674 | 227,494 | 26,674 | ${ }^{(2)}$ | $\left({ }^{2}\right)$ |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Plates............... | 2,861 | 337,325 | 1,679 | (D) | (D) | 329,467 | 95,137 | 314,761 | 92,234 | 14,706 | 2,903 |
| Sheet and strip: |  |  |  |  |  |  |  |  |  |  |  |
| Sheet: Hot-rolled. |  |  |  |  |  |  |  |  |  |  |  |
| Hot-rolled. |  |  |  |  |  | 244,511 |  |  |  |  | $\begin{aligned} & 5,183 \\ & (2) \end{aligned}$ |
| Cold-rolled.................. | (D) | $60,716$ | (D) | - | (D) | 56,254 | $15,867$ | ²56,254 | ${ }^{2} 15,867$ | ${ }^{(2)}$ | $\left(^{2}\right)$ |
| Electrical (sheet and strip) | 89,378 | 427,494 | (D) | 11,776 | - | 477,852 | 143,826 | 477,852 | 143,826 | - |  |
| Strip: |  |  |  |  |  |  |  |  |  |  |  |
| Hot-rolled. | 6,601 | 35,197 | 6,743 | - | - | 32,178 | 7,928 | 28,034 | 6,901 | 4,144 | 1,027 |
| Cold-rolled. | (D) | 23,677 | 13,228 | (D) | - | 13,203 | 11,436 | 9,597 | 9,465 | 3,606 | 1,971 |
| Structural shapes...... | (D) | 42,270 | - | (D) | 204 | 39,812 | 6,806 | 37,956 | 6,468 | 1,856 | 338 |

[^81]TABLE 6A-3. Steel Mill Products-Receipts, Production, Consumption, and Shipments: 1958-Continued

| Product | Receipts ${ }^{1}$ | Production | Products consumed in producing plants (short tons) |  |  | Shipments ${ }^{1}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Total |  | To other companies |  | Transfers to other plants of the same company |  |
|  |  |  | In the manufacture of other steel basic shapes and forms | $\begin{aligned} & \text { In the } \\ & \text { manufacture } \\ & \text { of } \\ & \text { fabricated } \\ & \text { products } \end{aligned}$ | As maintenance, repair, and operating supplies | Quantity <br> (short tons) | $\begin{aligned} & \text { Value } \\ & \text { fo.... } \\ & \text { plant } \\ & (\$ 1,000) \end{aligned}$ | Quantity (short tons) | Value f.o.b. plant $(\$ 1,000)$ | Quantity <br> (short tons) | $\begin{gathered} \text { Value } \\ \text { folob. } \\ \text { plant } \\ (\$ 1,000) \\ \hline \end{gathered}$ |
| ALLOY STEEL (EXCEPT STAINLESS)-Continued |  |  |  |  |  |  |  |  |  |  |  |
| Finished shapes and forms-Continued Bars: <br> Hot-rolled. <br> Cold-finished. | 115,789 32 | $\begin{array}{r} 1,252,215 \\ 163,571 \end{array}$ | 93,901 | 52,116 | 1,384 | $1,192,103$ 158,763 | 241,192 58,941 | 1,055,874 | 214,504 54,064 | 136,229 12,546 | $\begin{array}{r} 26,688 \\ 4,877 \end{array}$ |
| ```Tool steel bars: High speed. Other than high speed.``` | $\begin{array}{r}\text { 5,486 } \\ \hline 705\end{array}$ | 8,104 40,997 | (D) | 21 233 | 87 203 | 12,684 41,376 | 33,707 49,609 | 10,956 35,175 | 30,093 42,301 | 1,728 6,201 | $\begin{aligned} & 3,614 \\ & 7,308 \end{aligned}$ |
| Pipe and tubes: <br> Oil country goods <br> Pressure tubing. <br> Mechanical tubing. <br> Standard, line, and miscellaneous. | (D) 112 46,070 83 8 | 240,713 3,809 302,038 6,738 | 120 32,879 | $\begin{gathered} \text { (D) } \\ \text { (D) } \\ \text { (D) } \end{gathered}$ | (D) 32 32 (D) | \} 473,879 | 190,690 | $\left\{\begin{array}{r}202,503 \\ 34,267 \\ 123,455 \\ 1,182\end{array}\right.$ | 57,817 23,169 63,269 11,003 | , $\}$ 112,472 | 44,775 |
| ```Wire.. Other rolied and drawn alloy steel products...................``` | 1,280 | $\begin{aligned} & 42,412 \\ & 10,466 \end{aligned}$ | 1,030 | 7,911 | - | $\begin{aligned} & 33,976 \\ & 10,882 \end{aligned}$ | $\begin{array}{r} 25,154 \\ 9,439 \end{array}$ | 32,625 10,882 | 24,264 9,439 | 1,351 | 890 |
| Ingots................................................... | 46,511 | 900,793 | 883,761 | 4,715 | 210 | 49,469 | 34,352 | 18,558 | 18,586 | 30,911 | 15,766 |
| Semifinished shapes and forms: <br> Blooms, billets, slabs, and sheet bars. <br> Tube rounds and wire rods. | 166,473 28,507 | $\begin{array}{r} 671,326 \\ 47,201 \end{array}$ | $\begin{array}{r} 632,238 \\ 43,973 \end{array}$ | 398 | 721 23 | 202,581 | 130,514 | $\left\{\begin{array}{l}38,175 \\ 11,736\end{array}\right.$ | 26,945 12,611 | \} 152,670 | 90,958 |
| Finished shapes and forms: <br> Plates | 4,250 | 37,178 | 4,127 | 6,993 | 143 | 33,112 | 41,120 | 33,112 | 41,120 | - | - |
| Sheet and strip: Sheet: |  |  |  |  |  |  |  |  |  |  |  |
| Hot-rolled. Cold-rolled | $\begin{array}{r} 103,096 \\ 8,144 \end{array}$ | $\begin{array}{r} 86,686 \\ 101,687 \end{array}$ | $\begin{array}{r} 61,686 \\ 5,761 \end{array}$ | (D) 75 | (D) 175 | 108,214 97,722 | $\begin{array}{r} 65,148 \\ 121,382 \end{array}$ | $\begin{array}{r} 38,127 \\ 297,722 \end{array}$ | $\begin{array}{r} 36,562 \\ 2121,382 \end{array}$ | $\begin{gathered} 70,087 \\ \left({ }^{2}\right) \end{gathered}$ | 28,586 ${ }_{(2)}$ |
| Strip: <br> Hot-rolled. <br> Cold-rolled. | $\begin{aligned} & 78,914 \\ & 12,796 \end{aligned}$ | $\begin{array}{r} 79,470 \\ 190,125 \end{array}$ | $\begin{aligned} & 75,917 \\ & 17,515 \end{aligned}$ | 4,253 | 19 | 80,358 179,503 | $\begin{array}{r} 54,914 \\ 188,822 \end{array}$ | $\begin{aligned} & 280,358 \\ & 166,810 \end{aligned}$ | $\begin{aligned} & \begin{array}{l} 54,914 \\ 179,221 \end{array} \end{aligned}$ | $\begin{array}{r} \left({ }^{(2)}\right. \\ 12,693 \end{array}$ | $\left({ }^{2}\right)$ 9,601 |
| Bars: <br> Hot-rolled. <br> Cold-finished | 7,037 403 | $\begin{aligned} & 38,531 \\ & 47,469 \end{aligned}$ | $\begin{array}{r} 4,619 \\ (D) \end{array}$ | $\begin{aligned} & 494 \\ & \text { (D) } \end{aligned}$ | ( ${ }^{86}$ | $\begin{aligned} & 39,741 \\ & 46,946 \end{aligned}$ | $\begin{aligned} & 49,208 \\ & 61,647 \end{aligned}$ | $\begin{aligned} & 32,395 \\ & 45,587 \end{aligned}$ | $\begin{aligned} & 41,555 \\ & 59,669 \end{aligned}$ | $\begin{aligned} & 7,346 \\ & 1,359 \end{aligned}$ | $\begin{aligned} & 7,653 \\ & 1,978 \end{aligned}$ |
| Pipe and tubes: <br> Pressure tubing. <br> Mechanical tubing. | $\begin{array}{r} 532 \\ 4,006 \end{array}$ | $\begin{array}{r} 17,941 \\ 9,803 \end{array}$ | $\left.\begin{array}{r} 601 \\ 2,821 \end{array} \right\rvert\,$ | 34 | - | $\begin{aligned} & 18,333 \\ & 10,858 \end{aligned}$ | $\begin{aligned} & 52,949 \\ & 43,744 \end{aligned}$ | $\begin{aligned} & { }^{2} 18,333 \\ & { }^{2} 10,858 \end{aligned}$ | $\begin{aligned} & 252,949 \\ & { }^{2} 43,744 \end{aligned}$ | ${ }_{(2)}^{(2)}$ | $(2)$ $(2)$ |
| Wire.......................................... Other roiled and drawn stainless steei products......... | $\begin{array}{r} 1,266 \\ 180 \\ \hline \end{array}$ | $\begin{aligned} & 29,545 \\ & 10,059 \end{aligned}$ | $\begin{array}{r} 737 \\ 65 \end{array}$ | (D) | (D) | $\begin{array}{r} 29,384 \\ 10,217 \\ \hline \end{array}$ | $\begin{aligned} & 48,242 \\ & 12,428 \end{aligned}$ | $\begin{aligned} & 28,632 \\ & 10,217 \end{aligned}$ | $\begin{aligned} & 46,542 \\ & 12,428 \end{aligned}$ | 752 | 1,700 |

Source: Current Industrial Reports (previously identified as Facts for Industry Series) M33B, Steel Mill Products.
Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
${ }^{1}$ Excludes receipts and shipments of steel processed on a conversion basis for nonsteel producing companies.
${ }^{2}$ Transfers to other plants of the same company are included with shipments to other companies.


## TABLE 6A-4. Steel Mill Products-Net Shipments: 1958 to 1963

| Product | Net shipments ${ }^{1}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1963 | 1962 | 1961 | 1960 | 1959 | 1958 |
| ALL GRADES, TOTAL........................................... | 75,391,424 | 70,731,719 | 66,159,568 | 70,420,492 | 69,382,429 | 60,557,879 |
| Carbon steel, total...................................... | $\begin{aligned} & 69,178,352 \\ & 1,708,463 \end{aligned}$ | $\begin{gathered} 65,204,090 \\ 1,540,086 \end{gathered}$ | $\begin{array}{r} 61,371,300 \\ 815,116 \end{array}$ | $\begin{array}{r} 65,370,521 \\ 1,310,553 \end{array}$ | $\begin{gathered} 64,053,457 \\ 1,496,118 \end{gathered}$ | $\begin{array}{r} 56,676,520 \\ 1,156,263 \end{array}$ |
| Finished shapes and forms: Plates: |  |  |  |  |  |  |
| Floor plates.............. Plates, other than floor pla | $\begin{array}{r} 160,594 \\ 6,261,737 \end{array}$ | $\begin{array}{r} 157,176 \\ 5,400,081 \end{array}$ | $\begin{array}{r} 144,033 \\ 5.731,686 \end{array}$ | $\begin{array}{r} 175,248 \\ 5.277 \end{array}$ | $\begin{array}{r} 143,949 \\ 5,040,847 \end{array}$ | $\begin{array}{r} 148,313 \\ 497351 \end{array}$ |
| Structural shapes Sheet piling...... Bearing piles... | $4,799,592$ 179,127 217,413 | $\begin{array}{r} 4,384,246 \\ 214,982 \\ 149,768 \end{array}$ | $\begin{array}{r} 4,377,870 \\ 204,631 \\ 181,061 \end{array}$ | 5,216,974 | 4,670,267 | 4,479,132 |
| Sheets and strip: Sheet: |  |  |  |  |  |  |
| Hot-rolled and enameling. | 8,167,659 | 7,413,501 | 7,063,258 | 7,618,583 | 7,816,317 | 6,119,513 |
| Cold-rolled. | 14,154,481 | 13,315,602 | 11,912,375 | 14,136,872 | 12,425,066 | 10,194,400 |
| Galvanized ${ }_{\text {Electrical }}$ (sheet and st........ | 3,592,153 | 3,301,174 | 3,139,172 | 2,980,956 | 2,690,475 | 2,769,497 |
| Electrical (sheet and strip) | 53,860 327,163 | 41,427 297,986 | 34,187 240,951 | 46,891 183,685 | 49,396 180,888 | 41,269 124,499 |
| Strip: |  |  |  |  |  |  |
| Hot-rolled. | 1,199,506 | 1,218,403 | 1,167,524 | 1,323,092 | 1,261,462 |  |
| Cold-rolled | 1,093,239 | -923,812 | 1,811,630 | 1,798,543 | -867,458 | 642,772 |
| Calvanized. | 1,277,979 | 256,588 | 244,468 | 245,697 | 243,837 | 197,521 |
| Tin-mil1 products:Tinplate: |  |  |  |  |  |  |
| Hot-dipped.. | 189,239 | 176,009 | 278,481 | 372,340 | 400,292 | 442,609 |
| Electrolytic............ | \} 5,046,423 | 5,405,836 | 5,247,680 | 5,075,415 | 4,856,672 | 5,083,113 |
| Terneplate (short ternes).................. Blackplate (including chemically treated). | 406,421 | 550,136 | 512,168 | 546,904 | 584,119 | 601,581 |
| Bars: |  |  |  |  |  |  |
| Hot-rolled bars (except concrete reinforcing) : <br> Hollow drill steel <br>  | ) 5,681,996 | 5,300,362 | 4,825,885 | 5,313,459 | 5,068,467 | 4,525,545 |
| Concrete reinforcing bars: |  |  |  |  |  |  |
| Rolled from new billets..................................... Rolled from old materials (rails, axies, etc.)........... | $\begin{array}{r} 2,915,599 \\ 167,427 \end{array}$ | $\begin{array}{r} 2,333,334 \\ 405,921 \end{array}$ | $\begin{array}{r}2,535,639 \\ \hline 221,837\end{array}$ | $2,198,189$ 181,793 | $2,133,725$ 154,252 | 2,408,574 |
| Cold-finished bars Tool steel bars... | $1,307,933$ 8,766 | $1,246,202$ 8,852 | 1,071,816 8,502 | $1,213,457$ 8,971 | $\begin{array}{r} 1,271,245 \\ 10,159 \end{array}$ | $\begin{array}{r} 933,526 \\ 6,833 \end{array}$ |
| Pipe and tubes: |  |  |  |  |  |  |
| Standard pipe. | 2,269,537 | 2,025,377 | 2,125,657 | 2,089,878 | 2,264,208 | 2,222,942 |
| Line pipe.. | 1,925,468 | 2,208,495 | 2,414,755 | 2,467,299 | 2,560,114 | 2,393,687 |
| 0 Oil country goods | 1,170,506 | 1,172,487 | 1,262,647 | 905,306 | 1,645,945 | 895,864 |
| Pressure tubing. | 212,281 | 211,092 | 235,774 | 226,502 | 227,371 | 217,373 |
| Mechanical tubin Miscellaneous.. | 877,212 | 899,864 | 761,626 <br> 217 <br> 1593 | 783,833 213,350 | 890,755 <br> 194 <br> 128 | 614,278 248,449 |
| Miscellaneous. | 236,374 | 250,436 | 217,593 | 213,350 | 194,328 | 248,449 |
| Wire: |  |  |  |  |  |  |
| Plain wire..... | 2,154,486 | 2,019,552 | 1,978,478 | 2,056,399 | 2,322,175 | 2,034,555 |
| Galvanized wire | 306,725 | 348,584 | 378,452 | 329,114 | 375,071 | 327,865 |
| Other coated wire | 103,960 | 110,658 | 93,383 | 81,887 | 97,941 | 84,066 |
| Wire products: ${ }^{2}$ |  |  |  |  |  |  |
| Nails and staples.. | 339,989 | 330,678 | 340,830 | 338,913 | 403,850 | 429,521 |
| Barbed and twisted wire. | 110,772 | 86,914 | 74,768 | 48,701 | 51,118 | 57,619 |
| Wire fence, woven and welded | 131,707 | 130,583 | 136,244 | 111,209 | 132, 041 | 137,910 |
| Bale ties... | 71,767 | 71,414 | 77,381 | 61,460 | 53,077 | 54,999 |
| Wire rope and cable | 97,712 | 94,305 | 88,628 | 84,751 | 78,622 | 77,678 |
| Wire strand......... | 96,920 37,829 | 92,328 52,031 | 89,136 48,574 | 7,442 44,422 | 72,373 83,793 | 70,781 49,743 |
| Woven wire netling. |  |  |  |  |  |  |
| Standard tee rails (over 60 lb . per yard)....................... All other rails (light tee, girder, guard, etc.)............... | $\begin{gathered} 506,908 \\ 31,363 \end{gathered}$ | $\begin{aligned} & 508,747 \\ & 43,880 \end{aligned}$ | 424,711 43,270 | $\begin{gathered} 673,532 \\ 38,614 \end{gathered}$ | $\begin{array}{r} 586,368 \\ 38,208 \end{array}$ | $\begin{array}{r} 529,054 \\ 39,333 \end{array}$ |
| Rail joints and tie plates.................................. | 167,384 | 122,630 | 98,451 | 170,109 | 185,724 | 152,117 |
| Wheels, rolled (including tires and rins)..................... | 270,802 | 246,746 | 202,040 | 260,905 | 251,350 | 174,944 |
| Other rolled and drawn carbon steel products.................... | 141,880 | 135,805 | 108,932 | 138,132 | 174,014 | 155,809 |
| Alloy steel (except stainless), total. Ingots and semifinished shapes and forms (blooms, billets,ete.) | $\begin{array}{r} 5,545,377 \\ 744,433 \end{array}$ | $\begin{aligned} & 4,887,173 \\ & 593,651 \end{aligned}$ | $\begin{aligned} & 4,203,966 \\ & 583,424 \end{aligned}$ | $\begin{array}{r} 4,457,360 \\ 610,103 \end{array}$ | $\begin{array}{r} 4,669,866 \\ 668,756 \end{array}$ | $\begin{aligned} & 3,417,518 \\ & 512,827 \end{aligned}$ |

TABLE 6A-4. Steel Mill Products-Net Shipments: 1958 to 1963-Continued

| Product |
| :---: |

Source: Current Industrial Reports Series M33B, Steel Mill Products.
${ }^{1}$ Derived by subtracting the steel mills' receipts of each steel mill shape from the total of shipments to other companies, transfers to other plants, and tonnage consumed in steel mills in the production of fabricated products and as maintenance, repair, and operating supplies. For practical purposes, net shipments amount to zero for some products. Due to material in transit, this results in negative figures for a few items. Where products are grouped together for calculation of net shipments, some of the individual products within the group may represent negative figures. In such cases, the negative figures for the individual products were subtracted from the net shipments of the other products and an overall net shipments total is shown.
${ }^{2}$ Represents wire products produced within steel works and wire drawing establishments.
${ }^{3}$ Electrical strip is included with electrical sheet.

## TABLE 6A-5. Pig Iron Shipped from Blast Furnaces-Quantity and Value: 1963 and 1958

| Product | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1963 |  | 1958 |  |
|  | Quantity <br> (short tons) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity <br> (short tons) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| Pig iron, total reported in the census. | 170,741,114 | (NA) | 157,050,000 | (NA) |
| Pig iron, by grade: ${ }^{2}$ Total. | 72,211,000 | 4,222,468 | 56,917,937 | 3,392,308 |
| Foundry. | 1,657,000 | 92,156 | 1,619,453 | 92,387 |
| Basic... | 65,062,000 | 3,803,535 | 47,674,412 | 2,847,545 |
| Bessemer. | 2,821,000 | 171,317 | 3,701,059 | 218,973 |
| Low-phosphorus. | 173,000 | 10,554 | 1,363,387 | 78,283 |
| Malleable....... | 2,299,000 | 135,070 | 2,302,762 | 140,629 |
| All other (not ferroalloys). | 199,000 | 9,836 | 256,864 | 14,491 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies. applicable.
(NA) Not available.
(X) Not
${ }^{1}$ Represents total production.
${ }^{2}$ Source: Bureau of Mines, Department of Interior.

## TABLE 6A-6. Ferroalloys Shipped by All Producers-Quantity and Value: 1963 and 1958



[^82]TABLE 6A-7. Steel Ingots-Production, by Grade of Steel and Geographic Areas: 1963 and 1958

| (Short tons) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Geographic area | 1963 |  |  | 1958 |  |  |
|  | Total all grades | Carbon | $\begin{gathered} \text { Alloy } \\ \text { and } \\ \text { stainless } \end{gathered}$ | Total all grades | Carbon | $\begin{gathered} \text { Alloy } \\ \text { and } \\ \text { stainless } \end{gathered}$ |
| United States, total. | 109,010,618 | 98,845,947 | 10,164,671 | 85,148,773 | 78,578,866 | 6,569,907 |
| Northeast. | 30,723,933 | (D) | (D) | 25,109,319 | (D) | (D) |
| Pennsylvania. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 25,036,409 | 21,145,752 | 3,890,657 | 20,791,709 | 18,067,536 | 2,724,173 |
| Rhode Island, Comnecticut, New York, and New Jersey............ |  | (D) |  |  |  | (D) |
| East North Central | 52,173,822 | 47,446,570 | 4,727,252 | 37,886,401 | 34,903,423 | 2,982,978 |
| Ohio.... | 18,781,056 | 16,594,667 | 2,186,389 | 13,789,724 | 12,279,676 | 1,510,048 |
| Indiana. | 15,552,933 | 14,708,082 | 844,851 | 12,617,698 | 12,189,517 | 428,181 |
| Illinois. | 9,290,945 | 8,271,847 | 1,019,098 | 6,911,195 | 6,375,438 | 535,757 |
| Michigan ${ }^{1}$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 8,548,888 | 7,871,974 | 676,914 | 4,567,784 | 4,058,792 | 508,992 |
| South.. | 17,839,504 | 17,212,166 | 627,338 | 15,128,805 | (D) | (D) |
| Kentucky, Alabama, and Mississippi............................... | 5,292,086 | 4,915,417 | 376,669 | 4,538,957 | \%,397,679 | 141,278 |
| Delaware, Maryland, Virginia, West Virginia, Georgia, Florida, Oklahoma, and Texas. | 12,547,418 | 12,296,749 | 250,669 | 10,589,848 | (D) | (D) |
| West North Central and Mountain.................................... . | 4,539,951 | (D) | (D) | 4,145,383 | (D) | (D) |
| Pacific. | 3,733,408 | 3,579,501 | 153,907 | 2,878,863 | (D) | (D) |
| California....................... . . . . . . . . . . . . . . . . . . . . . . . . . . . | 3,299,766 | (D) | (D) | 2,575,140 | 2,508,561 | 66,579 |
| Washington, Oregon, and Hawaii ${ }^{2}$.................................. | 433,642 | (D) | (D) | 303,723 | (D) | (D) |

[^83]
## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products, Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes ( $1954=100)$ |  | Product code | Product and year | Indexes ( 1954 = 100) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |  |  | Production | Unit value |
| 331-- | Steel rolling and finishing ${ }^{1}$....ri963.. ${ }^{\text {1958.. }}$ | 118 96 | $\begin{aligned} & 120 \\ & 123 \end{aligned}$ | $\begin{array}{\|l\|} \hline 3313- \\ 33121 \mathrm{pt} \end{array}$ | Electrometallurgical products ${ }^{2}$-Continued |  |  |
| 3312- | Blast furnace (including coke oven), steel works and rolling mill products ${ }^{1}$....1963.. | 118 95 | $\begin{aligned} & 120 \\ & 123 \end{aligned}$ | $\begin{aligned} & 33133 \\ & 33134 \end{aligned}$ |  | 168 120 124 109 | 119 119 114 116 |
| $\begin{aligned} & 33121 \\ & 3313 \mathrm{pt} \end{aligned}$ | Coke oven, blast furnace, and electro- <br> ) metallurgical products ${ }^{1}$.............1963.. | 117 96 | 105 | 3315- | Steel wire drawing. . . . . . . . . . . . . . . . 1963.. | 99 94 | 123 122 |
| 33122 | Steel ingot and semifinished shapes ${ }^{1}$.................................. 1963. 1958. | 123 96 | 122 | 33151 | Noninsulated ferrous wire rope, cable, and strand............................. 1963.. | 120 106 | 102 |
| 33123 | Tin mill products, hot rolled sheet and strip................................ . 1963.. | 122 | 120 | 33152 | Steel nails and spikes............ $1963 .$. $1958 .$. | 70 88 | 146 |
| 33124 33125 | $\begin{aligned} & \text { Hot rolled bars and bar shapes, } 1958 . . \\ & \text { plates.................................. } 1963 . . \\ & 1958 . \text {. } \end{aligned}$ | $\begin{array}{r}99 \\ 127 \\ 97 \\ \hline 12\end{array}$ | 120 | 33155 33125 33156 |  | 111 102 81 76 | 126 127 145 141 |
| $\begin{aligned} & 33125 \\ & 33155 \end{aligned}$ |  | 111 | 126 | 33157 | Wire cloth and other woven wire products.................................. 1963. . | 78 | 125 |
| $\begin{aligned} & 33126 \\ & 33176 \end{aligned}$ |  | $\begin{aligned} & 99 \\ & 90 \end{aligned}$ | $\begin{aligned} & 120 \\ & 127 \end{aligned}$ | 33159 | Other fabricated ferrous wire products (except springs)................ 1963. | 82 139 | 120 119 |
| $\begin{aligned} & 33127 \\ & 33167 \end{aligned}$ | ) Cold-rolled steel sheet and strip ${ }^{1} .1963 .$. | 139 | 125 124 |  | ucts (except springs)................ 1963.. | 139 | 119 |
| $\begin{aligned} & 33128 \\ & 33168 \end{aligned}$ |  | 132 94 | 130 | 3316- | Cold-finishing of steel shapes ${ }^{1} \ldots . . .1963 .$. | 138 103 | 126 125 |
| $\begin{aligned} & 33129 \\ & 33919 \end{aligned}$ | ) Press and hammer steel forgings ${ }^{1} \ldots$. $1963 .$. | $\begin{aligned} & 74 \\ & 87 \end{aligned}$ | $\begin{aligned} & 141 \\ & 135 \end{aligned}$ | $\begin{aligned} & 33167 \\ & 33127 \end{aligned}$ | ( Cold-rolled steel sheet and strip ${ }^{1} .1963 .$. | 139 104 | $\begin{aligned} & 125 \\ & 124 \end{aligned}$ |
| $\begin{aligned} & 3313- \\ & 33121 \mathrm{pt} . \end{aligned}$ | Electrometallurgical products ${ }^{2}$.......1963.. $1958 .$. | $\begin{aligned} & 126 \\ & 105 \end{aligned}$ | 89 117 | $\begin{aligned} & 33168 \\ & 33128 \end{aligned}$ | Cold-finished steel bars (except concrete reinforcing ${ }^{1}$. . . . . . . . . . . . . . . 1963.. | 132 94 | 130 129 |
| 33131 | Ferromanganese ${ }^{2}$............................. 1963. $1958 .$. | $\begin{array}{r} 100 \\ 76 \end{array}$ | 69 107 | 3317- | Welded and heavy-riveted steel pipe ${ }^{1} .1963 .$. | 99 90 | $\begin{aligned} & 120 \\ & 127 \end{aligned}$ |
| 33132 | Ferrochrome ${ }^{2}$. . . . . . . . . . . . . . . . . . . 1963.. 1958. . | $\begin{aligned} & 168 \\ & 163 \end{aligned}$ | 67 109 | $\begin{aligned} & 33176 \\ & 33126 \end{aligned}$ | Welded and heavy-riveted steel pipe ${ }^{1}$. . . . . . . . . . . . . . . . . . . . . . . . . . . 1963. . | 99 90 | $\begin{aligned} & 120 \\ & 127 \end{aligned}$ |

${ }^{1}$ These indexes have been computed on a "wherever-made" basis--that is, they reflect the shipments and production reported by mills operating rolling and finishing facilities but no steel furnaces, as well as by steel mills (industry 3312 establishments). In the case of product classes 33121 and 33122 , the production indexes have been independently derived from production data while the unit value indexes have been determined in the usual manner by reference to shipments detail.
${ }^{2}$ These indexes are based on shipments data reported by the Bureau of Mines, Department of Interior. (Table 6A-6 presents the 1963 and 1958 detail relative to these ferroalloys used in the computation of these indexes.)

## table 6C. Product Classes-Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963

| (In thousands of dollars) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Product class | 1963 | $1962{ }^{1}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | $1959{ }^{\text {² }}$ | 1958 | 1954 | 1947 |
| 3312- | Blast furnaces and steel mills ${ }^{2}$. | 17,553,735 | 16,462,035 | 15,697,143 | 16,580,382 | 16,295,776 | (NA) | (NA) | (NA) |
| $\begin{aligned} & 33121 \\ & 33131 \\ & 33134 \end{aligned}$ | $\left\{\begin{array}{l} \text { Coke oven and blast furnace products, } \\ \text { including selected } \\ \text { in other furnaces (except ferrochrome } \\ \text { and ferrosilicon)..................................................... } \end{array}\right.$ | 1,484,920 | 1,356,206 | 1,386,412 | 1,485,638 | 1,511,390 | (NA) | (NA) | (NA) |
| 33122 | Steel ingot and semifinished shapes....... | 2,034,695 | 22,017,447 | ${ }^{2} 1,978,106$ | 22,008,664 | 22,153,930 | 1,846,924 | 1,668,534 | 434,434 |
| 33123 | Hot rolled sheet and strip, including tin mill products. | 3,969,289 | 23,737,490 | 23,542,779 | 23,637,507 | 23,154, 251 | 3,169,294 | 2,568,616 | 1,441,402 |
| 33124 | Hot rolled bars and bar shapes, plates, structural shapes and piling............... | 3,667,698 | 23,358,780 | 23,152,704 | 23,392,941 | 23,212,538 | 2,879,672 | 2,298,809 | (NA) |
| 33125 33155 | \} Steel wire. . . . . . . . . . . . . . . . . . . . . . . . . . | 621,566 | ²601,294 | 2575,447 | 2593,139 | ${ }^{2} 667,170$ | 564,734 | 464,992 | 313,793 |
| 33126 33176 | \} Steel pipe and tube........................ | 1,887,495 | ${ }^{2} 1,824,447$ | ${ }^{2} 1,819,786$ | ${ }^{2} 1,774,306$ | 22,091,714 | 1,723,643 | 1,551,131 | 841,875 |
| 33127 | $\{$ Cold rolled steel sheet and strip |  |  |  |  |  |  |  |  |
| 33167 | f (exclude tin mill products).............. | 2,872,901 | ${ }^{2} 2,664,168$ | 22,431,629 | 22,774,524 | ${ }^{2} 2,587,084$ | 2,091,623 | 1,642,491 | 804,122 |
| 33128 33168 | $\left\{\begin{array}{c}\text { cold finished steel bars and bar } \\ \text { shapes.................................... }\end{array}\right.$ | 472,745 | 2466,343 | 2407,451 | 2448,486 | 2468,126 | 338,924 | 277,078 | 200,278 |
| 33129 | Press and hammer steel forgings (made in steel mills) ${ }^{3}$ | 316,668 | 260,000 | 240,785 | 251,263 | 235,205 | 338,924 | 188,323 | 127,984 |
| 33120 | Blast furnaces and steel mills, n.s.k..... | 225,760 | 175,866 | 162,044 | 213,914 | 214,368 | 198,515 | 241,592 | (NA) |
| 3313- | Electrometallurgical products. | 411,580 | (NA) | (NA) | (NA) | (NA) | 468,177 | 368,342 | 225,993 |
| 33132 | Ferrochrome................................. | 85,313 | 81,158 | 94,413 | 90,677 | 114,933 | (NA) | (NA) | (NA) |
| $33131$ | \} Ferromang anese |  |  |  |  |  |  |  |  |
| $33134$ |  | 246,401 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 33121 pt. | ) Other ferroalloys.............................. . |  |  |  |  |  |  |  |  |
| 33133 | Ferrosilicon.. | 78,092 | 78,947 | 81,284 | 68,494 | 78,306 | (NA) | (NA) | (NA) |
| 33130 | Electrometallurgical products, n.s.k | 1,774 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 3315- | Steel wire, drawing, etc. | 1,672,445 | (NA) | (NA) | (NA) | (NA) | 1,490,977 | 1,242,978 | (NA) |
| 33151 |  |  |  |  |  |  |  |  |  |
| 34811 | $f$ and strand............................ | 189,934 | 190,553 | 178,689 | 185,228 | 190,913 | 163,386 | 193,944 | 128,338 |
| 33152 | Steel nails and spikes | 153,085 | 138,737 | 1731,955 | 132,680 | 153,622 | 159,363 | 147,677 | 121,692 |
| 33155 | Steel wire...... | 619,424 | ²601,294 | 2575,447 | 2593,139 | ${ }^{2} 667,170$ | 564,734 | 464,992 | 313,793 |
| 33156 | \} Fencing and fence gates................... | 115,480 | 111,200 | 113,065 | 103,530 | 111,355 | 103,309 | 92,909 | 63,297 |
| 33157 | Wire cloth and other woven wire |  |  |  |  |  |  |  |  |
| 34814 | products........................ | 72,328 | (NA) | (NA) | (NA) | (NA) | 96,899 | 80,151 | (NA) |
| 33159 | $\}$ Other fabricated ferrous wire products |  |  |  |  |  |  |  |  |
| 34819 | (except springs)........................... | 501,529 | 467,407 | 453,458 | 431,233 | 445,835 | 405,656 | 313,382 | 214,690 |
| 33150 | Steel wire drawing, etc., n.s.k. | 20,667 | $(11,395)$ | $(9,576)$ | $(8,909)$ | $(6,658)$ | 6,092 | 994 | (NA) |
| 3316- | Cold finished sheet, strip and bars. | 3,332,558 | 3,130,511 | 2,839,080 | 3,223,010 | 3,055,210 | 2,430,547 | 1, 919, 569 | 1,004,440 |
| 3317- | Steel pipe and tube. | 1,887,495 | ${ }^{2} 1,824,447$ | ${ }^{2} 1,819,786$ | ${ }^{2} 1,774,306$ | 22,091, 714 | 1,723,643 | 1,551,131 | 841,875 |

[^84] applicable. n.s.k. Not specified by kind.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data,
${ }^{2}$ Source: Current Industrial Reports Series M33D, Steel Mill Products.
${ }^{3}$ Includes total for product class 33919, Open die hammer and press forgings (produced from purchased materials), which is primary to 3391.

TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically
significant and which have production that is geographically dispersed, provided that the disper-
sion is not approximated by the data in the geographic table for the industry (table 2) and they
are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1 .


[^85]table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued

${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 33120, Massachusetts, Indiana, Illinois, Missouri, Delaware, West Virginia, Alabama, Texas, Colorado, and California; 33121, 33131, and 33134, Connecticut, New Jersey, Wisconsin, Minnesota, Iowa, Missouri, Maryland, Texas, Colorado, Arizona, Utah, Oregon, and California; 33122, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Indiana, Illinois, Minnesota, Missouri, Maryland, West Virginia, Kentucky, Alabama, Texas, Colorado, and California; 33123, Rhode Island, New York, New Jersey, Pennsylvania, Illinois, Michigan, Maryland, West Virginia, Georgia, Kentucky, Alabama, Utah, Washington, and California; 33124, Connecticut, New York, New Jersey, Missouri, Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Mississippi, Oklahoma, Texas, Colorado, Utah, Washington, Oregon, and Hawaii; 33125 and 33155, Rhode Island, Connecticut, Minnesota, Missouri, Maryland, Georgia, Alabama, Texas, and Colorado; 33126 and 33176 , Connecticut, Minnesota, Iowa, Missouri, Maryiand, West Virginia, Georgia, Kentucky, Tennessee, Mississippi, Louisiana, Texas, Colorado, Utah, Washington, and California; 33127 and 33167, Massachusetts, Rhode Island, Illinois, Maryland, West Virginia, Kentucky, and Alabama; 33128 and 33168 , New York, New Jersey, Michigan, Wisconsin, Maryland, Alabama, Texas, Colorado, and Califormia; 33129 and 33919 , Connecticut, New Jersey, Indiana, Wisconsin, and Washington; 33151 and 34811, Massachusetts, Connecticut, Indiana, Illinois, Wisconsin, Missouri, Maryland, Virginia, Georgia, Florida, Colorado, Washington, and California; 33152, New Hampshire, Rhode Island, Connecticut, Pennsylvania, Wisconsin, Minnesota, Missouri, Maryland, West Virginia, North Carolina, Georgia, Kentucky, Alabama, Texas, Colorado, and California; 33156 and 34816 , Connecticut, Minnesota, Iowa, Missouri, Maryland, Florida, Alabama, Louisiana, Oklahoma, and Colorado; 33157 and 34814, Connecticut, Indiana, Michigan, Missouri, Maryland, Kentucky, Colorado, and Oregon; 33159 and 34819, Rhode Island, Delaware, Louisiana, Oklahoma, and Colorado.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.
${ }^{3}$ Includes a total of $\$ 1,166,564$ for the East North Central Division.
table 7A. Materials by Kind: 1963 and 1958


See footnotes at end of table.

## table 7A. Materials by Kind: 1963 and 1958-Continued



[^86]
## table 7a. Materials by Kind: 1963 and 1958-Continued



Standard Notes: - Represents zero. ( $D$ ) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not sepcified by kind.
${ }^{1}{ }^{1}$ For definition of subindustries see footnote 6 , table 1 .
${ }^{2}$ Total cost of materials, etc., contains extensive duplication. This duplication arises because the products of some establishments are used as materials by other establishments in the same industry. For the industry as a whole the extent of this duplication is approximated by totaling the cost of pig iron, ingots, and semifinished shapes purchased for further processing. Estimated unduplicated cost of materials obtained by this method is $\$ 5,923$ million. The comparable 1958 figure was $\$ 4,886$ million. The extent of duplication for subindustries cannot be measured accurately because such purchases cross subindustry lines.
${ }^{3}$ In addition, pig iron produced and consumed in the same establishment was 56,369 thousand short tons. In 1958, the comparable figure was 47,499 thousand short tons. For 1963, the combined total for partially integrated works including both those with and those without blast furnaces were $6,645,431$ short tons at a delivered cost of $\$ 304,625$ thousand.
${ }_{4}$ In addition, 55,510 short tons of ferromanganese were produced and consumed in the same establishment. The comparable figure for 1958 was 59,408 short tons.
${ }^{5}$ Excludes spiegeleisen produced and consumed in the same establishment.
${ }^{6}$ In addition, 15,572 short tons of other ferroalloys were produced and consumed in the same establishment.
${ }^{7}$ For 1963, excludes sulfuric acid produced and consumed in the same establishment. For 1958, includes sulfuric acid produced and consumed in the same establishment.
${ }^{8}$ In addition 9,613,198 thousand cubic feet of oxygen were produced and consumed in the same establishment.
${ }^{9}$ For 1963, includes cost of manganese ore and nickel. For 1958, includes cost of sulfuric acid, copper, and oxygen.
${ }^{10}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumad were not requested and (b) total cost of materials reported for establishments winch failed to report the costs of individual materials on "standard forms" and (c) discrepancies between total cost of materials and detailed materials on the reports for other establishments.

## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Blast furnaces and steel mills (SIC 3312) | Electrometallurgical products (SIC 3313) | Steel wire drawing, etc. (SIC 3315) | Cold finishing of steel shapes (SIC 3316) | Steel pipe and tube (SIC 3317) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. | 809,433 | 48,165 | 9,918 | 8,998 | 12,824 |
| Total cost of purchased fuels.................................... | 597,236 | 20,706 | 4,866 | 4,575 | 5,936 |
| Bituminous coal, lignite, and anthracite: <br> Quantity................................................ 1,000 short tons Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$ | $\begin{array}{r} 6,899 \\ 45,185 \end{array}$ | $\begin{array}{r} 1,800 \\ 10,975 \end{array}$ | 41 357 | $\begin{array}{r} 50 \\ 332 \end{array}$ | 49 362 |
| Coke and breeze: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons <br> Cost. <br> . . . . . . . . . . $\$ 1,000$. | $\begin{array}{r} 14,011 \\ 216,470 \end{array}$ | $\begin{array}{r} 515 \\ 7,264 \end{array}$ | (S) | (S) | - |
| Fuel oil (distillate and residual): <br> Quantity........................... 1,000 barrels of 42 gallons. <br> cost. | $\begin{array}{r} 34,394 \\ 114,818 \end{array}$ | $\begin{aligned} & 176 \\ & 692 \end{aligned}$ | $\begin{array}{r} 363 \\ 1,211 \end{array}$ | $\begin{aligned} & 186 \\ & 608 \end{aligned}$ | $\begin{aligned} & 171 \\ & 636 \end{aligned}$ |
| ```Gas (natural, manufactured, still, blast furnace, and coke oven): Quantity .million cu.ft.. cost ........$1,000..``` | $\begin{aligned} & 595,441 \\ & 205,067 \end{aligned}$ | 1,946 685 | $\begin{array}{r} 4,968 \\ 2,914 \end{array}$ | $\begin{aligned} & 5,298 \\ & 3,393 \end{aligned}$ | $\begin{aligned} & 8,539 \\ & 4,632 \end{aligned}$ |
|  | 15,696 | 1,090 | 283 | 239 | 306 |
| Electric energy: |  |  |  |  |  |
| Quantity. ....................................................... . . . . . . . . . . <br> Cost. | 22,595 212,197 | $\begin{array}{r} 5,432 \\ 27,459 \end{array}$ | 407 5,052 | 357 4,423 | 6,853 |
| Generated less sold..............................million . kw . -hrs.. | 11,081 | 3,187 | (S) | 9 | (S) |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.........1,000 hp.. | 20,455 | 1,041 | 240 | 402 | 519 |
| Prime movers, total.............................................do.. | 7,035 | 891 | 29 | 20 | 43 |
| Electric motors, total.......................................... . . . . . . . | 19,166 | 295 | 213 | 387 | 491 |
| Driven by purchased energy. .............................. do. | 13,420 | 151 | 211 | 381 | 475 |
| Aggregate horsepower per 100 production workers.................... | 5,030 | 12,475 | 1,549 | 4,302 | 2,656 |

[^87]
# table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 


#### Abstract

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


| Industry <br> or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted ( $\$ 1,000$ ) | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capitalexpend-itures,new$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3312- | BLAST FURNACES AND STEEL MILLS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 288 | 500,550 | 3,711,639 | 412,311 | 791,364 | 2,892,006 | 7,699,535 | 8,958,663 | 16,611,083 | 908,440 |
|  | $90 \%$ or more specialization.. 75-89\% specialization....... | 227 23 | $\begin{array}{r} 424,626 \\ 38,720 \end{array}$ | $\begin{array}{r} 3,168,343 \\ 284,313 \end{array}$ | $\begin{array}{r} 351,449 \\ 31,198 \end{array}$ | $\begin{array}{r} 675,562 \\ 59,623 \end{array}$ | $\begin{array}{r} 2,486,121 \\ 214,041 \end{array}$ | $\begin{array}{r} 6,672,399 \\ 560,198 \end{array}$ | $\begin{array}{r} 7,861,527 \\ 629,987 \end{array}$ | $\begin{array}{r} 14,487,571 \\ 1,194,836 \end{array}$ | $\begin{array}{r} 778,520 \\ 44,619 \end{array}$ |
| 33121 | Coke oven and blast furnace products, including ferroalloys (primary product class of estab.) | 68 | 21,549 | 147,568 | 18,039 | 34,592 | 115,142 | 305,956 | 828,630 | 1,141,470 | 15,122 |
| 33122 | Steel ingots and semifinished shapes (primary product class of estab.) ............................... . Establishments with$90 \%$ or more specialization.... | 19 5 | 30,276 4,769 | 227,301 33,575 | 24,412 3,897 | 46,888 7,150 | 174,355 26,145 | 499,411 96,282 | 655,818 115,250 | $1,149,444$ $21,1,564$ | 49,119 873 |
| $\begin{aligned} & 3312- \\ & 12,13 \end{aligned}$ | \} Partially integrated works...... | 11 | 19,337 | 148,042 | 15,168 | 29,460 | 110,171 | 343,978 | 381,234 | 718,848 | 28,846 |
| 33123 | Hot-rolled sheet and strip, including tin mill products (primary product class of estab.) Establishments with$90 \%$ or more specialization.... | 35 6 | 138,623 5,288 | $1,056,123$ 40,999 | 114,047 4,558 | 218,122 8,895 | 829,050 32,981 | $2,473,005$ 141,546 | $2,719,903$ 176,308 | $5,158,699$ 308,019 | 369,807 8,814 |
| $\begin{gathered} 3312- \\ 11 \end{gathered}$ | \} Fully integrated works.......... | 10 | 90,004 | 679,447 | 74,353 | 141,301 | 534,936 | 1,702,408 | 1,226,088 | 2,721,915 | 149,316 |
| $\begin{gathered} 3312- \\ 12,13 \end{gathered}$ | \} Partially integrated works...... | 10 | 30,633 | 236,699 | 25,352 | 49,805 | 187,827 | 527,380 | 591,784 | 1,099,893 | 158,013 |
| $\begin{gathered} 3312- \\ 14 \end{gathered}$ | $\}$ Nonintegrated works.............. | 15 | 17,986 | 139,977 | 14,342 | 27,016 | 106,287 | 243,828 | 901,831 | 1,144,400 | 62,478 |
| 33124 | Hot-rolled bars and bar shapes, plates, structural shapes, and piling (primary product class of estab.) $\qquad$ Establishments with$90 \%$ or more specialization.... | 78 24 | 156,719 8,457 | $1,151,042$ 61,526 | 127,702 6,675 | 245,036 13,439 | 883,900 44,057 | $2,113,115$ 114,543 | $2,225,992$ 96,915 | $4,336,800$ 211,226 | 204,881 4,231 |
| $\begin{gathered} 3312- \\ 11 \end{gathered}$ | $\}$ Fully integrated works.......... | 9 | 79,452 | 583,398 | 63,750 | 123,155 | 446,298 | 1,110,802 | 967,486 | 2,084,993 | 148,788 |
| $\begin{aligned} & 3312- \\ & 12,13 \end{aligned}$ | \} Partially integrated works..... | 46 | 66,320 | 490,581 | 54,831 | 104,409 | 378,935 | 851,459 | 1,025,950 | 1,867,319 | 46,724 |
| $\begin{gathered} 3312- \\ 14 \end{gathered}$ | \} Nonintegrated works............. | 23 | 10,947 | 77,063 | 9,121 | 17,472 | 58,667 | 150,854 | 232,556 | 384,488 | 9,369 |
| 33125 | Steel wire (produced in steel mills) (primary product class of estab.) $\qquad$ | 11 | 12,223 | 83,671 | 9,973 | 19,610 | 66,086 | 139,531 | 136,442 | 281,449 | 7,433 |
| $\begin{aligned} & 3312- \\ & 12,13 \end{aligned}$ | \} Partially integrated works..... | 5 | 8,434 | 62,640 | 6,979 | 14,090 | 50,558 | 109,492 | 73,153 | 186,804 | 5,350 |
| $\begin{gathered} 3312- \\ 14 \end{gathered}$ | \} Nonintegrated works............ | 6 | 3,789 | 21,031 | 2,994 | 5,520 | 15,528 | 30,039 | 63,289 | 94,705 | 2,083 |
| 33126 | Steel pipe and tube (produced in steel mills) (primary product class of estab.)................... | 19 | 62,555 | 442,603 | 52,986 | 100,320 | 347,492 | 810,914 | 956,188 | 1,753,538 | 56,093 |
| $\begin{gathered} 3312- \\ 11 \end{gathered}$ | $\}$ Fully integrated works.......... | 6 | 42,300 | 297,626 | 35,935 | 68,134 | 236,932 | 559,944 | 589,151 | 1,141,795 | 29,074 |
| $\begin{gathered} 3312- \\ 12,13 \end{gathered}$ | \} Partially integrated works. | 5 | 14,864 | 106,173 | 12,628 | 24,010 | 80,810 | 205,785 | 251,390 | 452,775 | 24,475 |
| $\begin{gathered} 3312- \\ 14 \end{gathered}$ | \} Nonintegrated works............. | 8 | 5,391 | 38,804 | 4,423 | 8,176 | 29,750 | 45,185 | 115,647 | 158,968 | 2,544 |
| 33127 | Cold-rolled steel sheet and strip (produced from own hot-rolled material) (primary product class of estab.) | 14 | 50,055 | 387,651 | 42,064 | 81,765 | 311,624 | 855,922 | 1,043,137 | 1,893,513 | 118,428 |
| 3312- $11$ | \} Fully integrated works........... | 5 | 31,011 | 241,345 | 26,619 | 51,970 | 199,852 | 553,730 | 520,852 | 1,068,792 | 60,519 |
| $\begin{aligned} & 3312- \\ & 12,13 \end{aligned}$ | \} Partially integrated works...... | 4 | 14,610 | 11,033 | 11,931 | 23,139 | 85,367 | 262,871 | 368,232 | 631,946 | 48,585 |
| $\frac{3312-}{14}$ | 1) Nonintegrated works............. | 5 | 4,434 | 35,273 | 3,514 | 6,656 | 26,405 | 39,321 | 154,053 | 192,775 | 9,324 |

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued



# TABLE 9A. Blast Furnaces and Steel Mills (SIC 3312)—Departmental Operations by Degree of Integration: 1963 and 1958 

| Dearatm | Man-hours of production wokerss (1,000) |  |  |  |  |  | Prodution wowke wages si,000 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tolal | $\left\|\begin{array}{c} \substack{\text { inelly } \\ \text { inged } \\ \text { Eoluss }} \end{array}\right\|$ | Patially integated wowk ${ }^{2}$ |  |  |  | Tola |  | Patitaly in itegated works ${ }^{1}$ |  |  |  |
|  |  |  | Tola | $\begin{aligned} & \text { yitht } \\ & \text { furfactect } \end{aligned}$ | $\begin{array}{\|c\|c\|c\|c\|c\|c\|c\|l\|l\|l\|} \substack{\text { thusates }} \\ \hline \end{array}$ |  |  |  | Total |  | $\begin{aligned} & \text { Without } \\ & \text { blast } \\ & \text { furnaces } \end{aligned}$ |  |
|  | ${ }_{1963}$ |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Steel departionent (furnaces). |  |  |  |  |  |  |  |  |  |  |  |  |
| Rolling and finishing nills: |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Founiry (iron or steel)...... Oorging (presses, hammers, or upsetters) |  |  |  |  |  |  |  |  |  |  |  |  |
| Oter manreaturing or fraricating |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| A11 departimen |  |  |  |  | 154,743 <br> $=$ <br> 18,767 <br> 50,393 <br> 1,393 <br> 5,169 <br> 79 <br> 79,021 |  |  |  |  |  |  |  |
| evens......................: |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 边 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

## table 9b. Steel Wire Mills, Cold Finishing Mills, and Pipe and Tube MillsDepartment Operations: 1963

| Department |
| :--- |
|  |

$\qquad$

## IRON AND STEEL FOUNDRIES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SlC Code and Title<br>3321--Gray lron Foundries<br>3322-Malleable lron Foundries<br>3323--Steel Foundries

This group is comprised of three foundry industries, namely industry 3321, Gray lron Foundries; industry 3322, Malleable lron Foundries; and industry 3323, Steel Foundries. These foundry industries comprise establishments primarily engaged in manufacturing gray-iron castings, including cast gray-iron pipe and fittings (3321), malleable iron castings (3322), and steel castings (3323)。

For these industries, captive production (that is, the tonnage of castings produced for incorporation into the final product of the plant or company) is a particularly important factor. Distinction is made between rough castings and castings which are machined or further processed and incorporated into other products. The removal of gates, risers, sprues, and tumbling, dipping, and sand blasting, do not constitute machining. Plants primarily engaged in manufacturing castings are included in the foundry industries; plants primarily engaged in further processing castings into parts for metal products or machinery are classified in other major groups.

For the 1963 Census of Manufactures separate establishment reports were received from all commercial (jobbing) foundries and from those captive foundries which were operated as separate establishments by the reporting companies. These two groups comprise the types of establishments included in industries 3321,3322 , and 3323 . However, where the captive foundry operation was completely integrated with the operation of the entire plant, no separate establishment report was received for the foundry activity. In these instances, data were obtained on the tonnage of castings produced and consumed and on the number of employees usually engaged in the captive foundry operation. However, establishments with such foundry departments were classified on the basis of the plant's final product and accordingly, the general statistics on employment, payrolls, cost of materials, etc., are included in the data for such industries as plumbing fixtures (3431), and farm machinery and equipment (3522), etc.

The data shown in table 6A on shipments and transfers of iron and steel castings represent total shipments and transfers including the quantity of castings shipped by establishments classified in industries other than the foundry industries (3321, 3322, and 3323). For those industries where captive foundry departments are particularly important, data on the tonnage of castings produced and consumed are shown in table 7 of the individual industry reports covering the specific industries.

During 1963, the Bureau of the Census also collected and published monthly data on shipments of iron and steel castings. These monthly data were derived from a sample survey and were published in Current Industrial Reports Series M33-1, Iron and Steel Castings. The M33-1 series includes data for both commercial and captive foundry production and shows separately shipments "for sale" and shipments "for own use."
lt should be specifically noted that the value data on shipments of iron and steel castings in table 6A do not include the value of the large quantity of castings produced by establishments classified in other industries which produce castings only for incorporation into their own products or for internal use but not for sale as such.

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3321 --GRAY 1RON FOUNDR1ES

This industry comprises establishments primarily engaged in manufacturing gray iron castings, including cast iron pressure and soil pipe and fittings. Establishments primarily engaged in manufacturing valves and fittings, except plumbers' brass goods and fittings, are classified in industry 3494, Valves and Pipe Fittings. For a detailed list of products of industry 3321, refer to table 6A, product codes 3321111 to 3321498.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Gray lron Foundries Industry in 1963 totaled $\$ 1,985$ million. This amount included shipments of gray iron castings (primary products) valued at $\$ 1,794$ million, shipments of other products (secondary products) valued at $\$ 134$ million, and miscellaneous receipts (mainly receipts for resales), at $\$ 56$ million.

This industry's shipments of gray iron castings in 1963 represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 included malleable iron castings ( $\$ 22$ million), and aluminum and aluminum-base alloy castings ( $\$ 17$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 85 percent of the total industry shipments are represented by plants specializing in product classes; 60 percent in miscellaneous gray iron castings; 12 percent in cast iron pressure pipe and fittings; and 8 percent in cast iron soil pipe and fittings.

Shipments of gray iron castings by this industry in 1963 represented 88 percent of all shipments of these products ( $\$ 2,046$ million) by all industries. In 1958 the coverage ratio was 87 percent. Other industries shipping gray iron castings (primary products) included industry 3312, Steel Mill Products, $\$ 92$ million; industry 3323, Steel Castings, $\$ 27$ million.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product class of industry 3321 , e.g., molds for heavy steel ingots, 54 percent.

## 3322-MALLEABLE IRON FOUNDRIES

This industry comprises establishments primarily engaged in manufacturing malleable iron castings. For a detailed list of products of industry 3322, refer to table 6A, product codes 3322021 to 3322031 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Malleable Iron Foundries Industry in 1963 totaled $\$ 318$ million. This amount included shipments of malleable iron castings (primary products) valued at $\$ 272$ million, shipments of other products (secondary products) valued at $\$ 42$ million, and miscellaneous receipts (mainly receipts for resales) at $\$ 3$ million.

This industry's shipments of malleable iron castings in 1963 represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 consisted mainly of miscellaneous gray iron castings ( $\$ 21$ million).

Shipments of malleable iron castings by this industry in 1963 represented 87 percent of all shipments of these products ( $\$ 314$ million) by all industries. In 1958 the coverage ratio was 90 percent. Other industries shipping malleable iron castings (primary products) consisted mainly of industry 3321, Gray Iron Foundries, $\$ 22$ million.

The production index for the primary products of the industry increased to 124 in 1963 from the 1958 level of 84 . The unit value index for 1963 was 123 compared to 118 in 1958. Both indexes were computed on a basis of $1954=100$.

3323-STEEL FOUNDRIES
This industry comprises establishments primarily engaged in manufacturing steel castings. For a detailed list of products of industry 3323, refer to table 6A, product codes 3323012 to 3323061 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Steel Foundries lndustry in 1963 totaled $\$ 871$ million. This amount included shipments of steel castings (primary products) valued at $\$ 726$ million, shipments of other products (secondary products) valued at $\$ 129$ million, and miscellaneous receipts (mainly receipts for resales), at $\$ 17$ million.

This industry's shipments of steel castings in 1963 represented 85 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 included miscellaneous gray iron castings ( $\$ 20$ million), and street cars, parts and attachments for railroad cars and street cars and rebuilt passenger and freight train cars ( $\$ 19$ million).

Shipments of steel castings by this industry in 1963 represented 89 percent of all shipments of these products ( $\$ 815$ million) by all industries. In 1958 the coverage ratio was 86 percent. Other industries shipping steel castings (primary products) included industry 3312, Steel Mill Products, $\$ 22$ million; and industry 3321, Gray Iron Foundries, $\$ 15$ million.

The production index for the primary products of the industry increased to 114 in 1963 from the 1958 level of 89 . The unit value index for 1963 was 134 compared to 124 in 1958. Both indexes were computed on a basis of $1954=100$.

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establistments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials <br> $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours (1,000) | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3321.-GRAY IRON FOUNDRIES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 1,139 |  | 767 <br> (NA) | 120,528 | $\begin{aligned} & 730,279 \\ & 675,413 \end{aligned}$ | 104, 239 | $\begin{aligned} & 214,285 \\ & 204,064 \end{aligned}$ | $\begin{aligned} & 596,109 \\ & 543,179 \end{aligned}$ | $\begin{aligned} & 1,168,478 \\ & 1,076,146 \end{aligned}$ | $\begin{aligned} & 813,568 \\ & 767,918 \end{aligned}$ | $1,984,944$$1,836,197$ | 64,82360,498 | 93(NA) | 88(NA) |
| $1962{ }^{1}$ | (NA) | (NA) |  | 119, 234 |  | 102, 822 |  |  |  |  |  |  |  |  |
| $1961{ }^{1}$ |  |  | (NA) | 113,685 | 602,316 | 102,468 | 183, 888 | 481,672 | 1, 923,970 | 702,260 | 1,622,700 | 52,307 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 121,516 | 627,498 | $\begin{array}{r} 97,468 \\ 104,330 \end{array}$ | 199,652 | 403,590 | 968,427 | 751, 840 | 1,718,773 | 53,202 | (NA) |  |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 125,862 | 644,417 | 96,414 | 217,159 | 525,482 | 1,002,896 | 806, 515 | 1, 803,001 | 34,072 | (NA)95 | (NA) |
| 1958. | 1,211 | 1,310 | 848 | 112,670 | 531,152 |  | 178,006 | 418,935 | -810,758 | 622,696 | 1,434,701 | 32,559 |  | 87 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 136,040 | 661,108 | 118,615 | 227,157 | 509,526 | 954,202 | 737,429 | 1, 689,827 | 61,560 |  | 85(NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 142,765 |  | 125,367 | 252,429 | 542,627 | 1,051,075 | 777,562 | 1,816,296 | $\begin{aligned} & 57,377 \\ & 57,014 \end{aligned}$ |  |  |
| $1955{ }^{1}$ | (NA) | (NA) | 940 | $\begin{aligned} & 144,669 \\ & 133,914 \end{aligned}$ | 656,572 | 128,097 |  | 549,081 | 1,049,422 | 735,162 | 1,772,932 |  | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ |
| 1954. | $\begin{array}{r} 1,321 \\ (\mathrm{NA}) \end{array}$ | 1,414 |  |  | 557,535 | 118,288 |  | 459,049 | 847,436 | 592, 835 | 1,441,880 | 57,014 49,939 |  | $\begin{gathered} 87 \\ \text { (NA) } \end{gathered}$ |
| 19531. |  | (NA) | (NA) | 144,600 | 611,625 | 128,418 | (NA) | 513,840 | 911,419 | 690,304 | 1,601,723 | (NA) |  |  |
| $1952{ }^{1}$. | (NA) |  | (NA) | 145,070 | 577, 317 | 129,501 | (NA) | 487, 270 | 811,251 | 615,584 | 1,426,837 | (NA) | (NA) | (NA) |
| 1951 | $\begin{array}{r} \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 1,554 \\ (\mathrm{NA}) \\ \text { (NA) } \end{array}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \\ & 1,655 \\ & 1,254 \\ & 1,227 \end{aligned}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \\ & \hline \end{aligned}$ | $\begin{array}{r} 164,762 \\ 150,121 \\ 138,691 \\ 173,813 \\ \text { (NA) }) \\ \text { (NA) } \end{array}$ | $\begin{array}{r} 632,663 \\ 521,655 \\ 432,633 \\ 512,245 \\ \text { (NA) } \\ \text { (NA) } \end{array}$ | $\begin{array}{r} 149,001 \\ 135,811 \\ 122,856 \\ 157,395 \\ 75,680 \\ 91,573 \end{array}$ | $\begin{array}{r} \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 328,537 \\ \text { (NA) } \\ \text { (NA) } \\ \hline \end{array}$ | $\begin{array}{r} 546,162 \\ 450,455 \\ 361,028 \\ 441,716 \\ 89,047 \\ 112,148 \end{array}$ | $\begin{aligned} & 911,367 \\ & 763,701 \\ & 604,352 \\ & 732,807 \\ & 169,278 \\ & 200,155 \end{aligned}$ | $\begin{aligned} & 723,394 \\ & 540,266 \\ & 437,897 \\ & 440,232 \\ & 108,564 \\ & 12,405 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1,634,761 \\ 1,303,967 \\ 1,042,249 \\ 1,173,039 \\ 277,842 \\ 322,560 \\ \hline \end{array}$ | (NA) <br> (NA) <br> (NA) <br> (NA) <br> (NA) <br> (NA) | $\begin{array}{r} \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 92 \\ \text { (NA) } \\ \text { (NA) } \end{array}$ | $\begin{array}{r} \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 87 \\ \text { (NA) } \\ \text { (NA) } \\ \hline \end{array}$ |
| 19501. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1949{ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1947. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1939. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1937{ }^{2}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | Indus | 3322.-M | ABLE I | FOUNDRIES |  |  |  |  |  |
| 1963.......... | 76(NA) | 81(NA) | 71( FA ) | $\begin{aligned} & 22,297 \\ & 22,639 \end{aligned}$ | 141,967 | $\begin{aligned} & 18,832 \\ & 19,136 \end{aligned}$ | $\begin{aligned} & 38,789 \\ & 38,250 \end{aligned}$ | 112,670108,695 | $\begin{aligned} & 204,557 \\ & 196,005 \end{aligned}$ | 111, 831 | $\begin{aligned} & 317,528 \\ & 304,688 \end{aligned}$ | 16,283 | 87(NA) | 87 |
| $1962{ }^{1}$ |  |  |  |  | 136,938 |  |  |  |  | 109,64393,163 |  | 9,017 |  | (NA) <br> (NA) <br> (NA) <br> (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 20,821 | 118,118 | 17,296 | $\begin{aligned} & 33,687 \\ & 37,211 \end{aligned}$ | $\begin{aligned} & 91,934 \\ & 98,092 \end{aligned}$ | $\begin{aligned} & 164,484 \\ & 170,320 \end{aligned}$ |  | 256,955 | 9,801 | (NA) |  |
| $1960{ }^{1}$ | (NA) | (NA) |  | 23,537 | 125,602 | 19,661 |  |  |  | 106,983 | 279,884 | 12,850 | (NA) |  |
| $1959{ }^{1}$ | (NA) | (NA) | $\begin{gathered} \text { (NA) } \\ 74 \end{gathered}$ | $\begin{aligned} & 24,266 \\ & 20,230 \end{aligned}$ | 134,962100,579 | 20,80016,694 | $\begin{aligned} & 42,362 \\ & 37,366 \end{aligned}$ | $\begin{array}{r} 108,178 \\ 77,148 \end{array}$ | 189,099127,592 | 113,799 | 299,591 | 9,601 | (NA) |  |
| 1958. | 74 | 82 |  |  |  |  |  |  |  | 86,790 | 214,537 | 4,438 | 86 | 90 |
| $1957{ }^{1}$. | (NA) | (NA) | (NA) | 23,426 | 112,255 | 20,042 | 38,209 | 89,565 | 159,221 | 100,677 | 259,561 | 7,388 | 86 | 92 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 25,121 | 117,136 | 21, 599 | 42,573 | 95,016 | 171,330 | 109,904 | 280,781 | 8,451 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 27,400 | 127,408 | 24,082 | 49,798 | 106,100 | 183,999 | 113,755 | 294, 204 | 11,217 | (NA) | (NA) |
| 1954. | 71 | 81 | 77 | 23,378 | 96,888 | 20, 205 | 38,306 | 78,004 | 133,262 | 78,064 | 213,321 | 9,966 | 86 | 89 |
| 19531. | (NA) | (NA) | (NA) | 28,438 | 121,024 | 24,706 | (NA) | 98,727 | 164,393 | 106,709 | 271,102 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 20,019 | 114,785 | 25,107 | (NA) | 92,933 | 153,661 | 94,511 | 248,172 | (NA) | (NA) | (NA) |
| 1951 ${ }^{1}$. | (NA) | (NA) | (NA) | 32,289 | 126,548 | 28,388 | (NA) | 104,777 | 174,555 | 109,146 | 283,701 | (NA) | (NA) | (NA) |
| 19501. | (NA) | (NA) | (NA) | 26,229 | 95,415 | 22,973 | (NA) | 78,097 | 126,997 | 80,606 | 207,603 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 24,440 | 75,728 | 20,642 | (NA) | 59,879 | 96,989 | 63,345 | 160,384 | (NA) | (NA) | (NA) |
| 1947. | 68 | 78 | (NA) | 29,862 | 90,811 | 26,659 | 54,650 | 76,750 | 121,661 | 62,739 | 184,400 | (NA) | 88 | 91 |
| 1939 | (NA) | 83 | (NA) | 20,186 | 26,415 | 18,041 | (NA) | 21,556 | 35,500 | 17,951 | 53,451 | (NA) | (NA) | (NA) |
| $1937{ }^{2}$ | (NA) | 84 | (NA) | (NA) | (NA) | 23,713 | (NA) | 28,819 | 45,512 | 24,004 | 69,516 | (NA) | (NA) | (NA) |
|  |  |  |  |  |  |  | USTRY 33 | STEEL F | NDRIES |  |  |  |  |  |
| 1963. | 222 | 267 | 220 | 56,810 | 361,378 |  | 95,106 | 280,433 | 586,914 | 288,795 | 877,048 | 27,832 | 85 | 89 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 50,506 | 303,200 | 45,204 | 83,773 | 235,983 | 484,252 | 249,680 | 729,688 | 23,569 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 46,810 | 269,854 | 41,652 | 74,414 | 204,411 | 410,809 | 225,048 | 629,645 | 22,859 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 50,807 | 288,073 | 45,223 | 81,816 | 219,753 | 439,099 | 248,710 | 700,488 | 19,221 | (NA) | (NA) |
|  | (NA) | (NA) 256 | (NA) 216 | 54,029 49,133 | 300,950 254,338 | 51,544 40,134 | 89,000 74,390 | 231,383 | 489,244 383,870 | 256,734 203,683 | 739,173 | 25,258 | (NA) | (NA) |
| 1958. | 210 | 256 | 216 | 49,133 | 254,338 | 40,134 | 74,390 | 186,778 | 383,870 | 203,683 | 596,276 | 22,239 | 86 | 86 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 67,486 | 357,831 | 57,075 | 113,608 | 274,090 | 570,652 | 329,019 | 890,810 |  | 86 | 88 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 70,412 | 365,095 | 60,305 | 124,782 | 288,717 | 594,103 | 331,920 | 901,041 | 31,767 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 60,264 | 287,723 | 50,776 | 102,726 | 221,498 | 440,580 | 230,538 | 657,647 | 20,378 | (NA) | (NA) |
|  |  | 239 | 203 | 55,073 | 241,305 | 45,655 | 85,684 | 179,361 | 346,706 | 181,261 | 539,784 | 16,426 | 88 | 87 |
| 19531 | (NA) | (NA) | (NA) | 76,949 | 345,347 | 65,940 | (NA) | 274,765 | 550,340 | 296,123 | 846,463 | (NA) | (NA) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (NA) | 79,010 | 343,664 | 69,259 | (NA) | 282,394 | 505,547 | 299,087 | 804,634 | (NA) | (NA) | (NA) |

[^88]TABLE 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3323.--STEEL FOUNDRIES-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1951{ }^{1}$. | (NA) | (NA) | (NA) | 73,434 | 303,476 | 64,291 | (NA) | 247,653 | 458,102 | 292,644 | 750,746 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 52,094 | 189,707 | 44,219 | (NA) | 149,866 | 280,045 | 170,333 | 450,378 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 48,451 | 159,128 | 41,688 | (NA) | 123,446 | 227,016 | 138,844 | 365,860 | (NA) | (NA) | (NA) |
| 1947. | 177 | 203 | (NA) | 62,335 | 186,661 | 54,207 | 107,755 | 151, 036 | 262,935 | 140, 240 | 403,175 | (NA) | 89 | 83 |
| 1939. | (NA) | 164 | (NA) | 35,567 | 55,415 | 30,088 | (NA) | 41,942 | 90,234 | 45,232 | 135,466 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 145 | (NA) | (NA) | (NA) | 41,299 | (NA) | 62,351 | 120,432 | 63,796 | 184, 228 | (NA) | (NA) | (NA) |
| $1929{ }^{2}$ | (NA) | 168 | (NA) | (NA) | (NA) | 39,697 | (NA) | 66,459 | 142,287 | 63,063 | 205,350 | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to l935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
${ }^{2}$ No comparable figures are available for earlier years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted <br> ( $\$ 1,000$ ) | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | $\begin{gathered} \text { With 20 } \\ \text { employ- } \\ \text { es } \\ \text { or more } \\ \text { number) } \\ \hline \end{gathered}$ | Total <br> (number) | Payroll $(\$ 1,000)$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{gathered} \begin{array}{c} \text { Man- } \\ \text { hours } \end{array} \\ (1,000) \end{gathered}$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3321.-GRAY IRON FOUNDRIES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 1,139 | 767 | 120,528 | 730,279 | 104,239 | 214,285 | 596,109 | 1,168,478 | 813,568 | 1,984,944 | 64,823 | 112,670 | 810,758 |
| New England.. | 90 | 58 | 4,905 | 27,322 | 4,355 | 9,878 | 22,615 | 41,852 | 21,822 | 63,154 | 2,021 | 4,740 | 28,237 |
| Massachusetts. | 47 | 30 | 2,704 | 14,794 | 2,481 | 5,990 | 12,812 | 23,463 | 10,274 | 33,274 | 956 | 2,740 | 18,142 |
| Phode Island. | 10 | 6 | 316 | 1,488 | 279 | 557 | 1,246 | 1,968 | 1,421 | 3,392 | 153 | 342 | 1,388 |
| Connecticut. | 19 | 14 | 1,494 | 9,273 | 1,253 | 2,682 | 7,138 | 12,820 | 8,577 | 21,311 | 736 | 1,272 | 6,928 |
| Midale Atlantic. | 199 | 136 | 14,865 | 84,442 | 12,839 | 25,149 | 68,302 | 140,003 | 101,455 | 241,659 | 8,631 | 17,965 | 117,001 |
| New York.. | 50 | 32 | 3,098 | 17,224 | 2,717 | 5,543 | 14,217 | 26,183 | 15,126 | 41,118 | 1,610 | 3,897 | 22,627 |
| New Jersey. | 36 | 26 | 4,075 | 23,755 | 3,386 | 6,669 | 18,769 | 41,446 | 31,826 | 73,941 | 3,946 | 5,130 | 40,665 |
| Pennsylvania. | 113 | 78 | 7,692 | 43,463 | 6,736 | 12,937 | 35,316 | 72,374 | 54,503 | 126,600 | 3,075 | 8,938 | 53,709 |
| East North Central.. | 402 | 309 | 62,302 | 417,638 | 53,285 | 111,346 | 339,907 | 657,657 | 422,633 | 1,076,676 | 37,305 | 54,498 | 401,099 |
| Ohio... | 115 | 87 | 16,845 | 115,033 | 14,321 | 29,952 | 92,945 | 194,138 | 134,348 | 327,133 | 9,045 | 16,201 | 134,681 |
| Indiana........... | 64 | 46 | 7,624 | 48,414 | 6,584 | 13,905 | 39,495 | 72,827 | 39,959 | 112,283 | 5,297 | 6,636 | 45,529 |
| Imlinois.......... | 75 | 58 | 6,918 | 39,140 | 5,966 | 11,074 | 31,118 | 61,888 | 48,219 | 109,462 | 3,011 | 6,350 | 39,732 |
| Michigan.......... | 92 | 78 | 22,564 | 164,437 | 19,811 | 43,138 | 138,846 | 260,683 | 163,371 | 424,900 | 16,079 | 19,391 | 145,475 |
| Wisconsin......... | 56 | 40 | 8,351 | 50,614 | 6,603 | 13,277 | 37,503 | 68,121 | 36,736 | 102,898 | 3,873 | 5,920 | 35,682 |
| West North Central.. | 101 | 57 | 5,588 | 29,703 | 4,914 | 9,466 | 24,726 | 45,928 | 29,687 | 74,740 | 2,396 | 5,283 | 34,980 |
| Minnesota. | 27 | 13 | 799 | 4,624 | 722 | 1,429 | 4,028 | 8,278 | 4,985 | 13,266 | 275 | 915 | 7,177 |
| Iowa..... | 26 | 17 | 1,672 | 8,523 | 1,437 | 2,689 | 6,906 | 13,657 | 10,304 | 23,526 | 1,186 | 1,189 | 6,757 |
| Missouri. | 26 | 16 | 2,279 | 12,619 | 2,023 | 3,855 | 10,709 | 17,652 | 11,099 | 28,360 | 717 | 2,370 | 14,605 |
| South Atlantic...... | 93 | 50 | 7,197 | 36,289 | 6,366 | 13,369 | 30,051 | 65,382 | 44,816 | 109,833 | 4,616 | 6,426 | 45,181 |
| Maryland.......... | 8 | 7 | 756 | 3,858 | 657 | 1,423 | 3,021 | 5,323 | 3,983 | 9,346 | 1,369 | 771 | 5,162 |
| Virginia.......... | 25 | 16 | 3,232 | 18,224 | 2,784 | 6,317 | 15,030 | 32,233 | 25,265 | 57,261 | 2,072 | 2,863 | 18,764 |
| North Carolina. | 22 | 9 | 1,236 | 5,540 | 1,148 | 2,236 | 4,766 | 10,210 | 7,750 | 18,013 | 329 | 1,315 | 7,293 |
| Georgia........... | 13 | 6 | 485 | 2,015 | 424 | 846 | 1,630 | 2,384 | 1,367 | 3,751 | 114 | 512 | 1,826 |
| Florida. | 12 | 3 | 396 | 1,619 | 352 | 665 | 1,236 | 2,526 | 1,451 | 3,868 | 54 | 352 | 1,983 |
| East South Central. . | 78 | 63 | 14,458 | 75,922 | 12,763 | 25,513 | 62,705 | 110,411 | 124,290 | 243,157 | 5,048 | 13,034 | 99,273 |
| Mississippi....... | 4 | 2 | 144 | 620 | 118 | 234 | 519 | 1,035 | 870 | 1,914 | 33 | ${ }^{(2)}$ | ${ }^{2}$ ) |
| West South Central.. | 59 | 31 | 4,969 | 21,910 | 4,409 | 8,708 | 17,955 | 37,999 | 26,944 | 64,704 | 2,368 |  |  |
| Louisiana. | 6 | 2 | 106 | 338 | 90 | 163 | 264 | 899 | 228 | 1,133 | 7 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| Texas. | 35 | 18 | 4,142 | 18,416 | 3,678 | 7,281 | 15,170 | 32,508 | 24,134 | 56,483 | 2,031 | 3,625 | 25,687 |
| Mountain. | 17 | 11 | 1,148 | 6,653 | 987 | 1,899 | 5,121 | 15,093 | 10,758 | 26,008 | 867 | 1,251 |  |
| Colorado. | 8 | 5 | 1,435 | 2,274 | 390 | 787 | 1,909 | 4,435 | 4,042 | 8,355 | (D) | $\left(^{2}\right)$ | (2) |
| Pacific............. | 100 | 52 | 5,096 | 30,400 | 4,321 | 8,957 | 24,727 | 54,153 | 31,163 | 85,013 | 1,571 | 5,303 | 42,356 |
| Oregon. . . . . . . . . . | 13 | 5 | 451 | 2,638 | 389 | 741 | 2,164 | 3,933 | 1,900 | 5,830 | 456 | 483 | 4,119 |
| California. | 71 | 43 | 4,253 | 25,490 | 3,730 | 7,524 | 20,623 | 46,406 | 27,959 | 74,141 | 1,331 | 4,479 | 35,423 |


|  |  |  |  |  |  | NDUSTRY | 22. -MAL | E IRON F | IES |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total. | 81 | 71 | 22,297 | 141,967 | 18,832 | 38,789 | 112,670 | 204,557 | 111,831 | 317,528 | 16,283 | 20,230 | 127,592 |
| New England.. | 6 | 6 | 824 | 4,153 | 698 | 1,284 | 3,163 | 6,192 | 3,102 | 9,228 | 320 | 881 | 5,056 |
| Connecticut. | 3 | 3 | 462 | 2,320 | 379 | 685 | 1,698 | 3,533 | 1,943 | 5,450 | (D) | 482 | 2,834 |
| Middle Atlantic.. | 21 | 18 | 3,750 | 20,281 | 3,230 | 6,090 | 16,383 | 28,573 | 14,383 | 42,493 | 1,800 | 3,133 | 19,363 |
| Pennsylvania.. | 13 | 11 | 2,454 | 13,125 | 2,106 | 3,982 | 10,534 | 18,845 | 9,618 | 28,340 | 1,609 | 1,958 | 12,637 |
| East North Central.. | 40 | 38 | 16,361 | 109,886 | 13,776 | 29,168 | 87,431 | 158,841 | 89,372 | 249,884 | 13,601 | 14,772 | 94,392 |
| Ohio..... | 13 | 11 | 3,708 | 24,070 | 3,215 | 6,719 | 20,331 | 31,553 | 16,346 | 49,416 | 1,346 | 3,194 | 19,835 |
| Indiana.. | 3 | 3 | 886 | 4,234 | 759 | 1,423 | 3,448 | 5,818 | 3,004 | 9,001 | 170 | 1,393 | 5,907 |
| Illinois. | 9 | 9 | 4,289 | 30,590 | 3,638 | 7,836 | 24,451 | 41,560 | 27,818 | 69,599 | 4,880 | 4,663 | 31,300 |
| Michigan. | 6 | , | 5,438 | 38,771 | 4,405 | 9,611 | 29,245 | 62,428 | 34,692 | 96,964 | 6,465 | 4,110 | 28,005 |
| Wisconsin. | 9 | 9 | 2,040 | 12,221 | 1,759 | 3,579 | 9,956 | 17,482 | 7,512 | 24,904 | 740 | 1,412 | 9,345 |
| West North Central.. | 4 | 4 | 468 | 2,572 | 376 | 754 | 1,909 | 3,873 | 1,457 | 5,371 | 212 | 427 | 2,490 |
| South and West...... | 10 | 5 | 894 | 5,075 | 752 | 1,493 | 3,784 | 7,078 | 3,517 | 10,552 | 350 | 1,017 | 6,291 |
|  | INDUSTRY 3323.-STEEL FOUNDRIES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 267 | 220 | 56,810 | 361,378 | 47,628 | 95,106 | 280,433 | 586,914 | 288,795 | 871,048 | 27,832 | 49,133 | 383,870 |
| New England......... | 11 | 9 | 1,096 | 6,145 | 846 | 1,841 | 4,287 | 10,133 | 4,292 | 14,554 | 306 | 1,452 | 10,417 |
| Connecticut. | 6 | 5 | 501 | 2,802 | 416 | 896 | 2,190 | 4,701 | 2,154 | 6,874 | (D) | 344 | 2,755 |
| Midale Atlantic..... | 56 | 48 | 15,751 | 103,891 | 13,149 | 26,031 | 81,265 | 156,388 | 85,942 | 241,840 | 4,142 | 14,238 | 112,007 |
| Pennsylvania...... | 38 | 33 | 11,817 | 78,189 | 9,909 | 19,446 | 61,312 | 109,930 | 66,079 | 175,386 | 3,087 | 10,854 | 83,025 |

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of material s$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | $\begin{gathered} \text { Capital } \\ \text { eppend } \\ \text { entures, } \\ \text { ituew } \\ \text { new } \\ (\$ 1,000) \end{gathered}$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total | With 20 employees (number) | Total (number) | Payroll $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \\ \hline \end{gathered}$ | Wages $(\$ 1,000)$ |  |  |  |  |  |  |
| East North Central.. Ohio. Indiana. Illinois. Michigan. Wisconsin. | INDUSTRY 3323.-STEEL FOUNDRIES-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 98 | 77 | 26,241 | 173,358 | 21,950 | 44,077 | 132,931 | 293,408 | 132,386 | 421,910 | 19,240 | 20,985 | 170,002 |
|  | 30 | 27 | 8,597 | 55,702 | 7,208 | 14,667 | 42,591 | 99,289 | 45,861 | 142,948 | 10,044 | 6,242 |  |
|  |  | 5 | 4,118 | 27,633 | 3,715 | 7,677 | 23,909 | 40,341 | 19,831 | 60,339 | 1,354 | 3,574 | 36,783 |
|  | 23 | 18 | 7,026 | 46,689 | 5,745 | 10,875 | 33,514 | 85,224 | 33,323 | 117,352 | 4,123 | 5,344 | 39,207 |
|  | 22 | 13 | 2,382 | 15,770 | 1,912 | 3,895 | 11,986 | 26,641 | 14,611 | 40,891 | 1,444 | 2,222 | 14,946 |
|  | 17 | 14 | 4,118 | 27,564 | 3,370 | 6,963 | 20,931 | 41,913 | 18,760 | 60,380 | 2,275 | 3,603 | 30,557 |
| West North Central | 16 | 15 | 3,823 | 22,997 | 3,267 | 6,667 | 18,603 | 38,828 | 19,491 | 57,8 | 1,064 | 3,450 | 26,001 |
| East South Central. |  |  | 1,007 | 4,79 | 884 | ,6 | 3,84 | 8,034 | 4,449 | 12,40 | 373 | 866 | 5,065 |
| All other division | 80 | 65 | 8,892 | 50,196 | 7,532 | 14, 841 | $\begin{array}{r}39,503 \\ 3,531 \\ \hline\end{array}$ | 80,123 6,924 | 42,235 3,106 | 122,470 | 2,707 | 8,142 | 0,377 |
| L.ouisiana.. |  |  |  | 4,340 |  |  |  |  |  |  |  | $(2)$ 488 |  |
| Washington........ Oregon......... | 1 |  | 612 1,184 | 4,079 7,558 | 513 987 | $\begin{array}{r}\text { 1,994 } \\ \hline 1,974\end{array}$ | 3,124 6,299 | 5,951 12,353 | 3,368 7,370 | 9,273 19,763 | 299 304 | 488 1,058 | 3,749 9,463 |
| Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. <br> (NA) Not available. <br> (X) Not <br> applicable. <br> ${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3321, Gray Iron Foundries: New England-Maine, 4 (20,-99); New Hampshire, 5 (100-249); Vermont, 5 (100-249); West North Centrai-North Dakota, 1 (1-19); South Dakota, 1 (1-19); Nebraska, 3 (100-249); Kansas 17 (500-999); South Atlantic-West Virginia 10 ( $500-999$ ); South Carolina, 3 ( 500 -(1-19); South Dakota, 1 (1-19); Nebraska, 3 (100-249); Kansas, 17 (500-999); South Atlantic-West Virginia 10 ( $500-999$ ); South Carolina, 3 (500999); East South Central-Kentucky, 7 (250-499); Tennessee, 24 (2,500-4,999); Alabama, 43 ( 10,000 and over); West South Central-Arkansas, 6 (100- 249); Oklahoma, 12 (500-999); Mountain-Montana, 1 (20-99); Idaho, 2 (20-99); Arizona, 2 (100-249); Utah, 4 (500-999); Pacific-Washington, 15 (2502499); Hewai ; (1-19). |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SIC 3322, Nalleable Iron Foundries: New England-New Frampshire, 1 (100-249); Massachusetts, 1 (100-249); Rhode Island, 1 (100-249); Middle AtlanticNew York, 7 ( $1,000-2,499$ ); New Jersey, 1 (20-99); West North Central-Minnesota, 1 (100-249); Iowa, 2 (100-249); Missouri, 1 (100-249); South Atlantic-Virginia, 1 (1-19); West Virginia, 1 (100-249); North Carolina, 1 (20-99); Georgia, 1 (1-19); West South Centrai-Texas, 2 (500-999); Mountain-Colorado, 1 (1-19); Utah, 1 (1-19); Pacific-California, 2 (100-249). |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }^{2}$ This state was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the |  |  |  |  |  |  |  |  |  |  |  |  |  |
| number of establishments and total employment (either actual or in size ranges for such States.) In the 1954 and 1947 reports, the footnote to table 2 usually provided similar information. |  |  |  |  |  |  |  |  |  |  |  |  |  |

## TABLE 3. Detailed Statistics: 1963

|  |
| ---: | :--- |

Mote: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

## TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establish ments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & 1 \text { to } 4 \\ & \text { employees } \end{aligned}$ | $\begin{gathered} 5 \text { to } 9 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 10 \text { to } 19 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 20 \text { to } 49 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 50 \text { to } 99 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employes } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & \text { 2,500 } \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3321.-GRAY IRON FOUNDRIES |  |  |  |  |  |  |  |  |  |  |
| Establishments............ number. . | 1,139 | 143 | 91 | 138 | 279 | 219 | 176 | 56 | 23 | 11 | 3 |
| Total....................do.. | 120,528 | 257 | 625 | 1,957 | 9,229 | 15,297 | 26,798 | 19,754 | 15,727 | 30,884 |  |
| Payroll.................. ${ }^{\text {1 }}$,000.. | 730,279 | 2,556 | 2,587 | 8,287 | 4, 4,648 | 79,464 | 151,279 | 120,399 | 96,989 | 224,070 | (D) |
| Value added, adjusted.......do.... | 1,168,478 | 3,573 | 4,006 | 13,032 | 70,373 | 122,833 | 237,505 | 215,350 | 152,158 | 349,658 | (D) |
| Value of shipments..........do.... | 1,984,944 | 5,162 | 6,526 | 19,218 | 108,460 | 191,521 | 398,286 13,321 | 388,124 | 296,432 | $\frac{571,275}{22,48}$ | (D) |
| Capital expenditures, new...do.... | 64,823 |  | 185 | 535 | 2,240 | 5,326 | 13,321 | 11,298 | 9,381 | $\underline{22,448}$ | (D) |
|  | INDUSTRY 3322.-MALLEABLE IRON FOUNDRIES |  |  |  |  |  |  |  |  |  |  |
| Estabıishments............ number.. | 81 | 2 | 4 | 4 | 4 | 9 | 30 | 17 | 8 | 2 | 1 |
|  |  |  | (D) | 52 | 127 | 658 | 4,897 |  |  | (D) |  |
| Payroli.................. $\$ 1,000 .$. | 141,967 | 131 | (D) | 195 | 627 | 3,601 | 26,635 | 31,706 | 79,072 | (D) | (D) |
| Value added, adjusted........do.... | 204,557 | 200 | (D) | 321 | 951 | 5,390 | 35,764 | 43,030 | 118,901 | (D) | (D) |
| Value of shipments............do.... Capital expenditures, new...do.... | 317,528 | $\underline{278}$ | (D) | 408 | 1,378 | 7,870 | 54,630 | 65,106 | 187,858 | (D) | (D) |
|  | 16,283 | 4 | (D) | 9 | 183 | 237 | 1,168 | 2,387 | 12,395 | (D) | (D) |
|  | INDUSTRY 3323. - STEEL FOUNDRIES |  |  |  |  |  |  |  |  |  |  |
| Establishments............... number. . <br> All employees: <br> Total .......................................... | 267 | 20 | 10 | 17 | 42 | 39 | 68 | 40 | 24 | 7 | - |
|  | 56,810 | 112 | (D) | 247 |  |  |  |  |  |  |  |
| Payroll.................. $\$ 1,000 .$. | 361,378 | 1,736 | (D) | 1,405 | 7,424 | 16,337 | 67,320 | 85,387 | 110,250 | 71,519 |  |
| Value added, adjusted.......do.... | 586,914 | 6,292 | (D) | 2,499 | 11,527 | 31,674 | 113,328 | 138,464 | 183,487 | 99,649 |  |
| Value of shipments..........do.... | 871,048 | 6,846 | (D) | 4,162 | 17,526 | 45,618 | 171,004 | 205, 820 | 270,084 | 149,988 |  |
| Capital expenditures, new...do... | 27,832 | 35 | (D) | 147 | 456 | 989 | 4,549 | 5,384 | 8,711 | 7,561 |  |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.


## table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\text { Col. B }}{\text { Col. } B+C}$ <br> (percent) | Total, made in all industries <br> $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3321 | Gray iron foundries............... ${ }^{\text {1963.. }}$ 1958.. | $\begin{aligned} & 1,984,944 \\ & 1,434,701 \end{aligned}$ | $\begin{aligned} & 1,794,274 \\ & 1,334,531 \end{aligned}$ | $\begin{array}{r} 134,208 \\ 68.261 \end{array}$ | $\begin{aligned} & 56,462 \\ & 31,909 \end{aligned}$ | $\begin{aligned} & 93 \\ & 95 \end{aligned}$ | $\begin{aligned} & 2,046,305 \\ & 1,527,888 \end{aligned}$ | $\begin{aligned} & 1,794,274 \\ & 1,334,531 \end{aligned}$ | $\begin{aligned} & 252,031 \\ & 193,357 \end{aligned}$ | 88 87 |
| 3322 | Malleable iron foundries............ 1963.. | $\begin{aligned} & 317,528 \\ & 214,537 \end{aligned}$ | $\begin{aligned} & 272,425 \\ & 183,622 \end{aligned}$ | $\begin{aligned} & 42,240 \\ & 29,897 \end{aligned}$ | $\begin{aligned} & 2,863 \\ & 1,018 \end{aligned}$ | $\begin{aligned} & 87 \\ & 86 \end{aligned}$ | $\begin{aligned} & 313,638 \\ & 203,310 \end{aligned}$ | $\begin{aligned} & 272,425 \\ & 183,622 \end{aligned}$ | $\begin{aligned} & 41,213 \\ & 19,688 \end{aligned}$ | 87 90 |
| 3323 | Steel foundries..................... . $1963 .$. | $\begin{aligned} & 871,048 \\ & 596,276 \end{aligned}$ | $\begin{aligned} & 725,735 \\ & 502,846 \end{aligned}$ | $\begin{array}{r} 128,636 \\ 81,851 \end{array}$ | $\begin{aligned} & 16,677 \\ & 11,579 \end{aligned}$ | $\begin{aligned} & 85 \\ & 86 \end{aligned}$ | $\begin{aligned} & 815,070 \\ & 587,931 \end{aligned}$ | $\begin{aligned} & 725,735 \\ & 502,846 \end{aligned}$ | $\begin{aligned} & 89,335 \\ & 85,085 \end{aligned}$ | 89 <br> 86 |

[^89]
## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry:

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

| Prod. class code | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Gray iron foundries (SIC 3321) | Malleable iron foundries (SIC 3322) | Steel foundries (SIC 3323) | Blast furnaces and stee! mills (SIC 3312) | All other industries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total shipments and receipts of the industry.......... | (X) | 1,984,944 | 317,528 | 871,048 | (x) | (X) |
| 3321- | Gray iron castings.. | 2,046,305 | 1,794,274 | 21,264 | (D) | 91,519 | 139,248 |
| 33211 | Molds for heavy steel ingots. | 187,756 | 101,097 | - | (D) | (D) | ${ }^{1} 86,659$ |
| 33212 | Cast iron pressure pipe....... | 230,651 | (D) | - | - | (D) | (D) |
| 33213 | Cast iron soil pipe and fittings | 152,078 | (D) | 21,264 | 19,759 | 5,471 | ${ }^{2} 107,496$ |
| 33214 | All other gray iron castings. | $1,432,789$ 43,031 | 1,278,799 | 21,264 | 19,759 | 5,471 | $\begin{array}{r} 2107,496 \\ 1,239 \end{array}$ |
| 33210 | Gray iron castings, n.s.k. | 43,031 313,638 | 41,792 21,859 | 272,425 | $\begin{aligned} & \text { (D) } \\ & \text { (D) } \end{aligned}$ | - | $\begin{array}{r} 1,239 \\ 319,354 \end{array}$ |
| $\begin{aligned} & 33220 \\ & 33230 \end{aligned}$ |  | 313,638 815,070 | 21,859 14,587 | 272,425 2,764 | (D) 725,735 | 22,473 | 319,354 4 49,511 |
|  | Other products. | (X) | ${ }^{5} 97,762$ | ${ }^{6} 18,212$ | ${ }^{7} 108,877$ | (X) | (X) |
| 33610 | Aluminum and aluminum-base alloy castings. | (X) | 17,369 | 2,485 | 2,959 | (x) | (x) |
| 33620 | Copper and copper-base alloy castings.................... | (X) | 10,487 | 1,785 | 3,089 | (X) | (X) |
| 33690 | Nonferrous castings, n.e.c................. | (X) | 3,013 | (D) | (D) | (X) | (X) |
| 34,411 | Fabricated structural iron and steel for buildings...... | (X) | 3,545 |  | - | (X) | (X) |
| 34941 | Metal valves for piping systems (except plumbing and heating valves). | (X) | 1,605 | - | (D) | (X) | (x) |
| 35441 | Special dies and tools, die sets, jigs and fixtures..... | (X) | 4,143 | 423 | 2,662 | (X) | (X) |
| 35650 | Industrial patterns, except shoe (of wood, metal, etc.). | (X) | 9,849 | 3,264 | 5,815 | (X) | (X) |
| 35661 | Plain bearings.............................................. | (X) | 1,478 | - | (D) | (X) | (X) |
| 35990 | Carburetors, pistons, and other machine shop products... | (X) | 1,870 | - | 4,505 | (X) | (X) |
| 37423 | Street cars and parts and accessories for railroad and street cars; rebuilt passenger and freight train cars.. | (X) | - | (D) | 18,706 | (X) | (X) |
|  | All other secondary products.............................. | (X) | 44,403 | 10,255 | 71,141 | (x) | (X) |
|  | Miscellaneous receipts.......................................... . | (X) | 56,462 | 2,863 | 16,677 | (X) | (X) |
|  | Contract work............................. | (x) | 5,358 | 56 | 2,944 | (X) | (X) |
|  | Sale of products bought and resold without further manufacture. $\qquad$ | (X) | 43,925 | 1,721 | 9,386 | (X) | (X) |
|  | All other receipts.......................................... . | (X) | 7,179 | 1,086 | 4,347 | (X) | (X) |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable, n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Includes shipments which totaled $\$ 2$ million or more for industry 3312, Blast Furnaces and Steel Mills; and 3323, Steel Foundries, but are withheld to avoid disclosing individual company figures.
${ }^{2}$ Includes $\$ 3$ million shipped by industry 3433, Heating Equipment, Except Electric; $\$ 2$ million by industry 3494, Valves and Pipe Fittings; $\$ 2$ million by industry 3519, Internal Combustion Engines; \$21 million by industry 3522, Farm Machinery and Equipment; \$5 million by industry 354l, Metal-cutting Machine Tools; $\$ 4$ million by industry 3552, Textile Machinery; $\$ 4$ million by industry 3554 , Paper Irldustries Machinery; $\$ 3$ million by industry 3559 , Special Industry Machinery, N.E.C.; \$2 million by industry 3561, Pumps, and Compressors; \$9 million by industry 3599, Miscellaneous Machinery; and \$18 million by industry 3717, Motor Vehicles and Parts. In addition the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: Industry 3548, Metalworking Machinery, N.E.C. and industry 3553, Woodworking Machinery.
${ }^{3}$ Includes $\$ 2$ million shipped by industry 3494, Valves and Pipe Fittings. In addition the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: Industry 3323, Steel Foundries; and industry 3559 , Special Industry Machinery, N.E.C.

4ncludes $\$ 6$ million shipped by industry 3361, Aluminum Castings; $\$ 6$ million by industry 3362, Brass, Bronze, Copper Castings; $\$ 7$ million shipped by industry 3531, Construction Machinery; and $\$ 2$ million by industry 3561, Pumps and Compressors. In addition the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: Industry 2499, Wood Products, N.E.C.; industry 3391 , Iron and Steel Forgings; industry 3548, Metalworking Machinery, N.E.C.; and industry 3566, Power Transmission Equipment.
${ }^{5}$ Includes the following product classes which totaled $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 33176 , Steel pipe and tube; 34431, Heat exchangers and steam condensers; 34990, Fabricated metal products, n.e.c.; 35197, Parts and accessories for internal combustion engines; 35222, Wheel tractors and parts and attachments; and 35313, Parts and attachments for tracklaying and contractors'off-highway wheel tractors.
${ }^{6}$ Includes the following product class which totaled $\$ 2$ million or more but is withheld to avoid disclosing individual company figures: 34231, Mechanics' hand service tools.
${ }^{7}$ Includes the following product classes which totaled $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 19310, Tanks and tank components; 3321l, Molds and stools for heavy steel ingots; 33220, Malleable iron castings; 33560, Nonferrous rolling and drawing, n.e.c.; 33919 , Open die press; and hammer forgings; 34432, Fabricated steel plate; 34990, Fabricated metal products, n.e.c.; 35481 , Rolling mill machinery and equipment; 37413, Parts for locomotives and rebuilt locomotives; and 37422, Freight train cars, new.

TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All


[^90]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Total shipments, including interplant transfers |  | Shipments to other companies |  | Transfers to other plants of the same company |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity <br> (short tons) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity <br> (short tons) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity <br> (short tons) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ |
|  |  | 1958--Continued |  |  |  |  |  |
| 3321- -- | GRAY IRON CASTINGS--Continued |  |  |  |  |  |  |
| 33214 -- | All other gray iron castings | 3,887,194 | 995,119 | 2,504,642 | 661,455 | 1,382,552 | 333,664 |
| 3321431 | Rolls for rolling mills............................ . . . . . . . . . . . . . . . . | 67,043 | 38,130 956,989 | $\begin{array}{r}67,043 \\ \hline, 57,599\end{array}$ | 38,130 623,325 | (X) $1,382,552$ |  |
| 3321498 | All other gray iron castings......................................... | 3,820,151 | 956,989 | 2,437,599 | 623,325 | 1,382,552 | 333,664 |
| 3321000 | Gray iron castings, n.s. | (X) | 69,150 | (x) | 69,150 | (X) | - |
| 3322- -- | MALLEABLE IRON CASTINGS, TOTAL | (X) | 203,310 | (X) | 146,663 | 191,897 | 56,647 |
| 3322021 | Standard. | 464,032 | 164,652 | 319,022 | 120,648 | 145,010 | 44,004 |
| 3322031 | Pearlitic... | 117,058 | 36,190 | 70,168 | 23,547 | 46,887 | 12,643 |
| 3322000 | Malleable iron castings, n.s.k | (x) | 2,468 | (X) | 2,468 |  |  |
| 3323- -- | STEEL CASTINGS, TOTAL ${ }^{1}$ | (X) | 587,931 | (X) | 547,151 | 56,900 | 40,780 |
|  | Carbon steel castings: |  |  |  |  |  |  |
| 3323012 3323013 | Cast steel railroad car wheels..................................... | 206,976 | 66,120 | 203,309 | 64,491 | 3,667 | 1,629 |
| $\begin{aligned} & 3323013 \\ & 33230 \end{aligned}$ | Railway specialities (except cast railroad car wheels)............ Rolls for rolling mills........................................ | 10,941 |  | 10,634 |  |  |  |
| 3323019 | Other carbon steel castings | 401,482 | 234,311 | 372,243 | 226,887 | 29,239 | 17,424 |
| 3323021 | High manganese steel casting | 49,127 | 36,079 | 47,018 | 34,886 | 2,109 | 1,193 |
| 3323031 | High alloy steel castings ${ }^{3}$............................................. | 31,332 | 66,783 | 27,242 | 59,784 | 4,090 | 6,999 |
| 3323051 | Alloy steel castings (except high alloy steel castings): Railway specialities. | 17,956 | 8,653 | 16,983 | 8,232 | 613 | 421 |
| 3323055 | Rolls for rolling mill | 49,853 | 26,833 | 43,872 | 23,670 | 5,981 | 3,163 |
| 3323059 | Other alloy steel castings.............................................. | 147,555 | 103,666 | 136,738 | 94,250 | 10,817 | 9,416 |
| 3323061 | Investment castings (steel) | 2,887 | 30,754 | 2,810 | 30,373 | 77 | 381. |
| 3323000 | Steel castings, n.s.k. | (X) | 8,829 | (X) | 8,829 | (x) |  |
| Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. <br> (NA) Not available. applicable. n.s.k. Not specified by kind. <br> (X) Not <br> ${ }^{1}$ Differs from the figures published in Current Industrial Reports Series M33-1, "Iron and Steel Castings," in that no figures are included above for castings produced by captive foundry departments of plants classified in other industries. As shown in the Current Industrial Reports, captive production ("for own use"), including both interplant transfers and castings produced and consurned by the same plant for 1963, totaled 5,674 thousand tons. Of gray iron castings, 410 thousand tons of malleable iron castings, and 307 thousand tons of steel castings. Of this total only the following tonnages transferred to other plants are included above: gray iron castings, 2497 thousand tons; malleable iron castings, 340 thousand tons; and steel castings, 96 thousand tons. The difference between tonnages shown above for "shipments to other companies" and the "for sale" figures in Series M33-1 are due to differences in classification in the census and monthly survey with regard to such products as machinery parts, etc., and fiscal year reports in the Census. <br> ${ }^{2}$ Figures for transfers to other plants of the same company are included with "shipments to other companies" to avoid disclosing operations of individual companies. <br> ${ }^{3}$ Heat and/or corrosion-resistant steel castings contain 8 percent more of chromium or nickel, or both, with or without molybdenum or other elements. |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes ( $1954=100$ ) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 332 | Iron and steel foundry products.................. $1963 .$. | $(1)$ $(1)$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3321 | Gray iron castings .................................... $1963 .$. | $\left(\begin{array}{l}1 \\ \text { (1) }\end{array}\right.$ | $\left(\begin{array}{l}\text { ( }\end{array}\right.$ |
| 33211 | Molds and stools for heavy steel ingots.......... $1963 .$. | 147 | 111 |
| 33212 | Cast iron pressure pipe and fittings.............. $1963 .$. | 122 93 | 111 |
| 33213 | Cast iron soil pipe and fittings.................. ${ }^{\text {1963.. }}$ 1958.. | 126 100 | 112 |
| 3322 | Malleable iron castings. ...................................... $1963 .$. | 124 84 | $\begin{aligned} & 123 \\ & 118 \end{aligned}$ |
| 3323 | Steel castings. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1963 .$. | 114 89 | $\begin{aligned} & 134 \\ & 124 \end{aligned}$ |

${ }^{1}$ Not shown, subject to further review of data for product class 33214, All other gray iron castings.

## table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| (In thousands of dollars) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Product class | 1963 | $1962{ }^{1}$ | $1961{ }^{\text {I }}$ | $1960{ }^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| 3321- | Gray iron castings.............................. | 2,046,308 | 1,893,147 | 1,679,660 | 1,789,012 | 1,904,448 | 1,527,888 | 1,513,457 | 1,238,502 |
| 33211 | Molds for heavy steel ingots............... | 187,756 | 174,813 | 173,191 | 190,774 | 188,461 | 147,705 | 110,018 | ( NA ) |
| 33212 | Cast iron pressure pipe..................... | 230,651 | 204,709 | 202,452 | 202,182 | 213,905 | 196,146 | 170,290 | (NA) |
| 33213 | Cast iron soil pipe and fittings........... | 152,078 | 150,769 | 135,515 | 127,705 | 138,990 | 119,768 | 108,346 | (NA) |
| 33214 | All other gray iron castings................ | 1,432,789 | 1,303,195 | 1,124,890 | 1,225,588 | 1,295,018 | 995,119 | (NA) | (NA) |
| 33210 | Gray iron castings, n.s.k.................. | 43,031 | (S) | (S) | (S) | (S) | 69,150 | (NA) | (NA) |
| 33220 | Malleable iron castings......................... | 313,638 | 289,792 | 248,015 | 262,419 | 285,791 | 203,310 | 204,916 | 178,424 |
| 33230 | Steel castings.................................... | 815,070 | 743,283 | 642,641 | 707,425 | 731,335 | 587,931 | 535,054 | 429,718 |

(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.

${ }^{1}$ For the specified product classes shipments of over $\$ 1$ million were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 33211, New York, Ohio, Michigan, West Virginia, Kentucky, Colorado, Utah, and California; 33212, Massachusetts, Ohio, Illinois, Iowa, Virginia, Tennessee, Utah, and California; 33213, New York, Pennsylvania, Ohio, Michigan, Missouri, Maryland, Virginia, North Carolina, Florida, Tennessee, Texas, and Oregon; 33214, New Hampshire, Nebraska, South Dakota; 33220, New Hampshire, Massachusetts, Rhode Island, Minnesota, Iowa, Missouri, and Texas; 33230, New Hampshire, Minnesota, Iowa, Nebraska, Kansas, Delaware, West Virginia, Florida, Tennessee, Arkansas, Oklahoma, and Arizona.
${ }^{2}$ Shipments of over $\$ 1$ million were reported but exact figures are withheld to avoid disclosure of individual company figures.

## table 7A. Materials by Kind: 1963 and 1958



[^91]
## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Gray iron foundries (SIC 3321) | Malleable iron foundries (SIC 3322) | Steel foundries (SIC 3323) |
| :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy................................. $\$ 1,000 .$. | 78,654 | 19,092 | 32,899 |
| Total cost of purchased fuels..........................................................do. | 57,209 | 13,826 | 13,074 |
| Bituminous coal, lignite, and anthracite: |  |  |  |
| Quantity............................................................... 1 , 000 short tons.. | 522 | 217 | 105 |
|  | 3,278 | 2,395 | 956 |
| Coke and breeze: |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons.. | 1,326 | 188 | 17 |
| Cost................................................................................. \$1, $^{\text {, } 000 . .}$ | 37,989 | 6,467 | 460 |
| Fuel oil (distillate and residual): |  |  |  |
| Quantity...............................................1, 000 barrels of 42 gallons.. | 611 | 239 | 762 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |
| Quantity................................................................million cu. ft.. | 18,131 | 7,058 | 14,309 |
| Cost.............................................................................. $\$ 1,000 .$. | 9,651 | 3,483 | 7,948 |
| Other fuels...........................................................................do.... | 3,474 | 518 | 689 |
| Electric energy: |  |  |  |
| Purchased: Quantity..............................................................million kw.-hrs.. |  | 441 |  |
| Cost................................................................................ . $\$ 1,000 .$. | 21,445 | 5,266 | 19,825 |
| Generated less sold.....................................................million kw.-hrs.. | 16 | 11 | 9 |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total..................................................... 000 hp. . | 1,019 | 222 | 595 |
| Prime movers, total.....................................................................do.... | 110 | 30 | 36 |
| Driving generators...................................................................do.... | 30 | 7 | 11 |
| Not driving generators...............................................................do.... | 80 | 23 | 25 |
| Electric motors, total..................................................................do.... | 921 | 196 | 567 |
| Driven by purchased energy.........................................................do.... | 909 | 191 | 559 |
| Driven by energy generated at establishment......................................do.... | 12 | 5 | 7 |
| Aggregate horsepower per 100 production workers............................................. | 991 | 1,160 | 1,316 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for l962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors
 associated with these estinates are published in the reports "Fuels and Electric E
"Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3321- | GRAY IRON FOUNDRIES |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. | 1,139 | 120, 528 | 730,279 | 104,239 | 214,285 | 596,109 | 1,168,478 | 813,568 | 1,984,944 | 64,823 |
|  | $90 \%$ or more specialization.. <br> 75-89\% specialization....... |  | $\begin{array}{r} 98,603 \\ 7,539 \end{array}$ | $\begin{array}{r} 594,865 \\ 43,839 \end{array}$ | $\begin{array}{r} 86,311 \\ 5,872 \end{array}$ | $\begin{array}{r} 176,300 \\ 11,935 \end{array}$ | 490,885 32,590 | 968,581 66,762 | 683,662 38,748 | $1,656,219$ 106,329 | 52,079 4,970 |
| 33211 | Molds for heavy steel ingots (primary product class of estab.) | 11 | 2,776 | 18,789 | 2,348 | 4,447 | 14,983 | 39,014 | 65,454 | 103,720 | 2,583 |
| 33212 | Cast iron pressure pipe (primary product class of estab.)........... Establishments with- | 29 | 10,368 | 63,833 | 8,518 | 17,445 | 48,913 | 114,203 | 127,771 | 243,953 | 9,652 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialiaztion.......... | 22 3 | $\begin{array}{r} 7,031 \\ 3,112 \end{array}$ | $\begin{aligned} & 41,139 \\ & 21,454 \end{aligned}$ | $\begin{aligned} & 5,766 \\ & 2,565 \end{aligned}$ | $\begin{array}{r} 11,143 \\ 5,927 \end{array}$ | 32,110 15,946 | $\begin{array}{r} 79,280 \\ 33,271 \end{array}$ | 94,335 32,389 | 173,944 67,304 | $\begin{aligned} & 5,220 \\ & 4,403 \end{aligned}$ |
| 33213 | Cast iron soil pipe and fittings (primary product class of estab.) Establishments with- | 41 | 12,170 | 59,410 | 11,026 | 20,550 | 50,657 | 92,909 | 81,736 | 178,367 | 4,924 |
|  | 90\% or more specialization.... | 30 | 8,568 | 42,514 | 7,798 | 14,475 | 36,499 | 64,679 | 63,692 | 133,346 | 2,343 |
| 33214 | All other gray iron castings (primary product class of estab.) Establishments with- | 762 | 91,046 | 570,302 | 78,740 | 164,051 | 466,629 | 895,411 | 524, 043 | 1,417,346 | 46,388 |
|  | 90\% or more specialization.... | 614 | $69,591$ | $438,917$ | 61,079 | 127,653 | $364,346$ | $700,269$ | $400,358$ | $1,100,922$ | 36,043 |
|  | 75-89\% specialization......... | 54 | 6,486 | $37,748$ | 5,080 | 10,428 | $28,271$ | $51,736$ | $29,186$ | $80,538$ | 2,549 |
| 3322- | Malleable IRON FOUNDRIES |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 81 | 22,297 | 141,967 | 18,832 | 38,789 | 112,670 | 204,557 | 111,831 | 317,528 | 16,283 |
|  | $90 \%$ or more specialization.. | 63 | 15,811 | 99,887 | 13,347 | 27,151 | 79,283 | 144,209 | 72,026 | 217,429 | 10,097 |
| 3323- | STEEL FOUNDRIES |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 267 | 56,810 | 361,378 | 47,628 | 95,106 | 280,433 | 586,914 | 288,795 | 871,048 | 27,832 |
|  | $90 \%$ or more specialization.. | 195 | 39,403 | 245,500 | 33,150 | 65,879 | 190,781 | 389,080 | 193, 830 | 578,166 | 19,140 |
|  | 75-89\% specialization....... |  | 7,431 | 46,886 | 6,030 | 12,249 | 34,986 | 84,872 | 37,213 | 123,073 | 1,486 |

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
| Machine shop............................... <br> Foundry pattern shop. | INDUSTRY 3321. - GRAY IRON FOUNDRIES |  |  |  |  |  |  |  |
|  | 237 309 | 116 236 | 67 52 | 54 21 | 4,588 2,015 | 232 416 | 666 440 | $\begin{aligned} & 3,690 \\ & 1,159 \end{aligned}$ |
|  | INDUSTRY 3322.-MALLEABLE IRON FOUNDRIES |  |  |  |  |  |  |  |
| Machine shop................................ <br> Foundry pattern shop. | 18 49 | 9 21 | 6 26 | 3 2 | 212 314 | 18 40 | (D) 6 | 128 |
|  | INDUSTRY 3323.-STEEL FOUNDRTES |  |  |  |  |  |  |  |
| Machine shop.................................................... <br> Foundry pattern shop.......................................... | 82 | 13 | 38 | 31 | 2,639 | 18 | 423 | 2,198 |
|  | 111 | 43 | 47 | 21 | 1,200 | 100 | 401 |  |

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

| Item | Industry |  |  |
| :---: | :---: | :---: | :---: |
|  | 3321 | 3322 | 3323 |
| Total number of establishments in the industry. | 1,139 | 81 | 267 |
| Number of establishments which reported one or more of the specified operations. | 438 $65-70$ | 56 $85-90$ | 150 $80-85$ |
| Percent of industry production workers in these establishments.................... | 65-70 | $85-90$ | 80-85 |
| Number of establishments which reported "none" of the operations apply Percent of industry production workers in these establishments..... | 334 $20-25$ | 15 $10-15$ | 70 $10-15$ |
| Percent of industry production workers in establishments which completed metalworking operations inquiry. | 90-95 | 95-100 | 90-95 |

(D) Withheld to avoid disclosing figures for individual companies.
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. These are not, based on total employmeri in the establishment.

## SmELTING AND REFINING OF NONFERROUS METALS AND ALLOYS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3331 -Primary Smelting and Refining of Copper<br>3332-Primary Smelting and Refining of Lead<br>3333-Primary Smelting and Refining of Zinc<br>3334-Primary Production of Aluminum<br>3339-Primary Smelting and Refining of Nonferrous Metals, Not Elsewhere Classified<br>3341 -Secondary Smelting, Refining, and Alloying of Nonferrous Metals and Alloys

Industries in this group produce primary and secondary nonferrous metals and alloys from ores and concentrates and from scrap. The five primary industries ( 3331 to 3339) are chiefly engaged in extracting metals from ores, concentrates, precipitates, etc. They include (1) establishments which perform smelting operations only and produce metals such as blister copper and lead base bullion, that are not yet of commercial grades; (2) establishments which refine the products of the smelters and produce commercially pure metal; and (3) those which produce refined metals from the ores and concentrates in a single continuous operation. These industries do not include milling or concentrating operations since these are generally located at mine sites and are considered as mineral operations rather than manufacturing activities. Such operations are covered in the 1963 Census of Mineral Industries (Major Group 10-Metal Mining). Also excluded are establishments which produce alumina from bauxite and those which process ores and concentrates primarily for the purpose of producing chemicals, such as zinc oxide. Such establishments are included in the chemical group of manufacturing industries. Primary smelters and refiners may also produce considerable quantities of such chemicals as sulfuric acid, zinc oxide, etc.

Inasmuch as many of the companies in the smelting and refining field operate their own mines and milling and concentrating plants, it has been difficult to establish a satisfactory value of the ore or concentrate transferred from the mine to the smelter. In an effort to achieve uniformity and to conform to reporting by smelters purchasing ore from other companies, the instructions accompanying the 1963 and 1958 report forms specified that such transfers should be reported at an approximate commercial value. In practice, this instruction was not feasible in all cases. In some instances there does not exist a comparable commercial form of the ore or concentrate transferred and in others, to convert to an approximate commercial value would have been unrealistic in view of the actual operations of the various establishments of an integrated company.

Since censuses of manufactures and of mineral industries were being conducted at the same time for 1963 and 1958, it was possible to check the reasonableness of the values of ores and concentrates transferred from mine and mill to smelter as reported by integrated companies. In a number of instances, the value f.o.b. mine and mills reported on the minerals form exceeded the cost of this material shown as an input on the manufactures report, whereas the latter figure should exceed the mine value by approximately
the transportation and handling costs. In such cases, the respondent was queried and more reasonable value and cost figures were obtained. These adjustments usually resulted in increased cost figures on the manufactures report, and consequently, reduced the computed "value added by manufacture."

In addition to the integration of mine and smelter, some companies operate both smelting and refining facilities while some are fully integrated from mine through refinery. The transfer of blister copper to refineries operated by the same company was often reported at other than commercial value for the reasons cited above. However, inasmuch as both the smelter and refinery are classified in the same industry, these estimated value figures do not cause a distortion of "value added" for the industry as a whole. However, the commodity data on shipments of smelter product and materials data on the consumption of these items are affected. For the copper industry, separate data are shown below for smelters and for refineries. These data must also be interpreted in the light of these limitations.

While a few companies transfer their refined product to fabricating plants under their own ownership, the effect of transfer values on the total figures is much less in this area. Often, while the refinery and fabricating plants may be under the same general financial control, the organizations are so distinct that the transfer of materials is made on the same basis as a commercial transaction.

For industries 3331 to 3339 , toll processing is a particularly important activity and a considerable portion of the metal produced is handled on this basis, i.e., is processed by the smelter or the refinery for the owner of the metal for a fee. The fee may be a money payment or may be a combination of a money payment and a provision that the processing plant keep some of the metal. For both the 1963 and 1958 censuses of manufactures, no distinction was made between the plant's shipments of products produced from its own material and the shipments of metal retained as part of the fee for toll processing. However, separate data were reported for the metal returned to toll customers and for the fees received for toll processing.

Data on the tonnages of metals produced by plants engaged in primary smelting and refining of nonferrous metals are published annually by the Bureau of Mines of the U.S. Department of Interior in its Mineral Yearbook. Minor variations exist between the data shown here and those published by the Bureau of Mines. In addition to minor differences occurring from the submittal of separate reports to different agencies, reasons for the variation are the use by the Bureau of the Census of gross weight as contrasted with metal content by the Bureau of Mines for some metals and adjustments made by the Bureau of Mines for the amount of metal estimated as produced from scrap instead of ores or concentrates.

In general, the same definitions were used by the Bureau of the Census in the collection of product statistics as are used by the Bureau of Mines. In particular, it might be noted that the tonnages of refined lead and copper, produced by plants making refined lead and copper directly from ores and concentrates, are included in the lead base bullion and blister copper figures to arrive at a balance between the blister copper and refined copper figures and base bullion and refined lead figures. These tonnages have been considered as blister copper and lead base bullion produced and consumed in the same plant.

The production and shipments data shown in table 6A represent total production from materials of both domestic and foreign sources. The production and shipment figures shown for primary smelters and refiners include the production from scrap as well as from primary sources such as ores, concentrates, etc. A measure of the extent of secondary production by primary smelters and refiners is shown in table 7 which contains information on the quantity of scrap consumed. Also, a certain amount of the duplication arises if the data shown in table 6A for unalloyed and alloyed metals are combined in that unalloyed metals
are consumed by secondary smelters in producing metal alloys. This duplication can be measured by reference to the quantities of unalloyed metal consumed by secondary plants shown in table 7.

Data on the production of selected nonferrous metals by industry are presented in table 6A. These production data include quantities produced for sale, for interplant transfer, and for further consumption within the producing plant as well as toll production. However, the coverage ratios shown in table 5A are based on dollar value of shipments (including transfers to other plants of the company) but exclude the value of nonferrous metals produced and consumed within the same plant as well as shipments of metals produced for other companies on a toll basis.

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4 ) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3331—PRIMARY SMELTING AND REFINING OF COPPER

This industry comprises establishments primarily engaged in smelting copper from the ore, and in refining copper by electrolytic or other processes. Establishments primarily engaged in rolling, drawing, or extruding copper are classified in industry 3351. For a detailed list of products of industry 3331, refer to table 6A, product codes 3331111 to 3331215.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Inasmuch as this industry includes both establishments smelting copper from ore, concentrates, etc., and establishments refining copper by electrolytic or other processes, the total cost of materials and the total value of shipments for this industry include extensive duplication resulting from the use of the products of the smelters as materials for the refiners. Thus, the value of blister copper, which represents an intermediate stage in the production of refined copper, appears twice in the total value of shipments and a corresponding duplication enters into the total cost of materials.

This problem of duplication is largely eliminated by treating smelters and refiners separately and by presenting individual figures for each group. The following table shows separate general statistics-employment, value added, value of shipments, etc., for the smelters and for the refiners of copper. In order to have the necessary data to prepare this table, where the smelting and refining operations at a single location are distinctly separate stages in the production of the metal, separate reports for smelting and refining departments were obtained. When separate smelting and refining stages are not necessary, such as in the case with copper produced by leaching and the production of Lake Superior copper, the establishments have been classified as refiners.

| Item | 1963 |  | $1958{ }^{\text {r }}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Smelters | Refiners | Smelters | Refiners |
| Establishments................................ . number. . | 17 | 16 | 18 | 13 |
| All employees: |  |  |  |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . | 5,261 | 9,688 | 6,105 | 8,617 |
| Payroll. . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 34,564 | 61,570 | 32,273 | 45,112 |
| Production and related workers: |  |  |  |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . number. . | 4,489 | 8,222 | 5,176 | 7,257 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 9,140 | 16,706 | 10,358 | 14,447 |
| Wages.................................... . . $\$ 1,000$. . | 27,881 | 50,057 | 25,547 | 36,098 |
| Value added by manufacture, ad justed.........do.. | 126,319 | 159,191 | 76,460 | 89,736 |
| Cost of materials, fuel, electricity, contract work, and resales....................................do.. | 538,685 | 431,289 | 345,836 | 347,398 |
| Value of shipments.............................do.. | 653,650 | 591,807 | 417,837 | 445,581 |

[^92]Value of shipments and other receipts of the Primary Copper Industry totaled $\$ 1,245$ million. This amount included shipments of primary copper (primary products) valued at $\$ 1,049$ million, shipments of other products (secondary products) valued at $\$ 103$ million, and miscellaneous receipts (mainly toll smelting of materials owned by others) at $\$ 93$ million.

The production index for the primary products of the industry increased to 140 in 1963 from the 1958 level of 112. The unit value index for 1963 was 105 compared to 90 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3332--PRIMARY SMELTING AND REFINING OF LEAD

This industry comprises establishments primarily engaged in smelting lead from the ore, and in refining lead by any process. Establishments primarily engaged in rolling, drawing, or extruding lead are classified in industry 3356. For a detailed list of products of industry 3332, refer to table 6A, product codes 3332111 to 3332398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

This industry includes both establishments smelting lead ores and concentrates and establishments refining lead and, accordingly, the total cost of materials and the total value of shipments for this industry include extensive duplication resulting from the use of the products of the smelter (lead-base bullion) as the material for the refiners. Thus, the value of the lead-base bullion, which represents an intermediate stage in the production of refined lead, appears twice in the total value of shipments and a corresponding duplication enters into the total cost of materials.

Value of shipments and other receipts of the Primary Lead lndustry totaled $\$ 265$ million.

## 3333-PRIMARY SMELTING AND REFINING OF ZINC

This industry comprises establishments primarily engaged in smelting zinc from the ore, and in refining zinc by any process. Establishments primarily engaged in rolling, drawing,
or extruding zinc are classified in industry 3356. For a detailed list of products of industry 3333, refer to table 6A, product codes 3333111 to 3333461.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Primary Zinc Industry totaled $\$ 282$ million. This amount included shipments of refined zinc (primary products) valued at $\$ 251$ million, shipments of other products (secondary products) valued at $\$ 21$ million, and miscellaneous receipts (mainly toll smelting of materials owned by others), at $\$ 10$ million.

This industry's shipments of refined zinc represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 90 percent. Secondary products shipped by this industry in 1963 consisted mainly of sulfuric acid ( $\$ 6$ million) and miscellaneous nonferrous metals, n.e.c. ( $\$ 8$ million).

Shipments of refined zinc by this industry represented 81 percent of all shipments of these products ( $\$ 309$ million) by all industries. In 1958 the coverage ratio was 76 percent. Other industries shipping refined zinc consisted mainly of industry 3341, Secondary Nonferrous Metals, $\$ 45$ million.

The production index for the primary products of the industry increased to 125 in 1963 from the 1958 level of 101. The unit value index for 1963 was 96 compared to 92 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3334--PRIMARY PRODUCTION OF ALUMINUM

This industry comprises establishments primarily engaged in producing aluminum from alumina, and in refining aluminum by any process. Establishments primarily engaged in rolling, drawing, or extruding aluminum are classified in industry 3352 . For a detailed list of products of industry 3334, refer to table 6A, product codes 3334711 to 3334881.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Primary Aluminum Industry totaled $\$ 1,090$ million. This amount included shipments of primary aluminum (primary products) valued at $\$ 1,070$ million, and miscellaneous receipts (mainly resales) at $\$ 20$ million.

This industry's shipments of primary aluminum represented 100 percent of its total product shipments. The industry specialization ratio in 1958 was also 100 percent.

Shipments of primary aluminum by this industry represented 75 percent of all shipments of these products ( $\$ 1,420$ million) by all industries. In 1958 the coverage ratio was 76 percent. Other industries shipping primary aluminum consisted mainly of industry 3352 , Aluminum Rolling and Drawing, $\$ 98$ million; and industry 3341, Secondary Nonferrous Metals, $\$ 245$ million.

The production index for the primary products of the industry increased to 201 in 1963 from the 1958 level of 113 . The unit value index for 1963 was 109 compared to 121 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3339—PRIMARY SMELTING AND REFINING OF NONFERROUS METALS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in smelting and refining nonferrous metals, n.e.c. Establishments primarily engaged in rolling, drawing, and
extruding these nonferrous primary metals are classified in industry 3356 , and the production of bullion at the site of the mine is classified in the mining industries. For a detailed list of products of industry 3339, refer to table 6A, product codes 3339511 to 3339798.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Primary Nonferrous Metals, N.E.C. Industry totaled $\$ 212$ million. This amount included shipments of primary nonferrous metals, n.e.c. (primary products) valued at $\$ 170$ million, shipments of other products (secondary products) valued at $\$ 35$ million, and miscellaneous receipts (mainly resales) at $\$ 7$ million.

This industry's shipments of primary nonferrous metals represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent. Secondary products shipped by this industry in 1963 included reagent and high purity grades of inorganic chemicals ( $\$ 6$ million), and rolled, drawn, and extruded nonferrous mill products, n.e.c. (\$8 million).

Shipments of primary nonferrous metals, n.e.c., by this industry represented 39 percent of all shipments of these products ( $\$ 439$ million) by all industries. In 1958 the coverage ratio was 24 percent. Other industries shipping primary nonferrous metals, n.e.c., consisted mainly of industry 3331, Primary Copper, $\$ 93$ million; and industry 3341, Secondary Nonferrous Metals, $\$ 88$ million.

## 3341 —SECONDARY SMELTING, REFINING, AND ALLOYING OF NONFERROUS METALS AND ALLOYS.

This industry comprises establishments primarily engaged in recovering nonferrous metals and alloys from new and used scrap and dross, but which are not engaged in further fabrication. This industry includes establishments engaged in both the recovery and alloying of precious metals. Plants engaged in the recovery of tin through secondary smelting and refining, as well as by chemical processes are included in this industry. Establishments primarily engaged in assembling, sorting, and breaking up scrap metal, without smelting and refining are classified in trade industries. For a detailed list of products of industry 3341 , refer to table. 6 A, product codes 3341211 to 3341811.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the SecondaryNonferrous Metals Industry totaled $\$ 1,045$ million. This amount included shipments of secondary nonferrous metals (primary products) valued at $\$ 814$ million, shipments of other products (secondary products) valued at $\$ 55$ million, and miscellaneous receipts (mainly resales) at $\$ 177$ million.

This industry's shipments of secondary nonferrous metals represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 included reagent and high purity grades of purity inorganic chemicals ( $\$ 9$ million), and nonferrous rolling and drawing, n.e.c. ( $\$ 17$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 27 percent of the total industry shipments are represented by plants specializing in product class 33412, Secondary copper; 26 percent in product class

33413, Secondary lead; and 25 percent in product class 33417 , Aluminum ingot, produced by secondary smelters.

Shipments of secondary nonferrous metals by this industry represented 26 percent of all shipments of these products ( $\$ 3,103$ million) by all industries. In 1958 the coverage ratio was 30 percent.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3341, e.g., Refined lead, 69 percent; Refined zinc, 16 percent; Aluminum ingot, 19 percent; Aluminum extrusion billet, 7 percent.


SECONDARY NONFERROUS METALS: SIC 334


## table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3331.-PRIMARY COPPER |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 13 | 33 | 33 | 14,949 | 96,134 | 12,711 | 25,846 | 77,938 | 285,510 | 1969,974 | ${ }^{1} 1,245,457$ | 13,134 | (NA) | (NA) |
| 1962 | (NA) | (NA) | (NA) | 15,256 | 95,877 | 12,793 | 25,982 | 75,704 | 246,653 | ${ }^{1} 961,130$ | ${ }^{1} 1,207,131$ | 10,413 | (NA) | (NA) |
| $1961{ }^{2}$ | (NA) | (NA) | (NA) | 15,410 | 92,843 | 12,887 | 25,982 | 72,428 | 217,006 | 1922,664 | $1_{1}, 168,557$ | 15,091 | (NA) | (NA) |
| $1960^{2}$ | (NA) | (NA) | (NA) | 16,122 | 93,845 | 13,834 | 27,488 | 74,042 | 243,433 | 1924,426 | $1_{1}, 134,290$ | 10,279 | (NA) | (NA) |
| $1959{ }^{2}$ | (NA) | (NA) | (NA) | 13,142 | 66,751 | 11,000 | 20,367 | 52,732 | 166,052 | 1520,908 | ${ }^{1} 712,036$ | 9,757 | (NA) | (NA) |
| 1958. | 11 | 31 | 30 | 14,722 | 77,385 | 12,397 | 24,805 | 61,645 | 166,214 | 687,530 | 861,087 | 19,334 | (NA) | (NA) |
| $1957{ }^{2}$ | (NA) | (NA) | (NA) | 15,050 | 79,314 | 12,980 | 26,635 | 64,926 | 184,813 | ${ }^{1}$ ) | $\left({ }^{1}\right)$ | 11,729 | (NA) | (NA) |
| $1956{ }^{2}$ | (NA) | (NA) | (NA) | 15,104 | 78,563 | 13,048 | 27,556 | 64,530 | 276,420 | (1) | (1) | 8,056 | (NA) | (NA) |
| $1955{ }^{2}$ | (NA) | (NA) | (NA) | 14,219 | 67,098 | 12,119 | 25,159 | 54,704 | 293,571 | $(1)$ | $(1)$ | 7,150 | (NA) | (NA) |
| 1954. | 10 | 28 | 28 | 14,680 | 63,340 | 12,410 | 24,960 | 51,173 | 159,237 | $(1)$ | $(1)$ | 4,276 | (NA) | (NA) |
| $1953{ }^{2}$ | (NA) | (NA) | (NA) | 13,363 | 60,922. | 11,546 | 25,297 | 50,400 | 168,228 | ${ }^{1}$ ) | ( ${ }^{1}$ ) | (NA) | (NA) | (NA) |
| $1952{ }^{2}$ | (NA) | (NA) | (NA) | 12,838 | 55,348 | 10,974 | 23,932 | 45,105 | 120,494 | (1) | ${ }^{1}$ ) | (NA) | (NA) | (NA) |
| $1951{ }^{2}$ | (NA) | (NA) | (NA) | 13,340 | 51,840 | 11,381 | 24,801 | 42,844 | 116,922 | (1) | (1) | (NA) | (NA) | (NA) |
| $1950{ }^{2}$ | (NA) | (NA) | (NA) | 14,089 | 48,617 | 12,149 | 26,147 | 40,426 | 99,899 | (1) | (1) | (NA) | (NA) | (NA) |
| $1949^{2}$. | (NA) | (NA) | (NA) | 13,688 | 43,915 | 11,713 | 24,472 | 35,836 | 68,011 | (1) | (1) | (NA) | (NA) | (NA) |
| 1947........... | (NA) | 27 | 26 | 14,629 | 44,790 | 13,065 | 29,751 | 38,967 | 93,196 | ${ }^{1}$ ) | ${ }^{1}$ ) | 4,176 | (NA) | (NA) |
|  | INDUSTRY 3332.-PRIMARY LEAD |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1953. | ${ }^{6}$ | 10 | 10 | 2,578 | 14,997 | 2,125 | 4,106 | 11,156 | 24,876 | ${ }^{1} 228,906$ | $1_{265,072}$ | 964 | (NA) | (NA) |
| $1962{ }^{2}$ | (NA) | (NA) | (NA) | 2,510 | 14,633 | 2,057 | 4,059 | 10,894 | 32,072 | ${ }^{1} 230,417$ | ${ }^{1} 268,816$ | 1,371 | (NA) | (NA) |
| $1961{ }^{2}$ | (NA) | (NA) | (NA) | 2,685 | 15,378 | 2,208 | 4,453 | 11,504 | 28,933 | ${ }^{1} 251,718$ | 1282,978 | 1,680 | (NA) | (NA) |
| $1960{ }^{2}$ | (NA) | (NA) | (NA) | 2,751 | 15,740 | 2,214 | 4,581 | 11,623 | 40,122 | ${ }^{1} 281,478$ | ${ }^{1} 316,673$ | 922 | (NA) | (NA) |
| $1959{ }^{2}$ | (NA) | (NA) | (NA) | 2,603 | 13,824 | 2,018 | 3,932 | 9,736 | 32,018 | ${ }^{1} 177,752$ | $1^{1208,876}$ | (271) | (NA) | (NA) |
| 1958. | ${ }^{5}$ | 13 | 13 | 3,563 | 18,182 | 2,864 | 5,687 | 13,599 | 36,325 | ²92,506 | $1^{1} 316,934$ | 725 | (NA) | (NA) |
| $1957{ }^{2}$ | (NA) | (NA) | (NA) | 4,319 | 21,494 | 3,567 | 7,159 | 16,457 | 46,592 |  | (1) | 3,118 | (NA) | (NA) |
| $1956^{2}$ | (NA) | (NA) | (NA) | 4,378 | 21,178 | 3,632 | 7,388 | 16,287 | 39,780 | (1) | (1) | 2,042 | (NA) | (NA) |
| $1955{ }^{2}$ | (NA) | (NA) | (NA) | 4,019 | 17,905 | 3,344 | 6,544 | 13,561 | 42,329 | $\left({ }^{1}\right)$ | $\left({ }^{1}\right)$ | 1,204 | (NA) | (NA) |
| 1954. | 5 | 13 | 13 | 4,063 | 17,393 | 3,312 | 6,659 | 13,142 | 30,772 | $\left.{ }^{1}\right)$ | ${ }^{1}$ ) | 1,404 | (NA) | (NA) |
| $1953{ }^{2}$ | (NA) | (NA) | (NA) | 4,668 | 19,217 | 3,751 | 7,634 | 14,501 | 31,731 | ${ }^{1}$ ) | ( ${ }^{2}$ ) | (NA) | (NA) | (NA) |
| $1952^{2}$ | (NA) | (NA) | (NA) | 4,626 | 18,801 | 3,721 | 7,718 | 14,315 | 43,678 | (1) | (1) | (NA) | (NA) | (NA) |
| $1951{ }^{2}$ | (NA) | (NA) | (NA) | 4,618 | 16,848 | 3,757 | 7,755 | 12,986 | 42,200 | (1) | (1) | (NA) | (NA) | (NA) |
| $1950{ }^{2}$ | (NA) | (NA) | (NA) | 4,738 | 16,007 | 3,889 | 8,031 | 12,359 | 40,314 | (1) | (1) | (NA) | (NA) | (NA) |
| 1949²......... | (NA) | (NA) | (NA) | 5,169 | 16,745 | 4,256 | 8,764 | 12,963 | 31,903 | (1) | (1) | (NA) | (NA) | (NA) |
| 1947........... | 6 | 16 | 16 | 4,663 | 14,082 | 4,022 | 8,879 | 11,610. | 35,902 | ( ${ }^{1}$ | ( ${ }^{1}$ | 2,649 | (NA) | 100 |
|  | INDUSTRY 3333.-PRIMARY ZINC |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 11 | 18 | 18 | 8,065 | 47,760 | 6,575 | 13,245 | 36,238 | 98,789 | 173,473 | 281,537 | 4,734 | 92 | 81 |
| $1962{ }^{2}$ | (NA) | (NA) | (NA) | 8,449 | 48,535 | 6,892 | 14,315 | 36,934 | 76,297 | 177,201 | 258,468 | 4,501 | (NA) | (NA) |
| $1961{ }^{2}$ | (NA) | (NA) | (NA) | 8,361 | 46,875 | 6,739 | 14,260 | 35,655 | 84,206 | 165,515 | 257,410 | 2,739 | (NA) | (NA) |
| $1960{ }^{2}$ | (NA) | (NA) | (NA) | 8,582 | 47,675 | 6,713 | 14,129 | 34,417 | 94,611 | 168,627 | 252,408 | 3,017 | (NA) | (NA) |
| $1959{ }^{2}$ | (NA) | (NA) | (NA) | 8,625 | 45,500 | 6,823 | 14,446 | 33,710 | 80,581 | 153,114 | 236,403 | 4,080 | (NA) | (NA) |
| 1958. | 11 | 20 | 20 | 8,923 | 44,078 | 7,000 | 13,788 | 32,633 |  | 140,197 | 208,993 | 13,445 | 90 | 76 |
| $1957{ }^{2}$ | (NA) | (NA) | (NA) | 11,030 | 54,282 | 8,988 | 17,822 | 41,286 | 96,477 | 193,117 | 280,628 | 20,006 | 88 | (NA) |
| $1956{ }^{2}$ | (NA) | (NA) | (NA) | 11,182 | 54,328 | 9,343 | 18,857 | 42,077 | 112,823 | 219,090 | 325,186 | 12,290 | (NA) | (NA) |
| $1955{ }^{2}$ | (NA) | (NA) | (NA) | 10,772 | 48,944 | 8,951 | 18,182 | 38,307 | 110,331 | 183,686 | 297,900 | 3,590 | (NA) | (NA) |
| 1954. | 13 | 21 | 21 | 10,470 | 44,042 | 8,638 | 16,546 | 34,104 | 87,501 | 143,768 | 231,340 | 5,276 | 87 | (NA) |
| $1953{ }^{2}$ | (NA) | (NA) | (NA) | 11,399 | 50,661 | 9,903 | 20,756 | 42,888 | 80,470 | 187,773 | 268,243 | (NA) | (NA) | (NA) |
| $1952{ }^{2}$ | (NA) | (NA) | (NA) | 11, 333 | 49,036 | 9,758 | 20,524 | 40,971 | 106,693 | 229,472 | 336,165 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 11, 033 | 45,048 | 9,470 | 19,761 | 37,512 | 124,983 | 221,353 | 346,336 | (NA) | (NA) | (NA) |
| $1950{ }^{2}$ | (NA) | (NA) | (NA) | 11,263 | 39,975 | 9,878 | 20,131 | 34,163 | 99,015 | 160,652 | 259,667 | (NA) | (NA) | (NA) |
| $1949{ }^{2}$ | (NA) | (NA) | (NA) | 11,154 | 38,999 | 9,610 | 19,791 | 32,456 | 68,828 | 146,649 | 215,477 | (NA) | (NA) | (NA) |
| 1947. .......... | 14 | 20 | 20 | 12,424 | 35,476 | 11,088 | 22,232 | 30,475 | 77,068 | 113,928 | 190,996 | 6,739 | (NA) | (NA) |
|  | INDUSTRY 3334.-PRIMARY ALUMINUM |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 18,133 | 134,116 | 14,459 | 29,487 | 101,399 | 499,576 | 571,940 | 1,089,977 | 62,172 | 100 | 75 |
| $1962^{2}$ | (NA) | (NA) | (NA) | 17,221 | 125,584 | 13,677 | 27,924 | 94,629 | 471,980 | 521,756 | 1,014,921 | 10,798 | (NA) | (NA) |
| $1961{ }^{2}$ | (NA) | (NA) | (NA) | 16,201 | 117,151 | 12,651 | 26,087 | 86,170 | 454,206 | 489,105 | 953,894 | 19,258 | (NA) | (NA) |
| $1960^{2}$ | (NA) | (NA) | (NA) | 17,848 | 123,956 | 14,120 | 29,133 | 92,498 | 472,711 | 503,071 | 921,215 | 26,647 | (NA) | (NA) |
| $1959{ }^{2}$. | (NA) | (NA) | (NA) | 17,997 | 122,606 | 14,362 | 30,022 | 92,622 | 459,285 | 476,741 | 953,775 | 38,534 | (NA) | (NA) |
|  |  | 20 | 20 |  |  | 13,428 | 27,738 | 82,750 | 383,836 | 411,758 | 808,822 | 142,293 | 100 | $76$ |
| $1957^{2} \ldots \ldots .$ | (NA) | (NA) | (NA) | 20,500 | 117,814 | 16,327 | 33,430 | 89,678 | 406,302 | 421,982 | 804, 049 | 150,955 | (NA) | (NA) |
| $1956{ }^{2} \ldots . . . . .$. | (NA) | (NA) | (NA) | 21,120 | 112,070 | 17,046 | 34,752 | 86,547 | 389,617 | 409,901 | 767,227 | 103,997 | (NA) | (NA) |
| $1955^{2} . . . . . .$. | (NA) | (NA) | (NA) | 20,020 | 99,771 | 16,382 | 33,886 | 78,418 | 328,651 | 361,472 | 692,732 | 74,941 | (NA) | (NA) |
| 1954.......... | 3 | 16 | 16 | 20,626 | 96,813 | 16,982 | 35,335 | 77,174 | 258,944 | 339,964 | 604,195 | 26,073 | 100 | 78 |

[^93]TABLE 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3334.-PRIMARY ALUMINUM-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 1953^{2} \ldots \ldots \\ & 1952^{2} \ldots \ldots \\ & 1951^{2} \ldots \ldots \\ & 1950^{2} \ldots \ldots \\ & 1949^{2} \ldots \ldots \\ & 1947 \ldots \\ & 1939^{3} \ldots \ldots \end{aligned}$ | (NA) | (NA) | (NA) | 19,568 | 86,894 | 16,726 | 34,183 | 70,991 | 169,656 | 306,906 | 476,562 | (NA) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 14,272 | 60,143 | 11,735 | 24,923 | 47,653 | 133,725 | 206,291 | 340,016 | (NA) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 12,162 | 46,793 | 10,133 | 21,991 | 37,729 | 126,939 | 174,841 | 301,780 | (NA) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 10,663 | 37,151 | 8,869 | 18,215 | 29,707 | 105,264 | 136,268 | 241,532 | (NA) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 8,928 | 31,155 | 7,314 | 16,769 | 24,596 | 66,837 | 117,501 | 184,338 | (NA) | (NA) | (NA) |
|  |  | 11 | 11 | 8,919 | 26,398 | 7,336 | 16,014 | 20,930 | 65,262 | 95,748 | 161,010 | 2,791 | (NA) | (NA) |
|  | (NA) | 4 | (NA) | 3,345 | 5,120 | 2,802 | (NA) | 3,928 | 36,885 | 27,715 | 64,600 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3339.-PRIMARY NONFERROUS METALS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 32 | 35 | 26 | 5,064 | 34,807 | 3,782 | 8,148 | 24,701 | 103,830 | 115,519 | 212,176 | 6,435 | 83 | 39 |
| $1962{ }^{2}$ | (NA) | (NA) | (NA) | 4,886 | 30,746 | 3,657 | 7,645 | 22,205 | 93,391 | 80,565 | 169,668 | 6,400 | (NA) | (NA) |
| $1961{ }^{2}$ | (NA) | (NA) | (NA) | 4,037 | 24,560 | 3,015 | 6,448 | 18,536 | 82,399 | 65,138 | 148,466 | 13,749 | (NA) | (NA) |
| $1960{ }^{2}$ | (NA) | (NA) | (NA) | 4,110 | 26,417 | 3,239 | 6,961 | 19,623 | 90,042 | (NA) | 149,192 | 11,479 | (NA) | (NA) |
| $1959{ }^{2}$ | (NA) | (NA) | (NA) | 2,651 | 17,268 | 1,941 | 4,276 | 11,920 | 54,539 | 45,335 | 99,154 | (S) | (NA) | (NA) |
| 1958. | 24 | 29 | 18 | 2,658 | 15,939 | 1,920 | 3,976 | 10,737 | 50,495 | 42,076 | 96,565 | 3,994 | 92 | 24 |
| 1954. | 24 | 25 | 10 | 3,704 | 18,605 | 2,853 | 5,509 | 13,061 | 50,953 | 136,870 | 187,869 | 19,069 | 90 | 28 |
| $1952{ }^{2}$ | (NA) | (NA) | (NA) | 6,601 | 27,829 | 5,461 | 11,359 | 21,864 | 51,432 | 65,306 | 111,738 | (NA) | (NA) | (NA) |
| $1951{ }^{2}$ | (NA) | (NA) | (NA) | 4,048 | 15,387 | 3,365 | 6,843 | 12,891 | 33,308 | 34,987 | 68,295 | (NA) | (NA) | (NA) |
| $1950{ }^{2}$ | (NA) | (NA) | (NA) | 1,968 | 7,119 | 1,661 | 3,349 | 5,756 | 23,401 | 15,284 | 38,685 | (NA) | (NA) | (NA) |
| 1947. | (NA) | 15 | 10 | 2,482 | 6,959 | 2,124 | 4,118 | 5,974 | 13,267 | 10,986 | 24,253 | 951 | (NA) | (NA) |

INDUSTRY 3341.-SECONDARY NONFERROUS METALS



TABLE 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials | Value of shipments | Capital expenditures, new | Spe-cialization ratio (per- | Coverage ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | with 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |

INDUSTRIES 3331, 3332, 3333, and 3339.-PRIMARY COPPER, PRIMARY LEAD, PRIMARY ZINC, AND PRIMARY NONFERROUS METALS, N.E.C.-CONTINued


NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
$(S)$ Withheld because the estimates did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
n.e.c. Not elsewhere classified.
${ }^{1}$ The value of shipments and cost of materials for this industry include extensive duplication arising from shipments between establishments in the same industry. These data are not shown for the years 1947-1957. For further explanation see appendix A, "Value of Shipments."
${ }^{2}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{3}$ No comparable figures are available for earlier years.
${ }^{4}$ Data for 1954 have been revised to exclude establishments originally classified in this industry. Accordingly, data for 1953 and earlier years are not comparable with 1954-1963. Selected data for 1954 on a basis comparable with data for earlier years are as follows: Number of establishments, 360; total employment, 15,775; unad justed value added by manufacture, $\$ 142,329$ thousand; cost of materials, $\$ 657,519$ thousand; and value of shipments, $\$ 807,725$ thousand.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All-employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{aligned} & \text { Man- } \\ & \text { hours } \\ & (1,000) \end{aligned}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3331.-PRIMARY COPPER |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 33 | 33 | 14,949 | 96,134 | 12,711 | 25,846 | 77,938 | 285,510 | 969,974 | 1,245,457 | 13,134 | 14,722 | 166,214 |
| Middle Atlantic.... | 8 | 8 | 5,032 | 33,063 | 4,177 | 8,744 | 26,252 | 47,360 | 126,324 | 183,936 | 5,079 | 5,180 | 48,926 |
| South............. | 8 | 8 | 3,020 | 18,114 | 2,595 | 5,266 | 15,165 | 51,606 | 133,348 | 173,433 | 1,493 | 2,306 | 18,981 |
| West................. Arizona. $\qquad$ | 17 8 | 17 8 | 6,897 2,407 | 44,957 16,952 | 5,939 2,048 | 11,836 4,404 | 36,521 13,154 | $\begin{gathered} 186,544 \\ 56,961 \end{gathered}$ | $\begin{aligned} & 710,302 \\ & 293,768 \end{aligned}$ | $\begin{aligned} & 888,088 \\ & 353.795 \end{aligned}$ | 6,562 | 7,236 $(2)$ | $\begin{array}{r} 98,307 \\ (2) \end{array}$ |
| Total.......... | INDUSTRY 3332.-PRIMARY LEAD |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 10 | 10 | 2,578 | 14,997 | 2,125 | 4,106 | 11,156 | 24,876 | 228,906 | 265,072 | 964 | 3,563 | 36,325 |
|  | INDUSTRY 3333.-PRIMARY ZINC |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 18 | 18 | 8,065 | 47,760 | 6,575 | 13,245 | 36,238 | 98,789 | 173,473 | 281,537 | 4,734 | 8,923 | 71,653 |
| South. $\qquad$ Oklahoma.......... | 8 3 | 8 3 | 3,492 1,601 | 20,317 9,050 | 3,136 1,452 | 6,387 2,871 | 17,386 7,614 | 48,170 25,225 | 68,315 25,303 | 121,296 51,134 | 2,280 1,846 | 3,372 ${ }^{(2)}$ | 33, 277 |
| All other divisions | 10 | 10 | 4,573 | 27,443 | 3,439 | 6,858 | 18,852 | 50,619 | 105,158 | 160,241 | 2,454 | 5,551 | 38,376 |
|  | INDUSTRY 3334.-PRIMARY ALUMINUM |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 23 | 22 | 18,133 | 134,116 | 14,459 | 29,487 | 101,399 | 499,576 | 571,940 | 1,089,977 | 62,172 | 17,381 | 383,836 |
| West South Central. West. | 6 8 | 6 7 | 6,436 4,765 | 47,066 35,201 | 5,270 3,739 | 10,734 7,562 | 36,236 26,201 | 168,107 159,270 | 167,711 152,086 | 342,818 315,170 | 6,043 6,705 | 6,803 4,564 | $\begin{aligned} & 176,537 \\ & 110,958 \end{aligned}$ |
| All other divisions.......... | 9 | 9 | 6,932 | 51,849 | 5,450 | 11,191 | 38,962 | 172,199 | 252,143 | 431,989 | 49,424 | 6,014 | 96,341 |
|  | INDUSTRY 3339. -PRIMARY NONFERROUS METALS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 35 | 26 | 5,064 | 34,807 | 3,782 | 8,148 | 24,701 | 103,830 | 115,519 | 212,176 | 6,435 | 2,658 | 50,495 |
| Northeast.. | 12 | 5 | 1,058 | 7,387 | 697 | 1,582 | 4,562 | 26,873 | 55,048 | 73,272 | 1,150 | 421 | 6,551 |
| East North Central. | 7 | 6 | 1,160 | 8,718 | 741 | 1,722 | 5,504 | 30,742 | 13,581 | 42,653 |  | 1,480 | 36,106 |
| South. . | 10 | 9 | 1,815 | 12,335 | 1,524 | 3,167 | 9,759 | 38,600 | 33,734 | 70,454 | 2,396 | 1,480 | 36,106 |
| West............... | 6 | 6 | 1,031 | 6,367 | 820 | 1,677 | 4,876 | 7,615 | 13,156 | 95,797 | 823 | 757 | 7,838 |
|  | INDUSTRY 3341. -SECONDARY NONFERROUS METATS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 459 | 179 | 15,445 | 96,302 | 11,336 | 23,779 | 60,510 | 228,190 | 823,132 | 1,045,522 | 17,891 | 14,441 | 147,262 |
| New England........ | 35 | 9 | 380 | 2,325 | 246 | 560 | 1,284 | 13,755 | 27,566 | 41,025 | 181 | 424 | 8,145 |
| Midale Atlantic.... | 144 | 49 | 5,269 | 32,426 | 3,731 | 7,636 | 19,811 | 71,470 | 284,215 |  |  | 4,298 |  |
| New York......... | 63 | 15 | 1,867 | 11,953 | 1,317 | 2,645 | 7,440 5,847 | 27,871 | 108,296 102,274 | 134,428 126,607 | 5,639 1,533 | 1,488 1,291 | 10,965 |
| New Jersey....... <br> Pennsylvania...... | 39 42 | 17 17 | 1,653 1,749 | 10,097 10,376 | 1,137 | 2,345 2,656 | 5,847 6,524 | 18,654 24,955 | 102,274 73,645 | 126,607 97,958 | 1,533 | 1,291 | 11,316 21,458 |
| East North Central. | 132 | 61 | 5,576 | 36,944 | 4,231 | 8,986 | 23,842 | 84,656 | 336,743 | 415,759 | 5,562 | 6,278 | 64,011 |
| Ohio.............. | 38 | 20 | 1,562 | 10,765 | 1,231 | 2,718 | 7,246 | 26,101 | 85,920 | 110,613 | 1,611 | (2) | (2) |
| Indiana... | 13 | 6 | 930 | 6,326 | 1,670 | 1,404 | 3,994 | 12,488 | 43,625 | 55,208 | 557 | ${ }^{2}$ ) | (2) |
| Illinois......... | 45 | 25 | 2,550 | 16,498 | 1,904 | 4,018 | 10,446 | 35,707 | 184,231 | 216,815 | 3,121 | 3,489 | 35,992 |
| Michigan......... | 27 | 8 | 436 | 2,695 | 341 | 708 | 1,697 | 7,999 | 20,540 | 28,370 | 161 | 407 | 2,466 |
| Wisconsin........ | 9 | 2 | 98 | 660 | 85 | 138 | 459 | 2,361 | 2,427 | 4,753 | 112 | $\left(^{2}\right)$ | $\left({ }^{2}\right)$ |
| West North Central. | 17 | 9 | 477 | 2,858 | 371 | 744 | 1,659 | 5,141 | 23,941 | 28,594 | 469 | 482 | 4,362 |
| Missouri......... | 10 | 3 | 167 | 1,057 | 120 | 231 | 522 | 2,532 | 7,079 | 9,563 | 85 | 185 | 1,941 |
| South Atlantic..... | 25 | 10 | 761 | 4,335 | 591 | 1,297 | 3,008 | 13,704 | $36,056$ | $49,326$ | $1,303$ | 543 | 6,338 |
| Maryland......... | 8 | 3 | 208 | 1,185 | 144 | 358 | 664 | 4,530 | 11,892 | $16,503$ | (D) | $\left({ }^{2}\right)$ | ${ }^{2}$ ) |
| East South Central. | 13 | 7 | 433 | 2,099 | 361 | 795 | 1,486 | 4,782 | 14,448 | 19,133 | 456 | 190 | 1,743 |
| Alabama.......... | 6 | 3 | 296 | 1,436 | 245 | 521 | 1,049 | 3,462 | 10,389 | 13,888 | 393 | ${ }^{2}$ ) | ${ }^{2}$ ) |

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| INDUSTRY 3341. -SECONDARY NONFERROUS METALS-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West South Central. | 21 | 11 | 760 | 3,716 | 639 | 1,346 | 2,766 | 10,938 | 26,690 | 36,557 | 433 | 552 |  |
| Texas............ | 11 | 6 | 505 | 2,574 | 413 | 864 | 1,857 | 8,006 | 17,437 | 24,784 | 211 | 363 | 1,422 |
| Mountain........... | 10 | 2 | 108 | 520 | 87 | 183 | 368 | 921 | 1,916 | 2,858 | 19 | 82 | 788 |
| Pacific............ | 62 | 21 | 1,681 | 11,079 | 1,079 | 2,222 | 6,286 | 22,823 | 71,557 | 93,277 | 1,531 | 1,592 | 15,293 |
| California....... | 52 | 18 | 1,509 | 9,795 | 964 | 1,953 | 5,495 | 19,991 | 62,624 | 81,213 | 1,875 | 1,479 | 14,096 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
applicable. n.e.c. Not elsewhere classified.
 with the number of establishments in each State and, in parentheses, the number of enployees or the employment-size range for that State.

igan, 3 (337); South Atlantic-Maryland, 2 (1,000-2,499); East South Central-Tennessee, 1 (20-99); West South Central-Texas, 2 (1,000-2,499);
Mountain-Montana, 2 (1,000-2,499); New Mexico, 2 (100-249); Utah, 2 (1,000-2,499); Nevada, 1 (250-499); Pacific-Washington, 2 (500-999).
 Florida, 1 (20-99); West South Central—Texas, 1 (250-499); Mountain-Montana, 1 (100-249); Idaho, 1 (500-999); Utah, 1 (100-249); PacificCaliformia, 2 (250-499).
SIC 3333, Primary Zinc: Middle Atlantic—Pennsylvania, 2 (1,000-2,499); East North Central-Illinois, 2 (500-999); West North Central-Kansas, 1 (20-99); South Atlantic-West Virginia, I (100-249); West South Central—Arkansas, 1 (100-249); Texas, 2 (1,000-2,499); Mountain-Montana, 3 (500-999); Idaho, I (500-999); Utah, I (100-249).
SIC 3334, Primary Aluminum: Middle Atlantic-New York, 2 (1,000-2,499); East North Central-Ohio, 1 (1,000-2,499); Indiana, 1 (250-499); South

 5 (2,500-4,999); Oregon, 2 (500-999).
 New Jersey, 3 (20-99); Pennsylvania, 4 (819); East North Central-Ohio, 2 (500-999); Illinois, 2 (l00-249); Michigan, 3 (179); South AtlanticFlorida, I (20-99); East South Central—Tennessee, l (250-499); Alabama, l (100-249); West South Central-Arkansas. I (1-19); Oklahoma, 2

SIC 3341, Secondary Nonferrous Metals: New Emgland-New Hampshire, I (I-19); Massachusetts, 16 (227); Rhode Island, IO (20-99); Connecticut, 8 (20-99); West North Central-Minnesota, 3 (20-99); Iowa, 1 (1-19); Nebraska, 2 (20-99); Kansas, 1 (I00-249); South Atlantic-Delaware, 1 (100-249); Virginia, 1 (20-99); North Carolina, 4 (20-99); South Carolina, 1 (1-19); Georgia, 4 (131); Florida, 6 (20-99); East South CentralKentucky, 3 (1-19); Tennessee, 3 (20-99); Mississippi, 1 (20-99); West South Central—Arkansas, 5 (125); Louisiana, 3 (20-99); Oklahoma, 2 (20-99); Mountain-Colorado, 4 (20-99); Arizona, 4 (20-99); Utah, 2 (20-99); Pacific-Washington, 8 (100-249); Oregoñ, 2 (20-99).
 showed the number of establishments and total employment (either actual or in size ranges) for such $S t a t e s$.

## TABLE 3. Detailed Statistics: 1963

| Item | $\begin{gathered} \text { Primary } \\ \text { copper } \\ \text { (SIC 3331) } \end{gathered}$ | $\begin{aligned} & \text { Primary } \\ & \text { lead } \\ & \text { (SIC 3332) } \end{aligned}$ | $\begin{gathered} \text { Primary } \\ \text { zinc } \\ \text { (SIC 3333) } \end{gathered}$ | $\begin{gathered} \text { Primary } \\ \text { aluminum } \\ \text { (SIC 3334) } \end{gathered}$ | Primary nonferrous metals, n.e.c. (SIC 3339) | Secondary nonferrous metals <br> (SIC 3341) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $(3)$ $(3)$ | $(3)$ $(3)$ | . 92 | 1.00 .75 | .83 .39 | .94 .26 |
| Establishments, total......................................number.. | 33 | 10 | 18 | 23 | 35 | 459 |
| With 1 to 19 employees...................................do.... | - | - | - | 1 | 9 | 280 |
| With 20 to 99 employees................................... . . . . . . . . . | 4 | 1 | 2 | 1 | 11 | 136 |
| With 100 employees or more..............................do.... | 29 | 9 | 16 | 21 | 15 | 43 |
| Proprietors and working partners........................do.... | 2 | - ${ }^{-}$ | 5 | 18.733 | 1 | 174 |
| All employees (average for the year)....................do.... | 14,949 | 2,578 | 8,065 | 18,133 | 5,064 | 15,445 |
| Payroll (all employees), total for year................ $\$ 1,000 .$. | 96,134 | 14,997 | 47,760 | 134,116 | 34,807 | 96,302 |
| Production workers: |  |  |  |  |  |  |
| Average for the year..................................number.. | 12,711 | 2,125 | 6,575 | 14,459 | 3,782 | 11,336 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 12,702 | 1,986 | 6,549 | 13,152 | 3,806 | 11,212 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 12,826 | 1,921 | 6,565 | 14,166 | 3,747 | 11,343 |
| August.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 12,746 | 2,210 | 6,469 | 15,167 | 3,817 | 11,319 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 12,556 | 2,383 | 6,719 | 15,351 | 3,761 | 11,449 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 25,846 | 4,106 | 13,245 | 29,487 | 8,148 | 23,779 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 6,488 | , 946 | 3,293 | 6,706 | 2,069 | 5,847 |
| April-June . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,564 | 1,011 | 3,285 | 7,233 | 2,034 | 6,007 |
| July-September . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 6,292 | 1,031 | 3,215 | 7,701 | 2,029 | 5,836 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,502 | 1,118 | 3,452 | 7,847 | 2,020 | 6,089 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 77,938 | 11,156 | 36,238 | 101,399 | 24,701 | 60,510 |
| Cost of materials, etc., total..........................do. | 969,974 | 228,906 | 173,473 | 571,940 | 115,519 | 823,132 |
| Materials, parts, containers, and supplies consumed..do. | 928,334 | 222,289 | 151,884 | 434,328 | 101,206 | 676,580 |
|  | 556 | 12 | 798 | 7,268 | 1,655 | 125,853 |
|  | 20,266 | 5,777 | 11,236 | 29,510 | 2,306 | 10,081 |
| Electric energy: |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |
| Quantity............................... million kw.-hrs. . | 996 | 97 | 1,343 | 28,262 | 1,661 | 320 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 7,697 | 828 | 7,453 | 99,708 | 7,680 | 4,167 |
| Generated less sold.......................million kw.-hrs.. | 177 | (D) | (D) | 10,174 | - | - |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 13,121 | - | 2,102 | 1,126 | 2,672 | 6,451 |
| Value of shipments (including resales), total...........do..... Value of resales.......................................................... | 1,245,457 | 265,072 | 281,537 894 | $1,089,977$ 12,884 | 212,176 3,382 | 1,045,522 |
| Value added by manufacture, adjusted....................do. | 285,510 | 24,876 | 98,789 | 499,576 | 103,830 | 228,190 |
| Manufacturers' inventories: |  |  |  |  |  |  |
| Beginning of year, total..............................d. ${ }^{\text {do. }}$ | 160,955 | 62,210 | 56,871 | 123,754 | 46,379 | 123,983 |
| Finished products.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 60,163 | 29,922 | 22,015 | 40,936 | 10,620 | 58,429 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 80,921 | 26,955 | 11,745 | 33,017 | 22,906 | 34,217 |
| Materials, supplies, fuel, etc......................do. | 19,871 | 5,333 | 23,111 | 49,801 | 12,853 | 31,337 |
| End of year, total......................................do. | 166,368 | 50,016 | 46,003 | 106,479 | 55,843 | 143,083 |
| Finished products.................. . . . . . . . . . . . . . . . . do. . | 44,362 | 16,457 | 12,648 | 20,777 | 21,415 | 66,341 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 106,749 | 29,130 | 11,837 | 34,715 | 19,284 | 32,105 |
| Materials, supplies, fuel, etc........................d. ${ }^{\text {d }}$... | 15,257 | 4,429 | 21,518 | 50,987 | 15,144 | 44,637 |
| Expenditures for plant and equipment, total............do. | 13,288 | 987 | 4,755 | 63,391 | 6,652 | 18,982 |
| New, total............................................... do. | 13,134 | 964 | 4,734 | 62,172 | 6,435 | 17,891 |
| New structures and additions to plant...............d. do. | 3,497 | 115 | 1,155 | 29,070 | 649 | 5,324 |
| New machinery and equipment..............................d. do. | 9,637 | 849 | 3,579 | 33,102 | 5,786 | 12,567 |
| Used plant and equipment...............................do. | 154 | 23 | 21 | 1,219 | 217 | 1,091 |
| Selected operating ratios: |  |  |  |  |  |  |
| Payroll/Total employment.. | 6,431 | 5,817 | 5,922 | 7,396 | 6,873 | 6,235 |
| Production workers/Total employment. | . 85 | . 82 | . 82 | . 80 | . 75 | . 73 |
| Man-hours/Production workers..... . | 2,033 | 1,932 | 2,014 | 2,039 | 2,154 | 2,098 |
| Production worker wages/Man-hours. | 3.02 | 2.72 | 2.74 | 3.44 | 3.03 | 2.54 |
| Cost of materials and payrolls/Total value of shipments.... | . 86 | . 92 | . 79 | . 65 | . 71 | . 88 |
| Cost of materials/Total value of shipments.. | . 78 | . 86 | . 62 | . 52 | . 54 | . 76 |
| Adjusted value added/Total employment........................ | 19,099 | 9,649 | 12,249 | 27,551 | 20,504 | 14,760 |
| Salaries and wages/Adjusted value added..................... | . 34 | . 60 | . 48 | . 27 | . 34 | . 42 |

 in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not

## applicable.

n.e.c. Not elsewhere classified
The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.
${ }^{3}$ Omitted because of extensive duplication of value of shipments and cost of materials. The duplication varies because products shipped by some establishments are consumed as materials by other establishments in the same industry.

## table 4. Selected Statistics, by Employment Size of Establishments: 1963



- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.


## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assi gned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio Col. B $\frac{\text { Col. B+C }}{\text { Col }}$ <br> (percent) | Total, made in all industries <br> $(\$ 1,000)$ | Made in this industry <br> $(\$ 1,000)$ | Made in other industries <br> $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3331 | Primary copper..................... $1963 .$. | $1,245,457$ 861,087 | $1,048,923$ 714,995 | $\begin{array}{r} 103,474 \\ 72,996 \end{array}$ | $\begin{aligned} & 93,060 \\ & 73,096 \end{aligned}$ | $(1)$ $(1)$ | $\begin{gathered} 1,297,102 \\ 877,421 \end{gathered}$ | $\begin{array}{r} 1,048 ; 923 \\ (\mathrm{NA}) \end{array}$ | 248,179 | $\left(\begin{array}{l} \left({ }^{1}\right) \\ (\mathrm{NA}) \end{array}\right.$ |
| 3332 | Primary lead......................... $1963 .$. | $\begin{aligned} & 265,072 \\ & 316,934 \end{aligned}$ | $\begin{aligned} & \text { (D) } \\ & \text { (D) } \end{aligned}$ | $\begin{aligned} & \text { (D) } \\ & \text { (D) } \end{aligned}$ | $\begin{array}{r} 7,036 \\ \text { (D) } \end{array}$ | $\left(\begin{array}{l}1 \\ (1) \\ \\ \end{array}\right.$ | (D) <br> (D) | $\begin{aligned} & \text { (D) } \\ & \text { (D) } \end{aligned}$ (D) | (D) (D) | $(1)$ $(1)$ |
| 3333 | Primary zinc........................ $1963 .$. | $\begin{aligned} & 281,537 \\ & 208,993 \end{aligned}$ | $\begin{aligned} & 250,997 \\ & 176,632 \end{aligned}$ | $\begin{aligned} & 20,706 \\ & 19,441 \end{aligned}$ | $\begin{array}{r} 9,834 \\ 12,920 \end{array}$ | $\begin{aligned} & 92 \\ & 90 \end{aligned}$ | $\begin{aligned} & 308,538 \\ & 232,513 \end{aligned}$ | $\begin{aligned} & 250,997 \\ & 176,632 \end{aligned}$ | $\begin{aligned} & 57,541 \\ & 55,881 \end{aligned}$ | $\begin{array}{r} 281 \\ 76 \end{array}$ |
| 3334 | Primary aluminum.................... $1963 . . \mid$ | $\begin{array}{r} 1,089,977 \\ 808,822 \end{array}$ | $\begin{array}{r} 1,069,606 \\ 800,011 \end{array}$ | - | $\begin{array}{r} 20,371 \\ 8,811 \end{array}$ | 100 | $\begin{aligned} & 1,420,182 \\ & 1,057,801 \end{aligned}$ | $\begin{array}{r} 1,069,606 \\ 800,011 \end{array}$ | $\begin{aligned} & 350,576 \\ & 257,790 \end{aligned}$ | $\begin{array}{r} 375 \\ 76 \end{array}$ |
| 3339 | Primary nonferrous metals, n.e.c...1963.. | $\begin{array}{r} 212,176 \\ 96,565 \end{array}$ | $\begin{array}{r} 170,039 \\ 87,131 \end{array}$ | $\begin{array}{r} 34,841 \\ 7,536 \end{array}$ | $\begin{aligned} & 7,296 \\ & 1,898 \end{aligned}$ | $\begin{aligned} & 83 \\ & 92 \end{aligned}$ | $\begin{aligned} & 439,385 \\ & 362,694 \end{aligned}$ | $\begin{array}{r} 170,039 \\ 87,131 \end{array}$ | $\begin{aligned} & 269,346 \\ & 275,563 \end{aligned}$ | $\begin{array}{r} 439 \\ 24 \end{array}$ |
| 3341 | Secondary nonferrous metals........ $1963 .$. | $\begin{array}{r} 1,045,522 \\ 724.013 \end{array}$ | $\begin{aligned} & 813,932 \\ & 563.138 \end{aligned}$ | $\begin{aligned} & 54,717 \\ & 45,562 \end{aligned}$ | $\begin{aligned} & 176,873 \\ & 115,313 \end{aligned}$ | $\begin{aligned} & 94 \\ & 93 \end{aligned}$ | $\begin{aligned} & 3,102,519 \\ & 1,859,159 \end{aligned}$ | $\begin{aligned} & 813,932 \\ & 563,138 \end{aligned}$ | $\begin{aligned} & 2,288,587 \\ & 1,296,021 \end{aligned}$ | $\begin{array}{r} 526 \\ 30 \end{array}$ |

NOTE: See Introduction for an explanation of terms used,
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ Specialization and coverage ratios have not been calculated for industries 3331, Primary Copper, and 3332, Primary Lead, because the shipments of primary products for these industries contain extensive duplication.

Included in this industry is refined zinc which is also primary to industry 3341, Secondary Nonferrous Metals. A coverage ratio computed on the basis of including both industries to which refined zinc is primary would total 96 percent; 81 percent by industry 3333 and 15 percent by industry 3341. The remainder was shipped by establishments in other industries.
${ }^{3}$ Included in this industry are aluminum-base alloys which are also primary to industry 3341 , Secondary Nonferrous Metals, and industry 3352 , Aluminum Rolling and Drawing. A coverage ratio computed on the basis of including all three industries to which aluminum-base alloys are primary would total 96 percent; 75 percent by industry 3334 , 17 percent by industry 3341 , and 4 percent by industry 3352 . The remainder was shipped by establishments in other industries.
${ }^{4}$ Included in this industry are refined nonferrous alloys, n.e.c., which are also primary to industry 334l, Secondary Nonferrous Metals. A coverage ratio computed on the basis of including both industries to which refined nonferrous alloys, n.e.c., are primary would total 59 percent; 39 percent by industry 3339 , and 20 percent by industry 3341 . The remaining 41 percent was shipped by establishments classified in other industries.
${ }^{5}$ Included in this industry are refined copper, lead, zinc, aluminum, precious metals, and other nonferrous metals. Each of these product classes is also primary to the comparable primary smelting and refining industry in Group 333. A coverage ratio computed on the basis of including both industries to which the classes are primary would total 89 percent; 26 percent by industry 3341 , and 63 percent by primary nonferrous smelters and refiners. The remaining ll percent was shipped by establishments in other industries.

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the
primary products of the industry by all manufacturing industries. The next column(s) shows the
total value of shipments of the specified industry divided among (a) products classified in the in-
dustry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

\begin{tabular}{|c|c|c|c|c|c|}
\hline Prod. class code \& Class of products and miscellaneous receipts \& All
industries \& Primary copper (SIC 3331) \& Secondary nonferrous metals (SIC 3341) \& Other industries \\
\hline \&  \& (X)
\({ }^{1} 1,297,102\) \& \(1,245,457\)
\({ }^{1} 1,048,923\) \& \begin{tabular}{l}
(X) \\
(D)
\end{tabular} \& (X)
(D) \\
\hline \[
\begin{aligned}
\& 33311 \\
\& 33312
\end{aligned}
\] \&  \& 628,508
2668,594 \& 627,482
421,441 \& (D)
222,016 \& (D)
25,137 \\
\hline \& Secondary products \& (X) \& 103,474 \& \& (X) \\
\hline \multirow[t]{6}{*}{\[
\begin{aligned}
\& 28199 \\
\& 33995 \\
\& 33397
\end{aligned}
\]} \& \begin{tabular}{l}
Reagent and high purity grades of inorganic chemicals and other inorganic chemicals, n.e.c. Precious metals (primary smelting). \\
Other primary nonferrous metals, including magnesium, smelted or refined \\
All other products.
\end{tabular} \& \begin{tabular}{l}
(X) \\
(X) \\
(X) \\
(X)
\end{tabular} \& 5,763
86,092
6,964
34,655 \& \[
\begin{aligned}
\& (x) \\
\& (x) \\
\& (x) \\
\& (X) \\
\& (X)
\end{aligned}
\] \& (X)
(X)
(X)
(X) \\
\hline \& Miscellaneous receipts................................................................................... \& (x) \& 93,060 \& (X) \& (X) \\
\hline \& \multirow[t]{4}{*}{\begin{tabular}{l}
Smelting and refining materials owned by others on a toll basis. \(\qquad\) All other receipts. \(\qquad\) \\
PRIMARY LEAD INDUSTRY \\
Total shipments and receipts of the industry. \(\qquad\) Primary products. \(\qquad\)
\end{tabular}} \& \[
\begin{aligned}
\& (X) \\
\& (X) \\
\& \hline
\end{aligned}
\] \& \[
\begin{array}{r}
89,191 \\
3,869 \\
\hline
\end{array}
\] \& \[
\begin{aligned}
\& (\mathrm{X}) \\
\& (\mathrm{x}) \\
\& \hline
\end{aligned}
\] \& (X) \\
\hline \& \& \[
\begin{gathered}
\text { All } \\
\text { industries }
\end{gathered}
\] \& Primary lead (SIC 3332) \& Secondary nonferrous metals (SIC 3341) \& \[
\begin{aligned}
\& \text { Other } \\
\& \text { industries }
\end{aligned}
\] \\
\hline \& \& (X) \& \({ }^{1} 265,072\) \& (X) \& (X) \\
\hline \& \& (D) \& (D) \& (D) \& (D) \\
\hline \multirow[t]{5}{*}{\[
\begin{aligned}
\& 33321 \\
\& 33323
\end{aligned}
\]} \& Lead smelter products. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \& \[
\begin{array}{r}
\text { (D) } \\
4276,388
\end{array}
\] \& \[
\begin{array}{r}
\text { (D) } \\
74,457
\end{array}
\] \& \[
\begin{array}{r}
\text { (D) } \\
191,445
\end{array}
\] \& \[
\begin{array}{r}
\text { (D) } \\
{ }^{5} 10,486
\end{array}
\] \\
\hline \& \multirow[t]{4}{*}{\begin{tabular}{l}
Secondary products. \(\qquad\) Miscellaneous receipts. \(\qquad\) \\
PRIMARY ZINC INDUSTRY \\
Total shipments and receipts of the industry. \(\qquad\) \\
Primary products \(\qquad\)
\end{tabular}} \& \[
\begin{aligned}
\& (\mathrm{X}) \\
\& (\mathrm{X}) \\
\& \hline
\end{aligned}
\] \& \[
\begin{array}{r}
\text { (D) } \\
67,036 \\
\hline
\end{array}
\] \& \[
\begin{aligned}
\& (\mathrm{X}) \\
\& (\mathrm{X}) \\
\& \hline
\end{aligned}
\] \& \[
\begin{aligned}
\& (X) \\
\& (X) \\
\& \hline
\end{aligned}
\] \\
\hline \& \& All industries \& \[
\begin{gathered}
\text { Primary } \\
\text { zinc } \\
\text { (SIC 3333) }
\end{gathered}
\] \& Secondary nonferrous metals (SIC 3341) \& Other industries \\
\hline \& \& ( X ) \& 281,537 \& ( X ) \& (X) \\
\hline \& \& 7308,538 \& 250,997 \& 45,122 \& 12,419 \\
\hline \multirow[t]{2}{*}{\[
\begin{aligned}
\& 33331 \\
\& 33334
\end{aligned}
\]} \&  \& 34,798
7273,740 \& 20,712
230,285 \& 1,877
43,245 \& 12,209
210 \\
\hline \& Secondary products.. \& (X) \& 20,706 \& ( X ) \& (x) \\
\hline \multirow[t]{4}{*}{\[
\begin{aligned}
\& 28193 \\
\& 33397
\end{aligned}
\]} \& Sulfuric acid. Other primary nonferrous metals, including magnesium, smelted or refined. All other products.. \& \begin{tabular}{l}
(X) \\
(X) \\
(X)
\end{tabular} \& \[
\begin{array}{r}
5,655 \\
9,745 \\
85,306
\end{array}
\] \& \begin{tabular}{l}
(x) \\
(X) \\
(X)
\end{tabular} \& \[
\begin{aligned}
\& (X) \\
\& (X) \\
\& \text { (X) }
\end{aligned}
\] \\
\hline \& \multirow[t]{3}{*}{} \& (X) \& 69,834 \& (X) \& (X) \\
\hline \& \& \[
\begin{gathered}
\text { All } \\
\text { industries }
\end{gathered}
\] \& Primary aluminum (SIC 3334) \& Secondary nonferrous metals (SIC 3341) \& Other industries \\
\hline \& \& \[
\begin{array}{r}
\text { (X) } \\
{ }^{9} 1,420,182
\end{array}
\] \& \[
\begin{aligned}
\& 1,089,977 \\
\& 1,069,606
\end{aligned}
\] \& \[
\begin{array}{r}
(X) \\
244,539
\end{array}
\] \& \[
\begin{array}{r}
(X) \\
106,037
\end{array}
\] \\
\hline \multirow[t]{4}{*}{\[
\begin{aligned}
\& 33347 \\
\& 33348
\end{aligned}
\]} \& \begin{tabular}{l}
Aluminum ingot, produced in primary aluminum reduction plants. \(\qquad\) \\
Aluminum extrusion billet, produced in primary aluminum reduction plants. \(\qquad\) Miscellaneous receipts. \(\qquad\)
\end{tabular} \& \[
\begin{array}{r}
100_{1}, 234,704 \\
12185,478 \\
(x) \\
\hline
\end{array}
\] \& \[
\begin{array}{r}
946,808 \\
122,798 \\
1420,371 \\
\hline
\end{array}
\] \& \[
\begin{array}{r}
230,687 \\
13,852 \\
(X) \\
\hline
\end{array}
\] \& \[
\begin{array}{r}
1157,209 \\
1348,828 \\
(\mathrm{X}) \\
\hline
\end{array}
\] \\
\hline \& \multirow[t]{2}{*}{Miscellaneous receipts...............................................................................
Primary nonferrous metais, n.E.C., industry
Pralal shipments and receipts of the industry..................................................} \& \[
\begin{gathered}
\text { All } \\
\text { industries }
\end{gathered}
\] \& Primary nonferrous metals, n.e.c. (SIC 3339) \& Secondary nonferrous metals (SIC 3341) \& Other industries \\
\hline \& \& (X) \& 212,176 \& (X) \& (X) \\
\hline \& Primary products...................... \& \({ }^{1516439,385}\) \& 170,039 \& 88,457 \& 180,889 \\
\hline \[
\begin{aligned}
\& 33395 \\
\& 33397
\end{aligned}
\] \& Precious metals (primary smelting) .............................................................. \& \[
\begin{aligned}
\& 15246,426 \\
\& 16192,959
\end{aligned}
\] \& \} 170,039 \& \(\left\{\begin{array}{l}58,978 \\ 29,479\end{array}\right.\) \& \(\}^{17} 180,889\) \\
\hline \& Secondary products............................. \& (X) \& 34,841 \& \& \\
\hline \multirow[t]{2}{*}{\[
\begin{aligned}
\& 28199 \\
\& 33560
\end{aligned}
\]} \& Reagent and high purity grades of inorganic chemicals and other inorganic chemicals, n.e.c. Rolled, drawn, and extruded nonferrous metal mill products (except copper and aluminum).... All other products. \& (X)
(X)
(X)

(X) \& $$
\begin{array}{r}
6,042 \\
7,591 \\
1821,208
\end{array}
$$ \& (X)

(X)
(x)

(x) \& $(\mathrm{X})$
$(\mathrm{X})$
$(\mathrm{X})$ <br>
\hline \& Miscellaneous receipts. \& (X) \& 147,296 \& (X) \& ( X ) <br>
\hline
\end{tabular}

See footnotes at end of table.

# table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued 

| Prod. class code | Class of products and miscellaneous receipts | All industries | Secondary nonferrous metals (SIC 3341) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
|  | SECONDARY NONFERROUS METALS INDUSTRY <br> Total shipments and receipts of the industry................................................................ | (X) | 1,045,522 | (X) |
|  | Primary products........................................................................................... | 3,102,519 | 813,932 | 2,288,587 |
| 33412 | Secondary copper (ingot, shot, etc.) | 19668,594 | 222,016 | 20446,578 |
| 33413 | Secondary lead (ingot, shot, etc.).................................................................... | ${ }^{21} 27276,388$ | 191,445 | 22184,943 |
| 33414 | Secondary zinc (ingot, shot, etc.)............................................................... | 23273,740 | 43,245 | 24230,495 |
| 33415 | Precious metals produced by secondary refineries (pig, ingot, shot, etc.)................... | 25246,426 | 58,978 | ${ }^{26} 187,448$ |
| 33416 | Other secondary nonferrous metals (pig, ingot, shot, etc.)..................................... | ${ }^{27} 192,959$ | 29,479 | ${ }^{26} 163,480$ |
| 33417 | Aluminum ingot produced by secondary smelters................ | ${ }^{28} \frac{1}{3}, 234,704$ | 230,687 | ${ }^{29} 1,004,017$ |
| 33418 | Aluminum extrusion billet, produced by secondary smelters..................................... | ${ }^{36} 185,478$ | 13,852 | ${ }^{29} 171,626$ |
| 33410 | Secondary smelting, refining, and alloying of nonferrous metals and alloys................. | 24,230 | 24,230 | - |
|  | Secondary products. | (X) | 54,717 | (X) |
| $\begin{aligned} & 28199 \\ & 33560 \end{aligned}$ | Reagent and high purity grades of inorganic chemicals and other inorganic chemicals, n.e.c. | (X) | 8,827 | (X) |
|  | Nonferrous rolling and drawing, n.e.c............................................................... | (X) | 16,507 | (X) |
|  | All other products.. | (X) | 29,383 | (X) |
|  | Miscellaneous receipts. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | 176,873 | (X) |
|  | $V a l u e ~ o f ~ r e s a l e s ~$ | (X) | 139,311 | (X) |
|  | Scrap and salable refuse | (X) | 16,882 | (X) |
|  | Receipts for smelting and refining materials owned by others on a toll basis | (X) | 13,396 | (X) |
|  | All other receipts.. | (X) | 7,284 | (X) |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ Value of shipments for this industry, or group of products, includes extensive duplication arising from shipments between establishments in the same industry classification. For further explanation see appendix A, "Value of Shipments."
${ }^{2}$ Includes total for product class 33412, Secondary copper (ingot, shot, etc.), which is primary to industry 3341.
${ }^{3}$ Includes product class 28193, Sulfuric acid, which totals $\$ 2$ million or more but is withheld to avoid disclosing individual company figures.
${ }_{5}^{4}$ Includes total for product class 33413 , Secondary lead (ingot, shot, etc.), which is primary to industry 3341.
${ }^{5}$ Represents mainly industry 3356, Rolling and Drawing, N.E.C.
${ }^{6}$ Represents mainly receipts received for smelting or refining metal on a toll basis.
${ }^{7}$ Includes total for product class 33414, Secondary zinc (ingot, shot, etc.), which is primary to industry 3341.
${ }^{8}$ Includes product class 28162, Other white opaque pigments, which totals $\$ 2$ million or more, but is withheld to avoid disclosing individual company figures.
${ }^{9}$ Includes total for product class 33417 , Aluminum ingot produced by secondary smelters, which is primary to industry 3341 ; and product class 33527 , Aluminum ingot, produced in aluminum rolling mills, which is primary to industry 3352.
${ }^{10}$ Includes total for product class 33417, Aluminum ingot produced by secondary smelters which is primary to industry 3341 ; and product class 33527 ,
Aluminum ingot produced in aluminum rolling mills, which is primary to industry 3352.
${ }^{11}$ Includes $\$ 49,024$ thousand shipped by industry 3352, Aluminum Rolling and Drawing.
${ }^{12}$ Includes total for product class 33418 , Aluminum extrusion billet, produced by secondary refiners, which is primary to industry 3341 ; and product class 33528, Aluminum extrusion billet, produced in aluminum rolling mills, which is primary to industry 3352 .
${ }^{13}$ Includes $\$ 48,745$ thousand shipped by industry 3352, Aluminum Rolling and Drawing.
${ }^{14}$ Represents mainly resales.
${ }^{15}$ Includes total for product class 33415 , Precious metals, produced by secondary refiners (pig, ingot, shot, etc.) primary to industry 3341.
${ }^{16}$ Includes total for product class 33416, Other secondary nonferrous metals (pig, ingot, shot, etc.), which is primary to industry 3341.
${ }^{17}$ Includes $\$ 2.6$ million shipped by industry 2819, Inorganic Chemicals, N.E.C.; $\$ 2.8$ million shipped by industry 3356 , Rolling and Drawing, N.E.C.; $\$ 93$ million shipped by industry 3331 , Primary Copper; and $\$ 9.7$ million shipped by industry 3333, Primary Zinc. In addition, industry 3332 , Primary Lead, had shipments which totaled $\$ 2$ million or more, but is withheld to avoid disclosing figures for individual companies.
${ }^{18}$ Includes the following product classes which total $\$ 2$ million or more, but are withheld to avoid disclosing individual company figures: 33412 , Secondary copper (ingot, shot, etc.); and 33417, Aluminum ingot. produced by secondary smelters.
${ }^{19}$ Includes total for product class 33312, Refined primary copper, made in Primary Copper Industry, which is primary to industry 3331.
${ }^{20}$ See also industry 3331 above.
${ }^{21}$ Includes total for product class 33334, Refined primary lead, made in Primary Lead Industry, which is primary to industry 3332.
${ }^{22}$ See also industry 3332 above.
${ }^{23}$ Includes total for product class 33334 , Refined primary zinc products, made in Primary Zinc Industry, which is primary to industry 3333.
${ }^{24}$ See also industry 3333 above.
${ }^{25}$ Includes total for product class 33395 , Precious metals (primary smelting), made in Primary Nonferrous Metals, N.E.C., Industry, which is primary to industry 3339.
${ }^{26}$ See also industry 3339 above.
${ }^{27}$ Includes total for product class 33397, Other primary nonferrous metals, including magnesium, smelted or refined, made in Frimary Nonferrous Metals, N.E.C., Industry, which is primary to industry 3339.
${ }^{28}$ Includes total for product class 33347 , Aluminum ingot, produced in primary aluminum reduction plants, which is primary to industry 3334 , and product class 33527, Aluminum ingot, produced in aluminum rolling mills, which is primary to industry 3352.
${ }^{29}$ See also industry 3334 above.
${ }^{30}$ Includes total for product class 33348 , Aluminum extrusion billet, produced in primary aluminum reduction plants, which is primary to industry 3334, and product class 33528, Aluminum extrusion billet, produced in aluminum rolling mills which is primary to industry 3352 .
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| Product code | Product | Total production ${ }^{2}$ (gross weight) | Shipments including interplant transfers ${ }^{1}$ |  |  |  |  |  | Shipments of products made from materials owned by others ${ }^{3}$ (gross weight) | Produced and consumed in the same plant in manufacture of other products (gross weight) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total |  | Shipments to all other companies |  | Transfers to other plants of the same company |  |  |  |
|  |  |  | $\begin{array}{c\|} \hline \text { Quantity } \\ \text { (gross weight) } \end{array}$ | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | $\begin{gathered} \text { Quantity } \\ \text { (gross weight) } \end{gathered}$ | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity <br> (gross weight) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |  |  |
|  | 1963 | $\begin{gathered} \text { (short } \\ \text { tons) } \end{gathered}$ | $\begin{gathered} \text { (short } \\ \text { tons) } \end{gathered}$ |  | $\begin{aligned} & \text { (short } \\ & \text { tons) } \end{aligned}$ |  | $\begin{gathered} \text { (short } \\ \text { tons) } \end{gathered}$ |  | $\begin{gathered} \text { (short } \\ \text { tons) } \end{gathered}$ | $\begin{gathered} \text { (short } \\ \text { tons) } \end{gathered}$ |
| 3331- -- | PRTMARY COPPER, TOTAL. . | (X) | (X) | 1,297,102 | (X) | (X) | (X) | (X) | (X) | (X) |
| 33311 -- | Copper smelter products..... | (X) | (X) | 628,508 | (D) | (D) | (D) | (D) | (x) | 213,363 |
| $\begin{array}{ll} 33311 & 11 \\ 33311 & 51 \end{array}$ | Blister or anode copper.......... Matte, speiss, flue dust, residues, etc....................... | $1,497,106$ 92,812 | $1,068,929$ 33,655 | 614,640 13,868 | 439,875 (D) | 259,859 (D) | $629,054$ <br> (D) | 354,781 (D) | 360,106 4,562 | \} 113,363 |
| $\begin{aligned} & 33312 \\ & 33412 \end{aligned}--$ | Refined copper | (X) | (X) | 668,594 | (D) | (D) | (D) | (D) | (X) | (D) |
| 33312 -- | Made by primary copper refiners (industry 3331)..................... | 1,796,830 | 640,657 | 421,441 | (D) | (D) | (D) | (D) | (X) | (X) |
| $33412--$ | Made by secondary refiners (industry 3341) and other industries......................... | (X) | (X) | 247,153 | (D) | (D) | (D) | (D) | (x) | (X) |
| $\begin{array}{ll} 33312 & 11 \\ 33412 & 11 \end{array}$ | $\}$ Copper unalloyed............... | 1,858,784 | 725,392 | 470,328 | 725,392 | 470,328 | - | - | 1,180,224 | (D) |
| $\left.\begin{array}{lll}33312 & 15 \\ 33412 & 31\end{array}\right\}$ | Copper-base alloys............ | 290,447 | 305,325 | 196,778 | (D) | (D) | (D) | (D) | 3,561 | (D) |
| 3331200 | Refined primary copper, n.s.k... | (X) | (X) | 1,488 | (X) | 1,488 | (X) | - | (X) | (X) |
| 3332- -- | PRIMARY LEAD, TOTAL. | (NA) | (NA) | (D) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 33321 -- | Lead smelter products. | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | 97,464 |
| $\begin{array}{ll} 33321 & 11 \\ 33321 & 51 \end{array}$ | Base bullion. <br> Matte speiss, etc. $\qquad$ | $\begin{aligned} & 279,728 \\ & 132,374 \end{aligned}$ | (D) | (D) | (D) | (D) | (D) | (D) | (D) | ) 97,464 |
| $\left.\begin{array}{l} 33323-- \\ 33413-- \end{array}\right\}$ | Refined lead. ..................... | (X) | (X) | 276,388 | (x) | 256,683 | (X) | 19,705 | (D) | (D) |
| 33323 -- | Made by primary lead refiners (industry 3332) | (X) | (X) | 74,457 | (X) | (D) | (X) | (D) | (D) | (D) |
| $33413 \text {-- }$ | Made by secondary refiners <br> (industry 3341)................... <br> All other industries. | $\begin{aligned} & \text { (X) } \\ & \text { (X) } \end{aligned}$ | (X) | $\begin{array}{r} 191,445 \\ 10,486 \end{array}$ | (X) | (D) | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | (D) | (D) | (D) |
| $\begin{aligned} & 3332311 \\ & 3341311 \end{aligned}$ | Refined unalloyed lead.......... | 629,806 | 443,713 | 98,461 | 421,737 | 93,685 | 21,976 | 4,776 | (D) | (D) |
| 3332311 | Made in industry 3332.......... <br> All other industries. | 492,674 | 312,097 | 68,589 | \} 421,737 | 93,685 | 21,976 | 4,776 | (D) | (D) |
| 3341311 | Made in industry 3341.......... | 137,132 | 131,616 | 29,872 |  |  |  |  |  |  |
|  | Lead- and tin-base alloys ${ }^{4}$ | 519,513 | 478,981 | 172,842 | (D) | (D) | (D) | (D) | (D) | (D) |
|  | Made in industry 3332.......... <br> Made in industry 3341.......... <br> All other industries............ | 519,513 | 478,981 | 172,842 | (D) | (D) | (D) | (D) | (D) | (D) |
| $\begin{array}{ll} 33323 & 31 \\ 33413 & 21 \end{array}$ | \} Antimonial lead... | 329,344 | 306,686 | 72,720 | 265,217 | 62,657 | 41,469 | 10,063 | 18,508 | (D) |
| $\begin{array}{ll} 33323 & 33 \\ 33413 & 33 \end{array}$ | ) Babbitt metal.. | 14,389 | 13,423 | 9,171 | (D) | (D) | (D) | (D) | (D) | (D) |
| $\begin{array}{ll} 33323 & 51 \\ 33413 & 51 \end{array}$ | \} Solder......................... | 102,265 | 100,907 | 69,783 | (D) | (D) | (D) | (D) | 1,141 | (D) |
| $\left.\begin{array}{ll} 33323 & 7 \\ 33413 & 71 \end{array}\right\}$ | Type metal..................... | 39,363 | 34,522 | 12,479 | (D) | (D) | (D) | (D) | (D) | (D) |
| $\begin{aligned} & 33323 \\ & 33413 \\ & 98 \end{aligned}$ | \} Other lead and tin-base alloys | 34,152 | 23,443 | 8,689 | (D) | (D) | (D) | (D) | (D) | (D) |
| $\begin{array}{ll} 33323 & 00 \\ 33413 & 00 \end{array}$ | \} Refined lead, n.s.k. | (X) | (X) | 55,085 | (x) | 5,085 | (X) | - | (X) | (X) |

TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All
Manufacturing Establishments: 1963 and 1958 -Continued


[^94]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Pioduct code | Product | Total production? (gross weight) | Shipments including interplant transfers ${ }^{1}$ |  |  |  |  |  | Shipments of products made from materials owned by others (gross weight) | Produced and consumed in the same plant in manufacture of other products (gross weight) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total |  | Shipments to all other companies |  | Transfers to other plants of the same company |  |  |  |
|  |  |  | Quantity (gross weight) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity (gross weight) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { Quantity } \\ \text { (gross weight } \end{array}$ | $\begin{gathered} \hline \text { Value } \\ (\$ 1,000) \end{gathered}$ |  |  |
| $\begin{aligned} & 3341--- \\ & 33412-- \\ & 33312-- \end{aligned}$ | 1963-Continued <br> SECONDARY SMELTING, REFINING, AND ALIOYING OF NONFERROUS MET ALS—Continued | (Short tons) | (Short tons) |  | $\begin{gathered} \text { (Short } \\ \text { tons) } \end{gathered}$ |  | (Short tons) |  | $\begin{aligned} & \text { (Short } \\ & \text { tons) } \end{aligned}$ | $\begin{aligned} & \text { (Short } \\ & \text { tons) } \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |
|  | Refined copper. | (X) | (X) | 8868,594 | (D) | (D) | (D) | (D) | (X) | (D) |
| $\begin{aligned} & 33413- \\ & 33323 \end{aligned} \text {-- }$ | $\}$ Refined lead. | (X) | (X) | 9276,388 | (X) | 256,683 | (X) | 19,705 | (D) | (D) |
| $\begin{array}{ll} 33414 & -- \\ 33334 & -- \end{array}$ | Refined zinc | 1,262,974 | 1,129,687 | 10273,740 | 1,092,941 | 265,166 | 36,746 | 8,574 | 75,400 | 96,467 |
| $\begin{aligned} & 33415 \\ & 33395 \end{aligned}--$ | \}Refined precious metals.............. | (NA) | (NA) | ${ }^{11} 246,426$ | (D) | (D) | (D) | (D) | (X) | (x) |
| $\begin{array}{ll} 33416 & -- \\ 33397 & -- \end{array}$ | Other nonferrous metals, smelted and refined............................. | (NA) | (NA) | 12192,959 | (D) | (D) | (D) | (D) | (X) | (X) |
| 3341000 | Refined nonferrous metals, n.s.k... | (X) | (X) | 24,230 | (X) | 24,230 | - | - | (X) | (x) |
| 3331- -- | PRIMARY COPPER, TCTAL. . . . . . . . | (X) | (X) | 877,421 | (x) | 565,480 | (X) | 311,941 | (X) | (X) |
| 33311 -- | Copper smelter products. | (X) | (X) | 397,681 | (X) | 96,910 | (X) | 300,771 | 353,443 | 62,915 |
| $\left.\begin{array}{lll} 33311 & 11 \\ 33311 & 51 \end{array} \right\rvert\,$ | Blister or anode copper........... <br> Matte, speiss, flue dust, | 1,107,345 | 723,278 | 390,539 | 182,638 | 95,399 | 540,640 | 295,140 | 353,443 | \} 62,915 |
|  | residues, etc.................... | 55,459 | 50,159 | 7,142 | 11,541 | 1,511 | 38,618 | 5,631 |  |  |
| $\begin{aligned} & 33312 \\ & 33412 \end{aligned}--$ | \} Refined copper....................... | (x) | (X) | 479,740 | (X) | 468,570 | (X) | 11,170 | (X) | (X) |
| 33312 -- | Made by primary copper refiners (industry 3331).................... | (X) | (X) | 320,496 | (X) | (D) | (X) | (D) | (X) | (X) |
| 33412 -- | $\left\{\begin{array}{c} \text { Made by secondary refiners } \\ \text { (industry 3341)...................... } \end{array}\right.$ | (X) | (X) (X) | $\begin{array}{r} 151,929 \\ 7,315 \end{array}$ | (X) | (D) | $\begin{aligned} & (x) \\ & (x) \end{aligned}$ | (D) | (X) | (x) |
| $\left.\begin{array}{ll} 33312 & 11 \\ 33412 & 11 \end{array} \right\rvert\,$ | \} Refined unalloyed copper......... | 1,595,257 | 649,257 | 344,188 | (D) | (D) | (D) | (D) | 1,032,241 | 4,960 |
| 3341211 3331211 | Made in industry 3341.......... Made in | 40,148 $1,555,709$ | 59,328 589,929 | 31,248 312,940 | $\begin{array}{r}\text { (D) } \\ 589 \\ \hline 929\end{array}$ | (D) 312,940 | (D) | (D) | 1,032,241 | \} 4,960 |
|  | Made in industry 3331........... | 1,555,109 | 589,929 | 312,940 | 589,929 | 312,940 | - | - | 1,032,241 |  |
| $\left.\begin{array}{ll} 33312 & 15 \\ 33412 & 31 \end{array} \right\rvert\,$ | \} Copper-base alloys.............. | 318,437 | 254,543 | 135,552 | (D) | (D) | (D) | (D) | 3,433 | (D) |
| $\begin{array}{ll}3331215 \\ 33412 & 31\end{array}$ | $\left\{\begin{array}{l}\text { Made in industry } 3331 . \ldots \ldots \ldots . \\ \text { Made in industry } 3341 . \ldots . . . \\ \text { All other industries......... }\end{array}\right.$ | \} 318,437 | $\left\{\begin{array}{r}10,888 \\ 234,766 \\ 8,889\end{array}\right.$ | 7,556 120,681 7,315 | ( ${ }^{\text {( })}$ | (D) | (D) | (D) | 3,433 | (D) |
| 3332--- | PRIMARY LEAD, TOTAL. | (X) | (X) | (D) | (X) | (D) | (X) | (D) | (X) | (X) |
| 33321 -- | Lead smelter products | (X) | (X) | (D) | , (X) | (D) | (X) | (D) | (X) | (X) |
| $\begin{array}{ll} 33321 & 11 \\ 33321 & 51 \end{array}$ | Base bullion. <br> Matte, speiss, etc | $\begin{aligned} & 479,846 \\ & 118,562 \end{aligned}$ | ) (D) | (D) | (D) | (D) | (D) | (D) | (D) | 209,754 |
| $\begin{aligned} & 33323-- \\ & 33413 \end{aligned}$ | \} Refined lead. . . . . . . . . . . . . . . . . . . . . . | (X) | (X) | 280,937 | (X) | (D) | (X) | (D) | (X) | (X) |
| 33323 -- | Made by primary lead refiners (industry 3332)..................... | (x) | (x) | 104,788 | (X) | (D) | (X) | (D) | (X) | (x) |
| 33413 -- |  | (X) | (X) | 137,446 | (X) | (D) | (X) | (D) | (X) | (X) |
|  | \{ All other industries................. |  | (X) | 38,703 |  |  |  |  | (X) | (x) |
| $\begin{array}{ll} 33323 & 11 \\ 33413 & 11 \end{array}$ | ) Refined unalloyed lead.......... | 658,569 | 521,108 | 120,116 | 509,074 | 117,286 | 12,034 | 2,830 | 104,431 | (D) |

See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code |  | Total production ${ }^{2}$ (gross weight) | Shipments including interplant transfers ${ }^{1}$ |  |  |  |  |  | Shipments of products made from materials owned by others (gross weight) | Produced and consumed in the same plant in manufacture of other products (gross weight) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Product |  | Total |  | Shipments to all other companies |  | Transfers to other plants of the same company |  |  |  |
|  |  |  | Quantity (gross weight) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity (gross weight) | $\begin{gathered} \hline \text { Value } \\ (\$ 1.000) \end{gathered}$ | $\left\lvert\, \begin{gathered} \text { Quantity } \\ \text { (gross weight) } \end{gathered}\right.$ | $\begin{aligned} & \text { Value } \\ & (\$ 1.000) \end{aligned}$ |  |  |
|  | 1958-Continued | $\begin{aligned} & \text { (Short } \\ & \text { tons) } \end{aligned}$ | (Short tons) |  | $\begin{gathered} \text { (Short } \\ \text { tons) } \end{gathered}$ |  | (Short <br> tons) |  | (Short tons) | (Short <br> tons) |
| 3331- -- | PRIMARY LEAD-Continued |  |  |  |  |  |  |  |  |  |
| $\begin{array}{ll} 33323 & -- \\ 33413 & - \\ 33323 & 11 \\ 33413 & 11 \\ 33413 & 11 \\ 33323 & 11 \end{array}$ | $\left\{\begin{array}{l} \} \text { Refined lead-Continued } \\ \} \quad \text { Refined unalloyed lead-Continued } \end{array}\right.$ |  |  |  |  |  |  |  |  |  |
|  | Made in industry $3341 . \ldots . . .$. . Made in industry $3332 . \ldots . . .$. | 134,252 524,317 | 118,238 402,870 | 28,536 91,580 | (D) | (D) <br> (D) | (D) <br> (D) |  | (D) | (D) |
|  | Lead-base and tin-base alloys ${ }^{4} .$. . | 413,510 | 410,709 | 154,805 | (D) | (D) | (D) | (D) | 16,123 | 995 |
|  | Made in industry 3332........... Made in industry 3341........... All other industries. | 48,854 293,395 71,261 | 50,026 290,195 70,488 | 13,208 104,458 37,139 | 50,026 (D) (D) | 13,208 <br> (D) <br> (D) | (D) ${ }^{-}$ | (D) ${ }^{-}$ | $\} 16,123$ | 995 |
| $\begin{array}{ll} 33322 & 31 \\ 33413 & 21 \end{array}$ | Antimonial lead $\qquad$ Babbitt metal: | 244,259 | 242,594 | 61,489 | (D) | (D) | (D) | (D) | 8,412 | (D) |
| $\begin{array}{ll} 33323 & 32 \\ 33413 & 31 \end{array}$ | Lead-base. | 23,833 | 22,144 | 9,837 | (D) | (D) | (D) | (D) | (D) | 242 |
| $\begin{array}{ll} 33323 & 35 \\ 33413 & 35 \end{array}$ | Tin-base..................... | 2,990 | 2,364 | 3,959 | (D) | (D) | (D) | (D) | (D) |  |
| $\begin{array}{ll} 33323 & 51 \\ 33413 & 51 \end{array}$ | Solder... | 70,047 | 70,483 | 51,518 | (D) | (D) | (D) | (D) | 2,357 | 502 |
| $\begin{aligned} & 3332371 \\ & 3341371 \end{aligned}$ | Type metal. | 42,871 | 39,802 | 14,682 | (D) | (D) | (D) | (D) | (D) | (D) |
| $\begin{aligned} & 3332398 \\ & 3341398 \end{aligned}$ | Other lead and tin-base alloys. | 29,510 | 33,322 | 13,320 | (D) | (D) | (D) | (D) | 3,489 | (D) |
| 3341300 | Refined lead, n.s.k. | (x) | (X) | ${ }^{13} 6,016$ | (X) | 6,016 | (X) | - | (X) | (X) |
| 3333- -- | PRIMARY ZINC, TOTAL. | (X) | (X) | 232,513 | (X) | 214,899 | (X) | 17,614 | (x) | (X) |
| 3333111 | Zinc residues and other zinc smelter products. | 438,014 | 425,564 | 25,822 | 210,939 | 13,448 | 214,625 | 12,374 | 8,620 | (D) |
| $\begin{aligned} & 33334-- \\ & 33414 \end{aligned}$ | Refined zinc. | (X) | (X) | 206,691 | (X) | 201,451 | (X) | 5,240 | (X) | (X) |
| 33334 pt | Made by primary zinc refiners (industry 3333)...................... | (X) | (x) | 158,137 |  |  |  |  |  |  |
| $\begin{aligned} & 33414 \mathrm{pt} \\ & 33334 \mathrm{pt} \end{aligned}$ | Made in industry 3341.............. | (X) | (x) | 39,206 | \} (x) | 201,451 | (X) | 5,240 | (X) | (X) |
| $\begin{aligned} & 33334 \mathrm{pt} \\ & 33414 \mathrm{pt} \end{aligned}$ | All other industries............. | (X) | (X) | 9,348 |  |  |  |  |  |  |
| $\begin{aligned} & 3333413 \\ & 3341401 \end{aligned}$ | \} Zinc slab, including remelt zinc. | 863,317 | 776,667 | 158,713 | 752,670 | 153,639 | 23,997 | 5,074 | 76,334 | 43,180 |
| 3341401 | Made in industry 3341.......... | 20,323 | 20,181 | 4,549 | 20,181 | 4,549 | - | - |  |  |
| 3333413 | Made in industry $3333 . \ldots . . . . .$. . All other industries......... | 842,994 | 756,486 | 154,164 | 732,489 | 149,090 | 23,997 | 5,074 | \{\} 76, 334 | 43,180 |
| $\begin{array}{ll} 33334 & 51 \\ 33414 & 05 \end{array}$ | \} Zine dust.......................... | 25,792 | 25,518 | 7,070 | 25,518 | 7,070 | - | - | (D) | (D) |
| 3341405 | Made in industry 3341.......... |  |  |  |  |  |  |  |  |  |
| 3333451 |  | 25,792 | 25,518 | 7,070 | 25,518 | 7,070 | - | - | (D) | (D) |
| $\begin{aligned} & 3333461 \\ & 3341411 \end{aligned}$ | Zinc-base alloys.................. | 148,440 | 130,347 | 40,908 | 129,715 | 40,742 | 632 | 166 | 11,506 | - |
| 3333461 | Made in industry 3333........... |  |  |  |  |  |  |  |  |  |
| 3341411 | $\left\{\begin{array}{l}\text { Made in industry 3341.......... } \\ \text { All other industries......... }\end{array}\right.$ | 148,440 | 130,347 | 40,908 | 129,715 | 40,742 | 632 | 166 | 11,506 | - |

[^95]
## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



See footnotes at end of table.

# table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 

| Product code | Product | Total production ${ }^{2}$ (gioss <br> - weight) | Shipments including interplant transfers ${ }^{1}$ |  |  |  |  |  | Shipments of products made from materials owned by others (gross weight) | Produced and consumed in the same plant in manufacture of other products (gross weight) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total |  | Shipments to all other companies |  | Transfers to other plants of the same company |  |  |  |
|  |  |  | Quantity (gross weight) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity (gross weight) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity (gross weight) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |  |  |
|  | 1958-Continued | $\begin{gathered} \text { (Short } \\ \text { tons) } \end{gathered}$ | $\begin{gathered} \text { (Short } \\ \text { tons) } \end{gathered}$ |  | (Short tons) |  | $\begin{gathered} \text { (Short } \\ \text { tons }) \end{gathered}$ |  | $\begin{aligned} & \text { (Short } \\ & \text { tons) } \end{aligned}$ | (Short <br> tons) |
| $\begin{aligned} & 33397 \\ & 33416-- \end{aligned}$ | Dther nonferrous metals, smelted or $\int$ refined-Continued |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 3339792 \\ & 3341621 \end{aligned}$ | Metal alloys: $\text { \} Magnesium-base alloys............. }$ | (NA) | 11,040 | 9,764 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| $\begin{aligned} & 3339793 \\ & 3341631 \\ & 3339794 \\ & 3341641 \end{aligned}$ | $\left\{\begin{array}{l} \text { Other nonferrous metal alloys } \\ \text { (including nickel-base alloys). } \end{array}\right.$ | (x) | (x) | 33,219 | (X) | (NA) | (X) | (NA) | (x) | (X) |
| $\begin{aligned} & 3339700 \\ & 3341600 \end{aligned}$ | Other nonferrous metals, n.e.c., n.s.k. | ( X ) | (X) | 6,443 | (X) | (NA) | (X) | (NA) | (x) | (x) |
| 3339000 | $\begin{aligned} & \text { Primary nonferrous metals, n.e.c. , } \\ & \text { n.s.k..................................... } \end{aligned}$ | (X) | (X) | 781 | (X) | (NA) | (X) | (NA) | (X) | (x) |
| 3341- -- | SECONDARY SMELTING, REFINING, AND ALLOYING OF NONFERROUS METALS, TOTAL. $\qquad$ | (x) | (X) | 1,859,159 | (x) | (NA) | (X) | (NA) | (x) | (X) |
| $\begin{aligned} & 33411=- \\ & 33341=- \end{aligned}$ | Gluminum-base alloys | (x) | (X) | 7507,695 | (X) | 277,198 | (x) | 230,497 | (x) | (x) |
| $\begin{aligned} & 33412-- \\ & 33312-- \end{aligned}$ | Krefined copper........................ | (x) | (x) | 479,740 | (X) | 468,570 | (X) | 11,170 | (x) | (x) |
| $\begin{aligned} & 33413-- \\ & 33323-- \end{aligned}$ | Kefined lead. | (x) | (x) | 9280,937 | (x) | (D) | (x) | (D) | (x) | (x) |
| $33414--$ | Yefined zinc. | (x) | (X) | ${ }^{10} 206,691$ | (x) | 201,451 | ( X ) | 5,240 | (x) | (x) |
| $\begin{aligned} & 33415-- \\ & 33395-- \end{aligned}$ | \}hefined precious metals.............. | (x) | (X) | ${ }^{11} 198,587$ | (x) | (NA) | (X) | (NA) | (X) | (X) |
| $\begin{aligned} & 33416-- \\ & 33397 \end{aligned}$ | Other nonferrous metals, smelted and refined $\qquad$ | (x) | (X) | ${ }^{12} 163,326$ | (x) | (NA) | (x) | (NA) | (x) | (X) |
| 3341000 | Secondary smelting, refining, and alloying, of nonferrous metals, n.s.k. .................................... . . | (x) | (x) | 22,183 | (X) | (NA) | (X) | (NA) | (x) | (X) |

Note: For each product included in this table, data were collected on the quantity of metal "received" from toll processors either for (1) consumption in producing other products: (2) shipment to customers; or (3) shipment to customers directly from the toll processor. However, these figures cannot be published without revealing the operations of individual companies, except for aluminum ingot and aluminum extrusion billet for which such receipts totaled 15,025 and 44,794 short tons, respectively.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Includes shipments of these products produced on a toll basis by others. Where data are shown separately for the various industries producing these products, such shipments are included in the industry for the establishment owning the material. However, production data are included in the industry of the toll processor.
${ }^{2}$ Includes toll production. For 1963 toll production was separately measured. However, since the differences between toll production and toll shipments (shipments of products made from materials owned by others) are minor, toll production is not shown separately.
${ }^{3}$ Includes shipments to other smelters and refiners, shipments to consumers and to some nonmanufacturing companies which sell direct to consumers.
${ }^{4}$ Includes antimonial lead, babbitt metal, solder, type metal and other lead- and tin-base alloys.
${ }^{5}$ Of this amount, $\$ 4,155$ thousand was reported by industry 3341, Secondary Nonferrous Metals, and $\$ 930$ thousand by other industries.
${ }^{6}$ Most of the aluminum ingot and billet (alloys) produced by aluminum rolling mills represent duplication of tonnages reported by the primary aluminum industry in that the metal produced by the rolling mills is made from ingot produced in primary aluminum plants.
${ }^{7}$ Aluminum ingot and aluminum extrusion billet are primary to the primary aluminum industry, aluminum rolling mills, and secondary smelters and refiners. Detail is shown under product classes 33347 and 33348 in 1963. For 1958, the comparable product classes are 33341 in industry 3334 and 33411 in industry 3341.
${ }^{8}$ Refined copper is primary to both primary copper and secondary smelters and refiners. Detail is shown under product class 33312.
${ }^{9}$ Refined lead is primary to both primary lead and secondary smelters and refiners. Detail is shown under product class 33323.
${ }^{10}$ Refined zinc is primary to both primary zinc and secondary smelters and refiners. Detail is shown under product class 33334.
${ }^{11}$ Refined precious metals are primary to both primary nonferrous metals, n.e.c., and secondary smelters and refiners. Detail is shown under product class 33395.
${ }^{12}$ Other nonferrous metals, smelted or refined, are primary to both primary nonferrous metals, n.e.c., and secondary smelters and refiners. Detail is shown under product class 33397.
${ }^{13}$ Of this amount $\$ 4,452$ thousand was reported by industry 3341, Secondary Nonferrous Metals, and $\$ 1,564$ thousand by other industries.
${ }^{14}$ Excludes ingot and billet produced and consumed in rolling mills.

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 333 | Primary nonferrous metals ${ }^{1}$. $\ldots$................... 1963 $^{19}{ }^{1958 .}$. | 128 | 98 98 |
| 3331 | Primary copper. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1963 .$. 1958. | 140 | 105 90 |
| 33311 | Copper smelter products............................... $1963 .$. | 153 | 97 87 |
| $\begin{aligned} & 33312 \\ & 33412 \end{aligned}$ | \} Refined copper ${ }^{2}$..................................1963.. $1958 .$. | 124 | 113 93 |
| $\begin{aligned} & 33323 \\ & 33413 \end{aligned}$ |  | 103 96 | 85 88 |
| 3333 | Primary zinc. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1963 .$. 1958.. | 125 | 96 92 |
| 33331 | Zinc residues and other zinc smelter products.....1963.. ${ }^{1958 . .}$ | 150 138 | 94 96 |
| $\begin{aligned} & 33334 \\ & 33414 \end{aligned}$ | \} Refined zinc ${ }^{2}$. $\ldots$.....................................1963.. 19. | 121 97 | 99 91 |
| $\begin{aligned} & 3334 \\ & 33417 \\ & 33418 \\ & 33527 \\ & 33228 \end{aligned}$ |  | 201 | 109 121 |
| $3341-$ | Secondary nonferrous metals ${ }^{3}$ $\qquad$ 1958.. | $\begin{aligned} & \left(\begin{array}{l} 3 \end{array}\right) \\ & (3) \\ & \hline \end{aligned}$ | (3) <br> (3) |

[^96]table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963
(In thousands of dollars)

| Code | Product class | 1963 | $1962{ }^{\text { }}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | 19591 | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3331- | Primary copper ${ }^{2}$. | 1,297,102 | 1,279,708 | 1,235,809 | 1,202,371 | 824,812 | 877,421 | 892,285 | (NA) |
| $\begin{aligned} & 33311 \\ & 33312 \end{aligned}$ |  | $\begin{aligned} & 628,508 \\ & 668,594 \end{aligned}$ | $\begin{aligned} & 642,753 \\ & 636,955 \end{aligned}$ | $\begin{aligned} & 620,288 \\ & 615,521 \end{aligned}$ | $\begin{aligned} & 599,587 \\ & 602,784 \end{aligned}$ | $\begin{aligned} & 350,237 \\ & 474,575 \end{aligned}$ | $\begin{aligned} & 397,681 \\ & 479,740 \end{aligned}$ | $\begin{aligned} & 369,431 \\ & 522,854 \end{aligned}$ | $\begin{array}{r} 237,103 \\ \text { (NA) } \end{array}$ |
| 3332- | Primary lead. | (D) | (D) | (D) | (D) | (D) | (D) | 433,686 | (NA) |
| $\begin{aligned} & 33321 \\ & 33323 \end{aligned}$ | Lead smelter products........................ | $\begin{array}{r} (D) \\ 276,388 \end{array}$ | $\begin{array}{r} \text { (D) } \\ 260,103 \end{array}$ | $(\mathrm{D})$ 275,539 | $\begin{array}{r} (D) \\ 279,721 \end{array}$ | $\begin{array}{r} \text { (D) } \\ 277,633 \end{array}$ | (D) <br> 280,937 | $\begin{aligned} & 118,926 \\ & 314,760 \end{aligned}$ | $\begin{array}{r} 124,796 \\ (\text { NA }) \end{array}$ |
| 3333- | Primary zinc ${ }^{4}$ | 308,538 | 278,171 | 278,492 | 272,570 | 265, 741 | 232,513 | 251,469 | (NA) |
| 33331 | Zinc residues and other zinc smelter products..................................... | 34,798 | 34,487 | 25,604 | 25,957 | 27,925 | 25, 822 | 20,481 | ( NA ) |
| 33334 | Refined primary zinc products ${ }^{4}$.............. | 273,740 | 243,684 | 252,888 | 246,613 | 237,816 | 206,691 | 230,988 | (NA) |
| 3334- | Primary aluminum ${ }^{5} 6$ | 1,420,182 | 1,304,551 | 1,293,828 | 1,261,576 | 1,285,023 | 1,057,801 | 767,512 | (NA) |
| 33347 | Aluminum ingot produced in primery aluminum reduction plants ${ }^{5}$................... | 1,234,704 |  |  |  |  |  |  |  |
| 33348 | Aluminum extrusion billet, produced in primary aluminum reduction plants ${ }^{6}$......... |  | \} 1,304,551 | 1,293,828 | 1,261,576 | 1,285,023 | 1,057,801 | 767, 512 | (NA) |
| 3339- | Primary nonferrous metals, n.e.c. ${ }^{7}$ | 439,385 | (s) | (S) | (s) | (S) | 362,694 | 480,604 | (NA) |
| 33395 | Precious metals (primary smelting) ${ }^{7}$....... | 246,426 | (s) | (S) | (S) | 147,564 | 198,587 | 192, 760 | (NA) |
| 33397 33390 | Other primary nonferrous metals, including magnesium, smelted or refined ${ }^{8}$................ Nonferrous metals, n.e.c., n.s.k............ | 192,959 | 238,939 | $\begin{array}{r} 216,842 \\ (\mathrm{~S}) \end{array}$ | $\begin{array}{r} 215,638 \\ (\mathrm{~S}) \end{array}$ | $\begin{array}{r} 168,402 \\ (\mathrm{~S}) \end{array}$ | 163,326 781 | 287, 84 | (NA) |
| 3341- | Secondary nonferrous metals ${ }^{9}$ | 3,102,519 | (s) | (S) | (s) | (S) | 2,409,265. | 2,316,718 | (NA) |
| $\begin{aligned} & 33412 \\ & 33413 \\ & 33414 \\ & 33417 \end{aligned}$ | Secondary copper (ingot, shot, etc. $)^{9}$ <br> Secondary lead (ingot, shot, etc. ${ }^{9}$.......... <br> Secondary zinc (ingot, shot, etc.) ${ }^{5}$........... <br> Aluminum ingot produced by secondary | 668,594 276,388 273,740 | $\begin{aligned} & 636,955 \\ & 260,103 \\ & 243,684 \end{aligned}$ | $\begin{aligned} & 615,521 \\ & 275,539 \\ & 252,888 \end{aligned}$ | 602, 784 279, 721 246, 613 | $\begin{aligned} & 474,575 \\ & 277,633 \\ & 237,816 \end{aligned}$ | $\begin{aligned} & 479,740 \\ & 280,937 \\ & 206,691 \end{aligned}$ | $\begin{aligned} & 522,854 \\ & 314,760 \\ & 230,988 \end{aligned}$ | (NA) (NA) (NA) |
| 33418 | smelters ${ }^{9}$. <br> Aluminum extrusion billet, produced by secondary smelters? | $\begin{array}{r} 1,234,704 \\ 185,478 \end{array}$ | \}1,304,551 | 1,293,828 | 1,261,576 | 1,285,023 | 1,057,801 | 767,512 | (NA) |
| 33415 | Precious metals produced by secondary refineries (pig, ingot, shot, etc:) ${ }^{\text {s }}$...... | 246,426 | (s) | (S) | (S) | 147,564 | 198, 587 | 192, 760 | (NA) |
| 33416 | Other secondary nonferrous metals (pig, ingot, shot, etc. $)^{9}$. | 192,959 | 238,939 | 216, 842 | 215,638 | 168,402 | 163,326 | 287, 844 | (NA) |
| 33410 | Secondary smelting, refining, and alloying of nonferrous metals and alloys, n.s.k... | $24,230$ | (S) | (s) | (s) | (s) | 22,183 | - | - |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
${ }^{2}$ Includes product class 33412, Secondary copper, (ingot, shot, etc.), made by secondary smelters, which is primary to industry 3341.
${ }^{3}$ Includes product class 33413, Secondary lead (ingot, shot, etc.), made by secondary smelters, which is primary to industry 3341.
${ }^{4}$ Includes product class 33414, Secondary zinc (ingot, shot, etc.), made by secondary smelters, which is primary to industry 3341.
${ }^{5}$ Includes product class 33417, Aluminum ingot, produced by secondary nonferrous smelters, which is primary to industry 3341 and product class 33527, Aluminum ingot, produced in aluminum rolling mills, which is primary to industry 3352.
${ }^{6}$ Includes product class 33418, Aluminum extrusion billet, produced by secondary smelters, which is primary to industry 3341, and 33528, Aluminum extrusion billet, produced in aluminum rolling mills, which is primary to industry 3352 .
${ }^{7}$ Includes product class 33415 , Precious metals, produced by secondary refineries (pig ingot, shot, etc.), which is primary to industry 3341.
${ }^{8}$ Includes product class 33416, Other secondary nonferrous metals (pig, ingot, shot, etc.), shipped by secondary smelters, which is primary to industry 3341 .
${ }^{9}$ The product classes within industry 3341 include the values for the comparable product class for the specified metal for Industry Group $333-$ as listed below. The total for 3341 - includes all such product classes. Also, product class 33417 includes 33527 , Aluminum ingot,and product class 33418 includes 33528, Aluminum extrusion billet, both made in aluminum rolling mills which are primary to industry 3352 .

33412 comparable to 33312
33413 comparable to 33323
33414 comparable to 33334
33415 comparable to 33395
33416 comparable to 33397
33417 comparable to 33347
33418 comparable to 33348

## TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million $\mathrm{o}^{千}$ the individual product classes are listed in footnote 1.


[^97]
## table 7A. Materials by Kind: 1963 and 1958



See footnotes at end of table.

## TABLE 7A. Materials by Kind: 1963 and 1958-Continued

|  | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code |  |  | Quantity | Delivered cost <br> $(\$ 1,000)$ | Quantity | Delivered cost <br> $(\$ 1,000)$ |
|  | - |  | INDUSTRY 3341.-SECONDARY NONFERROUS METALS ${ }^{1}$-Continued |  |  |  |
|  | Tin: |  |  |  |  |  |
| $333976$ | Refined unalloyed tin..................................................... | Short tons... |  | 31,202 |  | 17,012 |
| 999815 | Tin plate scrap (purchased scrap only).............................. | ...do.. | $352,630$ | 9,094 | $501,288$ | 11,832 |
| 970099 | All other materials and components, parts, containers and supplies consumed. |  | - | 161,903 | - | 133,922 |

[^98] applicable.
${ }^{1}$ smelting and refining establishments were instructed to include in their reports the quantity and cost of purchased materials which they processed or furnished to others for toll processing, but to exclude materials processed on a toll basis for others. Accordingly, the data shown in this table excludes considerable quantities of materials consumed by establishments in these industries in the production of the products shown in table 6A.
${ }^{2}$ The cost of materials for this industry includes extensive duplication. This duplication arises because the products of some establishments are used as materials by other establishments in the same industry.
${ }^{3}$ Includes leaching ores received in crude form from mines by leaching plants operated in conjunction with smelting and refining operations. Such ores represent about half the total quantity of ores, concentrates and precipitates consumed but about 15 percent of the value of these materials.

4 Excludes materials consumed by establishments producing copper by leaching or from Lake Superior ores as no distinct blister stage exists in the production at these establishments.

## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Primary copper (SIC 3331) | $\begin{gathered} \text { Primary } \\ \text { lead } \\ \text { (SIC 3332) } \end{gathered}$ | $\begin{gathered} \text { Primary } \\ \text { zinc } \\ \text { (SIC 3333) } \end{gathered}$ | Primary aluminum (SIC 3334) | Primary nonferrous metals, n.e.c. (SIC 3339) | Secondary nonferrous metals (SIC 3341) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000$. | 27,404 | 5,698 | 18,758 | 116,390 | 9,084 | 11,612 |
| Total cost of purchased fuels...............................do.... | 19,627 | 4,909 | 11,183 | 27,222 | 2,768 | 8,675 |
| Bituminous coal, lignite, and anthracite: <br> Quantity............................................ . 1,000 short tons.. | 181 | (S) | 404 | (S) | (S) | 26 |
| Cost....................................................... . $\$ 1,000 .$. | 1,745 | (S) | 3,277 | (S) | (S) | 154 |
| Coke and breeze: Quantity..................................1,000 short tons | 103 | (S) | 129 | - | (S) | 33 |
| Cost.................................................. ${ }^{\text {\$ } 1,000 . .}$ | 2,232 | (S) | 1,626 | - | (S) | 821 |
| Fuel oil (distillate and residual): <br> Quantity........................... 1,000 barrels of 42 gallons.. |  |  | 17 |  | 121 |  |
| Quantity.....................1,000 barrels of 42 gallons.. | 2,123 | (S) | 65 | (S) | 463 | 2,895 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |
| Quantity.......................................million cu.ft.. | 32,774 |  | 26,541 | 108,615 | 8,584 | 7,820 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 10,231 | 1,485 | 6,195 | 19,632 | 2,061 | 3,951 |
| Other fuels......................................................d. ${ }^{\text {do.... }}$ | 161 | (S) | (s) | 280 | 46 | 854 |
| Electric energy: |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million kw. -hrs. . | 969 | 95 | 1,364 | 26,883 | 1,156 | 193 |
| Cost........................ . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 7,777 | 789 | 7,575 | 89,168 | 6,316 | 2,937 |
| Generated less sold............................million kw. -hrs.. | 378 | (s) | 649 | 10,104 | (S) | - |
| Aggregate horsepower of prime movers and electric motors <br> driven by purchased energy (December 31), total.........1,000 hp.. | 538 | 63 | 458 | 2,339 | 103 | 139 |
| Prime movers, total............................................... . . . ${ }^{\text {do. }}$ | 304 | 11 | 194 | 1,843 | 6 | 42 |
| Driving generators...........................................d. ${ }^{\text {do... }}$. | 219 | 3 | 174 | 1,787 | 3 | 8 |
| Not driving generators....................................... . . . . . . . . | 85 | 8 | 20 | 56 | 3 | 34 |
| Electric motors, total.......................................... . . . . . . | 319 | 54 | 305 | 724 | 97 | 97 |
| Driven by purchased energy...............................d.do.... | 234 | 52 | 264 | 497 | 97 | 97 |
| Driven by energy generated at establishment..............d. do.... | 85 | 2 | 41 | 228 | (Z) | - |
| Aggregate horsepower per 100 production workers.................... | 4,205 | 3,063 | 6,645 | 17,102 | 2,817 | 1,119 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power
 fore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors
 "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
(Z) Less than 500 horsepower. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary pius secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


## NONFERROUS METAL MILL AND FOUNDRY PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3351 -Rolling, Drawing, and Extruding of Copper<br>3352-Rolling, Drawing, and Extruding of Aluminum<br>3356-Rolling, Drawing, and Extruding of Nonferrous Metals, Except Copper and Aluminum<br>3357-Drawing and lnsulating of Nonferrous Wire<br>3361 - Aluminum Castings<br>3362-Brass, Bronze, Copper, Copper-Base Alloy Castings<br>3369--Nonferrous Castings, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for eachestablishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3351 -ROLLING, DRAWING, AND EXTRUDING OF COPPER

This industry comprises establishments primarily engaged in rolling, drawing, and extruding copper, brass, bronze, and other copper base alloy basic shapes, such as plate, sheet, strip, bar, and tubing. Establishments primarily engaged in recovering copper and its alloys from scrap or dross are classified in industry 3341. For a detailed list of products of industry 3351, refer to table $6 \mathrm{~A}-1$ product codes 3351111 to 3351288.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Copper Rolling and Drawing lndustry totaled $\$ 1,657$ million. This amount included shipments of rolled, drawn, and extruded copper (primary products) valued at $\$ 1,409$ million, shipments of other products (secondary products) valued at $\$ 154$ million, and miscellaneous receipts at $\$ 94$ million.

This industry's shipments of rolled, drawn, and extruded copper represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent.

Shipments of rolled, drawn, and extruded copper by this industry represented 91 percent of all shipments of these products ( $\$ 1,545$ million) by all industries. $\ln 1958$ the coverage ratio was 94 percent.

The production index for the primary products of the industry increased to 129 in 1963 from the 1958 level of 88 . The unit value index for 1963 was 100 compared to 99 in 1958. Both indexes were computed on a basis of $1954=100$.

This industry includes a variety of operations ranging from rod, wire, tube, and flat products mills to machine shop and fabricating activities. Accordingly, in order to provide a measure of the relative importance of these departments, data were coilected on manhours worked and production worker wages paid for each of several departments. The resulting data are shown in table 9A.

Also, based on the data reported for these various departmental operations, it was possible to further classify the establishments of this industry into two "subindustries," i.e., establishments with casting facilities and establishments without casting facilities.

Separate data are shown for these subindustries in tables $1,2,3,4,5 \mathrm{~B}, 7 \mathrm{~A}, 8$, and 9 A .

## 3352-ROLLING, DR AWING, AND EXTRUDING OF ALUMINUM

This industry comprises establishments primarily engaged in rolling, drawing, and extruding aluminum and aluminum base alloy basic shapes, such as plate, sheet, strip, bar, tubing, and foil. For a detailed list of products of industry 3352, refer to table 6A-1, product codes 3352111 to 3352811 .
The code number as well as the definition of this industry was unchanged between 1958 and 1963.
Value of shipments and other receipts of the Aluminum Rolling and Drawing lndustry totaled $\$ 2,196$ million. This amount included shipments of rolled, drawn, and extruded aluminum (primary products) valued at $\$ 1,758$ million, shipments of other products (secondary products) valued at $\$ 304$ million, and miscellaneous receipts at $\$ 134$ million.

This industry's shipments of rolled, drawn, and extruded aluminum represented 85 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included sheet metal roofing and siding and roof drainage equipment ( $\$ 30$ million), and metal foil and leaf ( $\$ 121$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 49 percent of the total industry shipments are represented by plants specializing in product class 33522 , aluminum plate and sheet (including foil stock).

Shipments of rolled, drawn, and extruded aluminum by this industry represented 93 percent of all shipments of these products ( $\$ 1,899$ million) by all industries. In 1958 the coverage ratio was 92 percent.

The production index for the primary products of the industry increased to 214 in 1963 from the 1958 level of 136 . The unit value index for 1963 was 98 compared to 112 in 1958. Both indexes were computed on a basis of $1954=100$.

This industry includes a variety of operations ranging from melting (except foundry) through mills such as sheet and plate; foil rolling; wire, rod and bar; extrusion; and tube to fabricating activities. Accordingly, in order to provide a measure of the relative importance of these departments, data were collected on man-hours worked and production worker wages paid, for each of several departments. The resulting data are shown in table 9A.

In addition, companies with establishments classified in this industry were queried as to whether or not the company also operated aluminum reduction facilities. Based on this inquiry, it was possible to further classify the establishments into two "subindustries," i.e., establishments operated by primary (integrated) producers, and establishments operated by nonintegrated producers. This subindustry classification system differs significantly from the subindustry definitions used in industries 3312, Blast Furnaces and Steel Mills; 3351, Copper Rolling and Drawing; and 3357, Nonferrous Wire Drawing, Etc., in that the definition for these other primary metal industries are based on the types of facilities existing at each separate establishment.

Separate data are shown for the subindustries of this industry in tables $1,3,4$, and 9A.

## 3356-ROLLING, DRAWING, AND EXTRUDING OF NONFERROUS METALS, EXCEPT COPPER AND ALUMINUM

This industry comprises establishments primarily engaged in rolling, drawing, and extruding nonferrous metals other than copper (industry 3351), and aluminum (industry 3352). The products of this industry are produced in the form of basic shapes such as plate, sheet, strip, bar, and tubing. Establishments primarily engaged in recovering nonferrous metals and alloys from scrap or dross are classified in industry 3341; in manufacturing gold, silver, tin, and other foils, except aluminum, in industry 3497; and aluminum foil in industry 3352 . For a detailed list of products of industry 3356, refer to table 6A-1, product codes 3356043 to 3356098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Rolling and Drawing, N.E.C., Industry totaled $\$ 641$ million. This amount included shipments of rolled, drawn, and extruded nonferrous metals, n.e.c. (primary products) valued at $\$ 511$ million, shipments of other products (secondary products) valued at $\$ 99$ million, and miscellaneous receipts (mainly resales) at $\$ 30$ million.

This industry's shipments of rolled, drawn, and extruded nonferrous metals, n.e.c., represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 77 percent.

Shipments of rolled, drawn, and extruded nonferrous metals, n.e.c., by this industry represented 81 percent of all shipments of these products ( $\$ 631$ million) by all industries. In 1958 the coverage ratio was 82 percent. Other industries shipping rolled, drawn, and extruded nonferrous metals, n.e.c., included industry 3351, Copper Rolling and Drawing. \$19 million; and industry 3341, Secondary Nonferrous Metals, $\$ 17$ million.

The production index for the primary products of the industry increased to 168 in 1963 from the 1958 level of 116 . The unit value index for 1963 was 104 compared to 103 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3357--DRAWING AND INSULATING OF NONFERROUS WIRE

This industry comprises establishments primarily engaged in drawing, drawing and insulating, and insulating wire and cable of nonferrous metals from purchased wire bars, rods, or wire. For a detailed list of products of industry 3357, refer to table 6A-1, product codes 3357111 to 3357998 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Since this industry includes both wire drawing (including wire redrawing) establishments, and establishments insulating wire and cable from purchased wire, some duplication of value exists in both the value of shipments and cost of materials, etc., for the industry. However, as shown in the data on materials consumed in table 7A for copper and aluminum wire for redrawing, and copper and aluminum bare wire, such duplication approximates $\$ 160$ million, less than 15 percent of the total cost of materials, etc., for the industry.

Value of shipments and other receipts of the Nonferrous Wire Drawing, Etc., Industry totaled $\$ 2,118$ million. This amount included shipments of drawn and insulated nonferrous wire (primary products) valued at $\$ 1,885$ million, shipments of other products (secondary products) valued at $\$ 176$ million, and miscellaneous receipts at $\$ 56$ million.

This industry's shipments of drawn and insulated nonferrous wire represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 36 percent of the total industry shipments are represented by plants specializing in product class 33574 , communication wire and cable, and 23 percent in product class 33579 , other insulated wire and cable, n.e.c.

Shipments of drawn and insulated nonferrous wire by this industry represented 86 percent of all shipments of these products ( $\$ 2,185$ million) by all industries. In 1958 the coverage ratio was 83 percent.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3357 , e.g., aluminum and aluminum-base alloy wire and cable (including ACSR), 52 percent; other bare nonferrous metal wire made in nonferrous wire drawing plants, 57 percent; nonferrous wire cloth and other woven wire products, 30 percent; and appliance wire and cord and flexible cord sets, 61 percent.

The production index for the primary products of the industry increased to 146 in 1963 from the 1958 level of 112 . The unit value index for 1963 was 103 compared to 102 in 1958. Both indexes were computed on a basis of $1954=100$.

This industry includes a variety of operations ranging from rod mill, and wire drawing mill through insulating to fabricating activities. Accordingly, in order to provide a measure of the relative importance of these departments, data were collected on manhours worked and production worker wages paid, for each of several departments. The resulting data are shown in table 9A.

Also, based on the data reported for these various departmental operations, it was possible to further classify the establishments into four "subindustries," i.e., establishments with wire drawing department and rod mill, establishments with wire drawing department with neither a rod mill nor an insulating department, establishments with wire drawing and insulating departments but without rod mill, and establishments without a wire drawing department.

The subindustry data shown in tables $1,2,3,4,5 B, 7 A, 8$, and 9 A are based on this system of classification.

## NONFERROUS FOUNDRIES

This group is comprised of three foundry industries, namely industry 3361, Aluminum Castings, industry 3362, Brass, Bronze, Copper Castings, and industry 3369, Nonferrous Castings, N.E.C. These foundry industries comprise establishments primarily engaged
in manufacturing aluminum castings, including cast aluminum cooking utensils (3361), brass, bronze, and copper castings including unmachined bearings and bushings (3362), and other nonferrous castings (3369).

For these industries, captive production (that is, the tonnage of castings produced for incorporation into the final product of the plant or company) is a particularly important factor. Distinction is made between rough castings and castings which are machined or further processed and incorporated into other products. The removal of gates, risers, sprues, and tumbling, dipping, and sand blasting do not constitute machining. Plants primarily engaged in manufacturing castings are included in the foundry industries; plants primarily engaged in further processing castings into parts for metal products or machinery are classified in other major groups.

For the 1963 and 1958 Census of Manufactures separate establishment reports were received from all commercial (jobbing) foundries and from those captive foundries which were operated as separate establishments by the reporting companies. These two groups comprise the types of establishments included in industries 3361, 3362, and 3369. However, where the captive foundry operation was completely integrated with the operations of the entire plant, no separate establishment report was received for the foundry activity. In these instances data were obtained on the tonnage of castings produced and consumed and on the number of employees usually engaged in the captive foundry operation. However, establishments with such foundry departments were classified on the basis of the plant's final product and accordingly, the general statistics on employment, payrolls, cost of materials, etc., are included in the data for such industries as Plumbing Fittings, Brass Goods (3432) and Valves and Pipe Fittings (3494), etc.

The data shown in table 6A-1 for nonferrous castings represent total shipments and transfers including the quantity of castings shipped by establishments classified in industries other than the foundry industries (3361, 3362, and 3369). For those industries where captive foundry departments are particularly important, data on the tonnage of castings produced and consumed are shown in table 7A of the individual industry reports covering the specific industries.

During 1963 and 1958 the Bureau of the Census also collected and published monthly data on shipments of nonferrous castings. These monthly data were derived from a sample survey and were published in Current Industrial Reports Series M33E, Nonferrous Castings. The M33E series includes data for both commercial and captive foundry production and shows separately shipments "for sale" and shipments "for own use."

It should be specifically noted that the quantity and value data on shipments of nonferrous castings in table 6A-1 do not include the quantity and value of the large quantity of castings produced by establishments classified in other industries which produce castings only for incorporation into their own products or for internal use but not for sale as such.

## 3361—ALUMINUM CASTINGS

This industry comprises establishments primarily engaged in manufacturing castings and die castings of aluminum. For a detailed list of products of industry 3361, refer to table 6A-1, product codes 3361011 to 3361075 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Aluminum Castings Industry totaled $\$ 640$ million. This amount included shipments of aluminum and aluminum-base alloy castings (primary products) valued at $\$ 505$ million, shipments of other products (secondary products) valued at $\$ 122$ million, and miscellaneous receipts at $\$ 14$ million.

This industry's shipments of aluminum and aluminum-base alloys castings represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 79 percent. Secondary products shipped by this industry in 1963 consisted mainly of nonferrous castings, n.e.c. ( $\$ 60$ million), and special dies and tools, die sets, jigs and fixtures ( $\$ 18$ million).

Shipments of aluminum and aluminum-base alloy castings by this industry represented 83 percent of all shipments of these products ( $\$ 607$ million) by all industries. In 1958 the coverage ratio was 81 percent. Other industries shipping aluminum and aluminum-base alloy castings included industry 3362, Brass, Bronze, Copper Castings, $\$ 18$ million; and industry 3369, Nonferrous Castings, N.E.C., $\$ 39$ million.

The production index for the primary products of the industry increased to 174 in 1963 from the 1958 level of 103. The unit value index for 1963 was 92 compared to 102 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3362-BRASS, BRONZE, COPPER, COPPER-BASE ALLOY CASTINGS

This industry comprises establishments primarily engaged in manufacturing castings and die castings of copper and copper-base alloy. For a detailed list of products of industry 3362 , refer to table 6 A-1, product codes 3362011 to 3362071 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Brass, Bronze, Copper Castings Industry totaled $\$ 288$ million. This amount included shipments of copper and copper-base alloy castings (primary products) valued at $\$ 235$ million, shipments of other products (secondary products) valued at $\$ 44$ million, and miscellaneous receipts at $\$ 9$ million.

This industry's shipments of copper and copper-base alloy castings represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 consisted mainly of aluminum and aluminum-base alloy castings ( $\$ 18$ million), and steel castings ( $\$ 6$ million).

Shipments of copper and copper-base alloy castings by this industry represented 78 percent of all shipments of these products ( $\$ 300$ million) by all industries. In 1958 the coverage ratio was 81 percent. Other industries shipping copper and copper-base alloy castings included industry 3361, Aluminum Castings, $\$ 16$ million; and industry 3321, Gray Iron Foundries, $\$ 10$ million.

The production index for the primary products of the industry increased to 99 in 1963 from the 1958 level of 77 . The unit value index for 1963 was 129 compared to 123 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3369-NONFERROUS CASTINGS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing castings and die castings of nonferrous materials, except aluminum, copper, and copper-base alloys. For a detailed list of products of industry 3369, refer to table 6A-1, product codes 3369011 to 3369098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Nonferrous Castings, N.E.C., Industry totaled $\$ 303$ million. This amount included shipments of nonferrous castings, n.e.c. (primary
products) valued at $\$ 229$ million, shipments of other products (secondary products) valued at $\$ 64$ million, and miscellaneous receipts (mainly resales) at $\$ 9$ million.

This industry's shipments of nonferrous castings, n.e.c., represented 78 percent of its total product shipments. The industry specialization ratio in 1958 was also 78 percent. Secondary products shipped by this industry in 1963 consisted mainly of aluminum and aluminum-base alloy castings ( $\$ 39$ million), and special dies and tools, die sets, jigs and fixtures ( $\$ 10$ million).

Shipments of nonferrous castings, n.e.c., by this industry represented 75 percent of all shipments of these products ( $\$ 306$ million) by all industries. In 1958 the coverage ratio was 77 percent. Other industries shipping nonferrous castings, n.e.c., consisted mainly of industry 3361, Aluminum Castings, $\$ 60$ million; and industry 3321, Gray Iron Foundries, $\$ 3$ million.

The production index for the primary products of the industry increased to 125 in 1963 from the 1958 level of 95 . The unit value index for 1963 was 110 compared to 111 in 1958. Both indexes were computed on a basis of $1954=100$.

NONFERROUS ROLLING AND DRAWING: SIC 335

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value <br> added by <br> manufacture, <br> adjusted <br> $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Corerage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\left\lvert\, \begin{gathered}\text { Total } \\ \text { (number) }\end{gathered}\right.$ | With 20 employees or miore number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total (number) | $\begin{array}{\|c\|} \hline \text { Man-hours } \\ (1,000) \end{array}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3351.-COPPER ROLIING AND DRAWING |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 196 | 81 | 112 | 92 | 38,949 | 260,320 | 31,481 | 65,746 | 200,171 | 478,393 | 1,188,548 | 1,657,526. | 43,462 | 0 | 1 |
| 1962 | (NA) | (NA) | (NA) | 41,223 | 269,614 | 32,404 | 67,202 | 192,235 | 476,731 | 1,177,344 | 1,654,423 | 39,407 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 39,417 | 250,060 | 30,854 | 62,931 | 175,081 | 473,525 | 1,017,457 | 1,479,605 | $(26,401)$ | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 39,589 | 237,445 | 31,786 | 62,989 | 165,294 | 452,485 | 994,832 | 1,416,889 | 17,421 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 43,122 | 260,085 | 34,598 | 72,492 | 198,973 | 553,938 | 1,092,183 | 1,639,306 | 25,326 | (NA) | , NA) |
| 1958 (new) | 75 | 105 | 89 | 40,329 | 222,259 | 31,792 | 63,291 | 165,367 | 445,371 | 775,650 | 1,209,926 | 44,080 | 88 | 94 |
| 1958 (old) ${ }^{2}$ | (NA) | 103 | 90 | 41,283 | 227,697 | 32,641 | 65,116 | 170,205 | 458,328 | 819,162 | 1,267,722 | 30,757 | 89 | 89 |
| $1957^{2}$. ..... | (NA) | (NA) | (NA) | 42,559 | 224,258 | 34,148 | 66,279 | 167,647 | 459,292 | 920,696 | 1,385,642 | 42,123 | (NA) | (NA) |
| $1956^{1}$ | (NA) | (NA) | (NA) | 45,485 | 239,589 | 36,760 | 75,622 | 182,937 | 522,448 | 1,368,856 | 1,876,612 | 28,964 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 45,009 | 231,737 | 36,618 | 77,566 | 178,686 | 513,129 | 1,288,475 | 1,788,036 | 32,874 | (NA) | (NA) |
| 1954. | 64 | 89 | 77 | 41,906 | 195,225 | 34,072 | 68,017 | 147,874 | 422,916 | 912,290 | 1,334,360 | 30,540 | 95 | 90 |
| 1947 | 56 | 79 | 72 | 53,891 | 166,148 | 45,946 | 93,741 | 134,019 | 302,687 | 761,346 | 1,064,033 | 21,617 | (NA) | (NA) |
| 1939 | (NA) | 57 | (NA) | (NA) | (NA) | 33,597 | (NA) | 48,288 | 135,642 | 214,503 | 350,145 | (NA) |  | (NA) |
| 963 | 81 | 112 | 92 | 38,949 | 260,320 | 31,481 | 65,746 | 200,171 | 478,393 | 1,188,548 | 1,657,526 | 43,462 | 90 | 91 |
| Establishments with casting department ${ }^{4}$ Establishments without casting department ${ }^{4}$........ | (NA) | 36 | 36 | 25,752 | 174,972 | 20,774 | 43,765 | 135,769 | 305,113 | 687,401 | 985,609 | 26,965 | (NA) | (NA) |
|  | (NA) | 76 | 56 | 13,197 | 85,348 | 10,707 | 21,981 | 64,402 | 173,280 | 501,147 | 671,917 | 16,497 | (NA) | (NA) |
|  | INDUSTRY 3352.-ALUMINUM ROILING AND DRAWING |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 153 |  | 376,647 | 42,750 | 89,868 | 278,469 |  | 1,524,841 | 2,196,439 |  | 85 | 93 |
| 1962 | (NA) | (NA) | (NA) | 54,432 | 343,649 | 42,796 | 89,649 | 252,826 | 611,241 | 1,423,470 | 2,016,613 | 76,588 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 52,100 | 321,342 | 40,726 | 86,251 | 233,497 | 564,573 | 1,338,321 | 1,881,669 | 60,020 | (NA) | (NA) |
| 1960 | (NA) | (NA) | (NA) | 52,646 | 310,465 | 40,896 | 86,124 | 224,027 | 536,779 | 1,230,249 | 1,737,734 | 76,053 | (NA) | (NA) |
| 19591 | (NA) | (NA) | (NA) | 55,379 | 323,355 | 44, 347 | 93,911 | 239,686 | 615,176 | 1,366,497 | 1,939,580 | 80,988 | (NA) | (NA) |
| 1958 (new) | 145 | 185 | 129 | 46,879 | 272,168 | 36,443 | 75,323 | 199,643 | 537,086 | 1,057,370 | 1,562,381 | 131,817 | 91 | 92 |
| 1958 (old) ${ }^{2}$ | (NA) | 168 | 112 | 42,375 | 246,067 | 32,979 | 68,114 | 180,502 | 475,331 | 930,844 | 1,375,501 | 109,657 | 87 | 91 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 44,458 | 235,851 | 34,645 | 69,529 | 171,134 | 451,393 | 892,350 | 1,335,676 | 178,265 | (NA) | (NA) |
| 1956 | (NA) | (NA) | (NA) | 4, 453 | 228,898 | 36,227 | 74,764 | 172,751 | 534,694 | 896,609 | 1,366,128 | 121,852 | (NA) | (NA) |
| 1955 | (NA) | (NA) | (NA) | 42,924 | 204,847 | 35,235 | 72,841 | 158,403 | 485,217 | 794,200 | 1,261,721 | 35,743 | (NA) | (NA) |
| 1954 | $77$ | 94 | 70 | 36,803 | -164,938 | 29,795 | 60,652 | 125,617 | 352,349 | 537,180 | 877,033 | 21,402 | 92 | 93 |
| 1953 | (NA) | (NA) | (NA) | 39,064 | 165,888 | 32,292 | 64,562 | 127,278 | 366,830 | 591,003 | 957,833 | (NA) | (NA) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (NA) | 31,483 | 128,143 | 25,749 | 53,471 | 99,506 | 283,093 | 4,44,272 | 929,365 | (NA) | (NA) | (NA) |
| $1951{ }^{2}$ | (NA) | (NA) | (NA) | 29,268 | 106,144 | 23,910 | 49,051 | 82,313 | 255,188 | 404,455 | 659,643 | (NA) | (NA) | (NA) |
| 19501 | (NA) | (NA) | (NA) | 27,303 | 90,328 | 22,693 | 46,781 | 71,719 | 208,045 | 359,873 | 567,918 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 22,116 | 67,721 | 17,542 | 34,662 | 50,4,4 | 143,669 | 252,069 | 345,738 | (NA) | (NA) | (NA) |
| $1947$ |  | 29 |  | $27,365$ | $73,665$ | 22,786 | 45,334 | 57,544 | 150,697 34,331 | 254,069 | 404,766 | 9,897 | (NA) (NA) | (NA) |
| $1939^{3}$ | (NA) | 13 | (NA) | (NA) | (NA) | 9,926 | (NA) | 14,848 | 34,331 | 81,012 | 115,343 | (NA) | (NA) | (NA) |
| 1963. | 166 | 212 | 153 | 54,263 | 376,647 | 42,750 | 89,868 | 278,469 | 721,171 | 1,524,841 | 2,196,439 | 81,282 | 85 | 93 |
| Establishments operated by primary (integrated) producers ${ }^{5}$ | (NA) | 44 | 43 | 40,183 | 293,862 | 31,713 | 66,472 | 221,720 | 547,840 | 1,199,955 | 1,711,616 | 64,735 | (NA) | (NA) |
| Establishments operated |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| producers ${ }^{5}$ | (NA) | 163 | 110 | 14,080 | 82,785 | 11,045 | 23,396 | 56,749 | 173,331 | 324,886 | 484,823 | 16,547 | (NA) | (NA) |

INDUSTRY 3356.-ROLLING AND DRAWING, N.E.C.

|  | 125 | 67 | 17,375 | 117,454 | 12,275 | 25,367 | 74,052 | 250,589 | 405,011 | 640,962 | 22,154 | 84 | 81 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (NA) | (NA) | (NA) | 18,580 | 124,556 | 12,919 | 26,910 | 82,147 | 216,562 | 480,425 | 687,713 | 24,640 | (NA) | (NA) |
| (NA) | (NA) | (NA) | 18,411 | 119,969 | 12,707 | 25,967 | 74,689 | 222,859 | 452,341 | 660,990 | 22,560 | (NA) | (NA) |
| (NA) | (NA) | (NA) | 17,504 | 110,716 | 12,154 | 24,420 | 67,671 | 185,239 | 423,091 | 608,175 | 14,141 | (NA) | (NA) |
| (NA) | (NA) | (NA) | 17,764 | 108,813 | 12,608 | 25,672 | 68,224 | 216,887 | 395,030 | 596,196 | $(13,531)$ | (NA) | (NA) |
| (NA) | 143 | 73 | 16,571 | 94,713 | 11,467 | 22,542 | 57,446 | 174,633 | 306,634 | 486,308 | 14,984 | 77 | 82 |
| (NA) | 105 | 67 | 11,954 | 57,481 | 8,798 | 18,277 | 36,788 | 126,018 | 278,275 | 403,359 | 13,564 | (NA) | (NA) |
| (NA) | (NA) | (NA) | 12,272 | 58,535 | 9,470 | 20,720 | 41,141 | 132,190 | $(4)$ | $\left(\begin{array}{l}4 \\ 4\end{array}\right.$ | (NA) | (NA) | (NA) |
| (NA) | (NA) | (NA) | 9,784 | 45,701 | 7,539 | 16,173 | 31,864 | 98,291 | (4) | (4) | (NA) | (NA) | (NA) |
| (NA) | (NA) | (NA) | 9,101 | 40,686 | 7,199 | 15,386 | 28,901 | 100,352 | (4) | $\left(\begin{array}{l}4 \\ 4 \\ 4\end{array}\right.$ | (NA) | (NA) | (NA) |
| (NA) | (NA) | (NA) | 9,241 | 36,908 | 7,563 | 16,373 | 27,164 | 73,787 | (4) | (4) | (NA) | (NA) | (NA) |
| (NA) | (NA) | (NA) | 6,224 | 22,780 | 4,704 | 9,349 | 14,580 | 48,781 | (4) | $\left(\begin{array}{l}4 \\ 4 \\ 4\end{array}\right.$ | (NA) | (NA) | (NA) |
| 41 | 54 | (NA) | 7,568 | 24,304 | 6,064 | 12,443 | 18,094 | 49,979 |  |  | (NA) | (NA) | (NA) |
| (NA) | 31 | (NA) | (NA) | (NA) | 2,786 | (NA) | 4,398 | 15,224 | (4) | (4) | (NA) | (NA) | (NA) |

INDUSTRY 3357.-NONFERROUS WIRE DRAWING, ETC.

| 210 | 299 | 227 | 56,418 | 3 |
| :---: | :---: | :---: | :---: | :---: |
| (NA) | (NA) | (NA) | 54,722 | 3 |
| (NA) | (NA) | (NA) | 5,795 | 301 |
| (NA) | (NA) | (NA) | 55,252 | 31 |
| (NA) | (NA) | (NA) | 55,023 | 302 |
| 217 | 278 | 182 | 51,900 | 21 |


| 339,935 | 43,905 | 90,368 | 240,904 |  |
| :--- | :--- | :--- | :--- | :--- |
| 329,730 | 42,437 | 87,841 | 230,674 |  |
| 301,952 | 40,494 | 83,147 | 210,264 |  |
| 311,303 | 42,081 | 87,850 | 217,791 |  |
| 302,743 | 44,490 | 89,711 | 215,982 |  |
| 271,910 | 39,762 | 81,711 | 190,988 |  |


| 677,535 | $1,452,095$ | $2,117,943$ |
| ---: | ---: | ---: |
| 649,343 | $1,253,894$ | $1,895,947$ |
| 482,937 | $1,122,004$ | $1,86,140$ |
| 619,750 | $1,126,789$ | $1,74,782$ |
| 629,933 | $1,125,890$ | $1,750,480$ |
| 530,105 | 941,347 | $1,465,999$ |


| 44,478 |
| :--- |
| 45,478 |
| 43,524 |
| 42,930 |
| 42,057 |
| 35,359 |

[^99]
## table 1. General Statistics: 1963 and Earlier Years-Continued



INDUSTRIES 3361, 3362, 3369.-NONFERROUS FOUNDRTES (OLD SIC 3361)

| $1963{ }^{9}$ |  | 1,894 | 679 | 69,243 | 412,050 | 58,426 | 119,804 | 317,697 | 485 | 9 |  |  |  | A) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 72,000 | 416,886 | 60,548 | 122,161 | 319,368 | 668,373 | 555,646 | 1,220,186 | 28,767 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 66,264 | 365,591 | 54,556 | 110,102 | 273,539 | 560,817 | 502,962 | 1,062,014 | 22,862 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 69,625 | 376,844 | 57,587 | 117,209 | 282,453 | 574,234 | 515,713 | 1,098,952 | 37,393 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 71,091 | 376,123 | 59,755 | 120,265 | 287,886 | 575,176 | 517,727 | 1,087,820 | 34,591 | (NA) | (NA) |
| 1958 | (NA) | 1,965 | 628 | 62,159 | 318,666 | 51,250 | 99,838 | 238,291 | 470,741 | 408,847 | 877,645 | 22,336 | (NA) | (NA) |
| $1957^{1}$ | (NA) | (NA) | (NA) | 78,328 | 379,506 | 66,424 | 132,187 | 294,301 | 577,240 | 502,766 | 1,080,396 | 39,025 | (NA) | (NA) |
| 19561 | (NA) | (NA) | (NA) | 82,084 | 393,563 | 69,900 | 141,448 | 305,518 | 608,181 | 578,225 | 1,174,240 | 38,110 | (NA) | (NA) |
| 1955 ${ }^{1}$ | (NA) | (NA) | (NA) | 81,950 | 377,569 | 70,232 | 141,128 | 295,741 | 584,846 | 554,202 | 1,126,816 | 26,011 | (NA) | (NA) |
| 1954 | 1,863 | 1,920 | 611 | 73,487 | 327,906 | 61,573 | 124,041 | 251,374 | 472,431 | 405,640 | 884,576 | 24,779 | 90 | 92 |
| 19531 | (NA) | (NA) | (NA) | 83,703 | 365,263 | 71,225 | 147,492 | 294,570 | 572,377 | 480,511 | 1,052,888 | 31,499 | (NA) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (NA) | 74,154 | 308,760 | 63,107 | 130,347 | 248,034 | 466,939 | 435,566 | 902,416 | 21,777 | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 71,498 | 280,672 | 61,413 | 125,288 | 223,728 | 437,592 | 463,455 | 901,047 | 23,093 | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 65,182 | 231,180 | 55,615 | 111,959 | 183,129 | 371,634 | 336,865 | 708,499 | 16,197 | (NA) | (NA) |
| $1949^{1}$ | (NA) | (NA) | (NA) | 56,504 | 189,303 | 47,402 | 97,074 | 144,355 | 280,715 | 228,073 | 505,017 | 11,829 | (NA) | (NA) |
| 1947. | 1,675 | 1,724 | 551 | 66,798 | 203,314 | 58,609 | (NA) | 166,697 | 300,628 | 272,562 | 573,190 | 19,017 | 93 | 92 |
| $1939{ }^{2}$ | (NA) | 776 | (NA) | (NA) | (NA) | 23,362 | (NA) | 32,444 | 67,590 | 65,092 | 132,682 | (NA) | (NA) | (NA) |

[^100]Footnotes continued on next page.

## table 1. General Statistics: 1963 and Earlier Years-Continued

## Footnotes for Table 1-330-Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
$1_{\text {These }}$ figures represent estimates derived from a representative sample of manufacturing establishnents canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that the industry is not comparable. The 1957 and earlier figures are on the old SIC definition of the industry.
${ }^{3}$ No comparable figures are available for earlier years.
${ }^{4}$ The subindustry separation for industry 3351 is based on the presence or lack of presence of the department described as "casting (except foundry)." See table 9A.
${ }^{5}$ Integrated producers represent companies which operate primary aluminum reduction facilities.
${ }^{6}$ Data for 1954 have been revised to include establishments originally classified in other industries. Accordingly, data for 1953 and earlier years are not comparable with 1954 and 1958. Selected data for 1954 and 1958 on a basis comparable with earlier years are as follows: number of establishments, 98 ; total employment, 10,381 ; and unadjusted value added by manufacture, $\$ 99,907$ thousand. Since the effect of this revision has more significance on the cost of materials and value of shipments, data for these items are not shown for 1953 and earlier years.
${ }^{7}$ Due to revision in the Standard Industrial Classification in 1957, data prior to 1958 are not available.
${ }^{8}$ Prior to 1958, these establishments were treated as a separate industry, SIC 3631, Insulated Wire and Cable. Selected data are available for 1958 as follows: Total number of establishments, 172; number of establishments with 20 or more employees, 91 ; number of employees, 17,105; adjusted value added by manufacture, $\$ 154,248$ thousand.
${ }^{9}$ The three industries shown above were a single industry in 1957 and earlier years. They are shown combined so that historical data may be presented.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estabi ishments |  | All emplayees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total | $\begin{aligned} & \text { With } 20 \\ & \text { employ- } \\ & \text { ees } \\ & \text { or more } \\ & \text { (number) } \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | Wages <br> ( $\$ 1,000$ ) |  |  |  |  |  |  |
| Total.......... | Industry 3351.-COPPER ROLling and drawing |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 112 | 92 | 38,949 | 260,320 | 31,481 | 65,746 | 200,171 | 478,393 | 1,188,548 | 1,657,526 | 43,462 | 40,329 | 445,371 |
| New England. Connecticut | 33 26 | 30 24 | 12,107 10,422 | 81,676 71,854 | 9,829 8,509 | $\begin{aligned} & 20,145 \\ & 17,576 \end{aligned}$ | $\begin{aligned} & 63,539 \\ & 56,251 \end{aligned}$ | $\begin{aligned} & 145,184 \\ & 126,890 \end{aligned}$ | $\begin{aligned} & 308,045 \\ & 282,503 \end{aligned}$ | $\begin{aligned} & 454,718 \\ & 411,084 \end{aligned}$ | $\begin{aligned} & 9,430 \\ & 9,296 \end{aligned}$ | $\begin{aligned} & 13,653 \\ & 11,942 \end{aligned}$ | $\begin{aligned} & 142,116 \\ & 124,971 \end{aligned}$ |
| Middle Atlantic. <br> New York. <br> New Jersey <br> Pennsylvania | 39 <br> 9 <br> 15 <br> 15 | 2871010 | $\begin{array}{r} 10,406 \\ 3,517 \\ 3,024 \\ 3,865 \end{array}$ | $\begin{aligned} & 68,703 \\ & 22,102 \\ & 19,960 \\ & 26,641 \end{aligned}$ | 8,2422,8202,4772,95 | 17,2755,4505,1346,691 | $\begin{aligned} & 51,297 \\ & 16,772 \\ & 15,862 \end{aligned}$ | $\begin{aligned} & 126,704 \\ & 45,859 \\ & 29,350 \\ & 51,495 \end{aligned}$ | $\begin{array}{r} 378,695 \\ 13,313 \\ 151,542 \\ 89,840 \end{array}$ | 503,131 <br> 182, 551 <br> 139,508 | $\begin{array}{r} 12,847 \\ 1,415 \\ 1,881 \\ 9,551 \end{array}$ | $\begin{array}{r} 11,146 \\ \left({ }^{2}\right) \\ (2) \\ 5,122 \end{array}$ | 118,458$(2)$$(2)$46,538 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 6,691 | 18,663 |  |  |  |  |  |  |
| North Central, |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South, and West... | 4065 | 3464 | 16,4362,7673 | $\begin{array}{r}109,941 \\ 17,520 \\ \hline\end{array}$ | 13,4102,407 | $\begin{array}{r}28,326 \\ 4,820 \\ \hline 7825\end{array}$ | 85,33514,542 | $\begin{array}{r}206,505 \\ 34,317 \\ 33,382 \\ \hline\end{array}$ | $\begin{array}{r}501,808 \\ 69,008 \\ 75,940 \\ \hline 10\end{array}$ | $\begin{aligned} & 699,677 \\ & 102,666 \end{aligned}$$106,243$ | $\begin{array}{r} 21,185 \\ 1,273 \\ \hline \end{array}$ | 15,5302,7312 | $\begin{array}{r} 184,797 \\ 30,246 \\ (2) \end{array}$ |
| Ohio.... |  |  |  |  |  |  |  |  |  |  |  |  |  |
| tllinois. |  | 4 |  | 24,368 | 2,976 | 6,254 | 18,112 |  |  |  |  |  |  |
| Michigan. | , | 10 5 | $\begin{aligned} & 4,069 \\ & 1,259 \end{aligned}$ | $\begin{array}{r} 27,790 \\ 8,555 \\ \hline \end{array}$ | $\begin{aligned} & 3,285 \\ & 993 \end{aligned}$ | $\begin{aligned} & 7,128 \\ & 2,064 \\ & \hline \end{aligned}$ | $\begin{array}{r} 21,292 \\ 6,483 \\ \hline \end{array}$ | $\begin{array}{r} 58,361 \\ 15,964 \end{array}$ | $\begin{array}{r} 101,254 \\ 33,029 \\ \hline \end{array}$ | $\begin{array}{r} 156,132 \\ 47,601 \\ \hline \end{array}$ | $\begin{array}{r} 1,924 \\ \hline \end{array}$ | $\begin{aligned} & 4,043 \\ & 1,105 \\ & \hline \end{aligned}$ | $\begin{array}{r} 45,859 \\ 10,313 \\ \hline \end{array}$ |
| Californi |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Total.......... | Subindustry 3351-21.-Copper Rolling and Drawing-ESTABLISHMENTS WITH CASTING DEPARTNENTS ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 36 | 36 | 25,752 | 174,972 | 20,774 | 43,765 | 135,769 | 305,113 | 687,401 | 985,609 | 26,965 | (NA) | (NA) |
| New England......... Middle Atlantic... | 14 | $\begin{array}{r}14 \\ 7 \\ \hline\end{array}$ | $\begin{aligned} & 7,914 \\ & 5,350 \end{aligned}$ | $\begin{aligned} & 54,20, \\ & 35,579 \end{aligned}$ | $\begin{aligned} & 6,395 \\ & 4,260 \end{aligned}$ | $\begin{gathered} 13,044 \\ 9,232 \end{gathered}$ | $\begin{array}{r} 41,996 \\ 27,470 \end{array}$ | $\begin{aligned} & 94,378 \\ & 56,610 \end{aligned}$ | $\begin{aligned} & 209,171 \\ & 177,626 \end{aligned}$ | $\begin{aligned} & 304,106 \\ & 232,619 \end{aligned}$ | $\begin{aligned} & 4,815 \\ & 3,482 \end{aligned}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | ( NA ) |
| North Central, South, and West.... | 15 | 15 | 12,488 | 85,186 | 10,119 | 21,489 | 66,303 | 154,125 | 300,604 | 448,884 | 18,668 | (NA) | (NA) |


| Total..... | Subindustry 3351-22.-Copper Rolling and Drawing-ESTABLISHMENTS wITHOUT CASTING DEPARTNENTS ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 76 | 56 | 13,197 | 85,348 | 10,707 | 21,981 | 64,402 | 173,280 | 501,147 | 671,917 | 16,497 | (Na) | (NA) |
| New England. . | 19 | 16 | 4,193 | 27,469 | 3,434 | 7,101 | 21,543 | 50,806 | 98,874 | 150,612 | 4,615 | (NA) | (na) |
| Middle Atlantic.. | 32 | 21 | 5,056 | 33,124 | 3,982 | 8,043 | 23,827 | 70,094 | 201,069 | 270,512 | 9,365 | (NA) | ( Na ) |
| South, and West.. | 25 | 19 | 3,948 | 24,755 | 3,291 | 6,837 | 19,032 | 52,380 | 201,204 | 250,793 | 2,517 | (Na) | ( NA ) |


| Total.. | 212 | 153 | 54,263 | 376,647 | 42,750 | 89,868 | 278,469 | 721,171 | 1,524,841 | 2,196,439 | 81,282 | 46,879 | 537,086 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New England.. | 11 | 10 | 549 | 3,784 | 439 | 946 | 2,392 | 7,337 | 11,786 | 18,912 | 482 | 471 | 4,992 |
| Middle Atlantic. | 40 | 31 | 9,146 | 62,634 | 6,765 | 13,793 | 41,667 | 119,463 | 200,715 | 314,100 | 10,423 | 8,997 | 87,038 |
| New York. | 15 | 12 | 3,207 | 20,651 | 2,423 | 4,910 | 14,211 | 48,613 | 92,830 | 141,958 | 2,041 | 2,978 | 32,174 |
| New Jersey. | 15 | 11 | 2,139 | 14,723 | 1,602 | 3,250 | 9,749 | 30,806 | 33,352 | 61,344 | 1,698 | 1,991 | 20,921 |
| Pennsylvania..... | 10 | 8 | 3,800 | 27,260 | 2,740 | 5,633 | 17,707 | 40,044 | 74,533 | 110,798 | 6,714 | 4,028 | 33,943 |
| North Central. | 78 | 56 | 17,526 | 125,063 | 13,409 | 28,451 | 89,911 | 246,082 | 563,365 | 796,480 | 25,238 | 13,320 | 182,165 |
| Ohio.. | 23 | 19 | 4,224 | 28,588 | 3,175 | 6,535 | 20,282 | 56,206 | 194,883 | 251,574 | 7,017 | 3,138 | 56,854 |
| Iminois. | 15 | 9 | 4,479 | 32,346 | 3,513 | 7,294 | 24,316 | 50,035 | 134,722 | 182,966 | (D) | ${ }^{2}$ ) | ${ }^{(2)}$ |
| Michigan. . . . . . . | 21 | 15 | 2,381 | 14,771 | 1,822 | 3,704 | 9,926 | 22,584 | 41,693 | 64,643 | 1,290 | 2,319 | 20,915 |
| South Atlantic..... | 26 | 18 | 6,657 | 42,941 | 5,312 | 11,108 | 32,049 | 85,4,51 | 228,490 | 310,113 | 14,710 |  |  |
| East South Central. | 15 | 11 | 9,602 | 68,601 | 8,111 | 17,013 | 56,342 | 139,471 | 300,193 | 422,807 | 18,606 |  |  |
| West South Central. | 7 | 6 | 1,079 | 6,040 | 854 | 1,899 | 4,455 | 10,884 | 23,644 | 34,168 | 1,141 | 24,091 | 262,891 |
| West. ................California....... | 35 | 21 | 9,704 | 67,584 | 7,820 | 16,658 | 51,653 | 112,483 | 196,648 | 299,859 | 10,667 |  |  |
|  | 27 | 16 | 5,594 | 38,327 | 4,389 | 10,043 | 28,966 | 70,865 | 80,372 | 148,772 | 5,191 | $\left({ }^{2}\right)$ | ${ }^{(2)}$ |
|  | INDUSTRY 3356.-ROLLING AND DRAWING, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.. | 125 | 67 | 17,375 | 117,454 | 12,275 | 25,367 | 74,052 | 250,589 | 405,011 | 640,962 | 22,154 | 16,571 | 174,633 |
| New England..... | 21 | 14 | 1,767 | 10,066 | 1,367 | 2,914 | 6,791 | 22,881 | 71,066 | 92,465 | 1,174 | 1,686 | 16,645 |
| Massachusetts. | 9 | 7 | 890 | 4,671 | 695 | 1,511 | 3,226 | 7,720 | 22,080 | 29,785 | 484 | 762 | 6,780 |
| Middle Atlantic.... | 41 | 20 | 4,049 | 27,817 | 2,661 | 5,491 | 16,172 | 61,300 | 124,287 | 182,287 | 2,327 | 4,198 | 37,663 |
| New York. | 23 | 10 | 800 | 5,439 | 559 | 1,157 | 3,270 | 15,186 | 52,572 | 66,479 | 441 |  |  |
| New Jersey....... | 10 | 6 | 1,562 | 10,400 | 1,027 | 1,989 | 6,353 | 19,616 | 53,527 | 70,892 | 626 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Pennsylvania.. | 8 | 4 | 1,687 | 11,978 | 1,075 | 2,345 | 6,549 | 26,498 | 18,188 | 44,916 | 1,260 | 2,069 | 16,706 |
| North Central, |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South, and West.. ${ }^{\text {Ohio.......... }}$. ${ }^{\text {a }}$. | 63 7 | 33 5 |  | 79,571 18,265 | 8,247 1,665 | 16,962 3,337 | 51,089 10,950 | 166,408 33,933 | 209,658 43,386 | 366,210 72,842 | 18,653 1,775 | $\begin{gathered} 10,687 \\ (2) \end{gathered}$ | 120,325 ${ }^{(2)}$ |
| Ohio.............. | 10 | 5 5 | 2,614 | 18,265 7,804 | 1,665 945 | 1,347 | 10,761 | 18,339 | 30,599 | 50,559 | 1,362 | 1,540 | 17,440 |
| Michigan. | 9 | 7 | 1,792 | 6,367 | 573 | 1,193 | 3,980 | 13,547 | 17,716 | 31,080 | 688 | (2) | $\left.{ }^{2}\right)$ |

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total (number) | $\begin{aligned} & \begin{array}{l} \text { Man- } \\ \text { hours } \end{array} \\ & (1,000) \end{aligned}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| INDUSTRY 3357.-NONFERROUS WIRE DRAWING, ETC. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. .......... | 299 | 227 | 56,418 | 339,935 | 43,905 | 90,368 | 240,904 | 677,535 | 1,452,095 | 2,117,943 | 44,478 |  |  |
| New England.......... | 78 | 64 | 16,336 | 86,455 | 12,958 | 25,727 | 59,952 | 158,884 | 247,945 | $\begin{array}{r} 400,875 \\ 9,468 \end{array}$ | 10,223 | $\begin{aligned} & 15,174 \\ & (2) \end{aligned}$ | 133, 528 |
| New Hampshire..... | 4 | 4 | $\begin{aligned} & 349 \\ & 405 \end{aligned}$ | 2,125 | 231 | 446 | 1,036 | $\begin{aligned} & 4,152 \\ & 3,092 \end{aligned}$ | 6,262 7,322 |  | 280 <br> 222 |  | $(2)$ $(2)$ |
| Massachusetts. | 31 | 26 | 6,198 | 31,475 | 4,900 | 9,352 | $\begin{aligned} & 21,395 \\ & 20,194 \end{aligned}$ | 52,234 | $\begin{array}{r} 70,813 \\ 100,336 \end{array}$ | $\begin{aligned} & 122,046 \\ & 146,133 \end{aligned}$ | $\begin{aligned} & 3,836 \\ & 3,381 \end{aligned}$ | 5,084 | $\begin{aligned} & 40,867 \\ & 42,137 \\ & 38,619 \end{aligned}$ |
| Rhode Island. |  | 12 | 5,385 | 27,055 | 4,480 | 9,034 |  | 49,158 |  |  |  | 5,030 |  |
| Connecticut. | 14 26 | 19 | 3,999 | 23,611 | 3,048 | 6,299 | 16,034 | 50,248 | 63,212 | 112,275 | 2,504 | 4,061 |  |
| Midale Atlantic..... <br> New York. $\qquad$ <br> New Jersey. $\qquad$ <br> Pennsylvania...... |  | 6726 | 18,9249,522 | 117,55760,362 | 14,3427,241 | $\begin{aligned} & 29,532 \\ & 14,566 \end{aligned}$ | $\begin{aligned} & 82,153 \\ & 41,995 \end{aligned}$ | 201,141 | $\begin{aligned} & 481,223 \\ & 237,143 \end{aligned}$ | $\begin{aligned} & 674,554 \\ & 339,830 \\ & 278,220 \end{aligned}$ | 15,210 | 19,7948,4398,711 | 206,66784,10499,712 |
|  | 87 38 |  |  |  |  |  |  |  |  |  | 15,3087,503 |  |  |
|  | 35 | 28 | $\begin{aligned} & 6,977 \\ & 2,425 \end{aligned}$ | 44,902 | 5,094 | 10,762 | 30,967 | 81,193 | 204,646 |  |  |  |  |
|  | 14 | 13 |  | 12,293 | 2,007 | 4,204 | 9,191 | 18,391 | 39,434 | 26,504 | 1,399 | 2,644 | 22,851 |
| East North Central. Indiana. Illinois. | 651430 | 51 | $\begin{array}{r} 12,588 \\ 5,403 \\ 4,379 \end{array}$ | $\begin{aligned} & 79,654 \\ & 34,666 \\ & 28,362 \end{aligned}$ | 9,943 | $\begin{array}{r} 20,904 \\ 9,384 \end{array}$ | $\begin{aligned} & 58,807 \\ & 27,554 \end{aligned}$ | $\begin{array}{r} 186,180 \\ 86,615 \end{array}$ | $\begin{aligned} & 428,379 \\ & 214,050 \end{aligned}$ | $\begin{aligned} & 611,451 \\ & 298,858 \end{aligned}$ | 8,1452,698 | $\begin{array}{r} \left({ }^{2}\right) \\ 4,901 \\ 3,020 \end{array}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 54,698 \\ 40,476 \end{array}$ |
|  |  |  |  |  | 4,446 |  |  |  |  |  |  |  |  |
|  |  | 24 |  |  | 3,213 | 6,979 | 18,874 | 74,830 | 147,589 | 220,395 | 3,543 |  |  |
| West North Central.. | 9 | 5 | 1,633 | 11,199 | 1,264 | 2,792 | 8,172 | 34,963 | 72,790 | 107,761 | 1,466 | $\left.{ }^{2}\right)$ | ${ }^{2}$ ) |
| South. <br> Texas. | 225 | 164 | $\begin{array}{r} 4,355 \\ 653 \end{array}$ | $\begin{array}{r} 29,178 \\ 3,712 \end{array}$ | $\begin{array}{r} 3,415 \\ 569 \end{array}$ | $\begin{aligned} & 7,222 \\ & 1,323 \end{aligned}$ | $\begin{array}{r} 21,101 \\ 3,067 \end{array}$ | $\begin{aligned} & 64,886 \\ & 13,415 \end{aligned}$ | 151,89026,869 | $\begin{array}{r} 221,529 \\ 39,958 \end{array}$ | $\begin{array}{r} 6,706 \\ 810 \end{array}$ | $\begin{array}{r} 3,370 \\ 420 \\ 2,674 \\ \hline \end{array}$ | $\begin{array}{r} 41,404 \\ 5,556 \\ 24,810 \\ \hline \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pacific............. | 38 | 24 | 2,582 | 15,892 | 1,983 | 4,191 | 10,719 | 31,481 | 69,868 | 101,773 | 2,728 |  |  |
|  | Subindustry 3357-11.-Nonferrous Wire Drawing, Etc.-WIRE DRAWING ESTABLISHMENTS WITH ROD MILL |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 32 | 32 | 9,258 | 57,042 | 7,537 | 15,672 | 43,801 | 133,749 | 368,424 | 498,611 | 7,643 | ( ${ }^{\text {a }}$ ( ${ }^{\text {a }}$ ) <br> (NA) <br> (NA) |  |
| New England......... | 5 | 5 | 2,443 | 12,410 | 2,005 | 4,2603,804 | $\begin{array}{r} 9,482 \\ 10,374 \end{array}$ | $\begin{aligned} & 25,158 \\ & 27,167 \end{aligned}$ |  | 70,267 | 2,925 |  |  |  |
| Middle Atlantic..... | 10 | 10 | 2,211 | 13,185 | 1,841 |  |  |  | 74,879 | 100,941 | 2,092 |  |  |  |
| North Central and West. Indiana $\qquad$ | 17 | 17 | 4,604 |  |  |  |  |  |  |  |  |  |  |
|  |  | 17 | 1,745 | 12,255 | 1,455 | 3,031 | 23,945 9,803 | 81,424 36,855 | 247,604 120,979 | 327,403 156,672 | 2,626 959 | (NA) | (NA) |
|  |  | industr | 3357- | Nonferro | Wire | ring, | -WIRE | ING ESTAB | SHENES | HOUT ROD | IL OR INS | Lating de | ARTMENT |
| Total. | 41 | 30 | 4,359 | 27,807 | 3,524 | 7,382 | 19,624 | 50,923 | 98,082 | 147,864 | 6,447 | (NA) | (NA) |
| New England. | 8 | 5 | 727 | 4,513 | 605 | 1,269 | 3,314 | 8,388 | 6,468 | 14,917 | 547 | (NA) | (NA) |
| Middle Atlantic. | 15 | 13 | 2,414 | 15,087 | 1,924 | 4,041 | 10,690 |  | 57,464 |  | 3,399 | (NA) | (NA) |
| New York. | , | , | 1,145 | 6,893 | 945 | 1,948 | 5,073 | 12,423 | 20,370 | 32,398 | 402 | (NA) | (NA) |
| North Central, South, and West.... | 18 | 12 | 1,218 | 8,207 | 995 | 2,072 | 5,620 | 16,749 | 34,150 | 49,799 | 2,501 | (NA) | (NA) |


| Total | Subindustry 3357-13. - Nonferrous Wire Drawing, Etc. -WIRE DRAWING ESTABLISHMENTS WITHOUT ROD MILL BUT WITH INSULATING DEPARTMENT |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 72 | 70 | 30,347 | 187,718 | 23,241 | 47,731 | 132,664 | 350,789 | 735,320 | 1,083,475 | 24,064 | (NA) | (NA) |
| New England. | 23 | 22 | 8,403 | 46,900 | 6,601 | 13,085 | 32,214 | 82,311 | 136,818 | 215,488 | 5,213 | (NA) | (NA) |
| Rhode Island. | 8 | 8 | 4,059 | 20,948 | 3,398 | 6,950 | 15,661 | 34,653 | 66,229 | 98,306 | 2,117 | (NA) | (NA) |
| Connecticut. | 7 | 6 | 1,511 | 9,474 | 1,112 | 2,240 | 6,302 | 18,515 | 26,960 | 45,002 | 780 | (NA) | (NA) |
| Miadle Atlanti | 22 | 22 | 11,831 | 76,319 | 8,711 | 17,916 | 52,562 | 113,243 | 284,184 | 395,230 | 8,443 | (NA) | (NA) |
| New York. | 9 | 9 | 7,203 | 46,387 | 5,439 | 10,810 | 32,262 | 73,086 | 178,756 | 253,660 | 6,163 | (NA) | (NA) |
| North Central | 17 | 16 | 6,407 | 38,321 | 5,151 | 11,008 | 29,639 | 100,905 | 189,158 | 286,989 | 4,836 | (NA) | (NA) |
| Illinois. | 7 | 6 | 1,614 | 9,836 | 1,283 | 2,788 | 7,421 | 28,976 | 51,786 | 80,144 | 1,710 | (NA) | (NA) |
| South and West. | 10 | 10 | 3,706 | 26,170 | 2,778 | 5,722 | 18,249 | 54,330 | 125,160 | 185,768 | 5,572 | (NA) | (NA) |

Subinaustry 3357-14.-Nonferrous Wire Drawing, Etc. - ESTABLISHMENTS WITHOUT WIRE DRAWING DEPARTMENTS

| Total. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 154 | 95 | 12,454 | 67,368 | 9,603 | 19,583 | 44,815 | 142,074 | 250,269 | 387,993 | 6,324 | (NA) | (NA) |
| New England. | 42 | 32 | 4,763 | 22,624 | 3,747 | 7,113 | 14,942 | 43,027 | 58,718 | 100,203 | 1,538 | (NA) | (NA) |
| Massachusett | 23 | 18 | 2,278 | 9,653 | 1,838 | 3,303 | 6,423 | 15,162 | 24,520 | 39,755 | 312 | (NA) | (NA) |
| Connecticut. | 12 | 8 | 1,336 | 7,641 | 1,014 | 2,114 | 5,193 | 18,727 | 21,359 | 39,312 | 749 | (NA) | (NA) |
| Middle Atlantic | 40 | 22 | 2,468 | 12,966 | 1,866 | 3,771 | 8,527 | 34,945 | 64,696 | 95,235 | 1,276 |  | (NA) |
| New Jersey.. | 18 | 12 | 1,175 | 6,355 | 886 | 1,747 | 4,390 | 19,531 | 41,592 | 56,760 | 413 | (NA) | (NA) |
| North Central. | 34 | 20 | 2,691 |  |  |  |  |  |  |  | 1,272 | (NA) | (NA) |
| Illinois.. | 14 | 11 | 1,238 | 7,621 | 852 | 1,870 | 4,019 | 15,524 | 17,860 | 33,872 | 546 | (NA) | (NA) |
| South. | 11 | 7 | 1,075 | 5,804 | 926 | 2,085 | 4,638 | 16,683 | 38,822 | 55,351 | 1,181 | (NA) | (NA) |
| Pacific........ | 27 | 14 | 1,457 | 8,895 | 1,113 | 2,378 | 5,910 | 15,997 | 23,939 | 40,126 | 1,057 | (NA) | (NA) |

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employ. ees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3361.-ALUMINMM CASTINGS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 954 | 321 | 36,216 | 222,771 | 30,746 | 63,432 | 174,155 | 343,863 | 299,398 | 640,193 | 18,374 | 30,045 | 225,686 |
| New England...... Massachusetts.. | 76 36 | 18 7 | 2,131 624 | 12,081 3,386 | 1,840 544 | 3,761 1,121 | 9,205 | 19,117 5,322 | 11,863 3,052 | 31,020 8,371 | 728 232 | 1,677 | 10,949 ${ }_{\text {(2) }}$ |
| Connecticut. | 30 | 8 | 1,194 | 7,253 | 1,018 | 2,119 | 5,414 | 10,801 | 7,939 | 18,770 | 431 | 1,118 | 7,587 |
| Middle Atlantic.... | 153 | 52 | 6,964 | 45,070 | 5,826 | 12,033 | 35,351 | 68,845 | 51,112 | 119,734 | 2,733 | 6,093 | 47,116 |
| New York. | 57 | 25 | 3,284 | 21,535 | 2,700 | 5,658 | 16,848 | 33,364 | 29,341 | 62,465 | 1,477 | 2,223 | 17,215 |
| New Jersey. | 38 | 11 | 1,349 | 9,199 | 1,141 | 2,384 | 7,163 | 12,389 | 8,707 | 21,201 | 632 | 1,269 | 9,389 |
| Pennsylvania. | 58 | 16 | 2,331 | 14,336 | 1,985 | 3,991 | 11,340 | 23,092 | 13,064 | 36,068 | 624 | 2,601 | 20,512 |
| East North Central. | 354 | 137 | 17,551 | 111,384 | 14,907 | 30,762 | 86,850 | 166,561 | 155,024 | 318,815 | 9,770 | 14,562 | 110,132 |
| Ohio. | 122 | 40 | 7,301 | 47,902 | 6,131 | 12,712 | 37,392 | 77,546 | 59,531 | 135,593 | 2,593 | 5,986 | 45,950 |
| Indiana. | 31 | 16 | 2,349 | 17,212 | 1,973 | 4,349 | 13,526 | 22,614 | 33,359 | 55,609 | 3,741 | 1,515 | 9,941 |
| Illinois. | 90 | 35 | 3,424 | 19,700 | 2,899 | 5,728 | 14,847 | 28,167 | 23,454 | 51,169 | 1,461 | 2,407 | 17,863 |
| Michigan | 73 | 25 | 2,163 | 13,100 | 1,867 | 3,748 | 10,300 | 18,911 | 20,703 | 39,503 | 936 | 2,908 | 24,974 |
| Wisconsin. | 38 | 21 | 2,314 | 13,470 | 2,037 | 4,225 | 10,785 | 19,323 | 17,977 | 36,941 | 1,039 | 1,746 | 11,404 |
| West North Central. | 68 | 32 | 2,522 | 13,454 | 2,234 | 4,661 | 11,061 | 21,126 | 16,458 | 37,304 | 784 | 2,544 | 17,792 |
| Minnesota. | 18 | 11 | 872 | 5,202 | 788 | 1,693 | 4,378 | 6,709 | 6,319 | 12,963 | 229 | 678 | 4,584 |
| Iowa. . | 15 | 4 | 250 | 1,287 | 209 | 459 | 999 | 2,529 | 1,548 | 4,047 | 116 | 327 | 2,011 |
| Missouri......... | 24 | 12 | 1,152 | 5,827 | 1,013 | 2,064 | 4,774 | 9,671 | 7,013 | 16,500 | 288 | 1,443 | 10,572 |
| South Atlantic..... | 49 | 10 | 768 | 3,386 | 663 | 1,337 | 2,609 | 4,962 | 3,616 | 8,543 | 406 | 471 | 2,538 |
| Maryland......... | 3 | 1 | 125 | 634 | 97 | 188 | 422 | 956 | 388 | 1,370 | (D) | (2) | (2) |
| North Carolina... | 7 | 2 | 114 | 432 | 101 | 203 | 359 | 462 | 502 | 925 | 17 | (2) | (2) |
| Florida. . | 16 | 1 | 131 | 478 | 120 | 214 | 406 | 691 | 750 | 1,405 | 55 | 149 | 961 |
| East South Central. | 21 | 5 | 1,387 | 10,017 | 1,154 | 2,505 | 7,940 | 15,753 | 22,282 | 38,143 | 1,830 | 643 | 3,208 |
| West South Central. | 54 | 15 | 1,087 | 5,600 | 910 | 1,839 | 4,260 | 11,619 | 12,806 | 24,282 | 939 | 807 | 6,513 |
| Arkansas. | 7 | 6 | 512 | 3,111 | 411 | 844 | 2,321 | 7,265 | 9,165 | 16,256 | 760 | 302 | 3,067 |
| Texas. | 40 | 7 | 452 | 1,879 | 392 | 771 | 1,484 | 3,330 | 3,076 | 6,437 | 167 | 440 | 2,984 |
| Mountain. | 15 | 1 | 107 | 497 | 91 | 171 | 387 | 714 | 535 | 1,255 | 16 | 126 | 879 |
| Pacific.. | 164 | 51 | 3,699 | 21,282 | 3,121 | 6,363 | 16,492 | 35,166 | 25,702 | 61,097 | 1,168 | 3,122 | 26,559 |
| Oregon. | 9 | 3 | 169 | 976 | 154 | 310 | 902 | 1,498 | 1,402 | 2,888 | 34 | (2) | (2) |
| California....... | 150 | 47 | 3,463 | 19,842 | 2,908 | 5,916 | 15,196 | 32,932 | 23,543 | 56,718 | 1,107 | 2,998 | 25,683 |
|  | INDUSTRY 3362.-BRASS, BRONZE, COPPER CASTINGS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total... | 549 | 193 | 15,341 | 86,350 | 12,835 | 26,052 | 65,095 | 144,092 | 144,433 | 287,534 | 5,394 | 14,861 | 109,744 |
| New England.. | 59 | 23 | 1,473 | 7,368 | 1,263 | 2,482 | 5,712 | 11,994 | 11,299 | 23,222 | 414 | 1,496 | 10,377 |
| Massachusetts | 27 | 11 | 791 | 3,964 | 681 | 1,307 | 3,152 | 6,795 | 7,044 | 13,821 | 240 | 766 | 4,919 |
| Connecticut. | 21 | 8 | 435 | 2,254 | 362 | 740 | 1,685 | 3,387 | 2,733 | 6,064 | 132 | 373 | 2,660 |
| Middle Atlantic... | 150 | 49 | 5,162 | 29,088 | 4,335 | 8,885 | 21,836 | 46,689 | 39,997 | 86,214 | 1,191 | 4,480 | 32,167 |
| New Yorik. ........ | 53 | 18 | 1,247 | 6,929 | 1,071 | 2,108 | 5,542 | 11,699 | 11,222 | 22,798 | 146 | 1,571 | 10,865 |
| New Jersey....... | 32 | 10 | 758 | 4,428 | 603 | 1,204 | 3,089 | 7,053 | 5,895 | 12,594 | 148 | 638 | 4,852 |
| Pennsylvania..... | 65 | 21 | 3,157 | 17,731 | 2,661 | 5,573 | 13,205 | 27,937 | 22,880 | 50,822 | 897 | 2,271 | 16,450 |
| East North Central. | 191 | 73 | 5,459 | 33,580 | 4,505 | 9,139 | 24,905 | 54,673 | 56,331 | 110,684 | 2,350 | 5,712 | 44,471 |
| Ohio...... | 57 | 25 | 1,624 | 9,440 | 1,321 | 2,747 | 7,073 | 15,946 | 15,695 | 32,054 | 749 | 1,977 | 13,948 |
| Illinois. | 54 | 21 | 1,302 | 7,709 | 1,107 | 2,247 | 5,999 | 11,430 | 12,027 | 23,422 | 523 | 1,442 | 10,515 |
| Michigan. | 36 | 12 | 1,066 | 7,444 | 883 | 1,764 | 5,471 | 13,069 | 13,375 | 25,932 | 542 | 982 | 10,860 |
| West North Central. | 29 | 12 | 714 | 3,611 | 597 | 1,215 | 2,838 | 8,416 | 10,285 | 18,669 | 365 | 848 | 6,803 |
| Missouri......... | 12 | 4 | 243 | 1,311 | 202 | 409 | 1,016 | 3,038 | 4,273 | 7,312 | 160 | 522 | 5,069 |
| Nebraska..... | 4 | 4 | 256 | 1,270 | 207 | 415 | 943 | 3,855 | 4,316 | 8,025 | 147 | $\left.{ }^{2}\right)$ | ${ }^{2}$ ) |
| South.... | 44 | 15 | 1,289 | 5,756 | 1,079 | 2,224 | 4,336 | 10,613 | 12,288 | 22,986 | 715 | 769 | 4,803 |
| Alabama. | 3 | 3 | 125 | 573 | 107 | 212 | 419 | 997 | 1,361 | 2,413 | 14 | (2) | ${ }^{(2)}$ |
| Texas. | 11 | 5 | 253 | 1,314 | 213 | 488 | 978 | 2,140 | 3,236 | 5,388 | 113 | 183 | 1,263 |
| Mountain. ......... . | 7 | 3 | 179 | 844 | 160 | 316 | 693 | 918 | 1,216 | 2,124 | 24 |  |  |
| Pacific.. | 69 | 18 | 1,065 | 6,103 | 896 | 1,791 | 4,775 | 10,789 | 13,017 | 23,635 | 335 | 1,556 | 11,123 |
| California....... | 55 | 17 | 978 | 5,583 | 821 | 1,648 | 4,329 | 9,746 | 11,458 | 20,997 | 275 | 1,212 | 9,505 |

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenct itures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3369.-NONFERROUS CASTINGS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 391 | 165 | 17,686 | 102,929 | 14,845 | 30,320 | '78,447 | 168,530 | 134,318 | 302,731 | 6,803 | 17,253 | 135,311 |
| New England........ | 34 13 | 9 4 | 529 198 | 2,711 | 449 166 | 923 342 | 1,989 758 | 4,478 1,627 | 3,108 1,146 | 7,585 | 259 101 | $(2)$ $(2)$ |  |
| Connecticut. | 11 | 5 | 245 | 1,280 | 214 | 451 | 970 | 2,224 | 1,587 | 3,819 | 89 | 319 | 2,416 |
| Middle Atlantic. | 98 | 37 | 3,810 | 21,224 | 3,181 | 6,541 | 16,065 | 33,126 | 18,760 | 52,270 | 938 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| New York. | 53 | 19 | 1,648 | 8,759 | 1,366 | 2,852 | 6,312 | 14,833 | 8,674 | 23,708 | 444 | 1,613 | 10,695 |
| New Jersey.. | 29 | 13 | 1,677 | 9,737 | 1,386 | 2,802 | 7,482 | 14,494 | 7,288 | 21,874 | 440 | ${ }_{(2)}^{2}$ |  |
| Pennsylvania. | 16 | 5 | 485 | 2,728 | 429 | 887 | 2,271 | 3,799 | 2,798 | 6,688 | 54 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| East North Central.. | 144 | 75 | 9,416 | 57,221 | 7,968 | 16,229 | 43,759 | 92,363 | 85,858 | 177,385 | 3,835 | 9,563 | 78,280 |
| Ohio... | 28 | 13 | 1,689 | 9,230 | 1,386 | 2,836 | 6,800 | 15,906 | 14,848 | 30,549 | 419 | 2,066 | 16,176 |
| Illinois. | 49 | 23 | 2,828 | 17,881 | 2,454 | 5,170 | 14,294 | 28,101 | 25,824 | 53,481 | 1,403 | 3,168 | 23,720 |
| Michigan. | 56 | 31 | 3,965 | 24,275 | 3,344 | 6,674 | 18,366 | 38,301 | 39,426 | 77,439 | 1,578 | 3,639 | 33,217 |
| West North Central.. | 21 | 9 | 938 | 5,146 | 787 | 1,565 | 3,942 | 8,025 | 7,577 | 15,590 | 430 | 754 | 6,702 |
| Missouri. | 10 | 4 | 390 | 2,230 | 323 | 626 | 1,776 | 3,205 | 3,615 | 6,810 | 155 | 597 | 5,374 |
| South... | 34 | 9 | 650 | 2,961 | 554 | 1,074 | 2,298 | 4,774 | 3,361 | 8,148 | 323 | 317 | 1,595 |
| Florida | 7 | 2 | 150 | 481 | 124 | 210 | 386 | 563 | 529 | 1,143 | 52 | (2) | (2) |
| Texas. | 10 | 2 | 214 | 1,132 | 182 | 360 | 896 | 1,748 | 1,214 | 2,964 | 169 | 216 | 1,094 |
| Mountain. | 4 | - | 15 | 65 | 12 | 24 | 53 | 149 | 103 | 252 | 11 |  |  |
| Pacific.. | 56 | 26 | 2,328 | 13,601 | 1,894 | 3,964 | 10,341 | 25,615 | 15,551 | 41,501 | 1,007 | 1,844 | 16,001 |
| California | 52 | 25 | 2,241 | 13,130 | 1,815 | 3,809 | 9,919 | 24,575 | 15,142 | 40,067 | 910 | 1,731 | 15,019 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown
below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3351, Copper Rolling and Drawing: New England-Massachusetts, 2 (500-999); Rhode Island, 5 (500-999); East North Central-Indiana, 2 (1,0002,499); Wisconsin, 3 (1,411); West North Central-Minnesota, 2 (20-99); South Atlantic-Maryland, 1 (1,000-2,499); West Virginia, 1 (1-19); East South Central-Tennessee, l (20-99); Alabana, l (500-999); Mountain-Montana, l (100-249).
SIC 3351-21, Establishments with casting departments: New England-Massachusetts, 1 (100-249); Rhode Island, 2 (500-999); Connecticut, 11 (5,0009,999) ; Middle Atlantic-New York, 1 (1,000-2,499) ; New Jersey, 3 (1,000-2,499); Pennsylvania, 3 (1,000-2,499); East North Central-Ohio, 1 (1,0002,499) ; Indiana, 1 (1,000-2,499); Illinois,4 (2,500-4,999); Michigan, 3 (1,000-2,499); Wisconsin, 1 (1,000-2,499); South Atlantic-Maryland, 1 (1,0002,499); East South Central-Alabama, 1 (500-999); Pacific-California, 3 (500-999).
SIC 3351-22, Establishments without casting departments: New England-Massachusetts, 1 (500-999); Rhode Island, 3 (100-249); Connecticut, 15 (2,5004,999); Middle Atlantic-New York, 8 (1,000-2,499); New Jersey, 12 (500-999); Pennsylvania, 12 (1,000-2,499); East North Central-Ohio, 5 (1,0002,499); Indiana, 1 (20-99); Illinois, 1 (1-19); Michigan, 8 (1,000-2,499); Wisconsin, 2 (100-249); West North Central-Minnesota, 2 (20-99); South Atlantic-West Virginia-1 (1-19); East South Central-Tennessee, 1 (20-99); Mountain-Montana, 1 (100-249); Pacific-California, 3 (250-499);
SIC 3352, Aluminum Rolling and Drawing: New England-New Hampshire, 1 (20-99); Massachusetts, 5 (100-249); Rhode Island, 1 (20-99); Connecticut, 4 (291); East North Central-Indiana, 11 (2,992); Wisconsin, 1 (100-249); West North Central-Iowa, 2 (2, 500-4, 999); Missouri, 2 (250-499); Nebraska, 1 (1-19); Kansas, 2 (20-99); South Atlantic-Maryland, 2 (500-999); Virginia, 6 (1,000-2,499); West Virginia, 2 (1,000-2,499); North Carolina, 4 (818); South Carolina, l (20-99); Georgia, 4 (835); Florida, 7 (488); East South Central-Kentucky, 7 (1,000-2,499); Tennessee, 3 (4,773); Alabama, 3 (3,221); Mississippi, 2 (100-249); West South Central-Arkansas, 2 (250-499); Texas, 5 (500-999); Mountain-Arizona, 4 (1,0002,499); Pacific-Washington, 4 ( $2,500-4,999$ ).
SIC 3356, Rolling and Drawing, N.E.C.: New England-Maine, 1 (100-249); Rhode Island, 5 (100-249); Connecticut, 6 (538); East North Central-Indiana, 6 (2,500-4,999); Wisconsin, 1 (1-19); South Atlantic-Virginia, 1 (1-19); West Virginia, 1 (1,000-2,499); North Carolina, 3 (150); Georgia, 3 (20-99); Fiorida, 2 (20-99); East South Central-Tennessee, 1 (1-19); Alabana, 1 (20-99); West South Central-0klahoma, 1 (20-99); Texas, 5 (100249); Mountain-Colorado, 1 (1-19); Arizona, l (1-19); Nevada, 1 (500-999); Pacific-California, 9 (250).

SIC 3357, Nonferrous Wire Drawings, Etc.: East North Central-Ohio, 9 (250-499); Michigan, 11 (1,000-2,499); West North Central-Minnesota, 1 (1-19); Iowa, 1 (100-249); Missouri, 5 (500-999); Nebraska, 2 (500-999); South Atlantic-Delaware, 1 (20-99); Maryland, 3 (2,601); West Virginia, 1 (1-19); North Carolina 3 (381); Georgia, 4 (359); Florida, 1 (100-249); East South Central-Kentucky, 1 (20-99); Ternessee, 1 (20-99); Alabama, 1 (1-19); West South Central-Oklahoma, 1 (1-19); Pacific—Washington, 2 (100-249); Oregon, 1 (1-19); Califormia, 35 (2,333).
SIC 3357-11, Wire drawing with rod mill: New England-Massachusetts, 1 (1,000-2,499); Rhode Island, 2 (500-999); Cornecticut, 2 (500-999); Middle Atlantic-New York, 2 (250-499); New Jersey, 4 (1,000-2,499); Pennsylvania, 4 (500-999); East North Central-Ohio, 1 (100-249); Illinois, 5 (1,0002,499); Michigan, 3 (500-999); West North Central-Missouri, 1 (250-499); Pacific-California, 1(1,000-2,499).
SIC 3357-12, Wire drawing with neither rod mill nor insulating department: New England-Massachusetts, 2 (250-499); Rhode Island, 1 (1-19); Connecticut, 5 (250-499); Midale Atlantic-New Jersey, 4 (500-999); Pennsylvania, 3 (250-499); East North Central-Illinois, 4 (100-249); Michigan, 1 (1-19); Wisconsin, 1 (250-499); West North Central-Iowa, 1 (100-249); South Atlantic-North Carolina, 1 (1-19); Georgia, 3 (100-249); East South Central-Kentucky, 1 (20-99); West South Central-Texas, 1 (1-19); Pacific-Washington, 1 (100-249); Califormia, 4 (100-249).
SIC 3357-13, Wire drawing without rod mill but with insulating department: New England-New Hampshire, 1 (20-99); Vermont, 2 (100-249); Massachusetts, 5 (2,500-4,999); Middle Atlantic-New Jersey, 9 (2,500-4,999); Pennsylvania, 4 (500-999); East North Central-Ohio, 1 (20-99); Indiana, 4 (2,5004,999); Michigan, 4 (1,000-2,499); West North Central-Nebraska, 1 (500-999); South Atlantic-Maryland, l (1,000-2,499); North Carolina, 1 (250499); Georgia, 1 (100-249); Florida, (100-249); West South Central-Texas, 1 (100-249); Pacific-California, 5 (500-999).

SIC $3357-14$, Establishnents without wire drawing department: New England-New Hampshire, a (250-499); Vermont, 1 (100-249); Rhode Island, 3 (500-999); Middle Atlantic-New York, 19 (500-999); Pernsylvania, 3 (250-499); East North Central-Ohio, 7 (100-249); Indiana, 4 (500-999); Michigan, 3 (100249); West North Central-Minnesota, 1 (1-19); Missouri, 4 (250-499); Nebraska, 1 (1-19); South Atlantic-Delaware, 1 (20-99); Maryland, 2 (250-499); West Virginia, 1 (1-19); North Carolina, 1 (20-99); East South Central-Tennessee, 1 (20-99); Alabama, 1 (1-19); West South Central-0klahoma, l (1-19); Texas, 3 (500-999); Pacific—Washington, 1 (100-249);.Oregon, 1 (1-19); California, 25 (1,000-2,499).
SIC 3361, Aluminum Castings: New England-New Hampshire, 3 (231); Rhode Island, 7 (20-99); West North Central-Nebraska, 3 (20-99); Kansas, 8 (100249); South Atlantic-Delaware, 2 (1-19); Virginia, 3 (100-249); Soutk. Carolina, 5 (20-99); Georgia, 13 (100-249); East South Central-Kentucky, 4 (250-499); Ternessee, 12 (20-99); Alabama, 4 (500-999); Mississippi, 1 (1-19); West South Central-Louisiana, 1 (1-19); Oklahoma, 6 (100-249); Mountain-Colorado, 10 (20-99); New Mexico, 2 (1-19); Arizona, 2 (1-19); Utah, 1 (1-19); Pacific-Washington, 5 (20-99).

## table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

## Footnotes for Table 2-33D-Continued

SIC 3362, Brass, Bronze, Copper Castings: New England—Maine, 3 (20-99); New Hampshire, 2 (100-249); Rhode Island, 6 (20-99); East North CentralIndiana, 20 (411); Wisconsin, 24 (1,056); West North Central-Minnesota, 6 (119); Iowa, 4 (20-99); Kansas, 3 (20-99); South Atlantic-Maryland, 3 (20-99); West Virginia, 5 (20-99); North Carolina, 2 (1-19); South Carolina, 1 (1-19); Georgia, 2 (20-99); Florida, 4 (20-99); East South Central-Kentucky, 1 (1-19); Tennessee, 1 (1-19); West South Central-Arkansas, 2 ( $500-999$ ); Louisiana, 2 (1-19); 0klahoma, 7 (20-99); MountainColorado, 5 (100-249); Arizona, 1 (1-19); Utah, 1 (20-99); Pacific-Washington, 8 (20-99); Oregon, 6 (20-99).
SIC 3369, Nonferrous Castings, N.E.C.: New England-New Hampshire, l (1-19); Vermont, l (1-19); Rhode Island, 8 (20-99); East North CentralIndiana, 5 (648); Wisconsin, 6 (286); West North Central-Minnesota, 7 (228); Iowa, 4 (320); South Atlantic-Delaware, l (l-19); Maryland, l (20-99); Virginia, 1 (1-19); West Virginia, 2 (20-99); North Carolina, 2 (20-99); East South Central-Tennessee, 4 (20-99); Alabama, 1 (1-19); Mississippi, 2 (1-19); West South Central-Louisiana, 1 (1-19); Oklahoma, 2 (20-99); Mountain-Colorado, 3 (1-19); Arizona, 1 (1-19); PacificWashington, 2 (1-19); Oregon, 2 (20-99).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958
report showed the number of establishments and total employment (either actual or in size ranges) for such States.
${ }^{3}$ See footnote 4 , table 1 for subindustry definitions.

## TABLE 3. Detailed Statistics: 1963

| Item | Copper rolling and drawing (SIC 3351) |  |  | Aluminum rolling and drawing (SIC 3352) |  |  | Rolling and drawing, n.e.c. (SIC 3356) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Establishments |  | Total | Establishments operated by-- |  |  |
|  |  | With casting department ${ }^{2}$ (3351-21) | Without casting department ${ }^{2}$ $(3351-22)$ |  | Primary (integrated) producers ${ }^{2}$ (3352.11) | $\begin{array}{\|c} \begin{array}{c} \text { Nonintegrated } \\ \text { producers } \end{array} \\ (3352-12 \text { and } \\ 3352-13) \\ \hline \end{array}$ |  |
| Primary product specialization ratio ${ }^{3}$. | . 90 | (NA) | (NA) | . 85 | (NA) | (NA) | . 84 |
| Coverage ratio ${ }^{4}$................... | . 91 | (NA) | (NA) | . 93 | (NA) | ( NA ) | 81 |
| Establishments, total....................................number.. | 112 | 36 | 76 | 212 | 44 | 167 | 125 |
| With 1 to 19 employees. . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 20 | - | 20 | 59 | 1 | 58 | 58 |
| With 20 to 99 employees. . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 28 | 2 | 26 | 74 | 6 | 68 | 35 |
| With 100 employees or more............................. .do | 64 | 34 | 30 | 79 | 37 | 42 | 32 |
| Proprietors and working partners........................do. | 3 | (NA) | (NA) | 24 | (NA) | (NA) | 26 |
| All employees (average for the year)...................d. do... | 38,949 | 25,752 | 13,197 | 54,263 | 40,183 | 14,080 | 17,375 |
| Payroll (all employees), total for year............... $\$ 1,000$. | 260,320 | 174,972 | 85,348 | 376,647 | 293,862 | 82,785 | 117,454 |
| Production workers: |  |  |  |  |  |  |  |
| Average for the year..................................number.. | 31,481 | 20,774 | 10,707 | 42,758 | 31,713 | 11,045 | 12,275 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do..... | 31,373 | 20,707 | 10,666 | 42,045 | 31,444 | 10,601 | 12,146 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 31,607 | 21,079 | 10,528 | 43,221 | 32,033 | 11,188 | 12,275 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. 1 .. | 31,914 | 21,099 | 10,815 | 43,280 | 31,848 | 11,432 | 12,564 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .du. 1 .. | 31,033 | 20,215 | 10,818 | 42,448 | 31,489 | 10,959 | 12,215 |
| Man-hours . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 65,746 | 43,765 | 21,981 | 89,867 | 66,472 | 23,396 | 25,367 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 16,575 | 11,080 | 5,495 | 21,860 | 16,457 | 5,403 | 6,391 |
| April-June.............................................. .do.... | 16,935 | 11,348 | 5,587 | 23,060 | 17,097 | 5,963 | 6,669 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.... | 15,982 | 10,688 | 5,294 | 22,485 | 16,365 | 6,120 | 6,119 |
| October-December........................................do.... | 16,254 | 10,649 | 5,605 | 22,463 | 16,553 | 5,910 | 6,188 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 200,171 | 135,769 | 64,402 | 278,469 | 221,720 | 56,749 | 74,052 |
| Cost of materials, etc., total...........................d. ${ }^{\text {do. }}$ | 1,188,548 | 687,401 | 501,147 | 1,524,841 | 1,199,955 | 324,886 | 405,011 |
| Materials, parts, containers, and supplies consumed..do.... | 1,120,641 | 652,927 | 467,714 | 1,414,580 | 1,112,676 | 301,904 | 368,372 |
| Cost of resales...........................................do.... . | 35,588 | 13,062 | 22,526 | 56,194 | 47,543 | 8,651 | 15,648 |
| Fuels consumed...........................................do.... | 11,353 | 8,095 | 3,258 | 20,581 | 17,138 | B,443 | 4,749 |
| Electric energy: |  |  |  |  |  |  |  |
| Purchased: <br> Quantity <br> million kw, -hr |  | 924 |  |  | 2,442 | 400 | 643 |
|  | 14,727 | 9,879 | 4,848 | 22,244 | 17,167 | 5,077 | 6,016 |
| Generated less sold......................million kw.-hrs. | 121 | (D) | (D) | (D) | (D) | (D) | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 6,239 | 3,438 | 2,801 | 11,242 | 5,434 | 5,808 | 10,226 |
| Value of shipments (including resales), total..........do.... |  |  |  |  |  |  |  |
| Value of resales........................................do.... | 36,884 | 14,216 | 22,668 | 61,306 | 51,410 | 9,896 | 18,026 |
| Value added by manufacture, adjusted....................d. ${ }^{\text {do. }}$ | 478,393 | 305,113 | 173,280 | 721,171 | 547,840 | 173,331 | 250,589 |
| Manufacturers' inventories: |  |  |  |  |  |  |  |
| Beginning of year, total................................d. ${ }^{\text {do. }}$ | 208,685 | 140,451 | 68,234 | 455,537 |  | 62,711 | 192,684 |
| Finished products......................................do. | 52,761 | 33,111 | 19,650 | 101,138 | 78,610 | 22,528 | 57,713 |
| Work-in-process........................................d. do. | 87,747 | 61,690 | 26,057 | 259,463 | 243,966 | 15,497 | 84,697 |
| Materials, supplies, fuel, etc........................do. | 68,177 | 45,650 | 22,527 | 94,936 | 70,250 | 24,686 | 50,274 |
| End of year, total..................................... do. | 218,431 | 150,220 | 68,211 | 511,902 | 427,225 | 84,677 | 205,905 |
|  | 58,449 | 36,950 | 21,499 | 120,801 | 90,977 | 29,824 | 61,827 |
| Work-in-process........... . . . . . . . . . . . . . . . . . . . . . . . . do. | 91,474 | 64,756 | 26,718 | 289,297 | 267,778 | 21,519 | 95,221 |
| Materials, supplies, fuel, etc........................do.. | 68,508 | 48,514 | 19,994 | 101,804 | 68,470 | 33,334 | 48,857 |
| Expenditures for plant and equipment, total............do.. | 44,944 | 27,944 | 17,000 | 87,386 | (D) | (D) | 22,668 |
| New, total........................................... . . . . .do.... | 43,462 | 26,965 | 16,497 | 81,282 | 64,735 | 16,547 | 22,154 |
| New structures and additions to plant...............d. ${ }^{\text {do.. }}$ | 2,776 | 1,319 | 1,457 | 10,985 | 7,960 | 3,025 | 3,367 |
| New machinery and equipment...........................do.. | 40,686 | 25,646 | 15,040 | 70,297 | 56,775 | 13,522 | 18,787 |
| Used plant and equipment............................... .do. | 1,482 | 979 | 503 | 6,104 | (D) | (D) | 514 |
| Selected operating ratios: |  |  |  |  |  |  |  |
| Payroll/Total employment.... | 6,684 | 6,795 | 6,467 | 6,941 | 7,313 | 5,880 | 6,760 |
| Production workers/Total employment. | . 81 | . 81 | . 81 | . 79 | . 79 | . 78 | . 71 |
| Man-hours/Production workers. | 2,088 | 2,107 | 2,053 | 2,102 | 2,096 | 2,118 | 2,067 |
| Production worker wages/Man-hours............................ | 3.04 | 3.10 | 2.93 | 3.10 | 3.34 | 2.43 | 2.92 |
| Cost of materials and payrolls/Total value of shipments.... | . 87 | . 87 | . 86 | . 87 | . 87 | . 84 | . 82 |
| Cost of materials/Total value of shipments. | . 72 | . 70 | . 74 | . 69 | . 70 | . 67 | . 63 |
| Adjusted value added/Total employment. | 12,164 | 11,848 | 13,130 | 13,289 | 13,634 | 12,310 | 14,422 |
| Salaries and wages/Adjusted value added | . 55 | . 57 | . 49 | . 52 | . 54 | . 48 | . 47 |

See footnotes at end of table.

## table 3. Detailed Statistics: 1963-Continued

| Item | Nonferrous wire drawing, etc. (SIC 3357) |  |  |  |  | Aluminum castings (SIC 3361) | Brass, bronze, copper castings (SIC 3362) | Nonferrous castings, п.e.c. (SIC 3369) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Wire drawing establishments Wire insulating establishments |  |  |  |  |  |  |
|  | Total | $\begin{aligned} & \text { With sod } \\ & \text { mill } \\ & (3357-11) \end{aligned}$ | Without rod mill or insulating (3357-12) | Wire wire drawing (3357-13) | With neither wire rod nor wire drawing (3357-14) |  |  |  |
| Primary product specialization ratio ${ }^{3}$. | . 91 | (NA) | (NA) | (NA) | (NA) | . 81 | . 84 | . 78 |
| Coverage ratio ${ }^{4}$. | . 86 | (NA) | (NA) | (NA) | (NA) | . 83 | . 78 | . 75 |
| Establishments, total.................................... number. . | 299 | 32 | 41 | 72 | 154 | 954 | 549 | 391 |
| With 1 to 19 employees................................. do. . . . | 72 | - | 11 | 2 | 59 | 633 | 356 | 226 |
| With 20 to 99 employees................................. . ${ }^{\text {do }}$ | 86 | 4 | 14 | 12 | 56 | 252 | 163 | 125 |
| With 100 employees or more.............................. . ${ }^{\text {do }}$ | 141 | 28 | 16 | 58 | 39 | 69 | 30 | 40 |
| Proprietors and working partners........................do. | 39 | (NA) | 4,359 | (NA) | (NA) | 481 | 239 | 143 |
| All employees (average for the year).....................do. | 56,418 | 9,258 | 4,359 | 30,347 | 12,454 | 36,216 | 15,341 | 17,686 |
| Payroll (all employees), total for year...............\$1,000.. | 339,935 | 57,042 | 27,807 | 187,718 | 67,368 | 222,771 | 86,350 | 102,929 |
| Production workers: |  |  |  |  |  |  |  |  |
| Average for the year..................................number.. | 43,905 | 7,537 | 3,524 | 23,241 | 9,603 | 30,746 | 12,835 | 14,845 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 43,579 | 7,597 | 3,498 | 23,033 | 9,451 | 30,621 | 12,775 | 14,572 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 44,721 | 7,424 | 3,445 | 24,252 | 9,595 | 30,732 | 12,883 | 14,608 |
| August........... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 43,446 | 7,602 | 3,566 | 22,645 | 9,633 | 30,536 | 13,039 | 14,815 |
|  | 43,876 | 7,524 | 3,586 | 23,035 | 9,731 | 31,095 | 12,643 | 15,385 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 90,368 | 15,672 | 7,382 | 47,731 | 19,583 | 63,432 | 26,052 | 30,320 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 22,922 | 3,970 | 1,889 | 12,204 | 4,859 | 16,011 | 6,373 | 7,491 |
| April-June........................................... . . . . do | 22,947 | 3,986 | 1,823 | 12,190 | 4,948 | 16,251 | 6,609 | 7,504 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 21,347 | 3,653 | 1,781 | 11,135 | 4,778 | 15,311 | 6,542 | 7,354 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 23,182 | 4,063 | 1,889 | 12,196 | 5,034 | 15,859 | 6,528 | 7,971 |
| Wages.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 240,904 | 43,801 | 19,624 | 132,664 | 44,815 | 174,155 | 65,095 | 78,447 |
| Cost of materials, etc., total...........................do. | 1,452,095 | 368,424 | 98,082 | 735,320 | 250,269 | 299,398 | 144,433 | 134,318 |
| Materials, parts, containers, and supplies consumed..do.... | 1,405,424 | 362,207 | 94,234 | 706,321 | 242,662 | 262,003 | 132,061 | 104,619 |
| Cost of resales.......................................... . do... | 16,547 | (D) | 1,558 | (D) | 3,515 | 4,224 | 2,926 | 3,503 |
| Fuels consumed. | 6,400 | 1,691 | 458 | 3,270 | 991 | 8,405 | 3,267 | 2,880 |
| Electric energy: |  |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |  |
| Quantity................................million kw. -hrs.. | \| 1,338 | 303 | 103 | 760 | 180 | 659 | 162 | 221 |
| Cost................................................ $\$ 1,000$. . | 15,996 | 3,550 | 1,165 | 8,880 | 2,401 | 7,080 | 2,658 | 3,416 |
| Generated less sold......................million kw.-hrs.. | (D) | - | - | (D) | - | (D) | - | - |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 7,728 | (D) | 677 | (D) | 700 | 17,686 | 3,521 | 19,900 |
| Value of shipments (including resales), total...........do.... Value of resales.......................................................... | $\begin{array}{r} 2,117,943 \\ 22,257 \end{array}$ | 498,611 | 147,864 2,176 | $1,083,475$ (D) | 387,993 5,509 | 640,193 5,629 | $\begin{array}{r} 287,534 \\ 3,616 \end{array}$ | 302,731 5,496 |
| Value added by manufacture, adjusted....................do. | 677,535 | 133,749 | 50,923 | 350,789 | 142,074 | 343,863 | 144,092 | 168,530 |
| Manufacturers' inventories: |  |  |  |  |  |  |  |  |
| Beginning of year, total.............................. ${ }^{\text {do. }}$ | 327,648 | 55,801 | 20,286 | 199,100 | 52,461 | 44,185 | 31,176 | 22,233 |
| Finished products...................................... ${ }^{\text {do }}$ | 123,459 | 22,931 | 5,654 | 74,718 | 20,156 | 7,013 | 7,779 | 4,808 |
| Work-in-process....................................... .do. | 115,999 | 18,558 | 7,235 | 75,787 | 14,419 | 15,199 | 11,417 | 8,791 |
| Materials, supplies, fuel, etc......................d. ${ }^{\text {do. }}$ | 88,190 | 14,312 | 7,397 | 48,595 | 17,886 | 21,973 | 11,980 | 8,634 |
| End of year, total.................... . . . . . . . . . . . . . .do. | 339,256 | 60,135 | 21,348 | 200,686 | 57,087 | 46,898 | 32,634 | 23,320 |
| Finished products................................ . . . . . do. | 138,665 | 24,929 | 6,451 | 81,639 | 25,646 | 7,796 | 8,090 | 5,227 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 112,580 | 20,122 | 7,679 | 71,500 | 13,279 | 17,484 | 12,097 | 8,489 |
| Materials, supplies, fuel, etc........................do. | 88,011 | 15,084 | 7,218 | 47,547 | 18,162 | 21,618 | 12,447 | 9,604 |
| Expenditures for plant and equipment, total...........do.. | 46,016 | 7,887 | 6,513 | 25,003 | 6,613 | 19,951 | 6,402 | 7,650 |
| New, total.............................................. do. | 44,478 | 7,643 | 6,447 | 24,064 | 6,324 | 18,374 | 5,394 | 6,803 |
| New structures and additions to plant..............do. | 10,085 | 1,409 | 1,490 | 6,347 | 839 | 3,272 | 1,507 | 1,501 |
| New machinery and equipment......................... . do | 34,393 | 6,234 | 4,957 | 17,717 | 5,485 | 15,102 | 3,887 | 5,302 |
| Used plant and equipment...............................do.... | 1,538 | 24.4 | 66 | 939 | 289 | 1,577 | 1,008 | 847 |
| Selected operating ratios: |  |  |  |  |  |  |  |  |
| Payroll/Total employment. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,025 | 6,161 | 6,378 | 6,186 | 5,409 | 6,151 | 5,629 | 5,820 |
| Production workers/Total employment. | . 78 | . 82 | . 81 | . 77 | . 77 | . 85 | . 84 | . 84 |
| Man-hours/Production workers. | 2,058 | 2,079 | 2,095 | 2,054 | 2,039 | 2,063 | 2,030 | 2,042 |
| Production worker wages/Man-hours | 2.67 | 2.79 | 2.66 | 2.78 | 2.29 | 2.75 | 2.50 | 2.59 |
| Cost of materials and payrolls/Total value of shipments | . 85 | . 85 | . 85 | . 85 | . 82 | . 82 | . 80 | . 78 |
| Cost of materials/Total value of shipments. | . 69 | . 74 | . 66 | . 68 | . 65 | . 47 | . 50 | . 44 |
| Adjusted value added/Total employment. | 12,009 | 14,447 | 11,682 | 11,559 | 11,408 | 9,395 | 9,393 | 9,529 |
| Salaries and wages/Adjusted value added. | . 50 | . 43 | . 55 | . 54 | . 47 | . 65 | . 60 | . 61 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
${ }^{1}$ See footnote 4, table 1 for subindustry definitions.
${ }^{2}$ See footnote 5, table 1 for subindustry definitions.
${ }^{3}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{4}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

|  | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item |  | 1 to 4 employees | 5 to 9 employees | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 1,000 \text { to } \\ & 2,499 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3351.-COPPER ROLLING AND DRAWING |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 112 | 9 | 4 | 7 | 15 | 13 | 18 | 21 | 11 | 14 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 38,949 | 40 | (D) | 85 | 507 | 994 | 2,881 | 7,315 | 7,811 | 19,316 | - |
| Payroll. . . . . . . . . . . . . . $\$ 1,000$. . | 260,320 | $\frac{284}{885}$ | (D) | 522 | 3,159 | 6,262 | 18,133 | 48,995 | 51,774 | 131,191 | - |
| Value added, adjusted.......do.... | 478,393 | 805 | (D) | 2,306 | 6,827 | 18,242 | 35,965 | 90,836 | 101,216 | 222,196 | - |
| Value of shipments..........d. do... Capital expenditures, new...do... | $1,657,526$ 43,462 | ${ }^{1} 1$ | (D) | 5,454 | 119,017 | 75,734 | 151,075 | 291,144 4,810 | 292,124 3,139 | 720,638 22,434 | - |
|  | Subindustry 3351-21.-Copper Rolling and Drawing-ESTABLISHMENTS WITH CASTING DEPARTMENT ${ }^{2}$ |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 36 | - | - | - | - | 2 | 5 | 8 | 10 | 11 | - |
| All employees: |  |  |  |  |  | 840 | (D) | 2,942 | 21,970 | (D) | - |
| Total........................................ | 25,752 174,972 | - | - | - | - | 5,371 | (D) | 20,134 | 1 $\frac{21,970}{49,467}$ | (D) | - |
| Value added, adjusted.......d..... | 305,113 | - |  | - | - | 11,693 | (D) | 30,276 | 263,144 |  |  |
| Value of shipments..........do.... | 985,609 | - | - | - | - | 3, 33,085 | (D) | 113,585 | 838,939 | (D) |  |
| Capital expenditures, new...do.... | 26,965 | - | - | - | - | $\underline{296}$ | (D) | 2,745 | 23,924 | (D) | - |
|  | Subindustry 3351-22.-Copper Rolling and Drawing-ESTABLISHMENTS WITHOUT CASTING DEPARTMENT ${ }^{2}$ |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 76 | 9 | 4 | 7 | 15 | 11 | 13 | 13 | 1 | 3 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................d. do... | 13,197 | 40 | (D) | 85 | 507 | 3,035 | (D) | 4,373 | 5,157 | (D) | - |
| Payroll.................. $\$ 1,000$. . | 85,343 | 288 | (D) | 522 | 3,159 | 19,024 | (D) | 28,861 | 33,498 | (D) |  |
| Value added, adjusted.......do.... | 173,280 | 805 | (D) | 2,306 | 6,827 | 42,514 | (D) | 60,560 | 60,268 | (D) |  |
| Value of shipments..........do. | 671,917 | 2,340 | (D) | 5,454 | 119,017 | 193,724 | (D) | 177,559 | 173,823 | (D) | - |
| Capital expenditures, new...do.... | 16,497 | ${ }^{1} 1 \frac{2,783}{2,783}$ | (D) | (D) | (D) | (D) | (D) | 2,065 | 1,649 | (D) | - |
|  | INDUSTRY 3352.-ALUMINMM ROLLING AND DRAWING |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number.. | 212 | 26 | 19 | 14 | 42 | 32 | 37 | 17 | 9 | 11 | 5 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 54,263 | 56 | 128 | 188 | 1,442 | 2,317 | 5,948 | 6,051 | 5,590 | 32,543 | (D) |
| Payroll. . . . . . . . . . . . . . $\$ 1,000$. . | 376,647 | 242 | 691 | 926 | 7,998 | 13,078 | 34,682 | 42,335 | 35,534 | 241,161 | (D) |
| Value added, adjusted.......do.... | 721,171 | 1,481 | 2,506 | 3,674 | 18,622 | 28,244 | 71,008 | 73,839 | 86,105 | 435,692 | (D) |
| Value of shipments..........do.... | 2,196,439 | 2,188 | 4,710 | 9,928 | 57,946 | 87,526 | 232,737 | 279,742 | 238,842 | 1,282,820 | (D) |
| Capital expenditures, new...do.... | 81,282 | ${ }^{3} 446$ | 87 | 191 | 2,112 | 2,768 | 4,866 | 9,247 | 7,834 | 53,731 | (D) |
|  | Subindustry 3352-11. Aluminum Rolling and Drawing-ESTABLISHMENTS OPERATED BY PRIMARY (INTEGRATED) PRODUCERS ${ }^{4}$ |  |  |  |  |  |  |  |  |  |  |
| Establishments............ number. . | 4 | 1 | - | - | 3 | 3 | 5 | 12 | 4 | 11 | 5 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 40,183 | 258 | - | - | (D) | (D) | 838 | 6,544 | (D) | 32,543 | (D) |
| Payroll. ................. \$1,000.. | 293,862 | 1,605 | - | - | (D) | (D) | 5,036 | 46,060 | (D) | 241,161 | (D) |
| Value added, adjusted.......do.... | 547,840 | 2,014 | - | - | (D) | (D) | 14,227 | 95,907 | (D) | 435,692 | (D) |
| Value of shipments..........do.... | 1,711,616 | 10,691 | - | - | (D) | (D) | 59,595 | 358,510 | (D) | 1,282,820 | (D) |
| Capital expenditures, new...do.... | 64,735 | ${ }^{3} \underline{936}$ | - | - | (D) | (D) | 639 | 9,429 | (D) | 53,731 | (D) |



See footnotes at end of table.

## table 4. Selected Statistics, by Employment Size of Establishments: 1963-Continued

| Item | Establish ments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & 1 \text { to } 4 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 10 \text { to } 19 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 20 \text { to } 49 \\ & \text { employees } \end{aligned}$ | $\begin{gathered} 50 \text { to } 99 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & \text { 2,500 } \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
| Establishments................. number. . <br> All employees: <br> Total. <br> Payroll. ................................................ <br> Value added, adjusted. $\qquad$ .do.. . <br> Value of shipments. $\qquad$ .do. . <br> Capital expenditures, new...do.... | INDUSTRY 3357.-NONFERROUS WIRE DRAWING, ETC. |  |  |  |  |  |  |  |  |  |  |
|  | 299 | 36 | 11 | 25 | 57 | 29 | 67 | 44 | 23 | 7 | - |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | 339,935 | $\frac{129}{729}$ | (D) | 1,690 | 11,066 | 10,119 | 60,783 | 92,114 | 98,839 | 64,595 | - |
|  | 677,525 | 1,429 | (D) | 4, 4, 30 | 26,366 | 18,926 | 127,438 | 183,139 | 201,503 | 114,304 |  |
|  | 2,117,943 | 3,584 | (D) | 10,378 | 79,744 | 64,800 | 398,430 | 640,801 | 591,892 | 328,314 |  |
|  | 44,478 | 133 | (D) | 230 | 1,450 | 2,227 | 8,052 | 8,821 | 10,987 | 12,578 |  |
|  | Subindustry 3357-11.-Nonferrous Wire Drawing, ete.-WIRE DRAWING ESTABLISFMENTS WITH ROD MILL |  |  |  |  |  |  |  |  |  |  |
| Establishments.......... . . . . number. <br> All employees: <br> Total. $\qquad$ .do... <br> Pay roll. <br> value added, adjusted....... <br> Value of shipments............do.. <br> Capital expenditures, new...do. | 32 | - |  |  | 2 | 2 | 16 | 7 | 4 | 1 |  |
|  | 9,258 |  |  |  | 189 | (D) | 2,508 | 2,683 | 3,878 | (D) |  |
|  | 57,042 | - | - | - | 1,155 | (D) | 14,768 | 17,639 | 23,480 | (D) |  |
|  | 133,749 | - |  | - | $\frac{1,505}{2,005}$ | (D) | 34,629 | 48,681 | 48,434 | (D) |  |
|  | 498,611 | - | - |  | 9,382 | (D) | 108,680 | 234,692 | 145,857 | (D) |  |
|  | 7,643 |  |  |  | 5 | (D) | 3,038 | 1,703 | 2,307 | (D) |  |
|  | Subindustry 3357-12.-Nonferrous wire Drawing, etc.-WIRE DRAWING ESTABLISFmENTS WITHOUT ROD MILL OR InSULATING |  |  |  |  |  |  |  |  |  |  |
|  | 41 | 3 | 3 | 5 | 6 | 8 | 12 | 3 | 1 | - | - |
|  | 4,359 | 21 | (D) | 274 | (D) | 539 | 1,791 | 1,734 | (D) | - |  |
|  | 27,807 | $1 \frac{21}{38}$ | (D) | ,618 | (D) | 2,873 | 11,054 | 12,124 | (D) |  |  |
|  | 50,923 | 301 | (D) | 3,418 | (D) | 7,286 | 18,828 | 21,090 | (D) |  |  |
|  | 147,864 6,447 | $\frac{638}{\underline{26}}$ | (D) | $\frac{10,777}{394}$ | (D) | $\begin{array}{r}\text { 21,595 } \\ \hline 924\end{array}$ | 75,142 1,155 | $\frac{39,712}{3,948}$ | (D) | - |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | Subindustry 3357-13.-Nonferrous Wire Drawing, etc.WIRE DRAWING ESTABLISHMENTS WITHOUT ROD MILL BUT WITH INSULATING |  |  |  |  |  |  |  |  |  |  |
| Establishments. $\qquad$ number.. <br> All employees: <br> Total. <br> Payroli. $\qquad$ ..do. . . <br> Value added, adjusted. .... <br> Value of shipments................... <br> Capital expenditures, new...do.... | 72 | - | - | 2 | 6 | 6 | 18 | 18 | 16 | 6 | - |
|  |  |  |  |  |  | (D) |  | 6,233 |  |  |  |
|  | 30,347 187,718 |  | - | 3, ${ }^{662}$ | (D) | (D) | 3,033 17,014 | 38,233 | $\frac{120,419}{28,417}$ |  |  |
|  | 350,789 |  | - | 6,431 | (D) | (D) | 37,973 | 58,552 | $\frac{247,833}{7}$ | (D) |  |
|  | 1,083,475 |  | - | 28,153 | (D) | (D) | 131,528 | 198,940 | 724,854 |  |  |
|  | 24,064 |  | - | 420 | (D) | (D) | 1,871 | 3,664 | 18,109 | (D) |  |
|  | Subindustry 3357-14.-Nonferrous Wire Drawing, etc.-WIRE INSULATING ESTABISFMENTS WTTH NEITHER ROD MILL NOR INSULATING |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Establishments.............. number. . <br> All employees: <br> Total. ..do.... <br> Payroll. $\qquad$ <br> alue added adjusted......\$1,000. <br> Value of shipments. $\qquad$ do. $\qquad$ <br> Capital expenditures, new...do.... | 54 | 33 | 8 | 18 | 43 | 13 | 21 | 16 | 2 | - | - |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | 67,368 | 591 | (D) | 1,204 | 8,253 | 4,438 | 17,947 | 34,935 | (D) | - |  |
|  | 142,074 | 1,131 | (D) | 3,457 | 20,061 | 7,061 | 36,008 | 74, 7 , 356 | (D) |  |  |
|  | 3,87,993 | 2,946 | (D) | 7,303 | 53,282 | 24,430 | 83,080 | 216,952 |  | - |  |
|  | 6,324 | 107 | (D) | 166 | 782 | 626 | 1,988 | 2,655 | (D) | - | - |
|  |  |  |  |  | IDUSTRY 3 | 361.-ALUM | INM CASTI |  |  |  |  |
| Establishments.............. number.. All employees: | 954 | 292 | 173 | 168 | 179 | 73 | 39 | 21 | 6 | 3 | - |
|  |  |  |  | 2,300 |  |  | 6,240 | 6,964 | 4,611 |  |  |
| Total................................. | 36,216 222,771 | 2,425 | 5,544 | 11,547 | 29,318 | 29,842 | 37,003 | 45,496 | 34,823 | 26,773 |  |
| Value added, adjusted.......do.... | 343,863 | 5,049 | 9,553 | 18,279 | 46,082 | 50,931 | 60,412 | 60,864 | 59,171 | 33,522 | - |
| Value of shipments..........d..... | 640,193 | 8,699 | 16,101 | 32,190 | 82,686 | 90,251 | 111,302 | 119,103 | 110,615 | 69,246 |  |
|  | 18,374 | 273 | 397 | 662 | 2,284 | 1,987 | 3,898 | 1,968 | 3,105 | 3,800 |  |
|  | INDUSTRY 3362.-BRASS, BRONZE, COPPER CASTINGS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............. number.. <br> All employees: | 549 | 119 | 97 | 140 | 128 | 352,289 | 213,029 | - $\begin{array}{r}8 \\ 3,334 \\ \hline\end{array}$ | 1 |  |  |
|  |  |  |  |  |  |  |  |  | (D) |  |  |
| Payroil................... $\$ 1,000 .$. | 86,350 | 1,192 | 3,280 | 9,851 | 20,625 | 12,977 | 17,695 | 20,730 | (D) |  |  |
| Value added, adjusted.......do.... | 144,092 | 2,327 | 5,451 | 15,189 | 32,403 | 23,396 | 30,915 | 34, 3 , 411 | (D) |  |  |
| Value of shipments..........do.... | 287,534 | 4,054 | 9,913 | 31,149 | 68,060 | 52,889 | 60,166 | 61,303 | (D) |  |  |
| Capital expenditures, new...do.... | 5,394 | 132 | 163 | 428 | 1,327 | 661 | 805 | 1,878 | (D) |  |  |

See footnotes at end of table.
tABLE 4. Selected Statistics, by Employment Size of Establishments: 1963-Continued

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & 1 \text { to } 4 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 1,000 \text { to } \\ & \text { 2,499 } \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & \text { 2,500 } \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3369.-NONFERROUS CASTINGS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments $\qquad$ number. . | 391 | 102 | 55 | 69 | 77 | 48 | 24 | 13 | 3 | - | - |
| Total...................... do.. | 17,686 | 164 | 392 | 976 | 2,573 | 3,388 | 3,902 | 6,291 | (D) | - | - |
| Payroll.................. \$1,000. . | 102,929 | 986 | 1,926 | 4,926 | 13,462 | 19,089 | 22,302 | 40,238 | (D) | - | - |
| Value added, adjusted.......do.... | 168,530 | 1,974 | 4,178 | 8,267 | 23,546 | 32,693 | 36,308 | 61,564 | (D) | - | - |
| Value of shipments..........do.... | 302,731 | 3,548 | 7,313 | 14,733 | 45,746 | 60,850 | 64,151 | 106,390 | (D) | - | - |
| Capital expenditures, new...do.... | 6,803 | 194 | 287 | 517 | 1,157 | 1,541 | 1,574 | 1,533 | (D) | - | - |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are insluded in the underscored figures at the left.
${ }_{2}^{1}$ Includes capital expenditures of approximately $\$ 5-\$ 10$ million for plants under construction but not in operation.
${ }^{2}$ See footnote 4 , table 1 for subindustry definitions.
${ }^{3}$ Includes capital expenditures of approximately $\$ 200-\$ 500$ thousand for plants under construction but not in operation.
${ }^{4}$ See footnote 5 , table 1 for subindustry definition.


# TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958 

An establishment is assigned to an industry based on the shipment values of products representing
the largest amount considered as primary to an industry. Frequently the establishment shipments
comprise mixtures of products assigned to an industry (primary products), those considered pri-
mary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product <br> ization <br> ratio <br> $\frac{\text { Col. B }}{\text { Col. B+C }}$ <br> (percent) | Total, made in ali industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> $\frac{\text { Col. B }}{\text { Col. F }}$ (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3351 | Copper rolling and drawing....... ${ }_{\text {1963... }}$ | $\begin{aligned} & 1,657,526 \\ & 1,209,926 \end{aligned}$ | $\begin{array}{r} 1,409,059 \\ 975,762 \end{array}$ | $\begin{aligned} & 154,432 \\ & 134,063 \end{aligned}$ | $\begin{array}{r} 94,035 \\ 100,101 \end{array}$ | 90 88 | $\begin{aligned} & 1,544,505 \\ & 1,034,397 \end{aligned}$ | $\begin{array}{r} 1,409,059 \\ 975,762 \end{array}$ | $\begin{gathered} 135,446 \\ 58,635 \end{gathered}$ | 91 94 |
| 3352 | Aluminum rolling and drawing..... ${ }_{\text {19563... }}$ | $\begin{aligned} & 2,196,439 \\ & 1,562,381 \end{aligned}$ | $\begin{aligned} & 1,758,267 \\ & 1,360,661 \end{aligned}$ | $\begin{array}{r} 303,751 \\ 131,338 \end{array}$ | $\begin{array}{r} 134,421 \\ 70,382 \end{array}$ | 85 | $\begin{aligned} & 1,898,885 \\ & 1,472,252 \end{aligned}$ | $\begin{aligned} & 1,758,267 \\ & 1,360,661 \end{aligned}$ | $\begin{aligned} & 140,618 \\ & 111,591 \end{aligned}$ | 193 192 |
| 3356 | Rolling and drawing, n.e.c......1963.. ${ }_{\text {1958.. }}$ | $\begin{aligned} & 640,962 \\ & 486,308 \end{aligned}$ | $\begin{aligned} & 511,329 \\ & 352,879 \end{aligned}$ | $\begin{array}{r} 99,471 \\ 105,163 \end{array}$ | $\begin{aligned} & 30,162 \\ & 28,266 \end{aligned}$ | $\begin{aligned} & 84 \\ & 77 \end{aligned}$ | $\begin{aligned} & 630,536 \\ & 428,210 \end{aligned}$ | $\begin{aligned} & 511,329 \\ & 352,879 \end{aligned}$ | $\begin{array}{r} 119,207 \\ 75,331 \end{array}$ | ${ }_{2}^{281}{ }_{28}$ |
| 3357 | Nonferrous wire drawing, ete......1963.. ${ }_{\text {1958.. }}$ | $\begin{aligned} & 2,117,943 \\ & 1,465,999 \end{aligned}$ | $\begin{aligned} & 1,885,334 \\ & 1,357,662 \end{aligned}$ | $\begin{array}{r} 176,272 \\ 69,735 \end{array}$ | $\begin{aligned} & 56,337 \\ & 38,602 \end{aligned}$ | $\begin{aligned} & 91 \\ & 95 \end{aligned}$ | $\begin{aligned} & 2,185,011 \\ & 1,634,961 \end{aligned}$ | $\begin{aligned} & 1,885,334 \\ & 1,357,662 \end{aligned}$ | $\begin{aligned} & 299,677 \\ & 277,29 \end{aligned}$ | 386 383 |
| 3361 | Aluminum castings............... $1963 .$. | $\begin{array}{r} 640,193 \\ 422,041 \end{array}$ | $\begin{aligned} & 504,783 \\ & 324,538 \end{aligned}$ | $\begin{array}{r} 121,685 \\ 86,497 \end{array}$ | $\begin{aligned} & 13,725 \\ & 11,006 \end{aligned}$ | $\begin{aligned} & 81 \\ & 79 \end{aligned}$ | $\begin{aligned} & 607,028 \\ & 399,605 \end{aligned}$ | $\begin{aligned} & 504,783 \\ & 324,538 \end{aligned}$ | $\begin{array}{r} 102,245 \\ 75,067 \end{array}$ | 83 81 |
| 3362 | Brass, bronze, copper castings... ${ }_{1958}{ }_{1963} .$. | $\begin{aligned} & 287,534 \\ & 220,955 \end{aligned}$ | $\begin{aligned} & 234,622 \\ & 180,459 \end{aligned}$ | $\begin{aligned} & 43,901 \\ & 33,052 \end{aligned}$ | $\begin{aligned} & 9,011 \\ & 7,464 \end{aligned}$ | $\begin{aligned} & 84 \\ & 85 \end{aligned}$ | $\begin{aligned} & 299,769 \\ & 222,755 \end{aligned}$ | $\begin{aligned} & 234,622 \\ & 180,459 \end{aligned}$ | $\begin{aligned} & 65,147 \\ & 42,296 \end{aligned}$ | 78 81 |
| 3369 | Nonferrous castings, n.e.c...... ${ }^{\text {19633.. }} 19$ | $\begin{aligned} & 302,731 \\ & 234,69 \end{aligned}$ | $\begin{aligned} & 229,121 \\ & 179,536 \end{aligned}$ | $\begin{aligned} & 64,434 \\ & 50,381 \\ & \hline \end{aligned}$ | $\begin{aligned} & 9,176 \\ & 4,732 \end{aligned}$ | $\begin{aligned} & 78 \\ & 78 \end{aligned}$ | $\begin{aligned} & 306,484 \\ & 233,236 \end{aligned}$ | $\begin{array}{r} 229,121 \\ 179,536 \\ \hline \end{array}$ | $\begin{aligned} & 77,363 \\ & 53,700 \end{aligned}$ | 75 <br> 77 |

Note: See Introduction for an explanation of terms used.
n.e.c. Not elsewhere classified.

Included in this industry is aluminum and aluminum-base alloy wire (including ACSR) which is also primary to industry 3357, Nonferrous Wire Drawing, Etc. A coverage ratio computed on the basis of including both industries to which aluminum and aluminum-base alloy wire (including ACSR) is primary, in 1963 would total 96 percent; 93 percent by industry 3352, and 3 percent by industry 3357. The remaining 4 percent was shipped by establishments in other industries. For 1958 the comparable percentages were: 96 percent; 92 percent by industry 3352 , and 4 percent by industry 3357 . The remaining 4 percent was shipped by establishments in other industries.
${ }^{2}$ Included in this industry is other nonferrous metal wire, which is also primary to industry 3357, Nonferrous Wire Drawing, Etc. A coverage ratio computed on the basis of including both industries to which nonferrous metal wire is primary in 1963 would total 85 percent; 81 percent by industry 3356, and 4 percent by industry 3357. The remaining 15 percent was shipped by establishments in other industries. For 1958 the comparable percentages were: 87 percent; 82 percent by industry 3356, and 5 percent by industry 3357. The remaining 13 percent was shipped by establishments in other industries.
${ }^{3}$ Included in this industry are aluminum and aluminum-base alloy wire (including ACSR), other nonferrous metal wire, nonferrous woven wire products, and appliance wire and cord and flexible cord sets which are also primary, respectively, to industries 3352, Aluminum Rolling and Drawing; 3356, Rolling and Drawing, Etc.; 3481, Fabricated Wire Products, N.E.C.; and 3699, Electrical Products,N.E.C. A coverage ratio computed on the basis of including the industries to which these products are primary in 1963 would total 94 percent; 76 percent by industry 3357 , and 8 percent by industries 3352 , 3356 , 3481, and 3699. The remaining 6 percent was shipped by establishments in other industries. For 1958 the comparable percentages were: 93 percent; 84 percent by industry 3357, and 9 percent by industries 3352, 3356, 3481, and 3699. The remaining 7 percent was shipped by establishments in other industries.

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousarids of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary nroducts). (b) products classified in other industries (secondary products). and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


[^101]
# TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 and 1958-Continued 



See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 and 1958-Continued

| $\begin{aligned} & \text { Prod. } \\ & \text { class } \\ & \text { code } \end{aligned}$ | Class of products and miscellaneous receipts |  |  | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Rolling and drawing, n.e.c. (SIC 3356) |  | Other industries |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 33560 | roliling and draving, n.e.c., industry-Continued <br> Listing of other industries with over $\$ 2$ million shipments of product class 33560: <br> 3312 Blast furnaces and steel mills. <br> 3315 Steel wire drawing, etc. <br> 3317 Steel pipe and tube. <br> 3323 Steel foundries. <br> 3339 Primary nonferrous metals, n.e.... <br> 3341 Secondary nonferrous metals. <br> 3351 Copper rolling and drawing. <br> 3352 Aluminum rolling and drawing. <br> 3545 Machine tool accessories. <br> 3661 Telephone; telegraph apparatus. <br> 3694 Engine electrical equipment. <br> 3871 Watches and clocks. |  |  |  | (X) (X) $(X)$ (X) (X) (X) (X) (X) (X) (X) (X) (X) (X) |  |  | 6,681 (over 2 ) $(2-5$ ) (over 2 ) $(5-12$ ) 16,507 18,776 9,692 (over 2 ) (over 2 ) (over 2 ) (over 2) |
|  | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Nonferrous wire drawing, etc. (SIC 3357) |  |  |  |  | Other industries |
|  |  |  | Total | Establishments with wire drawing department |  |  | Establishments without wire drawing department |  |
|  |  |  |  | $\begin{aligned} & \text { With rod } \\ & \text { mill } \end{aligned}$ | Without rod mill |  |  |  |
|  |  |  |  |  | $\begin{gathered} \text { Without } \\ \text { insulating } \\ \text { department } \end{gathered}$ | $\begin{gathered} \text { With } \\ \text { insulating } \\ \text { department } \end{gathered}$ |  |  |
|  | NONFERROUS WIRE DRANING, ETC., INDUSTRY Total shipments and receipts of the industry. Primary products. | $\begin{array}{r} (X) \\ 2,185,011 \end{array}$ | $\begin{aligned} & 2,117,943 \\ & 1,885,334 \end{aligned}$ | 498,611 381,774 | 147,864 125,077 | $\begin{aligned} & 1,083,475 \\ & 1,011,205 \end{aligned}$ | $\begin{gathered} 387,993 \\ 367,278 \end{gathered}$ | $(\mathrm{X})$ 299,677 |
| 33571 | Aluminum and aluminum-base alloy wire and cable (including ACSR). | ${ }^{6} 127,948$ | 66,365 | (D) | 24,435 | (D) |  | 661,583 |
| 33572 | Copper and copper-base alloy wire (including strand and cable) bare and tinned, for electrical transmission....... |  |  |  |  |  | (D) |  |
| 33573 | Other bare nonferrous metal wire............................ | 745,600 | 25,831 |  | 11,437 |  |  | ${ }^{7} 19,769$ |
| 33574 <br> 3575 | Communication wire and cable................... | 587,781 | 579,287 | 72,455 |  | 366,453 | 140,379 |  |
| 33575 | Nonferrous wire cloth and other woven wire produc | 87 9 9767487 | 21,231 |  | 21,231 |  |  | 8 849,256 |
| 33576 | Appliance wire and cord and flexible cord sets. | ${ }^{9} 167,664$ | 101,667 | 12,726 | (D) | 57,833 | (D) | 965,997 |
| 33577 33578 | Magnet wire............... | 258,308 | 216,427 | 94,674 |  |  |  |  |
| 33578 35579 | Power wire and cable................ | 218,810 454,071 | 216,363 425,740 | 17,593 |  | 172,279 259,426 | 26,491 | 2,447 28,331 |
| 33570 | Nonferrous wire drawing, etc., n.s.k. | 15,363 | 15,363 |  | (D) |  | 10,631 |  |
|  | Secondary products | (x) | 176,262 | 103,768 | 16,130 | 43,138 | 13,236 | (x) |
| 33155 | Steel wire not produced in steel mills. | (x) | (2-5) | (under 2) | (2-5) | (under 2) |  | (x) |
| 33511 | Copper and copper base alloy wire, bare and tinned for purposes other than electrical transmission................. | (x) | 8,708 | (over 2) | (2-5) | (under 2) | (under 2) | (x) |
| 33512 | Rolled, drawn, and extruded copper and copper-base alloy mill products. | (X) | (50-100) | (50-100) |  | (under 2) |  | (x) |
| 34815 | Nonferrous wire cloth and other woven nonferrous wire products, not made by wire drawers. |  |  |  | (over 2) |  |  | (X) |
| 36442 | Electrical conduit and conduit fittings...................... | (X) | (over 2) |  |  | (over 2) | (under 2) | (x) |
| 36612 | Other telephone and telegraph (wire) apparatus, equipment and components. | (x) | (over 2) |  |  | (over 2) |  | (X) |
| 36621 | Comercial industrial and military electronic commication equipment (except broadcast equipment, space satelliteborne commuication equipment). | (x) | (over 2) |  |  |  | (over 2) | (X) |
| 36795 | Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks).. | (x) | (over 2) | (over 2) |  |  | (under 2) | (x) |
|  | Miscellaneous receipts | (x) | 56,337 | 13,069 | 6,657 | 29,132 | 7,479 | (x) |
|  | Contract work. <br> Resales. <br> Other miscellaneous receipts | $\begin{aligned} & (X) \\ & (X) \\ & (X) \\ & (X) \end{aligned}$ | $\begin{array}{r} 5,613 \\ 22,257 \\ 28,467 \end{array}$ | 4,919 8,150 | $\begin{array}{r} 265 \\ 2,176 \\ 4,216 \end{array}$ | 14,288 14,844 | $\begin{array}{r} 713 \\ 5,509 \\ 1,257 \end{array}$ | (X) (x) (x) |
|  | Listing of other industries with over $\$ 2$ million shipments of each primary product class: |  |  |  |  |  |  |  |
| 33571 | 3351 Copper rolling and drawing. | (x) | (x) | (x) | (x) | (x) | (X) | (over 2) |
| 33572 | 3351 Copper rolling and drawing... | (X) | ( X ( X ) | (X) | (X) |  |  | (over ${ }_{(2-5)}$ |
| 33573 | 3315 Steel wire drawing, etc.. | (X) | (X) | (X) | (x) | (x) | (X) | (over 2) |
| 33575 | 3442 Metal doors, sash, and trim. | (X) | (x) | (X) | (x) | (X) |  | (over 2) |
| 33576 | 3643 Current carrying devices. | (X) | (X) | (X) | (X) | (X) | (X) | 12,624 |
| 33577 | 3612 Transformers............ | (X) | (X) | (x) | (X) | (X) | (X) |  |
|  | 3621 3717 Motors and generators.. | (X) | (X) | (X) | (X) | $(\mathrm{X})$ | (X) | (over 2) <br> (over 2) |
| 33579 | 3352 Aluminum rolling and drawin | (X) | (x) | (x) | (x) | (X) |  |  |
|  | 3717 Motor vehicles and parts. | (X) | (X) | (X) | (X) | (X) |  | (over 2) |

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 and 1958-Continued

table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


See footnotes at end of table.

## table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



[^102]
## TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Receipts ${ }^{2}$ <br> (short tons) | Total shipments including interplant transfers ${ }^{2}$ |  | Commercial shipments |  | Interplant transfers |  | Produced and consumed in the same plant in the manufacture of other products | Shioments of products manufactured from materials owned by others <br> (short tons) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity <br> (short tons) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity <br> (short tons) | Value $(\$ 1,000)$ | Quantity <br> (short tons) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |  |  |
|  | COPPER ROLLING AND DRAWING (BRASS MILL SHAPES)-Continued | 1958--Continued |  |  |  |  |  |  |  |  |
| 3351- -- |  | (NA) | (NA) | 986,551 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 33512 -- | Copper mill shapes..................... |  |  |  |  |  |  |  |  |  |
| 3351211 | Rod, bar, and shapes.............. | 498,313 | 272,562 | 170,294 | 164,498 | 109,625 | 108,064 | 60,669 | $\left\}_{3}\right.$ | \{ $\left\{\begin{array}{r}262,420 \\ (\mathrm{D}) \\ 8,086\end{array}\right.$ |
| 3351213 | Flat products (sheet, strip, plate, etc.). | (D) | 64,911 | 64,421 | $\begin{array}{r} 60,783 \\ 210,694 \end{array}$ |  | $\begin{array}{r} 4,128 \\ 10,809 \end{array}$ | $\begin{aligned} & 2,315 \\ & 8,855 \end{aligned}$ |  |  |
| $\begin{aligned} & 3351216 \\ & 3351218 \end{aligned}$ | Pipe and tube, plumbing............. <br> Other pipe and tube. | \} 19,507 | 221,503 | 260,807 |  | 62,106 251,952 |  |  |  |  |
|  | Alloyed: |  |  |  |  |  |  |  | [3,131 |  |
| $\begin{array}{ll} 33512 & 32 \\ 33512 & 35 \end{array}$ | Rod, bar, and shapes................ Flat products (sheet, strip, | (NA) | 249,036 | 169,706 | 204,225 | 141,677 | 44,811 | 28,029 | (NA) | (NA) |
|  | plate), including military cups and disks. | (D) | 223,408 | 213,310 | 194,788 | 189,730 | 28,620 | 23,580 |  | (D) |
| $\begin{aligned} & 3351236 \\ & 3351238 \end{aligned}$ | Pipe and tube, plumbing............. Other pipe and tube................... | \} 11,697 | 82,599 | 104,979 | 79,908 | 102,378 | 2,691 | 2,601 |  | 4,241 |
| 3351200 | Copper mill shapes, n.s.k........... | (NA) | (NA) | 3,034 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 3352- -- | ALIMMINUM ROLLING AND DRAWING, TOTAL ${ }^{4}$................................... | (X) | (X) | 1,472,252 | (X) | (NA) | (X) | (NA) | (X) | (X) |
| $\begin{aligned} & 33521-- \\ & 33571-- \end{aligned}$ | Aluminum and aluminum-base alloy wire ) and cable (including ACSR)............. | (NA) | 131,130 | 100,921 | (NA) | (NA) | (NA) | (NA) | (NA) | (D) |
| 33521 -- | Made in aluminum rolling mills (industry 3352). Made in nonferrous wire drawing (industry 3357) and other industries. | (NA) | 55,440 | 46,896 | 53,460 | 44,625 | 1,980 | 2,271 | (NA) | (D) |
| 33571 -- |  | (NA) | 75,690 | 54,025 | 67,266 | 46,826 | 8,424 | 7,199 | (NA) | (D) |
| $\begin{aligned} & 3352111 \\ & 33571 \end{aligned}$ | $\left\{\begin{array}{l}\text { Bare wire conductor............... } \\ \text { Bare wire, other then conductor... }\end{array}\right.$ | (NA) | 17,776 | 13,395 | 9,479 | 6,346 | 8,297 | 7,049 | (NA) | (D) |
| $\begin{aligned} & 3352151 \\ & 3357151 \end{aligned}$ |  | (NA) | 20,746 | 25,134 | 18,639 | 22,713 | 2,107 | 2,421 | (NA) | - |
| $\begin{aligned} & 3352111 \\ & 3352151 \end{aligned}$ | Bare wire conductor............... <br> Bare wire, other than conductor. | (NA) | 14,087 | 17,372 | 12,107 | 15,101 | 1,980 | 2,271 | (NA) | (D) |
| $\begin{array}{ll} 3357111 \\ 3357151 \end{array}$ | Made in nonferrous wire drawing and other industries: <br> Bare wire conductor............... <br> Bare wire, other than conductor. <br> \} <br> Aluminum cable-steel reinforced (ACSR) and other bare aluminum $\qquad$ <br> Made in aluminum rolling mills.. Made in nonferrous wire drawing and other industries............. | ( NA ) | 24,435 | 21,157 | 16,011 | 13,958 | 8,424 | 7,199 | (NA) | (D) |
| $\begin{array}{ll} 33521 & 61 \\ 33571 & 81 \end{array}$ |  | (NA) | 5992,608 | 62,392 | (NA) | (NA) | (NA) | (NA) | (NA) | (D) |
| 3352161 |  | (NA) | 41,353 | 29,524 | (NA) | (NA) | (NA) | (NA) | (NA) | (D) |
| 3357181 |  | (NA) | 51,255 | 32,868 | (NA) | (NA) | (NA) | (NA) | (NA) | (D) |

TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

# table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 


table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

# table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | Value <br> ( 81.000 ) | Quantity | $\begin{aligned} & \text { Value } \\ & \text { (\$1.000) } \end{aligned}$ |
| 3362- -- | BRASS, BRONZE, COPPER CASTINGS, TOTAL. <br> Copper and copper-base alloy castings (except bearings and bushings): ${ }^{25}$ | ............... | (X) | 299,769 | (X) | 222,755 |
| 3362011 |  | Short tons.... | 139,296 | 191,952 | 116,359 | 148,270 |
| 3362031 | Permanent and semipermanent mold..................................... | ..do.......... | 7,225 | 13,912 | 3,584 | 7,301 |
| 3362041 3362051 | Die.............. | ...do | 3,236 (NA) | 7,383 | 1,117 234 | 2,533 3,754 |
| 3362061 | Other. | .do | 14,041 | 21,386 | 4,999 | 10,928 |
| 3362071 | Copper-base alloy bearings and bushings, nonmachined............... | ................. | (X) | 39,052 | (x) | 21,205 |
| 3362000 | Copper and copper-base alloy castings, n.s.k........................ | ................ | (X) | 22,071 | (X) | 28,764 |
| 3369- -- | NONFERROUS CASTINGS, N.E.C. TOTAL ${ }^{25}$. ............................ | ................ | (NA) | 306,484 | ( NA ) | 233,236 |
| 3369011 | Magnesium and magnesium-base alloy castings: Sand.......................................................... . ${ }^{\text {. }}$. | Short tons.... | 5,018 | 31,256 | 7,782 |  |
| 3369031 | Die.......................................................................... | Short tons.... | (NA) | 7,704 | (NA) | 4,532 |
| $3369033$ | Cast anodes . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | (NA) | 5,195 | (NA) | 4,577 |
|  | Other, including permanent and semipermanent....................... |  |  |  |  |  |
|  | Zinc and zinc-base alloy castings: |  |  |  |  |  |
| 3369051 | Die................................................................... | Short tons.... | $186,225$ | $201,857$ |  | $\begin{array}{r} 132,897 \\ 702 \end{array}$ |
| 3369061 | Other |  | (NA) | $4,518$ | (NA) | $702$ |
| 3369071. | Lead and lead-base alloy die castings.............................. |  | (NA) | 6,736 | (NA) | 3,737 |
| 3369098 | Other nonferrous metal castings, including die castings............ |  | (NA) | 35,511 | (NA) | 32,661 |
| 3369000 | Nonferrous castings, n.e.c., n.s.k................................... | . . . . . . . . . . . . | (X) | 13,707 | (X) | 9,777 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{\text {Represents }}$ receipts for nonferrous metal mills and nonferrous wire drawing establishments.
${ }^{2}$ Includes shipments of these products produced on a toll basis by others.
${ }^{3}$ Data are also shown in Current Industrial Reports Series BDSAF-84, "Shipments of Copper-Base Mill and Foundry Products." See table 6A-2.
${ }^{4}$ Data are also shown in Current Industrial Reports Series M33-2, "Aluminum Ingot and Mill Products." See table 6A-2.
${ }^{5}$ Data for ACSR and aluminum cable, bare, are also published monthly in Current Industrial Reports Series M33-2, "Aluminum Ingot and Mill Products." Net quantity of shipments as reported in this series for the year 1963 and 1958 totaled 136,127, and 87,424 short tons, respectively. However, these quantities represent aluminum content only. The 149,100 short tons and 92,608 short tons reported in the census of manufactures for 1963 and 1958 , respectively, represent gross weight.
${ }^{6}$ Differs from quantity data published in Current Industrial Reports Series M33-2, "Aluminum Ingot and Mill Products," in that no data are included in the plain aluminum foil figures for that quantity of plain foil which is produced and converted in the same establishment. As shown in Current
Industrial Reports, net shipments of aluminum foil totaled 161 thousand short tons in 1963 and 100 thousand short tons in 1958.
${ }^{7}$ Represents aluminum ingot and aluminum extrusion billet made only by establishments classified in industry 3352, Aluminum Rolling and Drawing. Comparable shipments for plants classified in industries 3334, Primary Aluminum, and 3341, Secondary Nonferrous Metals, and other industries are as follows:

| Item | Total shipments |  | Other companies |  | Interplant transfers |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity (short tons) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | $\left\|\begin{array}{c} \text { Quantity } \\ \text { (short tons) } \end{array}\right\|$ | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity (short tons) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| Aluminum ingot: |  |  |  |  |  |  |
| Industry 3334. | 2,118,607 | 946,808 | 965,303 | 426,741 | 1,153,304 | 520,067 |
| Industry 3341. | 540,522 | 230,687 |  |  |  |  |
| All other industries | 9,573 | 8,185 | \} (NA) | (NA) | (NA) | (NA) |
| Aluminum extrusion billet: |  |  |  |  |  |  |
| Industry 3334....... | 272,092 | 122,798 | 193,561 | 86,244 | 78,531 | 36,554 |
| Industry 3341....... | \} 32,976 | 13,935 | 32,976 | 13,935 | - | - |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA)

## Not available. <br> (X) Not applicable.

The figures in the table above differ significantly from those published in the preliminary report for this industry, in that the latter report included the activities of other industries.
${ }^{8}$ Most of the aluminum ingot and billet (alloys) produced by aluminum rolling mills represent duplication of tonnages reported by the primary aluminum industry in that metal produced by the rolling mills is made from ingot produced in primary aluminum plants.
${ }^{9}$ Excludes an unspecified amount of ACSR produced on a toll basis. This tonnage is included in the Current Industrial Reports.
${ }^{10}$ Quantity figures are shown in terms of metal weight.
${ }^{11}$ Laminated foil made from purchased aluminum foil, totaled 8,113 short tons metal content valued at $\$ 17,497$ thousand.

# TABLE 6A-1.Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 

Footnotes for Table 6A-1.-33D--Continued

[^103]| Item | Total shipments |  | Other companies |  | Interplant transfers |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c\|} \hline \text { Quantity } \\ \text { (short tons) } \end{array}$ | $\begin{gathered} \text { Value } \\ (\$ 1,000) \\ \hline \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { Quantity } \\ \text { (short tons) } \\ \hline \end{array}$ | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { Quantity } \\ \text { (short tons) } \\ \hline \end{array}$ | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ |
| Aluminum-base alloys: |  |  |  |  |  |  |
| Industry 3334. | 508,189 | 260,838 | 156,525 | 82,463 | 351,664 | 178,375 |
| Industry 3341. | 311,359 | 140,471 | 302,036 | 135,745 | 9,323 | 4,726 |
| All other industrie | 10,704 | 4,647 | 10,704 | 4,647 | - | - |

> Standard Notes: - Represents zero. Not available. (X) Not applicable.
(D) Withheld to avoid disclosing figures for individual companies.
(NA)
${ }^{13}$ Data are also published in Current Industrial Series M33G, "Magnesiun Mill Products." See table 6A-2.
${ }^{14}$ Data are also published in Current Industrial Series BDSAF-263, "Titanium Ingot and Mill Products." See table 6A-2.
${ }^{15}$ Includes $\$ 25,831$ thousand produced in industry 3357, Nonferrous Wire Drawing, Etc.
${ }^{16}$ Includes $\$ 20,371$ thousand produced in industry 3357, Nonferrous Wire Drawing, Etc.
${ }^{17}$ For detailed data see products of industry 3352, above.
${ }^{18}$ Production, including toll production, for these products totaled as follows: unalloyed wire for electrical transmission, 378,853; strand and cable, 264,151.
${ }^{19}$ For detailed data see products of industry 3356, above.
${ }^{20}$ For 1958 , data for product code 3481519 , Nonferrous metal insect wire screening, other than copper and copper-base alloy, and aluminum, are included with product code 3481498 , Other wire cloth and woven wire products.
${ }^{21}$ This quantity was valued at $\$ 5,599$ thousand. The remaining $\$ 1,435$ thousand were reported without quantity.
${ }^{22}$ For 1958 , data for product code 3481400 , wire cloth and woven wire products, not specified by kind, include data for product code 3481500 , Nonferrous wire cloth and other nonferrous woven wire products, not specified by kind.
${ }^{23}$ of these totals, the following represents the value of shipments of insulated wire and cable transferred from one plant of a company to another plant of the same company:

| Product class <br> code | Thousand <br> dollars |
| :---: | :---: |
| 33574 | 17,831 |
| 33577 | 67,146 |
| 3378 | 5,458 |
| 33579 | 12,185 |

${ }^{24}$ In 1958, product codes 3357615 and 3699615 are combined with codes 3357613 and 3699613 , respectively.
${ }^{25}$ These data differ from the quantities published in Current Industrial Reports Series M33E, "Nonferrous Castings," in that no data are included for castings produced by captive foundry departments of plants classified in other industries. In addition, certain products are reported as castings in the monthly survey which in the census of manufactures are classified as finished products in other industries.

## TABLE 6A-2. Net Shipments of Selected Nonferrous Metal Rolled, Drawn, and Extruded Products: 1958 to 1963



See footnotes at end of table.

## TABLE 6A-2. Net Shipments of Selected Nonferrous Metal Rolled, Drawn, and Extruded Products: 1958 to 1963-Continued

| Product | 1963 | 1962 | 1961 | 1960 | 1959 | 1958 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Magnesium mill products ${ }^{1}$. | 12,403 | 11,557 | 10,640 | 10,328 | 11,085 | 9,351 |
| Titanium mill products ${ }^{1}$. | 6,112 | 6,521 | 135,147 | 135,071 | 133,211 | 132,594 |
| Sheet, plate and strip. | 1,235 | 1,227 | 1,124 | 1,021 | 934 | (X) |
| Forging and extrusion billet | 3,625 | 3,973 | 2,657 | 2,835 | 1,527 | 1,015 |
| Rod, bar, wire, and extrusions (other than tubing) ${ }^{14}$ | 1,162 | 1,140 | 1,094 | 1,215 | - 750 | 647 |

 mills in the production of fabricated products) by such mills.
${ }^{1}$ Source: These data are derived from the following Current Industrial Reports Series:

| Metal | Series | Title |
| :--- | :--- | :--- |
| Copper | BDSAF-84 | Copper-Base Mill and Foundry Products |
| Aluminum | M33-2 | Aluminum Ingot and Mill Products |
| Magnesium | M33G | Magnesium Mill Products |
| Titanium | BDSAF-263 | Titanium Ingot and Mill Products |

${ }^{2}$ Data represent metal weight, except for wire products, which are reported in copper content.
 and discing operation.
${ }^{4}$ Excludes electrical wire.
${ }^{5}$ Represents uninsulated, bare wire, tinned and/or alloy coated.
${ }^{6}$ Data represents aluminum and aluminum alloy content.
${ }^{7}$ For 1958-1961, nonheat-treatable plate is included with nonheat-treatable sheet.
${ }^{8}$ For 1958-1961, heat-treatable plate is included with heat-treatable sheet.
 alloys other than 2000 and 7000 series.
 in the 2000 and 7000 series.
${ }^{11}$ Includes a small amount of rolled structural shapes.
${ }^{12}$ Includes a small amount of heat-treatable welded tube.
 than 1 percent for total mill shapes and less than 3 percent for each specific shape.
${ }^{14}$ For 1958-1962 all extrusions are included with pipe and tubing.
table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

n.e.c. Not elsewhere classified.
${ }^{1}$ Adjusted to include aluminum ingot and aluminum extrusion billet made in aluminum rolling mills (product classes 33527 and 33528 ) which were not separately reported in the 1954-1958 pexiod.
${ }^{2}$ These indexes have been computed on a "wherever-made" basis-that is, they reflect the shipments of these products reported by establishments without regard to their plant specialization (industry classification).
${ }^{3}$ Adjusted to include product classes for which separate indexes are not shown due to lack of adequate quantity information (note particularly the omission of product classes 33574, 33576 and 33579).
table 6c. Product Classes-Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963

# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than \$1 million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.


# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued 

| Product class and geographic area | Value of shipments |  |  | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| APPLIANCE WIRE AND CORD AND FLEXIBLE CORD SETS PRODUCED IN ESTABLISHMENTS WHICH INSULATE WIRE AND CABLE ( 33576 AND 36996) Continued | $1963{ }^{1}$ | 1958 |  | $1963{ }^{1}$ | 1958 | COPPER AND COPPER-BASE ALLOY CASTINGS (33620)Continued | $1963{ }^{1}$ |  |
|  |  |  |  | $\begin{array}{r} 103,341 \\ 23,187 \\ 15,703 \end{array}$ | $\begin{array}{r} \left({ }^{(2)}\right) \\ 14,7{ }^{(2)} \\ \left({ }^{2}\right) \\ \left({ }^{2}\right) \\ 26,017 \end{array}$ | Middle Atlantic-Continued <br> New Jersey................... Pennsylvania | $\begin{aligned} & 10,966 \\ & 52,205 \end{aligned}$ |  |
| New England-Continued | $\begin{aligned} & 26,255 \\ & 29,082 \end{aligned}$ |  |  | $\begin{array}{r} 5,125 \\ 42,095 \\ 23,156 \end{array}$ |  | East North Central <br> Ohio. |  |  |
| Massachusetts. Fhode Island.. |  |  |  |  |  |  |  | 14,724 36,973 7,535 |
| Middle Atlantic <br> New York <br> New Jersey <br> Pennsylvania, | $\begin{array}{r} 30,874 \\ 20,728 \\ 4,797 \\ 5,349 \end{array}$ | 22,992 | ALUMINUM AND ALUMTNUM-BASE ALLOY CASTINGS (33610) |  |  | Indiana. <br> Illinois |  | 25,830 |
|  |  | $\begin{array}{r} 17,117 \\ 4,011 \\ 1,864 \end{array}$ |  |  |  | Michiga |  | 24,788 19,598 |
|  |  |  | United States, total... | 607,028 | 399,605 | Wiscons | 546 |  |
|  |  |  |  |  |  | West North Central......... |  |  |
| East North Central. Indiana. illinois Michigan. | $\begin{aligned} & 51,419 \\ & 17,756 \\ & 12,748 \end{aligned}$ | $\begin{array}{r} 30,237 \\ 8,804 \\ 11,627 \\ \left({ }^{2}\right) \end{array}$ |  | 25,0347,07915,133 | $\begin{array}{r} 19,289 \\ 6,097 \\ 12,120 \end{array}$ | Minnesota |  |  |
|  |  |  |  |  |  |  |  | 1,078 |
|  |  |  |  |  |  | Nebraska.................Kansas.............. | 1,7267,5331,116 |  |
|  | $\begin{aligned} & 12,748 \\ & 10,993 \end{aligned}$ |  | Midale Atlantic. | 107, 321 | 70,481 |  |  |  |
| West North Central. <br> South. <br> Pacific. | $\begin{aligned} & 3,651 \\ & 1,308 \\ & 6,471 \end{aligned}$ | $\begin{aligned} & 3,223 \\ & (2) \end{aligned}$1,716 | New Jersey................Pennsylvania.......... | $\begin{aligned} & 20,800 \\ & 28,703 \end{aligned}$ | $\begin{aligned} & 27,638 \\ & 15,338 \\ & 27,505 \end{aligned}$ | South Atlantic............... <br> West Virginia. | 4,613 |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  | East North Centra | 312,504 | 201,463 | East South ${ }_{\text {Alabama.. }}$ |  | 2,948 2,217 |
| MAGNET WIRE (33577) |  |  | Ohio.. | 134,590 51,532 | 81,569 17,971 | West South Central |  |  |
|  |  | 183,382 | mllinois | $\begin{aligned} & 4,055 \\ & 43,524 \end{aligned}$ | 45,262 | West South Central......... |  | $\begin{array}{r} 16,40 \div \\ 5,169 \end{array}$ |
| United States, total | 258,308 |  | Michigan |  |  |  |  |  |
| $\begin{aligned} & \text { New England...................... } \text {. } \\ & \text { Connecticut. . . . . . . . . } \end{aligned}$ | $\begin{array}{r} 20,133 \\ 9,784 \end{array}$ | $\begin{array}{r} 15,050 \\ 8,222 \end{array}$ | Wisconsin |  | 20,47328,894 | Mountain. . Colorado. |  | $\begin{aligned} & 1,616 \\ & 1,224 \end{aligned}$ |
|  |  |  | West North Central.......... |  |  |  |  |  |
| Middle Atlantic.............. <br> North Central and West....... <br> Indiana | 34,128 | ${ }^{34,207}{ }^{(2)}$ | Iowa. | 10,492 | 7,741 3,175 |  |  | 24,286 1,798 1,098 |
|  | $\begin{array}{r} 204,047 \\ 112,269 \\ 36,502 \end{array}$ |  | Missouri | 14,833 | 16,915 | Calif |  | 21,069 |
|  |  | $\begin{gathered} 79,785 \\ \left({ }^{(2)}\right) \end{gathered}$ | South Atlantic Maryland Georgia. Florida. | $\begin{aligned} & 7,350 \\ & 1,095 \\ & 2,063 \\ & 1,726 \end{aligned}$ | $\begin{gathered} 9,947 \\ \left(\begin{array}{c} 3 \\ 1,506 \\ (2) \end{array}\right. \end{gathered}$ | NONFERROUS CASTINGS, N.E. |  |  |
| Illinois.....................POWER WIRE AND CABLE (33578) |  |  |  |  |  |  | 19631 | 1958 |
|  |  |  |  |  |  | United States, tota | 306,4 | 233,236 |
| United States, total. | 218, | 194,761 | East South Central. Tennessee. | $\begin{array}{r} 40,148 \\ 1,377 \end{array}$ | $12,964)$ | New Ingland.................. | 12,8954,0467,175 | 8,6763,142 |
| New England. .... | 87,743 | $\begin{aligned} & 74,822 \\ & (2) \end{aligned}$ | West South Central. Arkansas. Oklahoma. Texas.. | $\begin{array}{r} 22,619 \\ 14,550 \\ 1,409 \\ 6,211 \end{array}$ |  |  |  |  |
| New Hampshire. | $\begin{aligned} & 1,956 \\ & 31,759 \\ & 28,284 \\ & 25,744 \end{aligned}$ |  |  |  |  | Connecticut.................... | 7,115 | 5,058 |
| Massachusetts............. Rhode Island.......... |  | $\begin{gathered} 32,142 \\ (2) \\ \left({ }^{2}\right) \end{gathered}$ |  |  | 7, $(2)$4,670 | Middle Atlantic <br> New York. <br> New Jersey <br> Pennsylvania | 60,47025,74119,26415,4651,45 | $\begin{aligned} & 50,964 \\ & 177579 \\ & 157888 \\ & 17,647 \end{aligned}$ |
| Connecticut. |  |  |  |  |  |  |  |  |
| Middle Atlantic. <br> New Jersey. | $\begin{aligned} & 95,107 \\ & 56,498 \end{aligned}$ | $\begin{aligned} & 95,127 \\ & 57,812 \end{aligned}$ |  | $\begin{aligned} & 4,259 \\ & 3,470 \end{aligned}$ | 1,169 |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  | Pacific. Washington Oregon. California | $\begin{array}{r} 54,639 \\ 1,601 \\ 2,736 \\ 5,732 \end{array}$ | $\begin{array}{r} 42,823 \\ 1,359 \\ 1,347 \\ 40,317 \end{array}$ | Ohio. <br> Indiana. <br> Illinois <br> Michigan <br> Wisconsin. | $\begin{array}{r} 175,271 \\ 39,48 \\ 12,312 \\ 47,38 \\ 68,94 \\ 7,132 \\ 7, \end{array}$ | 136,587 |
| North Centrai................. South and West................ | $\begin{aligned} & 23,210 \\ & 12,750 \end{aligned}$ | $\begin{aligned} & \left({ }^{(2)}\right) \\ & \left.()^{2}\right) \end{aligned}$ |  |  |  |  |  | $\begin{array}{r} 8,137 \\ 8,137 \\ 55,019 \\ 5,414 \\ 5,41 \end{array}$ |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| OTHER TNSULATED WIRE AND CABLE (33579) | $1963{ }^{1}$ |  | COPPER AND COPPER-BASE ALLOY CASTINGS (33620) United States, total.. |  | 40,117 |  |  |  |
|  | 454,071 |  |  | 299,769 | 222,755 |  | $\begin{array}{r} 15,319 \\ 5,466 \\ 7,082 \end{array}$ | 11,1852,2617,374 |
| United States, total. |  |  |  |  |  |  |  |  |  |
| New England..... Rhode Island. |  | 98,019 49,233 | United States, total... New England............. |  | 16,948 |  |  |  |
| Rhode Island. |  | 49,233 | New Hampshire | 2,378 | 2,011 |  | $\begin{aligned} & 9,553 \\ & 1,282 \\ & 3,978 \end{aligned}$ | 4,390$(Z)$3,163 |
| connecticut. |  |  | Massachuset |  | 8,499 |  |  |  |
| Middle Atlantic. |  | $\begin{array}{r} 182,335 \\ 96,806 \end{array}$ | Rhode Island................ | $\begin{array}{r} 1,378 \\ 11,366 \end{array}$ | (z) |  |  |  |
| New York..... |  |  |  |  | 5,297 |  |  |  |
| New Jersey |  | 70,612 | Midale Atlantic............. <br> New York. | $\begin{aligned} & 86,273 \\ & 23,102 \end{aligned}$ | $\begin{aligned} & 68,135 \\ & 25,105 \end{aligned}$ | West. California | $\begin{aligned} & 32,976 \\ & 30,758 \end{aligned}$ | 21,434 |
| Pennsylvania........... |  | 14,917 |  |  |  |  |  |  |

## Standard Notes: - Represents cero. <br> (D) Withheld to avoid disclosing figures for individual companies. <br> (NA) Not available. <br> (X) Not

## applicable. (Z) Less than $\$ 1$ million reported. n.e.c. Not elsewhere classified.

${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed, but the exact figures are withheld to avoid disclosure of individual company figures: 33511, Massachusetts, Rhode Island, Indiana, Illinois, and Wisconsin; 33512 , Massachusetts, Phode Island, Ohio, Wisconsin, Missouri, Maryland, Alabama, and Montana; 33520, New York, Pennsylvania, Ohio, and Michigan; 33521 and 33571 , Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Illinois, Michigan, Iowa, Georgia, Tennessee, Alabama, Montana, Washington, and California; 33522, Connecticut, New Jersey, Pennsylvania, Ohio, Indiana, Michigan, Wisconsin, Iowa, Missouri, Marylana, West Virginia, Kentucky, Tennessee, Alabama, Washington, and California; 33525, Connecticut, Missouri, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Alabama, Mississippi, Arkansas, Texas, Arizona, Washington, and California; 33526, Rhode Island, Connecticut, New York, New Jersey, Ohio, Indiana, Missouri, Maryland, Virginia, Tennessee, Alabama, Texas, Arizona, Washington, and California; 33560, Maine, Vermont, Rhode Island, Indiana, Michigan, West Virginia, North Carolina, Georgia, Alabama, Oklahoma, Texas, Nevada, and California; 33572, Massachusetts, Phode Island, New York, Ohio, Indiana, Michigan, Missouri, Georgia, and California; 33574, New Hampshire, Vermont, Indiana, Michigan, Nebraska, Maryland, North Carolina, Florida, Texas, and California; 33575 and 34815, Connecticut, New York, Pennsylvania, Ohio, Wisconsin, Missouri, Georgia, Alabama, Mississippi, and California; 33576 and 36996, Connecticut, Ohio, and Missouri; 33577, Vermont, Massachusetts, Rhode Island, New York, Ohio, Michigan, Missouri, and California; 33578, New York, Pennsylvania, Ohio, Indiana, Illinois, Missouri, Maryland, Alabama, and California; 33579, Massachusetts, Ohio, Indiana, Missouri, Maryland, West Virginia, North Carolina, Georgia, Tennessee, Texas, Washington, and California; 33610, New Hampshire, Nebraska, Kansas, South Carolina, Kentucky, Alabama, and Mississippi; 33620, Arkansas, Oklahoma, and Washington; 33690, Rhode Island, Iowa, and Oregon.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported, but exact figures are withheld to avoid disclosure of individual company figures.

## table 7A. Materials by Kind: 1963 and 1958



## TABLE 7A. Materials by Kind: 1963 and 1958-Continued



## table 7A. Materials by Kind: 1963 and 1958-Continued



See footnotes at end of table.

## TABLE 7A. Materials by Kind: 1963 and 1958-Continued



Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

 etc. As table 6A shows, unalloyed copper rod and bar (product code 3351211 ) is by far the most important mill product produced on a toll basis. Relatively small quantities of aluminum and other nonferrous metals are produced on toll.
${ }^{2}$ See footnote 4, table 1 for subindustry definitions.
${ }^{3}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials con-
 "standard forms."

## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Copper rolling and drawing (SIC 3351) | Aluminum rolling and drawing (SIC 3352) | Rolling and drawing, n.e.c. (SIC 3356) | Nonferrous wire drawing, etc. (SIC 3357) | Aluminum castings (SIC 3361) | Brass, bronze, copper castings (SIC 3362) | Nonferrous casting, п.e.c. (SIC 3369) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000$. . | 25,536 | 38,791 | 10,363 | 21,730 | 15,327 | 6,558 | 6,408 |
| Total cost of purchased fuels...............................do. | 11,301 | 19,047 | 4,656 | 6,581 | 8,706 | 3,589 | 3,115 |
| Bituminous coal, lignite, and anthracite: Quantity.......................................... 1,000 short tons. Cost. $\qquad$ .....\$1,000. | $\begin{array}{r} 260 \\ 1,674 \end{array}$ | $\begin{array}{r} 245 \\ 1,601 \end{array}$ | $\begin{array}{r} 38 \\ 233 \end{array}$ | $\begin{aligned} & 122 \\ & 1,005 \end{aligned}$ | 32 173 | $\binom{$ s }{ S } | 19 91 |
| Coke and breeze: <br> Quantity.............................................. . . 1,000 short tons.. <br> Cost. <br> . $1,000$. | $\begin{aligned} & (\mathrm{S}) \\ & (\mathrm{S}) \end{aligned}$ |  | 121 | - | (S) | (S) | (S) |
| Fuel oil (distillate and residual): Quantity..........................., 000 barrels of 42 gallons.. Cost. | $\begin{aligned} & 1,156 \\ & 3,355 \end{aligned}$ | 601 2,211 | 417 | $\begin{array}{r}964 \\ 2,734 \\ \hline\end{array}$ | $\begin{array}{r} 231 \\ 1,083 \end{array}$ | 204 | 116 457 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  | 3319 |  |
|  | 8,887 5,861 | $\begin{array}{r} 28,903 \\ 13,599 \end{array}$ | 6,380 3,528 | 3,640 2,310 | 10,935 6,564 | 3,319 2,258 | 3,435 2,203 |
| Other fuels. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.... | (s) | (S) | 338 | 532 | (S) | 239 | 268 |
| Electric energy: Purchased: |  |  |  |  |  |  |  |
| Quantity......................................million . kw. -hrs.. | 1,277 | 2,496 | 593 | 1,221 | 538 | 172 | 208 |
| Cost. ................................................... $\$ 1,000 .$. | 14,235 | 19,744 | 5,707 | 15,149 | 6,621 | 2,969 | 3,293 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . . . .million kw. -hrs.. | 220 | 7 | (s) | (s) | - | - | - |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total........1,000 hp.. | 992 | 2,007 | 315 | 629 | 211 | 119 | 97 |
| Prime movers, total........................................... . do. | 141 | 209 | 19 | 49 | 17 | 15 | 5 |
| Drj.ving generators. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 106 | 12 | 7 | 25 | 1 | 2 | 3 |
| Not driving generators.....................................d. ${ }^{\text {do... }}$ | 35 | 197 | 12 | 24 | 16 | 13 | 2 |
| Electric motors, total........................................ do.... | 948 | 1,802 | 298 | 580 | 194 | 105 | 92 |
| Driven by purchased energy.............................. do... | 851 | 1,797 | 296 | 580 | 194 | 105 | 92 |
| Aggregate horsepower per 100 production workers. | 3,061 | 4,690 | 2,438 | 1,346 | 645 | 813 | 734 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1992," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
(Z) Less than 500 horsepower. applicable.
$(S)$ Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


See footnotes at end of table.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued


See footnotes at end of table.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| $\begin{aligned} & \text { Industry } \\ & \text { or } \\ & \text { product } \\ & \text { class } \\ & \text { code } \\ & \hline \end{aligned}$ | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures,$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
|  | WIRE DRAWING ESTABLISHIENTS WITH NEITHER ROD MILI NOR InSULATING DEPARTIENT |  |  |  |  |  |  |  |  |  |  |
| 3357-12 | Entire subindustry........... Establishments with- | 41 | 4,359 | 27,807 | 3,524 | 7,382 | 19,624 | 50,923 | 98,082 | 147,864 | 6,312 |
|  | $90 \%$ or more specialization | 31 | 2,545 | 16,402 | 2,143 | 4,465 | 12,101 | 30,787 | 81,349 | 111,341 | 2,855 |
| 33571-12 | Aluminum and aluminum-base alloy wire and cable (including ACSR) (primary product class of estab.). | 5 | 450 | 3,257 | 337 | 707 | 2,092 | 6,508 | 26,883 | 32,277 | 1,174 |
| 33572-12 | Copper and copper-base alloy wire (including strand and cable) bare and tinned, for electrical transmission (primary product class of estab.)......... | 17 | 1,397 | 8,190 | 1,160 | 2,453 | 6,009 | 14,786 | 51,706 | 66,643 | 584 |
| 33573-12 | Other bare nonferrous metal wire (primary product class of estab.). | 7 | 863 | 6,345 | 582 | 1,135 | 3,834 | 11,357 | 6,538 | 17,813 | 3,076 |
| 33575-12 | Nonferrous wire cloth and other woven wire products (primary product class of estab.)......... Establishments with$90 \%$ or more specialization... | 8 4 | 1,493 623 | 9,306 | 1,308 | 2,790 | 7,177 | 16,014 | 9,987 | 26,091 | 1,441 |
| 3357-13 | WIRE DRAWING ESTABLISHMENTS WITHOUT ROD MILL BUT WITH INSULATING DEPARTMENT |  |  |  |  |  |  |  |  |  |  |
|  | Entire subindustry............. <br> Establishments with- | 72 | 30,347 | 187,718 | 23,241 | 47,731 | 132,664 | 350,789 | 735,320 | 1,083,475 | 24,064 |
|  | 90\% or more specialization. | 66 | 26,656 | 164,878 | 20,317 | 41,813 | 115,977 | 312,768 | 670,347 | 981,380 | 21,346 |
| 33574-13 | Commication wire and cable (primary product class of estab.). | 19 | 11,713 | 77,566 | 9,114 | 18,920 | 56,690 | 174,147 | 284,583 | 462,648 | 12,668 |
| 33577-13 | Magnet wire (primary product class of estab.). Establishments with- | 11 | 1,831 | 12,030 | 1,445 | 3,122 | 9,171 | 17,603 | 50,243 | 67,840 | 1,035 |
|  | 90\% or more specialization... | 7 | 1,020 | 6,575 | 787 | 1,673 | 4,873 | 9,242 | 29,639 | 38,974 | 693 |
| 33578-13 | Power wire and cable (primary product class of estab.)......... | 11 | 5,582 | 34,836 | 3,907 | 7,833 | 22,393 | 59,354 | 102,155 | 159,320 | 4,217 |
| 33579-13 | Other insulated wire and cable, n.e.c. (primary product |  |  |  |  |  |  |  |  |  |  |
|  | class of estab.).................... <br> Establishments with- | 21 | 7,956 | 45,225 | 6,156 | 12,848 | 31,151 | 75,456 | 224,459 | 298,836 | 4,169 |
|  | 90\% or more specialization... 75-89\% specialization......... | $\begin{aligned} & 7 \\ & 4 \end{aligned}$ | 1,277 1,330 | $\begin{aligned} & 6,224 \\ & 7,413 \end{aligned}$ | 1,129 983 | $\begin{aligned} & 2,369 \\ & 2,041 \end{aligned}$ | $\begin{aligned} & 5,029 \\ & 4,819 \end{aligned}$ | $\begin{array}{r} 18,176 \\ 9,791 \end{array}$ | $\begin{aligned} & 56,127 \\ & 45,264 \end{aligned}$ | 71,610 58,447 | $\begin{aligned} & 746 \\ & 437 \end{aligned}$ |
| 3357-14 | ESTABLISHMENTS WITHOUT WIRE DRAWING DEPARTMENT |  |  |  |  |  |  |  |  |  |  |
|  | Entire subindustry............. <br> Establishments with- | 154 | 12,454 | 67,368 | 9,603 | 19,583 | 44,815 | 142,074 | 250,269 | 387,993 | 6,330 |
|  | $90 \%$ or more specialization. 75-89\% specialization...... | $\begin{array}{r} 136 \\ 7 \end{array}$ | 11,132 470 | $\begin{array}{r} 58,621 \\ 3,535 \end{array}$ | $\begin{array}{r} 8,748 \\ 293 \end{array}$ | $\begin{array}{r} 17,756 \\ 588 \end{array}$ | $\begin{array}{r} 40,695 \\ 1,592 \end{array}$ | $\begin{array}{r} 123,376 \\ 7,858 \end{array}$ | $\begin{array}{r} 229,657 \\ 7,107 \end{array}$ | $\begin{array}{r} 348,617 \\ 14,607 \end{array}$ | $5,362$ |
| 33574-14 | Communication wire and cable (primary product class of estab.).................................... Establishments with- | 46 | 6,092 | 31,479 | 4, 677 | 9,175 | 20,310 | 68,985 | 100,149 | 169,287 | 3,419 |
|  | 90\% or more specialization.. | 27 | 2,756 | 14,303 | 2,113 | 4,349 | 9,386 | 35,596 | 54,993 | 89,529 | 1,604 |
| 33576-14 | Appliance wire and cord and flexible cord sets (primary product class of estab.)......... Establishments with- | 17 | 1,129 | 5,020 | 965 | 1,967 | 3,715 | 9,016 | 17,562 | 26,158 | 519 |
|  | 90\% or more specialization... | 13 | 970 | 4,281 | 821 | 1,613 | 3,105 | 7,566 | 14,867 | 21,922 | 417 |
| 33578-14 | Power wire and cable (primary product class of estab.)......... | 5 | 502 | 3,229 | 419 | 859 | 2,413 | 7,947 | 6,900 | 14,526 | 140 |

See footnotes at end of table.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3361 | ALUMINUM CASTINGS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. | 954 | 36,216 | 222,771 | 30,746 | 63,432 | 174,155 | 343,863 | 299,398 | 640,193 | 18,374 |
|  | Establishments with- <br> $90 \%$ or more specialization. <br> 75-89\% specialization....... | 643 93 | $\begin{array}{r} 16,125 \\ 6,657 \end{array}$ | $\begin{aligned} & 96,130 \\ & 46,547 \end{aligned}$ | $\begin{array}{r} 13,722 \\ 5,597 \end{array}$ | $\begin{aligned} & 28,440 \\ & 11,737 \end{aligned}$ | $\begin{aligned} & 75,600 \\ & 36,822 \end{aligned}$ | $\begin{array}{r} 150,848 \\ 61,678 \end{array}$ | $\begin{array}{r} 156,079 \\ 56,111 \end{array}$ | $\begin{aligned} & 305,691 \\ & 117,533 \end{aligned}$ | $\begin{aligned} & 8,815 \\ & 5,363 \end{aligned}$ |
| 3362 | BRASS, BRONZE, COPPER CASTINGS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.... | 549 | 15,341 | 86,350 | 12,835 | 26,052 | 65,095 | 144,092 | 144,433 | 287, 534 | 5,394 |
|  | $90 \%$ or more specialization. 75-89\% specialization...... | $\begin{array}{r} 306 \\ 81 \end{array}$ | $\begin{aligned} & 7,655 \\ & 1,954 \end{aligned}$ | $\begin{aligned} & 41,445 \\ & 10,759 \end{aligned}$ | $\begin{aligned} & 6,408 \\ & 1,622 \end{aligned}$ | $\begin{array}{r} 12,880 \\ 3,228 \end{array}$ | $\begin{array}{r} 31,822 \\ 8,018 \end{array}$ | 74,207 16,251 | 82,449 17,143 | 156,081 33,358 | 2,870 623 |
| 3369 | NONFERROUS CASTINGS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. | 391 | 17,686 | 102,929 | 14,845 | 30,320 | 78,447 | 168,530 | 134,318 | 302,731 | 6,803 |
|  | Establishments with$90 \%$ or more specialization. | $236$ | $6,568$ | 36,553 | 5,536 | $11,171$ | $27,582$ | $60,567$ | 50,016 | 110,447 | 2,691 |
|  | 75-89\% specialization...... |  |  | $26,582$ | 3,766 | 7,840 | 20,946 | $42,793$ | $31,666$ | $74,701$ | 1,677 |

[^104]
## TABLE 9A. Departmental Operations, by Subindustry: 1963



[^105]
## TABLE 9B. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
| Machine shop. <br> Foundry pattern shop............................................... | INDUSTRY 3361.-ALUNINUM CASTINGS |  |  |  |  |  |  |  |
|  | 124 97 | 41 66 | 60 24 | 23 7 | 2,207 679 | 68 126 | 597 190 | 1,542 |
|  | INDUSTRY 3362.-BRASS, BRONZE, COPPER CASTINGS |  |  |  |  |  |  |  |
| Machine shop. <br> Foundry pattern shop. | 93 64 | 34 52 | 4 | 15 | 1,4174 | 79 88 | 395 96 | ${ }^{973}$ |
|  | INDJSTHY 3369.-NONFERROUS CASTINGS, N.E.C. |  |  |  |  |  |  |  |
| Machine shop. | 66 18 | 35 10 | 20 7 | 11 1 | $\begin{aligned} & 690 \\ & 108 \end{aligned}$ | 68 23 | $\begin{aligned} & 189 \\ & (\mathrm{D}) \end{aligned}$ | $\begin{aligned} & 433 \\ & \text { (D) } \end{aligned}$ |

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

|  |  |
| :--- | :--- | ---: | ---: | ---: | ---: |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not pplicable. n.e.c. Not elsewhere classified.
${ }^{\text {These }}$ size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

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## FORGINGS AND MISCELLANEOUS PRIMARY METAL INDUSTRIES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3391-Iron and Steel Forgings<br>3392-Nonferrous Forgings<br>3399—Primary Metal Industries, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3391-IRON AND STEEL FORGINGS

This industry comprises establishments primarily engaged in manufacturing iron and steel forgings with or without the use of dies. These establishments generally operate on a job or order basis, manufacturing forgings for sale to others or for interplant transfer. Establishments which produce iron and steel forgings and which are also engaged in fabricating operations such as machining, assembling, etc., in manufacturing a specified product are classified in the industry of the specified product. Iron and steel forgings are made to a considerable extent by establishments classified in other industries that produce forgings for incorporation, in the same establishment, into such products as machinery, motor vehicles, etc. Steel rolling mills producing iron and steel forgings are classified in industry 3312, Blast Furnaces and Steel Mills. For a detailed list of products of industry 3391, refer to table 6A, product codes 3391111 to 3391943.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Iron and Steel Forgings Industry totaled $\$ 869$ million. This amount included shipments of iron and steel forgings (primary products) valued at $\$ 745$ million, shipments of other products (secondary products) valued at $\$ 88$ million, and miscellaneous receipts (mainly resales) at $\$ 36$ million.

This industry's shipments of iron and steel forgings represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 consisted mainly of nonferrous forgings ( $\$ 30$ million), and metal fittings and unions for piping systems (\$23 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 74 percent of the total industry shipments are represented by plants specializing in product class 33911 , Drop, upset, and press steel forgings (closed die).

Shipments of iron and steel forgings by this industry represented 69 percent of all shipments of these products ( $\$ 1,076$ million) by all industries. In 1958 the coverage ratio was 72 percent. Another industry shipping iron and steel forgings was industry 3312, Blast Furnaces and Steel Mills, $\$ 152$ million.

The production index for the primary products of the industry increased to 121 in 1963 from the 1958 level of 86 . The unit value index for 1963 was 129 compared to 125 in 1958. Both indexes were computed on a basis of $1954=100$.

Industry 3391 includes establishments in two main categories: those producing iron and steel forgings for sale to the trade (commercial forge shops), and those producing forgings for use by other plants of the same company (captive forge shops). A few plants in this industry produce forgings both for sale and for interplant transfer. In addition, forgings are also produced in forgings departments of establishments classified (on the basis of their final product) in other industries. In the 1963 Census of Manufactures, establishments in the fabricated metal product and machinery industries (Major Groups 34 to 37) having such "captive" forging departments (either ferrous or nonferrous) reported data on the approximate number of employees engaged in this activity as well as similar data for 13 other metal fabricating operations such as foundry, stamping, etc. These data are shown in table 9 of the reports covering the 4 -digit industries within these major groups and are summarized in Volume I, General Summary. Also, for those industries where the "captive" production of iron and steel forgings is of particular importance, the quantity of iron and steel forgings produced and consumed within such industries is shown in the materials consumed table in the reports covering these industries.

Materials consumed data, shown in table 7A of this report represent only those tonnages consumed by establishments classified in industry 3391, including consumption for secondary products. For this reason they cannot be related directly to the tonnages of forgings shown in table 6A which represent the total shipments of steel forgings, including those shipped by establishments classified in other industries.

Detailed figures on shipments of commercial steel forgings are collected on a monthly basis by the Bureau of the Census and published in Current Industrial Reports Series M33C, Commercial Steel Forgings. Footnote 2, table 6A, shows totals for the data collected in the monthly survey for 1963 and 1958. The monthly data are estimated industry totals derived from a canvass of large commercial forge shops only.

## 3392-NONFERROUS FORGINGS

This industry comprises establishments primarily engaged in manufacturing nonferrous forgings with or without the use of dies. These establishments generally operate on a job or order basis, manufacturing forgings for sale to others or for interplant transfer. Establishments which produce nonferrous forgings and which are also engaged in fabricating operations such as machining, assembling, etc., in manufacturing a specified product are classified in the industry of the specified product. Nonferrous forgings are made to a considerable extent by establishments classified in other industries that produce forgings for incorporation, in the same establishment, into such products as machinery, motor vehicles, etc. For a detailed list of products of industry 3392, refer to table 6A, product codes 3392011 to 3392098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Nonferrous Forgings lndustry totaled $\$ 165$ million. This amount included shipments of nonferrous forgings (primary products) valued at $\$ 108$ million, shipments of other products (secondary products) valued at $\$ 48$ million, and miscellaneous receipts (mainly scrap and salable refuse) at $\$ 9$ million.

This industry's shipments of nonferrous forgings represented 69 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 included drop, upset, and press steel forgings (closed die) ( $\$ 16$ million), and special dies and tools, die sets, jigs, and fixtures ( $\$ 6$ million).

Shipments of nonferrous forgings by this industry represented 55 percent of all shipments of these products ( $\$ 198$ million) by all industries. ln 1958 the coverage ratio was 60 percent. Other industries shipping nonferrous forgings consisted mainly of industry 3351, Copper Rolling and Drawing, $\$ 14$ million; and industry 3391, lron and Steel Forgings, \$30 million.

The production index for the primary products of the industry increased to 181 in 1963 from the 1958 level of 108 . The unit value index for 1963 was 107 compared to 120 in 1958. Both indexes were computed on a basis of $1954=100$.

Industry 3392 includes establishments in two main categories: those producing nonferrous forgings for sale to the trade (commercial forge shops), and those producing forgings for use by other plants of the same company (captive forge shops). In addition, a few plants in this industry produce forgings both for sale and for interplant transfer.

No data are available on nonferrous forgings which are produced and consumed within the same establishment in the manufacture of further fabricated products. In some instances, the fabricated product may require relatively little fabrication or processing beyond the rough forging stage. Nevertheless, establishments primarily engaged in producing such items are classified as fabricated product plants in the appropriate industry in Major Groups 34 to 37, Fabricated Metal Products, Machinery, and Transportation Equipment.

Industry 3392, Nonferrous Forgings (as defined in the 1957 edition of the Standard Industrial Classification Manual), was not treated as a separate industry in the 1954 Census of Manufactures, nor in the 1955-1957 Annual Surveys of Manufactures. For years prior to 1958, nonferrous forge shops were included in industry 3399, Primary Metal Industries, N.E.C. This industry also included establishments primarily engaged in either cold-rolling of steel sheet and strip, cold-finishing of steel bar, production of metal powders and paste, or annealing and heat treating of steel for the trade. General statistics data for plants specializing in the production of nonferrous forgings were published in table 8, Volume II, Part 2 of the 1954 Census of Manufactures. This is the source of the 1954 data published in table 1.

## 3399-PRIMARY METAL INDUSTRIES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing primary metal products, n.e.c., such as nonferrous nails, brads, and spikes; metal powder, flakes, and paste; and establishments primarily engaged in heat treating of metal for the trade. For a detailed list of products of industry 3399, refer to table 6A, product codes 3399111 to 3399611 .

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The change in composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due to the inclusion of those establishments primarily engaged in reclaiming metallics from slag.

Value of shipments and other receipts of the Primary Metal Industries, N.E.C., totaled $\$ 285$ million. This amount included shipments of primary metal industries, n.e.c. (primary products) valued at $\$ 234$ million, shipments of other products (secondary products) valued at $\$ 18$ million, and miscellaneous receipts (mainly for reclaiming metallics from slag) at $\$ 32$ million.

This industry's shipments of primary metals industries, n.e.c., represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent.

Shipments of primary metal industries, n.e.c., by this industry represented 87 percent of all shipments of these products ( $\$ 270$ million) by all industries. ln 1958 the coverage ratio was also 87 percent. Other industries shipping primary metal industries n.e.c., consisted mainly of industry 3356, Rolling and Drawing, N.E.C., $\$ 5.7$ million; and industry 3545, Machine Tool Accessories, $\$ 4.5$ million.

Industry 3399, by definition, includes establishments which fall into four significantly different categories: (1) those producing metal powders and paste; (2) those producing nonferrous nails, brads and spikes; (3) those annealing and heat treating metal for the trade; and (4) those reclaiming metallics from slag. Accordingly, the manufacturing plants included in this industry involve different processes depending upon the type of product produced or operation performed. Of the 754 establishments classified in this industry 69 establishments with 3,043 employees were primarily engaged in producing metal powders, flake and paste; 423 establishments with 8,961 employees were primarily engaged in such services as heat treating, annealing, etc. The remaining 262 establishments with employment totaling 2,952 were engaged in producing nonferrous nails, brads and spikes; reclaimed metallics from slag; or reported shipments of primary metal products, not specified by kind.

Industry 3399, Primary Metal Industries, N.E.C. (as defined in the 1957 edition of the Standard lndustrial Classification Manual) was not treated as a separate industry in the 1954 Census of Manufactures nor the 1955-1957 Annual Surveys of Manufactures. For years prior to 1958, establishments engaged in the production of metal powders and paste and those annealing and heat treating steel for the trade were included in industry 3399, Primary Metal Industries, N.E.C. However, industry 3399 also included establishments primarily engaged in either cold-rolling of steel sheet and strip, cold-finishing of steel bar or production of nonferrous forgings. Establishments producing nonferrous nails, brads and spikes were included, prior to 1958, in industry 3481, Nails and Spikes. Industry 3481 also included establishments producing ferrous nails and spikes.

General statistics data for plants specializing in the production of metal powder and paste and those annealing and heat treating metal for the trade were tabulated in the 1954 Census of Manufactures. The data for powder mills were published in table 8, Volume 11, Part 2, but the data for annealing and heat treating establishments were not published. The data for 1954 published in table 1 of this report are derived from the published and unpublished data described above. Establishments specializing in the production of nonferrous nails, brads and spikes, while not included in the 1954 figures, would not affect significantly the comparability of these data.


## table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3391.-IRON AND STEEL FORGINGS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{ll} 1963^{1} & 2 \\ 1962^{1} & 2 \\ 1961^{1} & 2 \\ 1960^{1} & 2 \\ 1959^{1} & 2 \\ 1958^{1} \end{array} .$ | 248 | 272 | 189 | 36,317 | 259,793 | 29,240 | 58,316 | 198,272 | 395,302 | 470,920 | 868,948 | 17,516 | 89 | 69 |
|  | (NA) | (NA) | (NA) | 40,901 | 282,125 | 32,953 | 66,018 | 214,110 | 456,510 | 484,015 | 928,755 | 14,594 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 39,469 | 257,878 | 31,309 | 60,748 | 189,484 | 380,308 | 414, 700 | 789,135 | 17,515 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 40,987 | 261,726 | 32,800 | 64,222 | 197,301 | 593,720 | 470,436 | 854,825 | 15,024 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 40,766 | 260,417 | 32,905 | 66,021 | 198,926 | 408,150 | 462, 263 | 873,343 | 13,099 | (NA) | (NA) |
|  | 287 | 302 | 190 | 37,739 | 220,542 | 30,154 | 56,699 | 164,054 | 315,928 | 359,672 | 687,270 | 14,268 | 86 | 72 |
| $1957{ }^{2}$ | (NA) | (NA) | (NA) | 42,140 | 254,059 | 35,076 | 69,051 | 196,403 | 396,674 | 473,959 | 879,111 | 21,568 | 85 | 75 |
| $1956{ }^{2}$ | (NA) | (NA) | (NA) | 42,132 | 251, 346 | 36,125 | 74,101 | 197,162 | 394,543 | 464,927 | 833,902 | 21,205 | (NA) | (NA) |
| $1955{ }^{2}$ | (NA) | (NA) | (NA) | 41,717 | 229,434 | 35,678 | 72,474 | 181,069 | 358,864 | 381,653 | 735,498 | 12,284 | (NA) | (NA) |
| 1954. | 247 | 259 | 182 | 39,771 | 201,938 | 33,012 | 65,120 | 155,311 | 294,112 | 297,612 | 603,228 | 15,862 | 88 | 73 |
| $1953{ }^{2}$ | (NA) | (NA) | (NA) | 55,947 | 289,382 | 47,838 | 99,448 | 233,227 | 447,919 | 455,814 | 903,733 | (NA) | (NA) | (NA) |
| 1952 | (NA) | (NA) | (NA) | 53,966 | 264,354 | 46,120 | 97,724 | 214,277 | 427,678 | 396,000 | 823,678 | (NA) | (NA) | (NA) |
| $1951{ }^{2}$ | (NA) | (NA) | (NA) | 51,648 | 240,309 | 44,764 | 95,479 | 196,268 | 399,332 | 380, 905 | 780,242 | (NA) | (NA) | (NA) |
| $1950{ }^{2}$ | (NA) | (NA) | (NA) | 39,481 | 166,303 | 34,201 | 69,487 | 133,044 | 262,232 | 266,543 | 528,775 | (NA) | (NA) | (NA) |
| $1949^{2}$ | (NA) | (NA) | (NA) | 36,487 | 138,552 | 31,089 | 59,855 | 108,405 | 208,280 | 208,135 | 416,415 | (NA) | (NA) | (NA) |
| 1947. | 240 | 250 | 179 | 36,724 | 128,198 | 32,384 | 66,469 | 105,776 | 197,111 | 172,986 | 370,097 | 9,230 | 95 | 77 |
| $1939{ }^{3}$ | (NA) | 192 | (NA) | (NA) | ( NA) | 14,764 | (NA) | 21,462 | 49,426 | 48,576 | 98,002 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 194 | (NA) | 20,235 | 33,797 | 18,255 | (NA) | 27,659 | 59,611 | 63,224 | 122,835 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 185 | (NA) | 13,857 | 19,302 | 12,253 | (NA) | 15,107 | 31,243 | 35,108 | 66,351 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 181 | (NA) | 9,137 | 9,655 | 7,953 | (NA) | 7,354 | 15,627 | 16,896 | 32,523 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 202 | (NA) | (NA) | (NA) | 9,971 | (NA) | 11,444 | 25,043 | 22,657 | 47,700 | (NA) | (NA) | (NA) |
| 1929 | (NA) | 218 | (NA) | 23,512 | 43,221 | 20,882 | (NA) | 34,505 | 84,642 | 71,607 | 156,249 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 219 | (NA) | 17,919 | 30,806 | 15,594 | (NA) | 23,540 | 52,934 | 52,102 | 105,036 | (NA) | (NA) | (NA) |
| 1925 | (NA) | 227 | (NA) | 23,202 | 39,202 | 20,483 | (NA) | 31,588 | 67,342 | 68,577 | 135,919 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 244 | (NA) | 31,415 | 50,268 | 27,723 | (NA) | 40,539 | 87,234 | 93,591 | 180,825 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 252 | (NA) | 20,173 | 29,946 | 16,947 |  | 20,950 | 39,792 | 45,291 | 85,083 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 261 | (NA) | 33,466 | 51,314 | 29,135 | (NA) | 40,603 | 93,558 | 83,561 | 177,119 | (NA) | (NA) | (NA) |
| 191 | (NA) | 213 | (NA) | 12,638 | 10,052 | 11,277 | (NA) | 7,850 | 15,447 | 15,300 | 30,747 | (NA) | (NA) | (NA) |
| 1909 | (NA) | 191 | (NA) | 9,456 | 6,568 | 8,461 | (NA) | 5,169 | 10,712 | 10,596 | 21,308 | (NA) | (NA) | (NA) |
| 1904 | (NA) | 146 | (NA) | 6,542 | 4,433 | 5,897 | (NA) | 3,555 | 6,901 | 6,008 | 12,909 | (NA) | (NA) | (NA) |
| 1899. | (NA) | 97 | (NA) | 5,259 | 3,123 | 4,919 | (NA) | 2,677 | 5,512 | 5,424 | 10,936 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3392.-NONFERROUS FORGINGS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1963{ }^{1}$ | 32 | 34 | 19 | 6,297 | 47,627 | 4,612 | 10,064 | 32,461 | 71,378 | 93,388 | 165,146 | 4,704 | 69 | 55 |
| $1962^{1} 2$ | (NA) | (NA) | (NA) | $(7,050)$ | $(48,990)$ | $(5,442)$ | $(11,092)$ | $(38,308)$ | $(78,054)$ | $(99,674)$ | $(175,262)$ | $(3,983)$ | (NA) | (NA) |
| $1961{ }^{1}{ }^{2}$ | (NA) | (NA) | (NA) | 5,429 | 39,985 | 4,083 | 8,435 | 30,392 | 47,247 | 79,186 | 124,628 | $(4,750)$ | (NA) | (NA) |
| $1960^{12}$ | (NA) | (NA) | (NA) | $(5,395)$ | $(38,393)$ | $(4,171)$ | $(7,785)$ | $(27,980)$ | $(43,213)$ | $(72,836)$ | $(116,573)$ | $(2,919)$ | (NA) | (NA) |
| $1959{ }^{12}$ | (NA) | (NA) | (NA) | $(4,685)$ | $(30,093)$ | $(3,620)$ | $(7,220)$ | (21,582) | $(37,918)$ | $(65,555)$ | $(103,539)$ | $(1,341)$ | (NA) | (NA) |
| $1958{ }^{1}$. | 26 | 28 | 19 | 4,649 | 27,806 | 3,476 | 6,761 | 19,383 | 36,760 | 58,080 | 98,694 | 2,033 | 85 | 60 |
| 19544.... | (NA) | 31 | (NA) | 5,418 | 25,324 | 4,242 | 8,682 | 18,982 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
|  | INDUSTRY 3399. - PRDMARY METAL INDUSTRIES, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1963{ }^{1} 5$ | 695 | 754 | 218 | 14,956 | 94,704 | 11,513 | 24,658 |  |  | 93,593 | 284,661 | 13,501 | ${ }^{93}$ | 87 |
| $1962^{1} 2$ | (NA) | (NA) | (NA) | 12,783 | 74,742 | 9,629 | 20,982 | 48, 023 | 143,749 | 85,076 | 231,657 | $(9,669)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 11,550 | 67,206 | 8,425 | 17,900 | 41,624 | 116,477 | 67,838 | 186,929 | (7,026) | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 10,488 | 59,658 | 7,997 | 17,085 | 39,462 | 104,435 | 57,926 | 164,562 | (5,790) | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 10,071 | 56,125 | 7,762 | 16,226 | 37,585 | 100,012 | 56,317 | 158,491 | 6,266 | (NA) | (NA) |
| $1958{ }^{1}$. | 567 | 581 | 149 | 9,795 | 52,717 | 7,359 | 14,813 | 35,088 | 90,656 | 50,095 | 141, 172 | 5,615 | 98 | 87 |
| $1954{ }^{4}$. | ( NA ) | 468 | (NA) | 8,957 | 39,406 | 6,946 | 14,594 | 26,569 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All enployees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustrnent is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero
(D) Withheld to avoid disclosure of individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.
$(S)$ Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

Includes data for Alaska and Hawaii.
${ }^{2}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
Figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{3}$ The figures for 1939 are not strictly comparable with those for earlier years. Value added by manufacture for 1939 on a basis comparable with earlier years was $\$ 52.9$ million.
${ }^{4}$ Industries 3392 and 3399 as defined for 1958 and later years, were not treated as separate industries prior to 1958 . See text for detailed discussion.
${ }^{5}$ The figures for 1963 are not strictly comparable with those for earlier years. Value added by manufacturers for 1963 on a basis comparable with earlier years was $\$ 176.8$ million.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{2}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted ( $\$ 1,000$ ) |
|  | Total (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{aligned} & \text { Man- } \\ & \text { hours } \\ & (1,000) \end{aligned}$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3391.-IRON AND STEEL FORGINGS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 272 | 189 | 36,317 | 259,793 | 29,240 | 58,316 | 198,272 | 395,302 | 470,920 | 868,948 | 17,516 | 37,739 | 315,928 |
| New England........ . Massachusetts.... | 1810 | 14 | $\begin{aligned} & 3,208 \\ & 2,702 \end{aligned}$ | $\begin{aligned} & 21,556 \\ & 18,434 \end{aligned}$ | 2,351 | 4,7883,972 | 14,93212,691 | 26,17520,640 | $\begin{aligned} & 27,648 \\ & 21,784 \end{aligned}$ | 54,13042,840 | 1,080804 | 3,7372,668 | $\begin{aligned} & 28,955 \\ & 21,298 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Middle Atlantic.... | 58 |  |  | 31,911 | 4,122 | 8,158 | 23,959 | 50,637 | 48,179 | 100,053 | 1,361 | 8,100 | 56,554 |
| New York......... | $16 \quad 12$ |  | 1,478 | 9,401 | 1,189 | 2,406 | 7,120 | 14,137 | 10,411 | 24,769 | 274 | 3,549 | 18,912 |
| New Jersey....... | 13 | 12 8 8 | 647 | 3,944 18,566 | 526 2,407 | 896 4,856 | 2,910 13,929 | 6,921 29,579 | 5,280 32,488 | 12,762 62,522 | 163 924 | 519 4,032 | 4,646 32,996 |
| Pennsylvania..... | 29 | 22 | 2,974 | 18,566 | 2,407 | 4,856 | 13,929 | 29,579 | 32,488 | 62,522 | 924 | 4,032 | 32,996 |
| East North Central. | 13044 | 9532 | 25,586 | 189,841 | 20,957 | 41,554 | 148,207 | 289,019 | 356,118 | 645,866 | 13,448 | 23,607 | 209,347 |
| Ohio............. |  |  | 6,5383,318 | 48,363 | 5,375 | 10,884 | 38,335 | 69,389 | 96,032 | 167,055 | 3,720 | 5,347 | 43,958 |
| Indiana. ......... | 8 | 6 |  | 23,210 | 2,834 | 5,716 | 19,073 | 38,330 | 47,067 | 82,752 | 1,171 | 2,863 | 24,313 |
| Illinois......... | $\begin{aligned} & 37 \\ & 34 \end{aligned}$ | 24 | 4,7515,096 | 36,358 | 3,868 | 7,436 | 27,180 | 58,088 | 76,421 | 134,257 | 2,119 | 4,647 | 44,852 |
| Michigan.......... |  | 27 |  | 39,664 | 4,347 | 8,943 | 31,441 | 62,467 | 82,385 | 145,706 | 2,239 | 4,352 | 40,913 |
| Wisconsin....... | 7 |  | $\begin{aligned} & 5,096 \\ & 5,883 \end{aligned}$ | 42,246 | 4,533 | 8,575 | 32,178 | 60,745 | 54,213 | 116,096 | 4,196 | 6,398 | 55,311 |
| West North Central. | 9 | - | 52 | 280 | 41 | 83 | 220 | 461 | 443 | 907 | 21 | 28 | 247 |
| South.............. | $\begin{aligned} & 29 \\ & 16 \end{aligned}$ | 19 | $\begin{array}{r} 1,179 \\ 724 \end{array}$ | 6,951 | 889 | 1,919 | 4,603 | 11,258 | 15,944 | 27,345 | 340 | 763 | 7,186 |
| Texas. |  |  |  | 4,418 | 533 | 1,177 | 2,977 | 7,838 | 9,020 | 16,963 | 186 | 421 | 4,516 |
| West..............California...... | $\begin{aligned} & 28 \\ & 25 \end{aligned}$ | $\begin{aligned} & 19 \\ & 17 \end{aligned}$ | $\begin{aligned} & 1,193 \\ & 1,114 \end{aligned}$ | 9,254 | 880 | 1,814 | 6,351 | 17,752 | 22,588 | 40,647 | 1,269 | 1,504 | 13,639 |
|  |  |  |  | 8,835 | 820 | 1,695 | 6,030 | 16,961 | 21,852 | 39,103 | 1,254 | 1,310 | 11,975 |
|  | INDUSTRY 3392. - NONFERROUS FORGINGS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 34 | 19 | 6,297 | 47,627 | 4,612 | 10,064 | 32,461 | 71,378 | 93,388 | 165,146 | 4,704 | 4,649 | 36,760 |
| Northeast. . | 11 | 7 | 1,881 | 14,457 | 1,442 | 3,048 | 10,013 | 21,982 | 24,304 | 47,081 | 789 | 1,845 | 16,090 |
| North Central and South. $\qquad$ | 14 | 6 | 3,625 | 26,993 | 2,590 | 5,761 | 18,193 | 39,690 | 56,037 | 95,431 | 3,122 | ( ${ }^{2}$ ) | ( ${ }^{2}$ ) |
| Pacific............. California....... | 9 | 6 <br> 6 | $\begin{aligned} & 791 \\ & 791 \end{aligned}$ | 6,177 | 580 | 1,255 | 4,255 | 9,706 | 13,047 | 22,634 | 793 | (2) | (2) |
|  |  |  |  | 6,177 | 580 | 1,255 | 4,255 | 9,706 | 13,047 | 22,634 | 793 | ${ }^{2}$ ) | ${ }^{2}$ ) |
|  | INDUSTRY 3399. - PRIMARY METAL INDUSTRIES, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 754 | 218 | 14,956 | 94,704 | 11,513 | 24,658 | 65,437 | 192,250 | 93,593 | 284,661 | 13,501 | 9,795 | 90,656 |
| New England........ | 7440 | 145 | 1,237479 | 7,499 | 878 | 1,837 | 4,865 | 15,165 | 6,667 | 20,528 | 1,170 |  | 5,031 |
| Connecticut...... |  |  |  | 3,048 | 333 | 720 | 1,836 | 7,462 | 3,598 | 11,051 | 618 | ( ${ }^{2}$ ) | ${ }^{(2)}$ |
| Middle Atlantic.... | 157 | 43 | 3,028 | 18,885 | 2,225 | 4,670 | 12,174 | 41,551 | 26,135 | 67,595 | 2,645 | 2,286 | 22,443 |
| New York......... | 56 | 16 | 884 | 5,237 | 684 | 1,395 | 3,601 | 10,047 | 3,875 | 13,868 | 980 | (2) | ${ }^{(2)}$ |
| New Jersey....... | 49 | 14 | 1,178 | 7,435 | 792 | 1,671 | 4,228 | 16,747 | 14,771 | 31,222 | 930 | 998 | 10,999 |
| Pennsylvania..... | 52 | 13 | 966 | 6,213 | 749 | 1,604 | 4,345 | 14,757 | 7,489 | 22,505 | 735 | $\left({ }^{2}\right)$ | ${ }^{2}$ ) |
| North Central and |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South.............. | 39418 | 136 | 8,809453 | 56,281 | 6,971 | 15,078 | 40,034 | 111,236 | 50,296 | 161,819 | 7,950 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Wisconsin....... |  |  |  | 2,842 | 361 | 759 | 1,943 | 5,535 | 1,334 | 6,881 | 266 | 283 | 2,367 |
| Minnesota... | 11 | 5 | 245 | 1,490 | 190 | 379 | 1,007 | 2,399 | 784 | 3,188 | 448 | 127 | 1,551 |
| West............ | $\begin{aligned} & 129 \\ & 109 \end{aligned}$ | $\begin{aligned} & 25 \\ & 22 \end{aligned}$ | 1,882 | 12,039 | 1,439 | 3,073 | 8,364 | 24,298 | 10,495 | 34,719 | 1,736 | $\left({ }^{2}\right)$ | ${ }^{2}$ ) |
| California. |  |  |  |  |  |  |  |  |  |  |  |  |  | Washington, 2 (20-99).

SIC 3392, Nonferrous Forgings: New England-Massachusetts, 1(1,000-2,499); Connecticut, 3 (250-499); Middle Atlantic-New Jersey, 2 (l-19);

## TABLE 3. Detailed Statistics: 1963



Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3391.-IRON AND STEEL FORGINGS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. | 272 | 32 | 20 | 31 | 65 | 43 | 46 | 22 | 8 | 4 |  |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.................... . . do.... | 36,317 | 56 | 133 | 419 | 2,753 | 3,155 | 7,207 | 7,369 | 5,116 | $\frac{10,109}{75.128}$ | (D) |
| Payroll.................. $\$ 1,000$. . | 259,793 | 360 | 773 | 2,477 | 18,687 | 23,220 | 50,373 | 51,940 | 36,835 | 75,128 | (D) |
| Value added, adjusted.......do.... | 395,302 | 696 | 1,528 | 4,148 | 27,489 | 41,629 | 82,390 | 74,656 | 53,194 | 109.572 | (D) |
| Value of shipments..........do.... | 868,948 | 1,274 | 2,617 | 8,363 | 66,810 | 87,523 | 175,981 | 175,902 | 114,518 | 235.960 | (D) |
| Capital expenditures, new...do... | 17,516 | 37 | 89 | 195 | 1,031 | 2,195 | 2,032 | 3,229 | 2,026 | 6,682 | (D) |
|  | INDUSTRY 3392.-NONFERROUS FORGINGS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. . number. . | 34 | 3 | 2 | 10 | 4 | 7 | 3 | 2 | - | 3 |  |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do.... | 6,297 | 19 | (D) | 136 | 115 | 571 |  | (D) | - | 4,207 |  |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 47,627 | 113 | (D) | 778 | 782 | 4,172 | , $\frac{9,332}{5,020}$ | (D) | - | 32,450 |  |
| Value added, adjusted.......do.... | 71,378 | 167 | (D) | 1,583 | 1,436 | 7,328 | $\frac{15.049}{33.208}$ | (D) | - | 45,815 |  |
| Value of shipments............do.... Capital expenditures, new...do.... | 165,146 | 451 | (D) | 2,909 | 2,581 | 17,548 | $\frac{33.288}{944}$ | (D) | - | 108,369 3,385 |  |
|  | 4,704 | 23 | (D) | 23 | 107 | 222 |  |  | - |  |  |
|  | INDUSTRY 3399.-PRIMARY NETAL INDUSTRIES, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments................ number. . All employees: | 754 | 209 | 151 | 176 | 152 | 46 | 18 | 2(D) | - | - |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 14,956 | 377 | 1,044 | 2,428 | 4,676 | 2,991 | 3,440 | (D) | - | - |  |
| Payroll.................. $\$ 1,000$. . | 14,704 | 2,394 | 6,521 | 14,327 | 30,226 | 18,650 | $\frac{22.586}{47,99}$ | (D) | - | - |  |
| Value added, adjusted.......do.... | 192,250 | 5,440 | 13,608 | 27,321 | 59,307 | 38,580 | 47.994 | (D) | - | - |  |
| Value of shipments..........do.... | 284,661 | 8,183 | 18,941 | 37,189 | 85,102 | 63,932 | 71,314 | (D) | - | - |  |
| Capital expenditures, new...do.... | 13,501 | 542 | 924 | 1,464 | 4,103 | 2,739 | 3,729 | (D) | - | - |  |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. $n$.e. Not elsewnere classified.


## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. <br> code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products <br> $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\qquad$ Col. B+C (percent) | Total, made in all industries <br> $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3391 | Iron and steel forgings............ $1963 .$. | $\begin{aligned} & 868,948 \\ & 687,270 \end{aligned}$ | $\begin{aligned} & 744,996 \\ & 570,851 \end{aligned}$ | $\begin{aligned} & 87,915 \\ & 89,658 \end{aligned}$ | $\begin{aligned} & 36,037 \\ & 26,761 \end{aligned}$ | $\begin{aligned} & 89 \\ & 86 \end{aligned}$ | $\begin{array}{r} 1,075,596 \\ 782,694 \end{array}$ | $\begin{aligned} & 744,996 \\ & 570,851 \end{aligned}$ | $\begin{aligned} & 330,600 \\ & 211,843 \end{aligned}$ | $\begin{array}{r} 169 \\ 72 \end{array}$ |
| 3392 | Nonferrous forgings.................... 1963. . | $\begin{array}{r} 165,146 \\ 98,694 \end{array}$ | $\begin{array}{r} 108,392 \\ 78,938 \end{array}$ | $\begin{aligned} & 47,773 \\ & 14,158 \end{aligned}$ | $\begin{aligned} & 8,981 \\ & 5,598 \end{aligned}$ | $\begin{aligned} & 69 \\ & 85 \end{aligned}$ | $\begin{aligned} & 198,416 \\ & 131,995 \end{aligned}$ | $\begin{array}{r} 108,392 \\ 78,938 \end{array}$ | $\begin{aligned} & 90,024 \\ & 53,057 \end{aligned}$ | 55 60 |
| 3399 | Primary metal industries, n.e.c...1963 ${ }^{2}$ 1958.. | $\begin{aligned} & 284,661 \\ & 141,172 \\ & \hline \end{aligned}$ | $\begin{aligned} & 234,392 \\ & 131,396 \end{aligned}$ | $\begin{array}{r} 18,252 \\ 1,782 \\ \hline \end{array}$ | $\begin{array}{r} 32,017 \\ 7,994 \end{array}$ | $\begin{aligned} & 93 \\ & 98 \end{aligned}$ | $\begin{aligned} & 270,496 \\ & 150,498 \end{aligned}$ | $\begin{array}{r} 234,392 \\ 131,396 \\ \hline \end{array}$ | $\begin{aligned} & 36,104 \\ & 19,102 \end{aligned}$ | 87 <br> 87 |

[^106]${ }^{1}$ Included in this industry are open die hammer and press forgings which are also primary to industry 3312, Blast Furnaces and Steel Mills. A
coverage ratio computed on the basis of including both industries to which open die hammer and press forgings are primary would total 80 percent;
69 percent by industry 3391 and 11 percent by industry 3312 . The remaining 20 percent was shipped by establishments in other industries.
${ }^{2}$ See footnote 5, table 1.
${ }^{3}$ Consists largely of receipts for reclaiming metallics from slag.

# table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 


#### Abstract

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millious of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products). (b) products classified in other industries (secondary products), and (c) miscellaneous


receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


[^107]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| $\begin{aligned} & \text { Product } \\ & \text { code } \end{aligned}$ | Product | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity (short tons) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity <br> (short tons) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ |
| 3391- -- | IRON AND STEEL FORGINGS, TOTAL. | (NA) | ${ }^{1} 1,075,596$ | (NA) | ${ }^{1782,694}$ |
| 33911 -- | Closed die (drop, upset and press) forgings ${ }^{2}$. | (x) | 764,822 | (x) | 535,319 |
| 33911 39911 311 |  | 993,880 566,993 | 393,835 324,560 | 705,486 364,424 | 273,609 206,756 |
| 33911 39911 51 |  | 566,993 8,515 | 324,560 34,819 | 364,424 9,622 | 206,756 38,548 |
| 3391100 | Drop, upset, and press steel forgings ${ }_{\text {a }}$ not specified by grade. | (X) | 11,608 | (X) | 16,406 |
| $\begin{aligned} & 33919-- \\ & 33129-- \end{aligned}$ |  | (X) | 294, 384 | (NA) | 234,641 |
| $\begin{aligned} & 33129-- \\ & 33919- \end{aligned}$ | Made in steel works (industry 3312)................................ Made in steel forgings (industry 3 391) and other industries........ | (NA) | 120,653 173,731 | 129,286 (NA) | $\begin{aligned} & 119,487 \\ & 1.15,154 \end{aligned}$ |
|  | Open die hammer forgings: |  |  |  |  |
| $\begin{aligned} & 33129 \\ & 33919 \\ & 21 \end{aligned}$ | \} Carbon steel. | 118,882 | 52,479 | ${ }^{3} 126,836$ | ${ }^{3} 59,174$ |
| $\begin{aligned} & 3312923 \\ & 3391922 \end{aligned}$ | ) Alloy steel (except stainless). | 52,006 | 58,534 | ${ }^{4} 138,291$ | 4152,249 |
| 3312923 | Made in industry 3312.. | 12,532 | 19,588 | 75,657 | 88,921 |
| 3391922 | Made in industry 3391 and other industries. | 39,474 | 38,946 | 62,634 | 63,328 |
| $\begin{aligned} & 3312925 \\ & 3391923 \end{aligned}$ | \} Stainless steel.. | 4,104 | 10,243 | 57,749 | 518,310 |
|  | Open die press forgings: |  |  |  |  |
| $\begin{aligned} & 3312961 \\ & 3391941 \end{aligned}$ | \} Carbon steel.. | 127,155 | 45,567 | (3) | ${ }^{(3)}$ |
| 3312961 | Made in industry 3312.................... | 21,336 | $11,144$ | $\left(^{3}\right)$ | (3) |
| 3391941 | Made in industry 3391 and other industries.. | 105,819 | $34,423$ | ( ) |  |
| 3312963 | Alloy steel (except stainless). | 129,982 | 101,076 | (4) | (4) |
| 33919 <br> 3129 <br> 123 | Made in industry 3312........ | 49,793 |  |  |  |
| 3391942 | Made in industry 3391 and other industries. | 80,189 | 48,575 | $\left({ }^{4}\right)$ | $\left.{ }^{4}\right)$ |
| $\begin{aligned} & 3312965 \\ & 3391965 \end{aligned}$ | Stainless steel. | 2,538 | 5,127 | (5) | (5) |
| $\begin{aligned} & 3312900 \\ & 3391900 \end{aligned}$ | \} Open die hammer and press forgings, not specified by grade.......... | (X) | 21,358 | (NA) | 4,908 |
| 3391000 | Iron and steel forgings, n.s.k. | (x) | 16,390 | (NA) | 12,734 |
| 3392--- | nonferrous forgings, total. | (X) | 198,416 | (x) | 131,995 |
| 3392011 | Copper and copper-base alloy. | 30,286 | 4, 864 | 10,002 | 14,325 |
|  | Aluminum and aluminum-base alloy: |  |  |  |  |
| 3392033 | Closed die.. | 34,774 | 89,775 | 22,055 | 68,188 |
| 3392035 | Open die.. | 5,317 | 9,660 | 3,305 | 5,993 |
| 3392051 | Magnesium and magnesium-base alloy. | 311 | 2,308 | (x) | ${ }^{(6)}$ |
| 3392061 | Titanium and titanium-base alloy | 2,220 | 33,047 |  |  |
| 33920 <br> 33920 <br> 00 | Other nonferrous metal forgings. Nonferrous forgings, n .s.k..... | (x) | 15,937 2,825 | (x) | 6,034 4,076 |
| 3392000 | Nonferrous forgings, n.s.k. | (x) | 2,825 | (X) | 4,076 |
| 3399-- | PRIMARY METAL INDUSTRIES, N.E.C., TOTAL. | (x) | 270,496 | (x) | 150,498 |
| 33991 -- | Metal powders and paste.. | (x) | 106,832 | (x) | 55,108 |
| 3399111 | Aluminum and aluminum-base alloy ${ }^{7}$ | ${ }^{8} 23,341$ | 24,901 | ${ }^{8} 13,867$ | 15,409 |
| 3399133 | Copper and copper-base alloy ${ }^{9}$. | 1125,548 | 26,408 | 1016,017 | 16,704 |
| 3399155 3399198 | Iron and steel.......... | 1159,889 | 15,773 37900 | (x) | 21,512 |
| 3399100 | Metal powders and paste, not specified by type | (X) | 1,850 | (x) | 1,483 |
| 33992 -- | Primary metal products, n.e.c | (x) | 11,248 | 1,953 | 2,051 |
| 3399211 | Nonferrous nails, brads, tacks, and staples........................... | 4,524 | 4,289 | 1,953 | 2,051 |
| $\begin{aligned} & 3399298 \\ & 3399200 \end{aligned}$ | Other primary metal proaucts, n.e.c................................................... <br> Primary metal products, n.e.c., n.s.k......................................... | (x) | 6,959 | (x) | - |
| 3399611 | Heat treating of metal for the trade (heat treating, pickling, |  |  |  |  |
| 3399000 |  | ( ${ }_{(x)}(\mathrm{x})$ | 140,288 12,128 | (X) | 85,258 8,081 |

Footnotes on next page.

# table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 

## Footnotes for Table 6A-33E

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Includes product class 33129, open die hammer and press forgings made in blast furnaces and steel mills.
${ }^{2}$ These figures are not strictly comparable with tonnage figures shown in Current Industrial Reports Series M33C, Commercial Steel Forgings, in that the latter include only forgings for sale, whereas the 1963 and 1958 Census of Manufactures also include interplant transfers of forgings. Accordingly, a direct comparison with the monthly Current Industrial Reports Series is not possible. Forgings produced and consumed are not included in either the cansus or the Current Industrial Reports figures. The annual totals in the monthly Current Industrial feports survey for comercial steel forgings were as follows:

| Item | $\begin{gathered} 1963 \\ \text { (short tons) } \end{gathered}$ | $\begin{gathered} 1958 \\ \text { (short tons) } \end{gathered}$ |
| :---: | :---: | :---: |
| Closed die (drop, upset and press) forgings: |  |  |
| Carbon. | 785,267 | 528,716 |
| Alloy, including stainless | 391,346 | 295,141 |
| Open die hammer and press forgings: |  |  |
| Carbon... | 156,074 | 92,096 |
| Alloy, including stainles | 219,936 | 163,480 |

${ }^{3}$ In 1958 product codes 3312921, 3391921, 3312961, and 3391941 were combined.
${ }^{4}$ In 1958 product codes 3312923, 3391922, 3312963, and 3391942 were combined.
${ }^{5}$ In 1958 product codes $3312925,3391923,3312965$, and 3391943 were combined.
${ }^{6}$ In 1958, magnesium and magnesium-base alloy forgings were included with "Other nonferrous forgings" (3392098).
7 Monthly figures are also shown in Current Industrial Reports Series M33-2, Aluminum Ingot and Mill Products.
${ }^{8}$ Represents aluminum content.
${ }^{9}$ Quarterly figures are also shown in Current Industrial Reports Series BDSAF-84, Shipments of Copper-Base Mill and Foundry Products.
${ }^{1}$ R Represents copper content.
${ }^{11}$ Represents iron content.
${ }^{12}$ Consists almost exclusively of receipts for work done on materials owned by others. Includes only work done by establishments classified in industry 3399.
table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 339-- | Primary metal industries, n.e.c. ${ }^{1}$..............1963.. ${ }^{\text {1958.. }}$ | 138 91 | 125 124 |
| 3391- | Iron and steel forgings............................... $1963 .$. | 121 86 | 129 125 |
| 33911 | Closed die (drop, upset and press) forgings.....1963.. | 109 83 | 130 125 |
| 33919 | Open die hammer and press forgings made in <br>  | 175 93 | 126 126 |
| 3392- | Nonferrous forgings.................................... $1963 .$. | 181 108 | 107 |
| 3399- | Primary metal industries, n.e.c.....................1963.. ${ }^{\text {1958.. }}$ | $\left(\begin{array}{l}1 \\ (1) \\ \hline\end{array}\right.$ | $(1)$ $(1)$ |
| 33991 | Metal powders and paste........................... 1963. 1958.. | 188 94 | 105 <br> 116 |

n.e.c. Not elsewhere classified.
$1_{\text {Adjusted to }}$ include products of industry 3399, for which separate indexes are not shown because comparable quantity data were not obtained for a significant portion of product classes 33992 and 33996.

TABLE 6C. Product Classes-Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963

| (In thousands of dollars) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Product class | 1963 | $1962{ }^{1}$ | $1961{ }^{1}$ | $1960^{1}$ | $1959{ }^{\text { }}$ | 1958 | 1954 | 1947 |
| 3391- | Iron and steel forgings ${ }^{2}$...................... | 1,075,596 | 1,036,185 | 869,450 | 959,776 | 951,022 | 782,694 | 704,624 | 439,560 |
| 33911 | Drop, upset and press steel forgings (closed die). | 764,822 | 776,185 | 628,665 | 708, 513 | 715,817 | 535,319 | 513,873 | 296,375 |
| 33919 | Open die or smith forgings ${ }^{2}$ (open frame hammer or press) (produced from purchased materials). | 294,384 | 260,000 | 240,785 | 251,763 | 235,205 | $\left\{\begin{array}{l}234,641\end{array}\right.$ | 188,323 | 296,375 127,984 |
| 33910 | Iron and steel forgings, n .s.k................. | 16,390 | 260,000 | 240,785 | 251,763 | 235,205 | $\left\{\begin{array}{l}234,641 \\ 12,734\end{array}\right.$ | 188,323 2,528 | 127,984 15,201 |
| 33920 | Nonferrous forgings. | 198,416 | 223,151 | 164,717 | 151,032 | 151,303 | -131,995 | 112,359 | 29,374 |
| 3399- | Primary metal industries, n.e.c............... | 270,496 | 228,104 | 191,341 | 184,392 | 178,422 | 150,498 | (NA) | (NA) |
| 33991 | Metal powders and paste.................. | 106,832 | 88,553 | 70,287 | 71,325 | 73,684 | 55,108 | 50,349 | 19,288 |
| 33992 | Other primary metal products, including nonferrous nails, brads, spikes, and staples. $\qquad$ | 11,248 |  |  |  |  | (2,051 | 5,429 | (NA) |
| 33996 | Heat treating of steel for the trade....... | 140, 288 | \} 139,551 | 121,054 | 113,067 | 104,738 | 85,258 | (NA) | (NA) |
| 33990 | Primary metal industries, n.e.c., n.s.k.... | 12,128 |  |  |  |  | 8,081 | 2,049 | (NA) |

Standard Notes: - Reoresents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
applicable. n. $\quad$ Not elsewhere classified.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
${ }^{2}$ Includes total for product class 33129 , Press and hammer steel forgings (made in steel mills), which is primary to industry 3312.

## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. (Z) Less than \$l million reported.



 Nevada.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

## table 7A. Materials by Kind: 1963 and 1958



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies,
(NA) Not available
(X) Not
applicable. n.s.k. Not specified by kind
${ }^{1}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."
${ }^{2}$ Comparable data are not available for 1958.

## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Iron and steel forgings (SIC 3391) | Nonferrous forgings (SIC 3392) | Primary metal industries, n.e.c. (SIC 3399) |
| :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy................................. $\$ 1,000 . .$. | 31,421 | 4,545 | 10,173 |
| Total cost of purchased fuels.......................................................do...... | 23,644 | 2,077 | 5,266 |
| Bituminous coal, lignite, and anthracite: | 488 | (S) |  |
|  | 3,447 | (S) | (S) |
| Coke and breeze: <br> Quantity. | (s) | - |  |
|  | (S) | - | (S) |
| Fuel oil (distillate and residual): <br> Quantity......................................................... 1,000 barrels of 42 gallons... | 2,440 | 78 | (s) |
| Cost.............................................................................. $\$ 1,000 . .$. | 9,832 | 257 | (S) |
| Gas (natural, manufactured, still, blast furnace, and coke oven): Quantity. $\qquad$ | 17,853 | 2,063 |  |
| Cost................................................................................ $\$ 1.000 . .$. | 9,758 | 1,447 | 4,235 |
| Other fuels.........................................................................do...... | (S) | (S) | 528 |
| Electric energy: |  |  |  |
| Furchased: |  |  |  |
| Quantity.................................................................................................. | 554 7 |  | 386 4 |
| Cost..................................................................................... $\$ 1,000 .$. | 7,777 | 2,468 | 4,907 |
| Generated less sold....................................................million kw.-hrs.. | 8 | - | - |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.......................................................... $\$ 1,000 .$. | 572 | 126 | 103 |
| Prime movers, total......................................................................d. ${ }^{\text {do. }}$ | 53 | 5 | 6 |
| Driving generators........................................................................do. | 19 | 1 | (2) |
| Not driving generators...............................................................do..... | 34 | 4 | 6 |
| Electric motors, total....................................................................do. ${ }^{\text {do. }}$ | 525 | 122 | 97 |
| Driven by purchased energy..........................................................do. ${ }^{\text {do. }}$ | 519 | 122 | 97 |
| Driven by energy generated at establishment........................................do....... | 6 | - | - |
| Aggregate horsepower per 100 production workers | 1,764 | 2,111 | 1,070 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes:
: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. (z) Less than 500 horsepower. n.e.c. Not elsewhere classified.
( S ) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| $\begin{gathered} \text { Industry } \\ \text { or } \\ \text { product } \\ \text { class } \\ \text { code } \\ \hline \end{gathered}$ | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | ```Value added by manufacture, adjusted ($1,000)``` | Cost of materials <br> $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3391 | IRON AND STEEL FORGINGS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry <br> Establishments with- $\qquad$ | 272 | 36,317 | 259,793 | 29,240 | 58,316 | 198,272 | 395,302 | 470,920 | 868,648 | 17,516 |
|  | $90 \%$ or more specialization. . <br> 75-89\% specialization....... | 227 16 | 23,998 3,701 | 174,126 24,433 | 19,899 2,986 | 40,229 5,709 | 135,419 18,584 | 274,615 37,633 | $\begin{array}{r} 344,046 \\ 37,809 \end{array}$ | $\begin{array}{r} 618,453 \\ 76,050 \end{array}$ | $\begin{array}{r} 10,748 \\ 1,402 \end{array}$ |
| 33911 | Drop, upset and press steel forgings (closed die) (primary product class of estab.)................ Establishments with- | 140 | 29,256 | 208,457 | 23,702 | 44,898 | 161,170 | 313,373 | 372,606 | 687,227 | 13,546 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | $\begin{array}{r} 101 \\ 17 \end{array}$ | 13,624 4,838 | $\begin{aligned} & 97,653 \\ & 33,723 \end{aligned}$ | 11,528 4,096 | 23,099 8,093 | $\begin{array}{r} 77,206 \\ 27,238 \end{array}$ | $\begin{array}{r} 150,844 \\ 50,027 \end{array}$ | $\begin{gathered} 194,374 \\ 58,091 \end{gathered}$ | $\begin{aligned} & 344,689 \\ & 107,461 \end{aligned}$ | $\begin{aligned} & 5,606 \\ & 1,616 \end{aligned}$ |
| 33919 | Open die or smith forgings (open frame harmer or press) produced from purchased materials (primary product class of estab.)........... Establishments with- | 72 | 6,219 | 46,132 | 4,881 | 10,070 | 33,457 | 72,068 | 90,078 | 163,552 | 3,375 |
|  | 90\% or more specialization.... | 57 | 3,520 | 24,414 | 2,744 | 5,672 | 17,044 | 35,345 | 36,159 | 72,395 | 943 |
| 3399- | PRIMARY METAL INDUSTRIES, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry $\qquad$ <br> Establishments with- | 754 | 14,956 | 94,704 | 11,513 | 24,658 | 65,437 | 192,250 | 93,593 | 284,661 | 13,501 |
|  | 90\% or more specialization.... 75-89\% specialization.......... | $\begin{array}{r} 627 \\ 9 \end{array}$ | 11,646 523 | $\begin{array}{r} 72,579 \\ 3,499 \end{array}$ | 8,925 370 | 19,165 | $\begin{array}{r} 49,548 \\ 2,109 \end{array}$ | 142,683 7,187 | $\begin{array}{r} 70,579 \\ 6,077 \end{array}$ | $\begin{array}{r} 212,389 \\ 13,476 \end{array}$ | $\begin{array}{r} 9,540 \\ 625 \end{array}$ |
| 33991 | Metal powders and paste (primary product class of estab.).......... Establishments with- | 69 | 3,043 | 18,973 | 2,116 | 4,398 | 12,065 | 48,151 | 45,011 | 90,670 | 3,573 |
|  | 90\% or more sepcialization.... | 60 | 2,126 | 12,745 | 1,509 | 3,118 | 8,209 | 35,330 | 35,200 | 69,501 | 3,570 |
| 33996 | Heat treating of steel for the trade (primary product class of estab.) $\qquad$ Establishments with- | 423 | 8,961 | 57,048 | 6,954 | 15,066 | 38,968 | 101,777 | 30,557 | 132,945 | 6,450 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specillization.......... | $\begin{array}{r} 404 \\ 10 \end{array}$ | $\begin{array}{r} 8,348 \\ 361 \end{array}$ | $\begin{array}{r} 53,204 \\ 2,418 \end{array}$ | 6,506 265 | 14,149 560 | $\begin{array}{r} 36,598 \\ 1,494 \end{array}$ | $\begin{array}{r} 93,965 \\ 5,496 \end{array}$ | $\begin{array}{r} 27,684 \\ 1,319 \end{array}$ | $\begin{array}{r} 121,935 \\ 7,040 \end{array}$ | $5,811$ |

n.e.c. Not elsewhere classified.
table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $20 \text { or }$ more |  | 1 to 4 | 5 to 19 | 20 or <br> more |
| Machine shop..................................................................... | INDUSTRY 3391.-IRON AND STEEL FORGINGS |  |  |  |  |  |  |  |
|  | 100 | 30 | 42 | 28 | 3,943 | 57 | 466 | 3,420 |
|  | 95 | 25 | 35 | 35 | 2,413 | 43 | 368 | 2,002 |
|  | INDUSTRY 3392.-NONFERROUS FORGINGS |  |  |  |  |  |  |  |
| Machine shop............................................................. <br> Tool and die shop. | 14 | 4 | 8 | 2 | 796 | 6 | (D) | (D) |
|  | 15 | 5 | 5 | 5 | 398 | 7 | 51 | 340 |

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

| Item | Industry |  |
| :---: | :---: | :---: |
|  | 3391 | 3392 |
| Total number of establishments in the industry ............................................................ | 272 | 34 |
| Number of establishments which reported one or more of the specified operations........................ Percent of industry production workers in these establishments.............................................. | $\begin{array}{r} 156 \\ (80-85) \end{array}$ | $\begin{array}{r} 20 \\ (95-100) \end{array}$ |
| Number of establishments which reported "none" of the operations apply........................................ <br> Percent of industry production workers in these establishments................................................ | 39 $(0-5)$ | $\begin{array}{r} 10 \\ (0-5) \end{array}$ |
| Percent of industry production workers in establishments which corpleted the metalworking ooperations inquiry. | (85-90) | (95-100) |

[^108]
# Fabricated Metal Products 

34A Metal cans, cutlery, hand tools, and general hardware<br>34B Heating apparatus, except electric, and plumbing fixtures<br>34C Fabricated structural metal products<br>34D Screw machine products, bolts, metal stampings, and metal services

34E Fabricated metal products, n.e.c.

This major group includes establishments primarily engaged in manufacturing a wide variety of fabricated metal products. Other important segments of the metal fabricating industries are classified in other major groups such as machinery, in Major Groups 35 and 36, transportation equipment in Major Group 37, instruments and related products in Major Group 38, jewelry and silverware in Major Group 39, and metal furniture and fixtures in Major Group 25.

The industries included in this major group encompass a varied group of fabricated metal finished products (cutlery, hardware, oil burners, plumbing fixtures, metal doors, safes, etc.), materials or components for incorporation into other products (sheet metal work, steel springs, bolts and nuts, etc.), containers (metal cans, metal shipping barrels and drums, and collapsible tubes), and service operations performed on a job or order basis for the trade (for example, galvanizing, coating, and engraving).

The products of Major Group 34 are used by establishments in other manufacturing in-dustries-in construction, mines, farms, transportation, commerce, and in households. The
basic metals consumed are generally produced by establishments in Major Group 33, Primary Metal Industries.

Data on the number of establishments engaged in selected metalworking operations and the number of employees working in the operations are shown in table 9 for the 4 -digit industries in Major Group 34. The operations shown in that table do not represent, of course, a complete list or, for many metal fabricating industries in this group, even the most important ones. Although the production processes in this area adhere to a general pattern of specified metalworking and metal fabricating operations (e.g. machine shop, steel plate fabrication, etc.), there is a substantial variation in the number and types of processes performed by an individual establishment as well as from industry to industry. Within many of these industries, establishments typically purchase mill shapes and carry out the entire fabricating of the metal until it emerges as a finished product. In other industries, however, such as in the plumbing and nonelectric heating subgroup, the establishments may be primarily engaged in assembling component parts produced by other companies or other plants of the same company.

## Fabricated Metal Products: Major Group 34

Value Added by Manufacture by State: 1963

table 1. General Statistics: 1963 and Earlier Years


Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
sents zero.
${ }^{1}$ The figures for 1939 through 1963 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not known.
${ }^{2}$ For the period 1954 to 1963, figures represent adjusted value added by manuf acture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. See Introduction, "Value Added by Manufacture."

The total value of shipments and cost of materials for industry groups (2- and $3-$ digit) include extensive duplication arising from shipments between establishments in the same classification. For a more complete explanation, see Introduction.
not yet in not yet in operation.
operating establishments, figures for employment and payroll
for manufacturing central administrative orfice and auxiliary units are shown for the
years 1949 to 1953 in the annual survey of manufactures volumes. Data for these years are not available for the years 1955 to 1957, 1959 to 1962, and prior to 1949
${ }^{6}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

The figures for 1939 to 1963 are not entirely comparable with those for 1937 because the 1937 figures exclude data for establishments primarily engaged in producing lawn sprinklers, spun ware, nonferrous metal novelties, tackle blocks, aluminum ornamental work, aluminum stampings, and machine knives (except metalworking) and include data for establishments primarily engaged in making caulking guns, toilet seats, brooders, cast aluminum cooking ware, and hair clippers. Value added for 1939 on a basis strictly comparable with 1937 was $\$ 1,340.4$ million.
1937 The figures for 1935 and earlier years are not sufficiently comparable with those for 1937 to 1963 to be shown in this table principally because of the inclusion in earlier years of data for establishments primarily engaged in the manuracture of valves and
fittings, except plumbers' and the exclusion of data for establishments primarily engaged in the manufacture of stamped, pressed, and spun aluminum ware.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Code | Industry group and geographic area | 1963 |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  |  | Total <br> (number) | With 20 <br> employees <br> or more <br> (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 342 | CUTLERY, HANO TOOLS, HAROWARE, TOTAL | 2022 | 810 | 136554 | 799483 | 108001 | 221382 | 572588 | 1707558 | 100636 | 135718 | 1202227 |
|  | NORTHEAST | 744 | 335 | 53083 | 297381 | 41561 | $84 \quad 174$ | 211234 | 661419 | 43867 | 57774 | 483739 |
|  | NEW ENGLANO | 266 | 121 | 25888 | 141860 | 19763 | 39615 | 98447 | 352705 | 26195 <br> 101 | 29792 | 258759 |
|  | MAINE. ${ }_{\text {NEW }}$ HAMPSHIRE. . . . . . . . | 12 16 | 4 10 | 371 699 | $\begin{array}{ll}1 & 541 \\ 3 & 332\end{array}$ | 239 614 | 482 1484 | 1289 2463 | $\begin{array}{ll}1 & 973 \\ 5005\end{array}$ | $(0)$ 91 | 101 535 | 101 2935 |
|  | VERMONT. . . . . . . . | 6 | 4 | 260 | 1191 | 228 | - 478 | 293 | 2231 | (0) | 101 | (0) |
|  | MASSACHUSETTS. | 108 | 45 | 9541 | 52455 | 7206 | 14599 | 37409 | 171872 | 9275 | 10268 | 120520 |
|  | RHOOE ISLANO. | 24 | 6 | 1009 | 4907 | 869 | 1747 | 3706 | 7371 | $\begin{array}{r}107 \\ \hline\end{array}$ | 1676 | 11446 |
|  | CONNECTICUT. | 100 | 52 | 14008 | 78434 | 10607 | 21025 | 52647 | 164253 | 16311 | 16466 | 118400 |
|  | MIOOLE ATLANTIC | 478 | 214 | 27195 | 155521 | 21798 | 44559 | 112787 | 308714 | 17672 | 27982 | 224980 |
|  | NEW YORK - | 244 | 102 | 12526 | 69460 | 9743 | 19527 | 47844 | 129507 | 9013 | 11891 | 94427 |
|  | NEW JERSEY . . . | 107 | 43 | 8253 | 53324 | 6775 | 14642 | 40779 | 119946 | 6598 | 8400 | 74862 |
|  | PENNSYLVANIA . - | 127 | 69 | 6416 | 32737 | 5280 | 10390 | 24164 | 59261 | 2061 | 7691 | 55691 |
|  | NORTH CENTRAL - | 737 | 310 | 59980 | 376381 | 48728 | 101202 | 281281 | 793876 | 43470 | 59079 | 544729 |
|  | EAST NORTH CENTRAL. | 624 | 266 | 55322 | 350856 | 44925 | 93667 | 263345 | 747292 | 42071 | 53854 | 500541 |
|  | OHIO . . | 169 | 67 | 14101 | 91754 | 11083 | 22500 | 67100 | 202794 | 15927 | 13087 | 122957 |
|  | INOI ANA. | 63 | 26 | 4335 | 23924 | 3553 | 7178 | 17992 | 48184 | 3754 | 4300 | 37585 |
|  | ILLINOIS . | 188 | 86 | 15063 | 85389 | 12037 | 24467 | 61651 | 169591 | 5420 | 15117 | 146839 |
|  | MICHIGAN. | 159 | 68 | 18735 | 132377 | 15687 | 34390 | 103930 | 281 4 4 | 15384 | 18717 | 164686 |
|  | WISCONSIN. | 45 | 19 | 3088 | 17412 | 2565 | 5132 | 12672 | 45603 | 1586 | 2633 | 28474 |
|  | WEST NORTH CENTRAL. | 113 | 44 | 4658 | 25525 | 3803 | 7535 | 17936 | 46584 | 1399 | 5225 | 44188 |
|  | MINNESOTA. . . | 32 | 11 | 1378 | 7204 | 1058 | 2099 | 4677 | 13859 | 383 | 1581 | 12158 |
|  | IOWA . | 22 | 6 | 633 | 3295 | 522 | 960 | 2253 | 6426 | 330 | 734 | 9659 |
|  | MISSOURI . . . | 43 | 21 | 2079 | 12440 | 1719 | 3474 | 8884 | 21054 | 584 | 2456 | 18860 |
|  | KANSAS ..... | 7 | 4 | 285 | $1 \begin{array}{r}1 \\ 1\end{array}$ | - 254 | 528 | 1094 | 2172 | 24 | (0) | (0) |
|  | SOUTH . . . . . | 196 | 67 | 12505 | 58170 | 9660 | 19477 | 37935 | 123382 | 5273 | 8546 | 68709 |
|  | SOUTH ATLANTIC. . . . . . . . . | 91 | 29 | 6397 | 32197 | 4832 |  | 20850 | 69506 | 2488 | 4593 | 37017 |
|  | VIRGINIA . . . . . . | 9 | 6 | 2010 | 10718 | 1515 | 3235 1 1 | 6327 3706 | 22694 | 934 | (0) | (0) |
|  | NORTH CAROLINA . . . | 21 | 9 | 1180 | +6077 | -893 | 1853 | 3706 | 10529 | 665 | 652 | $4044$ |
|  | FLORIOA. . . . . . | 33 | 8 | - 952 | 4130 | 682 | 1429 | 2672 | 12145 | 246 | 411 | 2364 |
|  | EAST SOUTH CENTRAL. | 45 | 23 | 4746 | 20627 | 3755 | 7293 | 13450 | 43571 | 2421 | 2933 | 24358 |
|  | KENTUCKY . . - | 14 | 0 | 591 | 3437 | 392 | 759 | 1896 | 6789 | 159 | 464 | 5129 |
|  | TENNESSEE. . | 18 | 8 | 2471 | 10220 | 1997 | 3825 | 6989 | 23464 | 1911 | (0) | (0) |
|  | ALABAMA. ${ }^{\text {a }}$. | 6 | 3 | 491 | 1797 | 440 | 842 | 1485 | 3000 | 123 | 579 | 4542 |
|  | MISSISSIPPI.. | 7 | 6 | 1193 | 5173 | 926 | 1867 | 3080 | 10318 | 228 | (0) | (0) |
|  | WEST SOUTH CENTRAL. | 60 | 15 | 1362 | 5346 | 1073 | 2212 | 3635 | 10305 | 364 | 1020 | 7334 |
|  | ARKANSAS - | 15 | 8 | 774 | 2991 | 573 | 1202 | 1844 | 5973 | 186 | 636 | 4348 |
|  | TEXAS. - . | 36 | 6 | 395 | 1739 | 328 | 701 | 1301 | 3257 | 171 | 219 | 1629 |
|  | WEST. . . . . . . . | 345 | 98 | 10986 | 67551 | 8052 | 16529 | 42138 | 129371 | 8007 | 10319 | 105050 |
|  | MOUNTAIN. - | 20 | 7 | 408 | 2161 | 307 | 613 | 1317 | 4932 | 139 | 336 | 2802 |
|  | COLORAOO . - | 11 | 6 | 351 | 1922 | 262 | 542 | 1152 | 4491 | 104 | 293 | 2537 |
|  | PACIFIC * - | 325 | 91 | 10578 | 65390 | 7745 | 15916 | 40821 | 124439 | 7868 | 9983 | 102248 |
|  | WASHINGTON . . . . | 18 | 4 | 266 | 1570 | 215 | 421 | 1225 | 3098 | 213 | 505 | 4988 |
|  | OREGON • - | 25 | 8 | 528 | 2728 | 378 | 736 | 1885 | 5199 | 236 | 368 | 3682 |
|  | CALIFORNIA . | 282 | 79 | 9784 | 61092 | 7152 | 14759 | 37711 | 116142 | 7419 | 9110 | 93578 |

# table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued 



[^109]table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


See footnotes at end of table.
table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Code | Industry group and geographic area | 1963 |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  |  | Total <br> (number) | $\begin{array}{\|l} \text { With } 20 \\ \text { employees } \\ \text { or more } \\ \text { (number) } \end{array}$ | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours $(1,000)$ | Wages $(\$ 1,000)$ |  |  |  |  |
| 349 | FABRICATED METAL PROOUCTS: NEC-CONT. WEST NORTH CENTRAL. MINNESOTA. IOWA MISSOURI | 144 38 24 53 | 52 14 10 21 | $\begin{array}{ll}7 & 970 \\ 1 & 710 \\ 2 & 402 \\ 3 & 110\end{array}$ | $\begin{array}{rr}46 & 325 \\ 9 & 616 \\ 14 & 288 \\ 18 & 342\end{array}$ | $\begin{array}{ll}5 & 787 \\ 1 & 367 \\ 1 & 648 \\ 2 & 209\end{array}$ | $\begin{array}{rrr}12 & 045 \\ 2 & 761 \\ 3 & 594 \\ 4 & 530\end{array}$ | $\begin{array}{rr}31 & 135 \\ 7092 \\ 9228 \\ 11 & 953\end{array}$ | 103996 <br> 18 <br> 34 <br> 609 <br> 39 | 3583 889 1212 $1 \quad 148$ | $\begin{array}{ll}5 & 898 \\ 1 & 159 \\ 1 & 716 \\ 2 & 236\end{array}$ | $\begin{array}{ll}67 & 029 \\ 11 & 288 \\ 22 & 332 \\ 23 & 003\end{array}$ |
|  | SOUTH . | 416 | 176 | 22258 | 124668 | 17469 | 35159 | 87572 | 253235 | 11600 | 18314 | 183750 |
|  | SOUTH ATLANTIC. : . . : ! : | 155 23 | 55 12 | 5630 879 | 29463 4661 | 4417 719 | 9200 1559 | 20340 3361 | 65634 12972 | 3105 493 | 5213 745 | $\begin{array}{ll}47 & 072 \\ 11 & 193\end{array}$ |
|  | VIRGINIA ${ }^{\text {a }}$, ! . . . . | 16 | - 6 | 794 | 4363 | 631 | 1322 | 3036 | - 282 | 539 | (0) | 12 (0) |
|  | WEST VIRGINIA. | 13 | 9 | 1508 | 8042 | 1260 | 2527 | 6166 | 21810 | 678 | 1268 | 12879 |
|  | NORTH CAROLINA | 16 | 7 | 689 | 3342 | 516 | 1080 | 1938 | 5816 | 766 | 464 | 2371 |
|  | GEORGIA. . - | 20 | 6 | 684 | 3478 | 527 | 1149 | 2480 | 6 5 228 | 322 | 408 | 3546 |
|  | FLORIOA. - | 54 | 10 | 630 | 2967 | 489 | 965 | 1936 | 5697 | 210 | 1214 | 8022 |
|  | EAST SOUTH CENTRAL. | 62 | 35 | 7883 | 44135 | 6489 | 12306 | 32804 | 87080 | 5171 | 6224 | 62695 |
|  | KENTUCKY . | 24 | 16 | 3264 | 19745 | 2584 | 5090 | 13995 | 38328 | 3969 | 2627 | 30662 |
|  | ALABAMA. . . . . | 17 | 11 | 3110 | 16315 | 2661 | 4699 | 12055 | 32355 | 925 | 2693 | 23899 |
|  | WEST SOUTH CENTRAL. . . . . | 199 16 | 86 7 | 8745 884 | 51070 3698 | 6563 804 | 13653 1608 | 34428 3163 | 100521 8008 | 3324 301 | 6877 101 | 73983 101 |
|  | ARKANSAS . . . . . ! ! | 16 16 | 7 | 884 $1 \quad 172$ | 3698 $6 \quad 341$ | 804 853 | 1668 1788 | 3163 4 468 | 813483 | 301 432 | 101 629 | $7 \quad 175$ |
|  | OKLAHOMA . . | 33 | 13 | 771 | 4880 | 575 | 1224 | 3134 | 9315 | 359 | 101 | 101 |
|  | TEXAS. . . . . | 134 | 57 | 5918 | 36151 | 4331 | 9033 | 23663 | 69715 | 2232 | 4803 | 53519 |
|  | WEST. . . . | 423 | 132 | 12596 | 82621 | 8961 | 19013 | 50701 | 151488 | 9420 | 9510 | 94879 |
|  | MOUNTAIN. - | 40 | 9 | 952 | 6066 | 673 | 1360 | 3618 | 13072 | 650 | 724 | 7056 |
|  | COLORADO ...... | 18 | 6 | 758 | 5146 | 516 | 1048 | 2908 | 11709 | 571 | 667 | 6729 |
|  | ARIZONA. . . . | 8 | 2 | 113 | 461 | 94 | 189 | 360 | 698 | 39 | (10) | 101 |
|  | PACIFIC - . | 383 | 123 | 11644 | 76555 | 8288 | 17653 | 47083 | 138416 | 8770 | 8 786 | 87823 |
|  | OREGON . . . . | 24 | 8 | 554 | 3074 | 377 | 753 | 2110 | 5314 | 338 | 298 | 3468 |
|  | CALIFORNIA . . . - | 334 | 113 | 10910 | 72434 | 7777 | 16652 | 44266 | 131197 | 8347 | 8345 | 83265 |

[^110]
## TABLE 3. Detailed Statistics: 1963

| Item | Fabricated metal products (SIC 34) | Metal cans (SIC 341) | Cutlery, hand tools, hardware (SIC 342) | Plumbing and heating, except electric (SIC 343) | Stuctural metal products (SIC 344) | Screw machine products, bolts, etc. (SIC 345) | $\begin{aligned} & \text { Metal stampings } \\ & (\text { SIC } 346 \text { ) } \end{aligned}$ | Metal services, ne.e.c. (SIC 347) | Fabricated wire products, n.e.c. (SIC 348) | Fabricated metal products n.e.c. (SIC 349) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| establishments, total . . . . . number. | 26975 | 270 | 2022 | 979 | 10199 | 2447 | 2574 | 4281 | 1567 | 2636 |
| WITH 1 TO 19 EMPLOYEES. . . . . . DO. | 17765 | 64 | 1212 | 552 | 6979 | 1608 | 1458 | 3328 | 1010 | 1554 |
| WITH 20 TO 99 EMPLOYEES . . . . . DO. | 6931 | 93 | 530 | 253 | 2546 | 650 | 818 | 882 | 415 | 744 |
| with 100 employees or more. . . . 00. | 2279 | 113 | 280 | 174 | 674 | 189 | 298 | 71 | 142 | 338 |
| proprietors ano working partners. . Do. . all employees (average for the | 13700 | 23 | 756 | 294 | 4892 | 1110 | 848 | 2523 | 1407 | 1847 |
| YEARI. $\cdot$. . . . . . . | 1082102 | 53245 | 136554 | 68160 | 325470 | 94527 | 132179 | 65631 | 55514 | 150822 |
| Year . . . . . . . . . . . $\$ 1,000$. | 6387508 | 377031 | 799483 | 391355 | 1922670 | 584198 | 772557 | 330614 | 297626 | 911974 |
| PRUDUCTION WORKERS: |  |  |  |  |  |  |  |  |  |  |
| average for the year. . . . . number. | 843795 | 46110 | 108001 | 51379 | 242426 | 74768 | 108336 | 54835 | 45070 | 112870 |
| March . . . . . . . . . . . . . Do. | 819958 | 44538 | 107150 | 49770 | 224783 | 75699 | 108483 | 53657 | 44576 | 111302 |
| MAY . . . . . . . . . . . . . . Do. | 839356 | 46568 | 107422 | 50334 | 240598 | 74667 | 107494 | 54369 | 45127 | 112777 |
| AUGUST. . . . . . . . . . . . . oo. | 857477 | 48606 | 105382 | 52650 | 255564 | 73787 | 106634 | 55056 | 44857 | 114941 |
| november. . . . . . . . . . . . do. | 859698 | 44684 | 112187 | 52762 | 248945 | 75009 | 110880 | 56621 | 46091 | 112519 |
| MAN-hOURS . . . . . . . . . .1,000. | 1721034 | 97340 | 221382 | 101524 | 490819 | 156772 | 222005 | 109844 | 92096 | 229252 |
| JANUARY-MARCH . . . . . . . . . DO. | 413228 | 21941 | 54812 | 24292 | 112469 | 39876 | 54312 | 26536 | 22353 | 56637 |
| APril-June. . . . . . . . . . . Do. | 434518 4 | 25249 | 55947 | 25212 | 123724. | 39850 | 55702 | 27565 | 23061 | 58208 |
| JULY-SEP TEM3ER. . . . . . . . . DO. | 429501 | 26341 | 51814 | 25862 | 127422 | 37461 | 53768 | 27732 | 22709 | 56392 |
| OCTOBER-DECEMBER. . . . . . . . DO. | 443821 | 23817 | 58807 | 26158 | 127203 | 39585 | 58223 | 28011 | 23973 | 58044 |
| wages . . . . . . . . . . . . \$1,000 | 4483688 | 311058 | 572588 | 263067 | 1281056 | 417468 | 567309 | 248728 | 213329 | 609085 |
| COST OF MATERIALS, ETC., TOTAL ${ }^{1}$. . DO. | 11397850 | 1265197 | 1049382 | 802984 | 3892920 | 760738 | 1324939 | 285531 | 490937 | 1525222 |
| MATERIALS, PARTS, CONTAINERS, <br> and supplies consumed. . . . . . Do. | 10003865 | 1212470 | 913753 | 704373 | 3353344 | 617326 | $1 \begin{array}{llll}171 & 137\end{array}$ | 237719 | 433668 | 360075 |
| cost of resales . . . . . . . . . 00. | 744382 | 35741 | 72459 | 72192 | 340785 | 50374 | 51023 | 5345 | 29104 | 87359 |
| fuels cunsumed. . . . . . . . . . do. | 100578 | 6816 | 12053 | 8637 | 23127 | 6965 | 11704 | 12010 | 3649 | 15617 |
| electric energy: purchased: |  |  |  |  |  |  |  |  |  |  |
| QUANTITY. . . . .million kw.-hrs. | 9301 | 679 | 1222 | 543 | 2315 | 788 | 1214 | 901 | 338 | 1301 |
| cost. . . . . . . . . . $\$ 1,000$. | 139900 | 8076 | 16564 | 7982 | 35319 | 12666 | 17957 | 15808 | 5712 | 19813 |
| generated less <br> SOLO . . . . . . .MILLION KW. -HRS | 12504 | (0) | 2510 | 1143 | 1797 | 1709 | 24 | 8 | (0) | 2318 |
| contract work . . . . . . . . \$1,000 | 409120 | 2094 | 34530 | 9815 | 140345 | 73407 | 73118 | 14649 | 18804 | 42358 |
| value of shipments 1 incluoing <br> ReSALES), tOTAL1 . . . . . . . . . 00 | 23065207 | 2075014 | 2736858 |  |  |  |  |  |  |  |
| value of resales. . . . . . . . ou. | 23965874 | 2 40598 | - 108997 | 1 | 441568 | 1861 096 | - 66129 | 10971 | 18362 | 107629 |
| value added by manufacture, <br> adjusted . . . . . . . . . . . . . 00. | 11791081 | 830515 | 1707558 | 790263 | 3219813 | 1054237 | 1368993 | 554748 | 539137 | 1725817 |
| manufacturers inventories: |  |  |  |  |  |  |  |  |  |  |
| beginning of year, total. . . . . do. | 3783909 | 292330 | 449994 | 299366 | 1289720 | 268794 | 336751 | 45295 | 150688 | 650971 |
| Finished products . . . . . . . DO. | 1093779 | 97361 | 145365 | 135071 | 198445 | 117655 | 95765 | 9627 | 59365 | 235125 |
| WORK-IN-PROCESS . . . . . . 00. | 1246973 | 84288 | 171239 | 61481 | 556921 | 56015 | 88313 | 5641 | 28830 | 194245 |
| MATERIALS. SUPPLIES, FUEL', | 1443127 | 110651 | 133390 | 102814 | 534354 | 95124 | 152673 | 30027 | 62493 | 221601 |
| eno of year, total. . . . . . . . du. | 3,954,077 | 321722 | 481205 | 306338 | 1335876 | 281002 | 360833 | 49554 | 150692 | 666853 |
| finisheo prooucts . . . . . . . do. | 1134996 | 112560 | 149517 | 133176 | 200801 | 122314 | 102149 | 10094 | 59541 | 244844 |
| WORK-1N-PRUCESS . . . . . . . DO. | 1329977 | 89787 | 187169 | 68108 | 597356 | 59103 | 96865 | 5742 | 28352 | 197498 |
| materials, SUPPLIES, fuel, etc. . . . . . . . . oo. | 1489101 | 119375 | 144519 | 105054 | 537719 | 99585 | 161819 | 33718 | 62799 | 224513 |
| expenditures for plant ano eouip- |  |  |  |  |  |  |  |  |  |  |
| ment, total. . . . . . . . . . . . do. | 630985 | 69086 | 106449 | 32298 | 140683 | 60123 | 73166 | 32117 | 27675 | 89388 |
| NEW, TOTAL. . . . . . . . . . . DO. | 570077 | 66507 | 100636 | 30220 | 126134 | 50107 | 64248 | 28688 | 24795 | 78742 |
| new structures and aoditions |  |  |  |  |  |  |  |  |  |  |
| to plant . . . . . . . . . . DO. | 137737 | 7997 | 24159 | 7640 | 38510 | 9251 | 16054 | 6933 | ${ }_{6}^{6} 036$ | 21157 57585 |
| new machinery and equipment . . do. | 432340 | 58510 | 76477 | 22580 | 87624 | 40856 | 48194 | 21755 | 18759 | 57585 |
| used plant ano eouipment. . . . . do. | 60907 | 2579 | 5813 | 2078 | 14548 | 10016 | 8918 | 3429 | 2880 | 10646 |
| SELECTED OPERATING RATIOS: <br> PAYROLL/TOTAL EMPLOYMENT. | 5903 | 7081 | 5855 | 5742 | 5907 | 6180 | 5845 | 5037 | 5343 | 6047 |
| PRODUCTION WORKERS/total empluyment |  |  |  |  |  |  | . 82 | . 84 | . 81 | . 75 |
| MAN-HOURS/PRODUCTION WORKERS. - . | 2040 | 2111 | 2050 | 1976 | 2025 | 2097 | 2049 | 2003 | 2043 | 2031 |
| PRODUCTION WORKER WAGES/MAN-HOURS | 2.61 | 3.20 | 2.59 | 2.59 | 2.61 | 2.66 | 2.59 | 2.26 | 2.32 | 2.66 |
| cost of materials and payrolls/total value of shipments | . 77 | . 79 | . 68 | . 75 | . 82 | . 74 | . 78 | . 73 | . 76 | . 75 |
| cost of materials/total value of |  |  |  |  |  |  |  |  |  |  |
| SHIPMENTS . . . . . . | . 49 | . 61 | 38 | . 51 | . 55 | . 42 | - ${ }^{49}$ | $\begin{array}{r}34 \\ \hline 853 \\ \hline 15\end{array}$ | . 48 | . 447 |
| aojusted value aoded/total employment | 10896 | 15598 | 12505 | 11594 | 9893 | 11153 | 10357 | 8453 | 9712 | 11443 |
| salaries ano wages/adjusteo value added | . 54 | . 45 | . 47 | . 50 | . 60 | . 55 | . 56 | . 60 | . 55 | . 53 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
industry. value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.

# METAL CANS, CUTLERY, HAND TOOLS, AND GENERAL HARDWARE 

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

## SIC Code and Title

3411-Metal Cans
3421-Cutlery
3423-Hand and Edge Tools, Except Machine Tools and Hand Saws
3425-Hand Saws and Saw Blades
3429-Hardware, Not Elsewhere Classified
The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4 ) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3411-METAL CANS

This industry comprises establishments primarily engaged in manufacturing metal cans from purchased tinplate, terneplate, blackplate, or enameled sheet metal. Establishments primarily engaged in the manufacture of composite cans made partly of metal and partly of nonmetallic materials (such as fiberboard) are excluded from this industry. For a detailed list of products of industry 3411 , refer to table 6A, product codes 3411001 to 3411091 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal Cans Industry totaled $\$ 2,075$ million. This amount included shipments of metal cans (primary products) valued at $\$ 1,960$ million, shipments of other products (secondary products) valued at $\$ 63$ million, and miscellaneous receipts (mainly sales of products bought and resold), at $\$ 52$ million.

This industry's shipments of metal cans represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent. Secondary products shipped by this industry in 1963 included steel shipping pails ( $\$ 12$ million).

Shipments of metal cans by this industry represented 98 percent of all shipments of these products ( $\$ 2,002$ million) by all industries. In 1958 the coverage ratio was 99 percent. Other industries shipping metal cans (primary products) included industry 3491, Metal Barrels, Drums, and Pails, $\$ 7$ million.

The production index for the primary products of the industry increased to 123 in 1963 from the 1958 level of 113 . The unit value index for 1963 was 122 compared to 117 in 1958. Both indexes were computed on a basis of $1954=100$.

Detailed figures on the shipments of metal cans are collected on a monthly basis by the Bureau of the Census on Form M34D. Table 6A shows totals for the data collected in the monthly survey and in the census of manufactures for the same period. The differences are due to minor revisions in the reports for some companies. Both the census of manufactures data for industry 3411 and the monthly survey include data for "captive" production, that is, the production of cans for use by the producing company. Most of these "captive" establishments are part of food, petroleum, and paint companies.

The monthly survey data are reported in terms of base boxes of metal consumed in the manufacture of cans. Also reported separately are the base boxes of steel (tinplate) and aluminum consumed in the manufacture of cans. For 1963 the base boxes of steel (tinplate) have been converted to short tons by use of the factor 23.5 base boxes per short ton of steel. For 1958 the conversion factors which appear in the table below were applied to individual types of cans.

The weight of aluminum consumed in producing metal cans was reported separately and totaled 43,321 short tons in 1963. Aluminum was not a significant factor in the production of metal cans in 1958.

Certain of the larger companies operating establishments classified in industry 3411 also have establishments producing other types of metal containers as well as containers made of other materials and which are classified in other industries; for example: steel shipping barrels, drums, and pails in industry 3491, Metal Barrels, Drums, and Pails; paper and paperboard boxes, drums, etc., in Major Group 26, Paper and Allied Products.

| Type of can | Base boxes per short ton of steel |
| :---: | :---: |
| Fruit and vegetable (including juice). | 21.4 |
| Evaporated and condensed milk. | 25.0 |
| Other dairy products. | 20.4 |
| Meat (including poultry). | 21.7 |
| Fish and seafood | 23.0 |
| Coffee | 21.3 |
| Lard and shortening | 21.7 |
| Soft drink | 22.1 |
| Beer | 20.6 |
| Pet food | 24.0 |
| Oil, open-top (1 quart and 5 quart). | 23.3 |
| All other food (including soup and baby food cans) | 23.0 |
| All other nonfood | 21.2 |

## 3421-CUTLERY

This industry comprises establishments primarily engaged in manufacturing cutlery. Establishments primarily engaged in manufacturing table cutlery made entirely of metal are classified in industry 3914 ; those manufacturing electric razors, in industry 3634; and those manufacturing hair clippers for human use, in industry 3999, and for animal use, in industry 3522. For a detailed list of products of industry 3421 , refer to table 6 A, product codes 3421111 to 3421251 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Cutlery Industry totaled $\$ 283$ million. This amount included shipments of cutlery (primary products) valued at $\$ 246$ million; shipments of other products (secondary products) valued at $\$ 30$ million; and miscellaneous receipts (mainly sales of products bought and resold): at $\$ 7$ million.

This industry's shipments of cutlery represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent.

Shipments of cutlery by this industry represented 97 percent of all shipments of these products ( $\$ 254$ million) by all industries. In 1958 the coverage ratio was 98 percent. Another industry shipping cutlery (primary products) was industry 3423 , Hand and Edge Tools, $\$ 4$ million.

## 3423-HAND AND EDGE TOOLS, EXCEPT MACHINE TOOLS AND HAND SAWS

This industry comprises establishments primarily engaged in manufacturing files and other hand and edge tools for metalworking, woodworking, and general maintenance. Establishments primarily engaged in manufacturing saws are classified in industry 3425; and metal cutting dies and power driven hand tools, and attachments and accessories for machine tools in Major Group 35. For a detailed list of products of industry 3423, refer to table 6A, product codes 3423111 to 3423398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Hand and Edge Tools lndustry totaled $\$ 566$ million. This amount included shipments of hand and edge tools (primary products) valued at $\$ 445$ million, shipments of other products (secondary products) valued at $\$ 69$ million, and miscellaneous receipts (mainly sale of products bought and resold) at $\$ 51$ million.

This industry's shipments of hand and edge tools represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included hand saws, saw blades, and saw accessories ( $\$ 6$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 51 percent of the total industry shipments are represented by plants specializing in mechanics' hand service tools; and 28 percent in files, rasps, and file accessories and other hand tools.

Shipments of hand and edge tools by this industry represented 84 percent of all shipments of these products ( $\$ 536$ million) by all industries. In 1958 the coverage ratio was 85 percent. Other industries shipping hand and edge tools (primary products) included industry 3429, Hardware, N.E.C., $\$ 4$ million; and industry 3421, Cutlery, $\$ 3$ million.

## 3425-HAND SAWS AND SAW BLADES

This industry comprises establishments primarily engaged in manufacturing hand saws and saw blades for hand and power driven saws. Establishments primarily engaged in manufacturing power driven sawing machines are classified in Major Group 35. For a
detailed list of products of industry 3425 , refer to table 6 A , product codes 3425011 to 3425049.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Hand Saws and Saw Blades lndustry totaled $\$ 103$ million. This amount included shipments of hand saws and saw blades (primary products) valued at $\$ 72$ million; shipments of other products (secondary products) valued at $\$ 20$ million; and miscellaneous receipts at $\$ 11$ million.

This industry's shipments of hand saws and saw blades represented 78 percent of its total product shipments. The industry specialization ratio in 1958 was 82 percent.

Shipments of hand saws and saw blades by this industry in 1963 represented 85 percent of all shipments of these products ( $\$ 85$ million) by all industries. In 1958 the coverage ratio was 90 percent.

The production index for the primary products of the industry increased to 89 in 1963 from the 1958 level of 88 . The unit value index for 1963 was 148 compared to 134 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3429—HARDW ARE, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing miscellaneous metal products usually termed "hardware" and not elsewhere classified. Establishments primarily engaged in manufacturing bolts and nuts are classified in industry 3452, nails and spikes in Major Group 33, cutlery in industry 3421, hand tools in industry 3423, and pole line and transmission hardware in Major Group 36. For a detailed list of products of industry 3429 , refer to table 6 A , product codes 3429111 to 3429598.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Hardware, N.E.C., Industry totaled $\$ 1,785$ million. This amount included shipments of hardware, n.e.c.,(primary products) valued at $\$ 1.553$ million; shipments of other products (secondary products) valued at $\$ 158$ million; and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 74$ million.

This industry's shipments of hardware, n.e.c., represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 89 percent. Secondary products shipped by this industry in 1963 included fabricated metal products, n.e.c. ( $\$ 13$ million), and job stampings, except automatic ( $\$ 8$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 48 percent of the total industry shipments are represented by plants specializing in transportation hardware, and 28 percent in builders' hardware.

Shipments of hardware, n.e.c., by this industry represented 93 percent of all shipments of these products ( $\$ 1,663$ million) by all industries. In 1958 the coverage ratio was also 93 percent. Other industries shipping hardware, n.e.c., included industry 3461, Metal Stampings, $\$ 13$ million; industry 3537, lndustrial Trucks and Tractors, $\$ 6$ million; and industry 3964, Needles, Pins, and Fasteners, $\$ 6$ million.

METAL CANS: SIC 341
Value Added by Manufacture by State: 1963

table 1．General Statistics： 1963 and Earlier Years

| Year | Com－panies T （number） | Establisiments |  | All employe |  | Production woikers |  |  |  | Cost ofmaterials （ $\$ 1,000$ ） | Value of shipments $(\$ 1,000)$ | Capital expenc－itures， new （ $\$ 1,000$ ） |  | Cor． erage raito <br> （per． <br> cent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | $\begin{array}{\|l\|l\|} \hline \text { with } 20 \\ \text { enploy } \\ \text { opes } \\ \text { of nore } \\ \text { (number) } \end{array}$ | $\underset{\substack{\text { Total } \\ \text {（number）}}}{ }$ | Payroll （ 51,000$)$ | （number） | Man－hours $(1,000)$ | Wages （ 51,000$)$ |  |  |  |  |  |  |
|  | InduSTry 3411．－netal cans |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | （Na）（Na）（Na）（Na）（N2）（Na）（Na）（Na）（Na） |  | 206（NA）（NA）（NA）（NA）1890（NA）（NA）（NA）175 | 53，2 | 377，031 | 46，110 |  | 311，058 | 830，515 | 1，265，197 | 2，075，014 |  | 97 |  |
| ${ }^{1}$ |  |  |  | 53， |  | 46 | 98，422 |  |  |  | 2，112 |  | （na） | （na） |
| $1960^{2}$ ． |  |  |  | 53，5 | 333， | 46， | 95 ， | 275， | 666 | 1，279， | 1，936， | 68，425 | （NA） | （NA） |
| ${ }_{195959} 19$. |  |  |  | 年，72， 38 | 332， | ${ }_{46,}^{46,}$ |  | 273， | 668，260 | 1，250，791 | 1，933， | 年， 5 | （NA） | $\stackrel{(\mathrm{NA})}{99}$ |
| $1957{ }^{1}$ |  |  |  |  | 290 | 47， 5 |  | 238， | ${ }_{647,8}^{606}$ | 1，063，708 | 1，644， |  | ${ }_{98}^{98}$ |  |
|  |  |  |  | 55，083 | ${ }_{255}^{277,}$ | ${ }_{\text {47，}}^{47,596}$ |  | ${ }_{211}^{229,29}$ | － 673,040 | 1，037，981 |  | 4， $\begin{gathered}4,773 \\ 43,762\end{gathered}$ | （NA） | （Na） |
| 105 |  |  |  | 55，234 | 245，134 | 48，008 | 97，574 | 202 | 500，408 | 897，795 | 1，381， | 50，093 | （1a） | （Na） |
|  | （（NA） | $\begin{aligned} & (\mathrm{NA}) \\ & (\mathrm{Na}) \\ & (\mathrm{Na}) \end{aligned}$ | $\begin{aligned} & (\mathrm{NA}) \\ & (\mathrm{NA}) \end{aligned}$ | 55，779 | 225,2 | 48,541 <br> 45,281 | $\begin{aligned} & 97,877 \\ & 94,504 \\ & 95,331 \end{aligned}$ |  | 9816 | 90 | 1，321 |  | （NA） | （Na） |
| ${ }_{1951}^{1951}$ |  |  |  |  | 177，962 | 4， 4 4， 4,85 |  | － 140,966 | cene 392,087 |  |  |  |  |  |
| 1950 | （Na） | （NA） | （NA） |  |  |  | $\begin{aligned} & 95,331 \\ & 93,814 \\ & 9,6210 \end{aligned}$ |  |  |  |  | 年38，988 | （NAA） | （1NA） |
|  |  | （NA） | （172） | ${ }_{4}^{46,774} 4$ | －126，941 | 40,218 40,779 | $8,3,48$84,715 | － 1105,3743 | 275， | ${ }_{625,614}$ |  |  | ${ }_{\text {（Na）}}$ |  |
| $1939{ }^{5}$ |  |  |  |  |  |  |  |  |  | 242,669245,110 |  | （nas） | （ NA （ ${ }^{\text {（Na）}}$（1） | （NA）$\left(\begin{array}{c}\text {（NA）} \\ \text {（NA）} \\ \text {（NA）}\end{array}\right.$ |
| ${ }_{19356}^{1937}$ | （NA） | 222 204 | （NA） | 边 38,330 | 4， 4,426 37,067 | 33,145 <br> 27,484 |  | 37,192 27，826 |  |  |  |  |  |  |
|  |  |  |  | 25，883 | 27，604 | ${ }_{23,34}$ | （NA） | 22，693 | 80，900 | 2067，046 | － | （NA） | （NA） |  |
|  | $(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$ | 199232236221221244301294318377374 | （NA）（NA）（NA）（NA）（NA）（NA）（NA）（NA）（NA） |  |  |  |  |  |  |  |  | $(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$$(\mathrm{NA})$ |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | industr | 3421．－cul | İRY |  |  |  |  |  |
| 1963 <br> $1961^{1}$ <br> 1961 <br> $1959^{1}$ <br> 1958. <br> $1956^{7}$ | （NA）$\left.\begin{array}{c}\text {（NA）} \\ \text {（NA）} \\ \text {（NA）} \\ \text {（NA）} \\ \text {（178）} \\ \text {（NA）} \\ \text {（NA）}\end{array}\right)$ | 161（NA）（NA）（NA）（NA）（NA）（NA）（NA） | $\begin{aligned} & \left(\begin{array}{c} (\mathrm{NA} \\ (\mathrm{NA}) \\ (\mathrm{NA}) \\ (\mathrm{NA} A \\ (\mathrm{NA}) \\ (\mathrm{NA}) \\ (\mathrm{NA}) \end{array}\right) \end{aligned}$ |  |  |  |  |  |  |  |  | $\begin{aligned} & 12,382 \\ & 11,423 \\ & 6,487 \\ & 3,377 \\ & 3,2770 \\ & 2,370 \\ & 2,645 \\ & 3,388 \end{aligned}$ | $\begin{gathered} 89 \\ (\mathrm{NA}) \\ (\mathrm{NA}) \\ (\mathrm{NA}) \\ (\mathrm{NA}) \\ (\mathrm{M}) \\ 89 \\ (\mathrm{NA}) \end{gathered}$ | （MA）（NA）（MA）（NA）9896）（NA） |
|  |  |  |  | 11， | 60，289 | 8，60 | 17， | 40，6 |  |  |  |  |  |  |
|  |  |  |  | 11，298 | 55，834 | 8，58 | 17，202 | 35，2 | 157， | ${ }^{54,728}$ | 209 |  |  |  |
|  |  |  |  | 12，093 |  | － | －17，558 | 35, <br> 34,2 <br> 1 | 1250， | 51，799 |  |  |  |  |
|  |  |  |  |  |  | 11，211 |  |  |  |  |  |  |  |  |
|  |  |  |  | 14， |  | 11，82 | 23，782 | 2，210 | 141，374 | ， | 191，018 |  |  |  |
|  | （NA）179（NT）（NA）（NA）（NA）（NN）（Na）（NA） | （NA）1128$(\mathrm{NA})$（NA）（NA）（NA）（NA）195124124 | （NA）79（NA）（NA）（NA）（NA）（NA）（NA）（NA） |  |  |  |  |  |  |  |  | 4,2722,333$($（NA）（NA）（NA）（NA）（NA）$5(774$（NA） | （NA）（NA）（NA）（NA）（NA）（NA）（NA）（NA）（NA） |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | RY 34 | d | Toot |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | ${ }^{325}$ |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 26 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 229， |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 230，890 |  |  |  |  |  |
|  | Industry 3425．－THAND SANS AND SAN BIADES |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{gathered} 70 \\ \left(\begin{array}{c} (N A) \\ (N A) \\ (\mathrm{NA}) \end{array}\right) \end{gathered}$ | $\left.\begin{aligned} & \text { (NA) } \\ & (\mathrm{NA}) \\ & (\mathrm{NA}) \\ & (\mathrm{NA}) \end{aligned} \right\rvert\,$ |  | $\begin{aligned} & 5,095 \\ & 5,285 \\ & 5,245 \\ & 5,454 \\ & 5,45 \end{aligned}$ | $\begin{aligned} & 29,148 \\ & 29.126 \\ & 29.723 \\ & 29,708 \end{aligned}$ | $\begin{aligned} & 3,768 \\ & 3,957 \\ & 4,100 \\ & 4,045 \end{aligned}$ | $\begin{aligned} & 7,721 \\ & 8,066 \\ & 8,131 \\ & 8,389 \\ & 8,39 \end{aligned}$ | $\begin{aligned} & 19,621 \\ & 198,866 \\ & 19,095 \\ & 19,490 \end{aligned}$ | $\begin{aligned} & 65,634 \\ & 64,884 \\ & 67,849 \\ & 65,240 \end{aligned}$ | $\begin{aligned} & 38,610 \\ & 37,64 \\ & 38,204 \\ & 34,767 \end{aligned}$ | $\begin{aligned} & 102,782 \\ & 102,782 \\ & 102,27 \\ & 100,107 \end{aligned}$ | $\begin{aligned} & 6,306 \\ & 2,156 \\ & \begin{array}{l} 1,756 \\ 2,3730 \end{array} \end{aligned}$ |  | （ $\begin{aligned} & \text {（ } \mathrm{BA} \text { ）} \\ & \text {（NA）} \\ & \text {（NA）}\end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

[^111]table 1. General Statistics: 1963 and Earlier Years -Continued

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe- <br> cial- <br> ization <br> ratio <br> (per- <br> cent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 <br> employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3425. -HAND SAWS AND SAW BLADES-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19591. | (NA) | (NA) | (NA) | 5,657 | 30,946 | 4,321 | 8,640 | 21,403 | 67,539 | 38,479 | 105,205 | 1,636 | (NA) | (NA) |
| 1958 | 82 | 89 | 38 | 5,509 | 28,311 | 4,077 | 7,883 | 18,482 | 53,658 | 32,799 | 87,626 | 1,225 | 82 | 90 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 6,197 | 31,375 | 4,763 | 9,015 | 21,167 | 59,714 | 35,608 | 93,452 | 1,961 | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 7,249 | 34,047 | 5,705 | 11,056 | 23,884 | 65,852 | 40,707 | 103,477 | 2,462 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 7,415 | 32,544 | 5,906 | 11,474 | 23,210 | 57,933 | 37,023 | 93,841 | (S) | (NA) | (NA) |
| 1954 | 95 | 99 | 42 | 6,879 | 29,287 | 5,327 | 10,320 | 19,927 | 51,097 | 33,834 | 88,426 | 1,582 | 71 | 90 |
| $1953{ }^{\text {i }}$ | (NA) | (NA) | (NA) | 7,712 | 32,335 | 6,076 | 12,976 | 23,603 | 52,701 | 35,243 | 87,944 | (NA) | (NA) | (NA) |
| 19521 | (NA) | (NA) | (NA) | 6,831 | 27,882 | 5,241 | 11,255 | 19,819 | 49,051 | 30,145 | 79,196 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 7,946 | 33,477 | 6,435 | 14,487 | 25,444 | 59,407 | 40,525 | 99,932 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 7,366 | 27,139 | 5,861 | 12,046 | 20,064 | 50,310 | 25,138 | 75,448 | (NA) | (NA) | (NA) |
| 1947. | 81 | 89 | 43 | 8,441 | 25,600 | 7,380 | 15,543 | 20,872 | 42,975 | 27,455 | 70,430 | (NA) | 78 | 87 |
| 1939. | (NA) | 87 | (NA) | 4,902 | 7,097 | 4,072 | (NA) | 5,198 | 11,686 | 6,785 | 18,471 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 80 | (NA) | 4,953 | 7,043 | 4,384 | (NA) | 5,576 | 12,438 | 7,415 | 19,853 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 82 | (NA) | 4,156 | 5,239 | 3,425 | (NA) | 3,731 | 8,426 | 5,223 | 13,649 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 71 | (NA) | 3,129 | 3,213 | 2,528 | (NA) | 2,347 | 6,923 | 3,003 | 9,926 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 78 | (NA) | (NA) | (NA) | 3,005 | (NA) | 3,084 | 7,537 | 4,035 | 11,572 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 81 | (NA) | 5,077 | 8,002 | 4,137 | (NA) | 5,727 | 15,731 | 6,884 | 22,615 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 77 | (NA) | 5,134 | 7,873 | 4,182 | (NA) | 5,754 | 14,954 | 7,674 | 22,628 | (NA) | (NA) | (NA) |
| 1925 | (NA) | 71 | (NA) | 5,534 | 7,626 | 4,710 | (NA) | 5,873 | 16,485 | 8,224 | 24,709 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 80 | (NA) | 6,373 | 8,959 | 5,420 | (NA) | 6,730 | 21,047 | 9,740 | 30,787 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 79 | (NA) | 4,570 | 6,099 | 3,788 | (NA) | 4,087 | 11,705 | 6,480 | 18,185 | (NA) | (NA) | (NA) |
| 1919. | (NA) | 112 | (NA) | 6,621 | 8,672 | 5,510 | (NA) | 6,281 | 19,669 | 11,792 | 31,461 | (NA) | (NA) | (NA) |
| 1914. | (NA) | 100 | (NA) | 5,411 | 4,174 | 4,560 | (NA) | 3,019 | 7,803 | 4,714 | 12,517 | (NA) | (NA) | (NA) |
| 1909. | (NA) | 96 | (NA) | 5,673 | 3,823 | 4,832 | (NA) | 2,856 | 6,624 | 4,912 | 11,536 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 83 | (NA) | 5,226 | 3,331 | 4,650 | (NA) | 2,707 | 5,784 | 4,036 | 9,820 | (NA) | (NA) | (NA) |
| 1899..... | (NA) | 86 | (NA) | 3,527 | 2,022 | 3,215 | (NA) | 1,693 | 3,844 | 2,600 | 6,444 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3429.-HARDWARE, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 446 | 88,142 | 529,217 | 70,238 | 145,633 | 383,419 | 1,063,661 | 730,482 |  | 70,959 | 91 | 93 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 89,914 | 500,554 | 69,177 | 142,035 | 355,194 | 966,592 | 693,650 | 1,651,811 | 36,601 | (NA) | (NA) |
| $1961{ }^{1}$. | (NA) | (NA) | (NA) | 87,174 | 465,186 | 65,813 | 133,105 | 320,668 | 838,328 | 636,879 | 1,467,415 | 39,234 | (NA) | (NA) |
| $1960^{1}$. | (NA) | (NA) | (NA) | 92,200 | 497,107 | 71,435 | 145,050 | 344,108 | 886,139 | 668,765 | 1,552,388 | 37,785 | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 89,350 | 471,996 | 69,555 | 145,735 | 329,510 | 872,944 | 647,737 | 1,500,780 | 26,858 | (NA) | (NA) |
| 1958. | 1,022 | 1,059 | 454 | 88,105 | 433,304 | 68,078 | 134,166 | 301,509 | 754,943 | 590,744 | 1,347,879 | 25,644 | 89 | 93 |
| $1957{ }^{1}$. | (NA) | (NA) | (NA) | 92,732 | 450,273 | 74,463 | 150,757 | 328,117 | 783,191 | 585,763 | 1,359,422 | 35,559 | 89 | 91 |
| $1956{ }^{1}$. | (NA) | (NA) | (NA) | 92,887 | 428,748 | 75,418 | 153,489 | 316,108 | 766,578 | 561,657 | 1,312,616 | 51,944 | (NA) | (NA) |
| $1955^{1}$ | (NA) | (NA) | (NA) | 99,200 | 444,002 | 83,055 | 170,346 | 341,966 | 821,526 | 545,345 | 1,344,590 | 53,820 | (NA) | (NA) |
| 1954. | 852 | 869 | 361 | 88,296 | 380,464 | 72,708 | 147,920 | 286,371 | 638,962 | 483,219 | 1,126,335 | 47,436 | 86 | 90 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 93,437 | 390,837 | 78,780 | 162,619 | 303,897 | 632,739 | 495,595 | 1,128,334 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 76,780 | 309,364 | 63,188 | 130,246 | 233,198 | 502,883 | 350,620 | 853,503 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$. | (NA) | (NA) | (NA) | 82,972 | 309,587 | 69,043 | 141,380 | 235,617 | 531,810 | 383,235 | 915,045 | (NA) | (NA) | (NA) |
| 19501. | (NA) | (NA) | (NA) | 83,500 | 283,741 | 70,310 | 144,601 | 217,638 | 507,878 | 339,168 | 847,046 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 75,885 | 242,860 | 62,859 | 126,764 | 181,740 | 395,194 | 296,372 | 691,566 | (NA) | (NA) | (NA) |
| 1947. | (NA) | 730 | (NA) | 77,473 | 216,558 | 65,611 | 133,018 | 169,642 | 350,511 | 235,499 | 586,010 | (NA) | 89 | 91 |
| $1939{ }^{8}$. | (NA) | 462 | (NA) | (NA) | (NA) | 38,035 | (NA) | 43,373 | 100,767 | 66,615 | 167,382 | (NA) | (NA) | (NA) |

 table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the l5th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production






 rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manu-
 lishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
${ }^{2}$ Data for Alaska and Hawaii are excluded for 1958 and earlier years.
${ }^{3}$ Figures for 1958-1963 and 1929 and earlier years do not include dairymens' tinware.
${ }^{4}$ A number of small establishments were misclassified into industry 3411 that should have been included in other industries. This affects the total establishments and total company counts and the number of establishments in the smaller size classes for industry 3411 , but has no
appreciable effect on the employment, value of shipments and other statistics of this industry.
${ }^{5}$ The figures for 1939 are not entirely comparable with those for earlier years. Value added by manufacture for 1939 on a basis comparable with arlier years was $\$ 123.6$ million.

Data for stamped tinware, other than tin cans, are excluded from the figures for 1925-1935.
""Metal cans" was formerly a part of the discontinued industry "Tinsmitting, coppersmitting and sheet iron working." Separate figures for l899 are, therefore, not available.
${ }^{8}$ No comparable data are available for earlier years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{3}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacadjusted $(\$ 1,000)$ | Cost of materials <br> $(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expendnew $(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | (number) | $\begin{gathered} \text { With 20 } \\ \text { enploy } \\ \text { ees } \\ \text { or more } \\ \text { (number) } \end{gathered}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> ( $\$ 1,000$ ) | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { Mours } \\ (1,000) \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total. | INDUSTRY 3411.-METAL CANS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 270 | 206 | 53,245 | 377,031 | 46,110 | 97,340 | 311,058 | 830,515 | 1,265, 197 | 2,075,014 | 66,507 | 54,238 | 668,606 |
| New England.... | 7 | 6 | 765 | 5,176 | 644 | 1,360 | 3,932 | 13,013 | 21,619 | 34,370 | 591 | 748 | 9,390 |
| Middle Atlantic.... <br> New York. <br> New Jersey <br> ....... | 622819 | $\begin{aligned} & 46 \\ & 15 \\ & 16 \end{aligned}$ | $\begin{array}{r}13,217 \\ 3,286 \\ \hline 18\end{array}$ | 90,172 | 11,542 | 24,771 | 75,083 | 190,023 | $\begin{array}{r} 264,893 \\ 65,557 \\ 114,353 \end{array}$ | $\begin{aligned} & 452,864 \\ & 109,269 \\ & 203,840 \end{aligned}$ | 14,686 | 13,835 | 150,718 |
|  |  |  | $\begin{aligned} & 3,286 \\ & 5,562 \end{aligned}$ | $\begin{aligned} & 21,917 \\ & 39,092 \end{aligned}$ | $\begin{aligned} & 2,800 \\ & 4,836 \end{aligned}$ | $\begin{array}{r} 5,891 \\ 10,322 \end{array}$ | $\begin{aligned} & 17,538 \\ & 32,325 \end{aligned}$ | $\begin{aligned} & 4,342 \\ & 90,544 \\ & 90 \end{aligned}$ |  |  | 2,529 | 3,830 | 36,656 |
| Pennsylvania..... | 15 | 15 | 4,369 | $\begin{aligned} & 39,092 \\ & 29,163 \end{aligned}$ | $\begin{aligned} & 4,836 \\ & 3,906 \end{aligned}$ | 8,558 | 25,220 | 55,137 | -84,983 | 139,755 | $6,151$ | 4,368 | 41,692 |
| East North Central. | 52 | 48 | $\begin{array}{r} 15,143 \\ 10,051 \\ 2,01 \end{array}$ | 106,28370,99714,425 | $\begin{array}{r} 12,997 \\ 8,655 \\ 1,768 \end{array}$ | $\begin{aligned} & 27,051 \\ & 18,021 \end{aligned}$ | $\begin{aligned} & 86,631 \\ & 58,328 \end{aligned}$ | $\begin{aligned} & 226,726 \\ & 139,284 \end{aligned}$ | $\begin{aligned} & 324,364 \\ & 177,131 \end{aligned}$ | $\begin{aligned} & 548,722 \\ & 314,686 \end{aligned}$ | $\begin{aligned} & 15,130 \\ & 10,336 \end{aligned}$ | $\begin{array}{r} { }^{(2)} \mathbf{n} \\ 11,233 \end{array}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 128,821 \end{array}$ |
| Illinois..........Wisconsin....... | 219 | 2877 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 3,628 | 12,150 | 27,919 | 62,453 | 90,002 | 2,217 | 2,025 | 33,466 |
| West North Central. | 16 | 10 | 4,140 | 30, 154 | 3,641 | 7,622 | 25,462 | 68,778 | 103,710 | 171,535 | 5,051 | $(2)^{2}$ | ${ }^{(2)}$ |
| South Atlantic.....Maryland.......Florida....... | 341012 | 2799 | 6,2693,694 | $\begin{aligned} & 46,467 \\ & 26,962 \end{aligned}$ | $\begin{aligned} & 5,368 \\ & 3,186 \end{aligned}$ | $\begin{gathered} 11,842 \\ 6,966 \end{gathered}$ | $\begin{aligned} & 38,250 \\ & 22,317 \end{aligned}$ | $\begin{aligned} & 84,315 \\ & 44,229 \end{aligned}$ | 147,41470,947 | $\begin{aligned} & 227,951 \\ & 113,040 \end{aligned}$ | $\begin{aligned} & 8,817 \\ & 1,748 \end{aligned}$ | 6,1984,269 | 63,93738,833 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 1,621 | 13,297 | 1,345 | 3,111 | 10,817 | 24,802 | 49,072 | 72,316 | 4,370 | 1,591 | 20,820 |
| East South Central. | 8 | 5 | 378 | 2,029 | 344 | 720 | 1,764 | 8,377 | 17,579 | 25,958 | 712 | 221 | 2,551 |
| West South Central.Texas......... | 1812 | 11 | $\begin{aligned} & 3,386 \\ & 1,978 \end{aligned}$ | $\begin{aligned} & 25,344 \\ & 15,000 \end{aligned}$ | $\begin{aligned} & 2,906 \\ & 1,678 \end{aligned}$ | $\begin{aligned} & 6,127 \\ & 3,534 \end{aligned}$ | $\begin{aligned} & 20,560 \\ & 11,934 \end{aligned}$ | 50,29633,208 | $\begin{aligned} & 81,820 \\ & 52,057 \end{aligned}$ | 131,36784,464 | $\begin{aligned} & 7,294 \\ & 5,937 \end{aligned}$ | 3,4292,117 | $\begin{aligned} & 43,959 \\ & 26,448 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mountain........... <br> colorado. | 9 | 5 3 | $\begin{aligned} & 415 \\ & 243 \end{aligned}$ | $\begin{aligned} & 2,854 \\ & 1,781 \end{aligned}$ | $\begin{aligned} & 347 \\ & 208 \end{aligned}$ | $\begin{aligned} & 760 \\ & 478 \end{aligned}$ | 2,220 1,419 | $\begin{array}{r} 11,508 \\ 7,287 \end{array}$ | $\begin{aligned} & 19,700 \\ & 12,477 \end{aligned}$ | $\begin{aligned} & 31,079 \\ & 19,56 \end{aligned}$ | $\begin{aligned} & 544 \\ & 274 \end{aligned}$ | $\begin{aligned} & 294 \\ & \left.{ }^{2}\right) \end{aligned}$ | 4,948 ${ }_{(2)}$ |
| Pacific. Washington........ Califormia | $\begin{gathered} 64 \\ 9 \\ 44 \end{gathered}$ | $\begin{array}{r} 48 \\ 7 \\ 33 \\ \hline \end{array}$ | $\begin{array}{r} 9,532 \\ 815 \\ 7,905 \\ \hline \end{array}$ | $\begin{array}{r} 68,552 \\ 5,834 \\ 57,633 \\ \hline \end{array}$ | $\begin{array}{r} 8,321 \\ 695 \\ 6,931 \\ \hline \end{array}$ | $\begin{array}{r} 17,087 \\ 1,358 \\ 14,316 \\ \hline \end{array}$ | $\begin{array}{r} 57,156 \\ 4,734 \\ 48,495 \\ \hline \end{array}$ | $\begin{array}{r} 177,470 \\ 18,485 \\ 143,400 \\ \hline \end{array}$ | $\begin{array}{r} 284,098 \\ 32,847 \\ 209,555 \\ \hline \end{array}$ | $\begin{array}{r} 451,168 \\ 47,916 \\ 347,284 \\ \hline \end{array}$ | $\begin{aligned} & 13,672 \\ & 13,422 \\ & 11,920 \end{aligned}$ | $\begin{array}{r} 39,601 \\ 3 \\ \left({ }^{2}\right) \\ 8,129 \end{array}$ | $\begin{array}{r} { }^{3} 128,835 \\ (2) \\ 109,986 \\ \hline \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | INDUSTRY 3421.-CUTLERY |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 161 | 67 | 11,837 | 64,281 | 9,487 | 19,312 | 43,896 | 213,998 | 72,934 | 283,352 | 12,382 | 11,831 | 126,310 |
| New England......... | 30 | 20 3 | 5,089 162 | 29, 176 | $\begin{array}{r}4,020 \\ 4 \\ \hline 151\end{array}$ | 8, 192 | 19,817 612 | 148,520 1,199 | 35,838 717 | 183,690 1,969 | 10, 168 | $\begin{gathered} 4,884 \\ \left({ }^{2}\right) \end{gathered}$ | 73, ${ }_{(213}$ |
| Middle Atlantic | 61 | 32 | 4,041 | 20,818 | 3,341 | 6,743 | 15,033 | 34,052 | 19,015 | 52,432 | ${ }^{626}$ | 4,842 | 33,652 |
| New York. | 28 | 18 | 2,137 | 10,838 | 1,753 | 3,343 | 7,809 | 16,717 | 11,608 | 27,859 | (D) | 2,724 | 17,860 |
| North Central | 46 | 10 | 1,298 | 5,909 | 1,088 | 2,093 | 4,357 | 14,219 | 9,438 | 21,948 | 721 | 729 |  |
| Ohio. | 16 | 5 | 879 | 3,985 | 730 | 1,384 | 2,889 | 10,323 | 6,898 | 15,417 | 633 | 394 | 3,168 |
| South and West.. | 24 | 5 | 1,409 | 8,378 | 1,038 | 2,284 | 4,689 | 17,207 | 8,643 | 25,282 | 867 | 1,376 | 13,760 |
|  |  |  |  |  |  | Industr | 23.--1 | And EDCa | ools |  |  |  |  |
| Total. | 716 | 255 | 31,480 | 176,837 | 24,508 | 48,716 | 125,652 | 364, 265 | 207,356 | 565,590 | 10,955 | 30,273 | 267,316 |
| New England. | 119 | 4 | 5,628 | 31,181 | 4,326 | 8,841 | 21,843 | 54,457 | 33,500 | 85,190 | 2,487 | 6,265 | 48,572 |
| Massachusetts. | 57 | 20 | 2,968 | 16,283 | 2,265 | 4,500 | 11,031 | 28,003 | 18,812 | 4,4,644 | 839 | 2,926 | 22,039 |
| Phode Island. Connecticut. | 15 28 | ${ }_{13}^{2}$ | 2,103 | 24, 12,417 | 1,967 | 3,367 | 8,836 | 22,040 | 13,044 | 34,468 | 1,249 | 2,024 | 16,491 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Middle Atlantic.. New York...... | 168 71 | 77 29 | 8,502 4,120 | $4,4,869$ 22,524 | 6,783 3,181 | 13,308 6,229 | 33,133 16,127 | 94,867 47,415 | 56,242 29,931 | 151,257 77,833 | 3,130 1,489 | 7,375 3,546 | 63,432 30,478 |
| New Jersey........ | 40 | 19 | 1,646 | 7,850 | 1,312 | 2,647 | 5,855 | 18,683 | 10,573 | 29,179 | , 475 | 1,540 | 12,714 |
| Pennsylvania. | 57 | 29 | 2,736 | 14,495 | 2,290 | 4,432 | 11,151 | 28,769 | 15,738 | 44,245 | 1,166 | 2,289 | 20,300 |
| East North Central. | 223 | 77 | 10,442 | 61,627 | 8,203 | 16,147 | 44,414 | 138,808 | 76,916 | 214,704 | 3,455 | 10,045 | 98,601 |
| Ohio....... | 76 | 28 | 4,435 | 27,337 | 3,467 | 6,867 | 19,546 | 56,246 | 30,531 | 86,784 | 1,291 | 4,410 | 40,745 |
| Illinois......... | 66 | 24 | 3,081 | 17,964 | 2,393 | 4,705 | 12,710 | 41,860 | 21,066 | 62,395 | 959 | 3,369 | 33, 219 |
| Michigan.......... | 42 | 13 | 837 | 5,126 | 578 | 1,153 | 3,141 | 11,436 | 5,515 | 16,658 | 349 | 658 | 5,190 |
| West South Central. | 57 | 26 | 2,493 | 14,041 | 2,050 | 4,159 | 10,483 | 25,164 | 13,292 | 38,141 | 494 | 2,985 | 24,170 |
| Minnesota........ | 13 | 7 | 880 | 4,858 | 677 | 1,398 | 3,415 | 8,105 | 4,639 | 12,682 | 166 | 853 | 6,533 |
| Iowa............. | 9 | 2 | 152 | 864 | 131 | 274 | 632 | 1,842 | 1,232 | 3,076 | (D) | 259 | 3,603 |
| South.. | 47 | 13 | 2,575 | 13,756 | 1,907 | 3,831 | 9,175 | 29,274 | 15,353 | 42,643 | 823 | 1,738 | 15,248 |
| West. . | 102 | 18 | 1,840 | 11,363 | 1,239 | 2,430 | 6,604 | 21,695 | 12,053 | 33,655 | 566 395 | 1,865 | 17, 293 |
| Califo | 82 | 12 | 1,425 | 8,942 | 936 | 1,844 | 5,059 | 16,950 | 9,221 | 25,972 | 395 | 1,474 | 13,768 |

See footnotes at end of table.
table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3425.-HAND SAWS AND SAW BLADES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total... | 76 | 42 | 5,095 | 29,148 | 3,768 | 7,721 | 19,621 | 65,634 | 38,610 | 102,782 | 6,340 | 5,509 | 53,658 |
| New England........ | 11 | 9 | 2,012 | 11,999 | 1,526 | 3,175 | 9,081 | 30,071 | 17,048 | 46,381 | 5,213 | 1,921 | 23,111 |
| Middle Atlantic.... New York.......... | 19 | 12 | 694 395 | 4,063 2,386 | 506 294 | 1,020 598 | 2,545 | 7,697 4,503 | 3,437 2,581 | 11,163 7,182 | $\begin{aligned} & 263 \\ & \text { (D) } \end{aligned}$ | 1,676 480 | 11,356 3,340 |
| North Central...... Ohio. | 22 | 12 | 945 311 | 5,440 1,661 | 728 244 | 1,464 489 | 3,689 1,229 | 12,186 3,128 | 6,508 1,727 | 18,443 4,740 | 573 175 | 1,541 245 | 14,653 $1,45 ?$ |
| South and West..... | 24 | 9 | 1,446 | 7,646 | 1,008 | 2,062 | 4,306 | 15,680 | 11,617 | 26,795 | 291 | 371 | 4,538 |
|  | INDUSTRY 3429.-HARDWARE, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 1,069 | 446 | 88,142 | 529,217 | 70,238 | 145,633 | 383,419 | 1,063,661 | 730,482 | 1,785,134 | 70,959 | 88,105 | 754,943 |
| New England....... New Hampshire... | 106 4 | 48 3 | 13,159 390 | 69,504 1,980 | 9,891 331 | 19,407 711 | 47,706 1,366 | 119,167 2,874 | 78,206 1,569 | 196,211 4,360 | 8,327 45 | 16,722 ${ }^{(2)}$ | 113,863 ${ }^{(2)}$ |
| Massachusetts. | 38 | 15 | 2,780 | 12,753 | 2,038 | 4,226 | 9,645 | 18,956 | 13,084 | 31,419 | 640 | 3,596 | 23,087 |
| Connecticut. | 55 | 27 | 9,496 | 52,535 | 7,168 | 13,759 | 34,841 | 94,911 | 59,593 | 153,947 | 7,528 | 12,225 | 85,898 |
| Middle Atlantic. | 230 | 93 | 13,958 | 85,771 | 11,168 | 23,488 | 62,076 | 172,098 | 117,382 | 287,349 | 13,671 | 14,089 | 116,540 |
| New York.. | 135 | 49 | 5,874 | 33,712 | 4,515 | 9,357 | 22,435 | 60,872 | 53,655 | 114,016 | 7,106 | 5,141 | 42,809 |
| New Jersey.. | 39 | 16 | 5,317 | 38,369 | 4,424 | 9,663 | 29,942 | 87,944 | 46,891 | 133,404 | (D) | 5,271 | 49,540 |
| Pennsylvania. | 56 | 28 | 2,767 | 13,690 | 2,229 | 4,468 | 9,699 | 23,282 | 16,836 | 39,939 | (D) | 3,677 | 24,191 |
| East North Central. | 346 | 168 | 42,856 | 279,085 | 35,073 | 74,296 | 211,700 | 584,071 | 400,546 | 981,971 | 37,450 | 41,835 | 384,617 |
| Ohio..... | 65 | 29 | 8,476 | 58,771 | 6,642 | 13,760 | 43,436 | 133,097 | 92,402 | 226,098 | 13,828 | 8,038 | 77,587 |
| Indiana. | 34 | 18 | 2,753 | 15,820 | 2,183 | 4,513 | 11,132 | 32,979 | 28,820 | 61,555 | 3,257 | 2,706 | 23,407 |
| Illinois. | 112 | 57 | 11,574 | 65,301 | 9,295 | 19,068 | 47,418 | 121,747 | 76,834 | 198,529 | 4,310 | 11,391 | 109, 142 |
| Michigan......... | 107 | 52 | 17,636 | 125,644 | 14,914 | 32,843 | 99,748 | 266,256 | 186,309 | 450,458 | 14,881 | 17,879 | 157,190 |
| Wisconsin........ | 28 | 12 | 2,417 | 13,549 | 2,039 | 4,112 | 9,966 | 29,992 | 16,181 | 45,331 | 1,174 | 1,821 | 17,291 |
| West North Central. | 43 | 17 | 1,946 | 10,279. | 1,586 | 3,043 | 6,638 | 19,428 | 18,820 | 38,127 | 777 | 1,944 | 17,003 |
| Minnesota........ | 15 | 4 | 475 | 2,275 | 365 | 668 | 1,212 | 5,638 | 4,764 | 10,362 | 212 | 632 | 4,911 |
| Iowa............. | 7 | 4 | 454 | 2,260 | 366 | 633 | 1,459 | 4,243 | 6,955 | 11,327 | 255 | 419 | 5,576 |
| Missouri. | 16 | 8 | 949 | 5,497 | 798 | 1,629 | 3,789 | 8,948 | 6,423 | 15,194 | 297 | 769 | 5,390 |
| South Atlantic.... | 54 | 30 | 2,715 | 11,167 | 2,180 | 4,463 | 7,975 | 24,189 | 16,450 | 40,805 | 857 | 1,970 | 11,295 |
| North Carolina... | 13 | 7 | 784 | 3,354 | 647 | 1,340 | 2,404 | 5,539 | 4,653 | 10,185 | 441 | 528 | 3,314 |
| Florida.. | 24 | 8 | 897 | 3,848 | 640 | 1,344 | 2,455 | 11,669 | 7,449 | 19,228 | 240 | 377 | 2,214 |
| East South Central. | 29 | 17 | 3,809 | 15,558 | 3,112 | 5,974 | 10,664 | 34,382 | 23,346 | 55,677 | 2,215 | 2,544 | 19,828 |
| West South Central. | 42 | 9 | 1,005 | 4,179 | 752 | 1,549 | 2,643 | 7,800 | 7,768 | 15,224 | 307 | 831 | 6,298 |
| Arkansas......... | 2 | 4 | 552 | 2,332 | 372 | 781 | 1,263 | 4,791 | 5,271 | 9,707 | 161 | 518 148 | 3,878 1,063 |
| Texas... | 28 | 4 | 264 | 1,245 | 211 | 465 | 901 | 1,988 | 2,318 | 4,315 | 141 | 148 | 1,063 |
| Mountain........... | 11 | 3 | 141 | 741 | 102 | 207 | 474 | 2,204 | 1,272 | 3,510 | 102 | 131 | 1,560 |
| Colorado. | , | 3 | 122 | 676 | 87 | 196 | 423 | 2,128 | 1,160 | 3,339 | (D) | 131 | 1,560 |
| Pacific...... | 208 | 71 | 8,553 | 52,933 | 6,374 | 13,206 | 33,543 | 100,322 | 66,692 | 166,260 | 7,253 | 8,039 | 83,939 |
| Washington........ | 11 | 3 | 134 |  | 110 | 214 | 621 | 1,706 | 1,044 | 2,484 | 169 | ${ }^{2}$ ) |  |
| Oregon. . . . . . . . . | 13 | 5 | 309 | 1,480 | 224 | 426 | 1,085 | 2,447 | 2,135 | 4,525 | 116 | ${ }^{(2)}$ | (2) |
| California....... | 184 | 63 | 8,110 | 50,661 | 6,040 | 12,566 | 31,837 | 96,169 | 63,513 | 159,251 | 6,968 | 7,533 | 79,077 | Standard Notes: - Represents zero.

(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.

## table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

## Footnotes for Table 2-34A-Contined

SIC 3423, Hand and Edge Tools: New England-Maine, 9 (106); New Hampshire, 5 (100-249); Vermont, 5 (100-249); East North Central-Indiana, 25 (1,549); Wisconsin, 14 (540); West North Central-Missouri, 24 (961); Nebraska, 5 (100-249); Kansas, 6 (250-499); South Atlantic-Maryland, 2 (1-19); District of Columbia, l (1-19); Virginia, 3 (20-99); West Virginia, 4 (1,000-2,499); North Carolina, 5 (371); South Carolina, 1 (500-999); Georgia, 1 (1-19); Florida, 6 (20-99); East South Central-Kentucky, 4 (20-99); Tennessee, 3 (1-19); Alabama, 2 (1-19); Mississippi, 2 (20-99); West South Central-Arkansas, 6 (20-99); Oklahoma, 1 (1-19); Texas, 6 (100-249); Mountain-Colorado, 4 (100-249); Utah, 3 (20-99); Pacific-Washington, 5 (100-249) ; Oregon, 8 (141).
SIC 3425, Hand Saws and Saw Blades: New England-New Hampshire, 1 (20-99); Massachusetts, 5 ( 1,443 ); Connecticut, 5 (500-999); Middle Atlantic-New Jersey, 3 (20-99); Pennsylvania, 6 (279); East North Central-Indiana, 1 (20-99); Illinois, 5 (295); Michigan, 2 (100-249); West North CentralMinnesota, l (1-19); Missouri, 1 (100-249); South Atlantic-Maryland, 1 (1-19); Virginia, 1 (250-499); North Carolina, 3 (20-99); Georgia, 2 (20-99) ; East South Central-Kentucky, 3 (250-499); Alabama, 1 (20-99); Mississippi, 1 (500-999); West South Central-Arkansas, 1 (1-19); Texas, 1 (1-19);'Pacific—Washington, 1 (1-19); Oregon, 2 (20-99); California, 7 (123).
SIC 3429, Hardware, N.E.C.: New England-Maine, 3 (265); Vermont, 1 (20-99); Rhode Island, 5 (100-249); West North Central-South Dakota, 3 (20-99); Nebraska, 1 (1-19); Kansas, 1 (1-19); South Atlantic-Maryland, 7 (20-99); District of Columbia, 2 (20-99); Virginia, 3 (624); West Virginia, 1 (20-99); South Carolina, I (250-499); Georgia, 3 (1-19); East South Central-Kentucky, 7 (252); Tennessee, 15 (2, 450); Alabama, 3 (463); Mississippi, 4 (634); West South Central-Iouisiana, 2 (100-249); Oklahoma, 6 (1-19); Mountain-Idaho, l (1-19); Wyoming, 1 (1-19); Arizona, 2 (1-19); Utah, 1 (1-19).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report
showed the number of establishments and total employment (either actual or in size ranges) for such States.
${ }^{3}$ Excludes data for Alaska and Hawaii.
table 3. Detailed Statistics: 1963

| Item | Metal cans (SIC 3411) | Cutlery (SIC 342I) | Hand and edge tools (SIC 3423) | Hand saws and saw blades (SIC 3425) | Hardware, n.e.c. (SIC 3429) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio!........................... | . 97 | . 89 | . 87 | . 78 | . 91 |
| Coverage ratio? | . 98 | . 97 | . 84 | . 85 | . 93 |
| Establishments, total......................................number. . | 270 | 161 | 716 | 76 | 1,069 |
| With 1 to 19 employees.................................. do.... | 64 | 94 | 461 | 34 | 1,623 |
| With 20 to 99 employees. . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 93 | 40 | 177 | 30 | 283 |
| With 100 employees or more.............................do.... | 113 | 27 | 78 | 12 | 163 |
| Proprietors and working partners.......................do.... | 23 | 66 | 309 | 20 | 361 |
| All employees (average for the year)....................do.... | 53,245 | 11,837 | 31,480 | 5,095 | 88,142 |
| Payroll (all employees), total for year............... $\$ 1,000 .$. | 377,031 | 64,281 | 176,837 | 29,148 | 529,217 |
| Production workers: |  |  |  |  |  |
| Average for the year..................................number.. | 46,110 | 9,487 | 24,508 | 3,768 | 70,238 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . | 44,538 | 9,353 | 24,770 | 3,768 | 69,259 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 46,568 | 9,305 | 24,363 | 3,767 | 69,987 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 48,606 | 9,280 | 24,089 | 3,738 | 68,275 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.. . . | 44,684 | 10,016 | 24,870 | 3,798 | 73,503 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 97,340 | 19,312 | 48,716 | 7,721 | 145,633 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 21,941 | 4,818 | 12,398 | 1,949 | 35,647 |
|  | 25,249 | 4,732 | 12,524 | 2,005 | 36,686 |
| Juiy-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 26,341 | 4,486 | 11,113 | 1,796 | 34,419 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 23,817 | 5,256 | 12,681 | 1,989 | 38,881 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 311,058 | 43,896 | 125,652 | 19,621 | 383,419 |
| Cost of materials, etc., total..........................do. | 1,265,197 | 72,934 | 207,356 | 38,610 | 730,482 |
| Materials, parts, containers, and supplies consumed..do.. | 1,212,470 | 64,462 | 162,649 | 32,665 | 653,977 |
| Cost of resales..........................................do. | 35,741 | 3,823 | 31,199 | 3,883 | 33,554 |
| Fuels consumed...........................................do.... | 6,816 | 878 | 3,275 | 531 | 7,369 |
| Electric energy: |  |  |  |  |  |
| Purchased: <br> Quantity million kw.-hrs.. | 679 | 116 | 217 | 60 |  |
| cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | 8,076 | 1,473 | 3,433 | 897 | 10,764 |
| Generated less sold.......................million kw.-hrs.. | (D) | (D) | (D) | - | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 2,094 | 2,278 | 6,800 | 634 | 24,818 |
| Value of shipments (including resales), total..........do. | 2,075,014 | 283,352 | 565,590 | 102,782 |  |
| Value of resales.........................................do. | 40,598 | 5,290 | 45,341 | 5,029 | 53,337 |
| Value added by manufacture, adjusted.....................do.... | 830,515 | 213,998 | 364,265 | 65,634 | 1,063,661 |
| Manufacturers' inventories: |  |  |  |  |  |
| Beginning of year, total................................do. | 292,330 | 41,370 | 126,961 | 21,969 | 259,694 |
| Finished products.................... . . . . . . . . . . . . . . . do. | 97,361 | 15,864 | 51,615 | 8,899 | 68,987 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 84,288 | 12,000 | 43,063 | 5,800 | 110,376 |
| Materials, supplies, fuel, etc.......................d. ${ }^{\text {do. }}$ | 110,651 | 13,506 | 32,283 | 7,270 | 80,331 |
| End of year, total....................................... . do. | 321,722 | 47,220 | 132,160 | 24,361 | 277,464 |
| Finished products. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 112,560 | 17,585 | 52,360 | 9,835 | 69,737 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 89,787 | 13,859 | 48,349 | 6,326 | 118,635 |
| Materials, supplies, fuel, etc.......................d. ${ }^{\text {do. }}$ | 119,375 | 15,776 | 31,451 | 8,200 | 89,092 |
| Expenditures for plant and equipment, total............do.. | 69,086 | 13,698 | 12,415 | 6,551 | 73,785 |
| New, total.............. . . . . . . . . . . . . . . . . . . . . . . . . . .do.. | 66,507 | 12,382 | 10,955 | 6,340 | 70,959 |
| New structures and additions to plant...............do... | 7,997 | 3,085 | 1,958 | 3,696 | 15,420 |
| New machinery and equipment..........................do.... | 58,510 | 9,297 | 8,997 | 2,644 | 55,539 |
| Used plant and equipment. . . . . . . . . . . . . . . . . . . . . . . . . do.. | 2,579 | 1,316 | 1,460 | 211 | 2,826 |
| Selected operating ratios: |  |  |  |  |  |
| Payroll/Total employment.. | 7,081 | 5,430 | 5,617 | 5,721 | 6,004 |
| Production workers/Total employment. | . 87 | . 80 | . 78 | . 74 | . 80 |
| Man-hours/Production workers.... | 2,111 | 2,036 | 1,988 | 2,049 | 2,073 |
| Production worker wages/Man-hours............................ | 3.20 | 2.27 | 2.58 | 2.54 | 2.63 |
| Cost of materials and payrolls/Total value of shipments.... | . 79 | . 48 | . 68 | . 66 | . 71 |
| Cost of materials/Total value of shipments.................. | . 61 | . 26 | . 37 | . 38 | . 41 |
| Adjusted value added/Total employment........................ | 15,598 | 18,079 | 11,571 | 12,882 | 12,068 |
| Salaries and wages/Adjusted value added..................... | . 45 | . 30 | . 49 | . 44 | . 50 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
${ }^{2}$ applicable. proportion of product shipments (both primary and secondary) of the industry represented by primary products
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all
manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | $\begin{gathered} 50 \text { to } 99 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | 2,500 employees and over |
|  | INDUSTRY 3411.-METAL CANS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. . ${ }^{\text {a }}$, | 270 | 22 | 16 | 26 | 46 | 47 | 44 | 39 | 24 | 6 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total. ......................do.... | 53,245 | 26 | 116 | 381 | 1,519 | 3,400 | 6,857 | 31,776 | (D) | 9,170 | - |
| Pay roll. . . . . . . . . . . . . . . $\$ 1,000$. . | 377,031 | 133 | 672 | 2,314 | 9,013 | 21,874 | 45,619 | 230,105 | (D) | 67,301 | - |
| Value added, adjusted.......do.... | 830,515 | 272 | 3,254 | 8,004 | 31,539 | 72,408 | 137,995 | 470,174 | (D) | 106,869 | - |
| Value of shipments..........do.. | 2,075,014 | 780 | 7,039 | 22,637 | 87,384 | 202,277 | 359,604 | 1,129,649 | (D) | 265,644 | - |
| Capital expenditures, new...do.. | 66,507 | 14,324 | 240 | 1,118 | 2,332 | 4,635 | 12,470 | 31,353 | (D) | 10,035 | - |
|  | INDUSTRY 3421.-CUTLERY |  |  |  |  |  |  |  |  |  |  |
| Establishments............ number. . | 161 | 44 | 21 | 29 | 23 | 17 | 18 | 4 | 4 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 11,837 | 65 | 132 | 378 | 710 | 1,246 | 2,882 | 1,521 | 4,903 | (D) | - |
| Payroll..................\$1,000.. | 64,281 | 258 | 712 | 1,769 | 3,399 | 5,327 | 14,283 | 7,274 | 31,259 | (D) | - |
| Value added, adjusted.......do.... | 213,998 | 791 | 1,234 | 3,311 | 5,494 | 8,917 | 24,116 | 15,056 | 155,079 | (D) | - |
| Value of shipments...........do.... Capital expenditures, new...do.... | 283,352 | 1,215 | 1,757 | 5,612 | 9,287 | 14,083 | 36,617 | 23,121 | 191,660 | (D) | - |
|  | 12,382 | 13 | 52 | 56 | 178 | 256 | 447 | 841 | 10,539 | (D) | - |
|  | INDUSTRY 3423. - HAND AND EDGE TOOLS |  |  |  |  |  |  |  |  |  |  |
| Establishments............... number. . All employees: | 716 | 279 | 102 | 80 | 123 | 543,705 | 497,649 | 185,904 | 108,166 | 1 | - |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total.....................d. ${ }^{\text {do... }}$ | 31,480 | 514 | 690 | 1,082 | 3,770 | 3,705 |  |  |  | (D) | - |
| Payroll................. $\$ 1,000 .$. | 176,837 | 2,163 | 3,329 | 5,558 11,330 | 18,992 34,598 | 20,138 | 42,440 | 35,614 83,338 | 48,603 | (D) | - |
| Value added, adjusted.......do.... | 364,265 | 5,142 | 6,480 | 11,330 | 34,598 | 41,719 | 85,758 | 83,338 | -95,900 | (D) | - |
| Value of shipments..........d. ${ }^{\text {do... }}$ Capital expenditures, new...do... | 565,590 10,955 | 8,530 | 10,799 160 | 17,776 278 | 55,880 1,347 | 60,963 1,211 | 136,479 3,197 | 132,891 1,989 | $\frac{142,272}{2,568}$ | (D) | - |
|  | INDUSTRY 3425. - HAND SAWS AND SAW BLADES |  |  |  |  |  |  |  |  |  |  |
| Establishments...............number. . All employees: | 76 | 11 | 12 | 11 | 20 | 10 | 7 | 2,372 | 2 | - | - |
|  |  |  | (D) |  |  |  |  |  |  | - |  |
| Total......................do.... | 5,095 | 108 |  | 148 | $\begin{array}{r} 615 \\ 3,420 \end{array}$ | 6563,488 | $\begin{aligned} & 1,196 \\ & 7,879 \end{aligned}$ |  | (D) |  | - |
| Payroll.................. $\$ 1,000$. . | 29,148 | 652 | (D) | 665 |  |  |  | 1 $\frac{2,372}{3,044}$ |  | - |  |
| Value added, adjusted.......do.... | 65,634 | 988 |  | 1,143 | $\begin{array}{r} 7,180 \\ 10,554 \end{array}$ | 6,793 9,600 | 17,45327,476 | $\frac{32,077}{51,613}$ | (D) | - | - |
| Vapital expenditures, new....do.... | $\begin{array}{r} 102,782 \\ 6,340 \end{array}$ | 1 1,759 | (D) | (D) |  | (D) |  | $\frac{51,613}{505}$ |  | - |  |
|  | INDUSTRY 3429. -HARDWARE, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 1,069 | 322 | 140 | 161 | 179 | 104 | 94 | 41 | 13 | 11 | 4 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 88,142 | 471 | 962 | 2,128 | 5,754 | 7,270 | 15,097 | 13,716 | 8,778 | 233,966 | (D) |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 529,217 | 2,145 | 4,612 | 11,079 | 29,653 | 37,288 | 79,745 | 75,596 | 51,511 | $\frac{237,588}{500726}$ | (D) |
| Value added, adjusted.......do.... | 1,063,661 | 5,122 | 9,374 | 20,760 | 57,130 | 73,623 | 158,272 | 136,472 | 102,182 | 500,726 | (D) |
| Value of shipments..........do.... | 1,785,134 | 10,198 | 18,373 | 39,126 | 107,796 | 136,103 | 285,869 | 24,082 | 150,493 | $\frac{793,094}{42,838}$ | (D) |
| Capital expenditures, new...do.... | 70,959 | '22,242 | 560 | 997 | 2,639 | 3,814 | 5,584 | 5,915 | 6,370 | 42,838 | (D) |

[^112]
## table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958


as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio <br> Col. B <br> Col. B+C <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3411 |  | $2,075,014$ $1,824,106$ | $\begin{aligned} & 1,960,089 \\ & 1,747,407 \end{aligned}$ | $\begin{aligned} & 62,903 \\ & 34,810 \end{aligned}$ | $\begin{aligned} & 52,022 \\ & 41,889 \end{aligned}$ | $\begin{aligned} & 97 \\ & 98 \end{aligned}$ | $\begin{aligned} & 2,002,211 \\ & 1,762,346 \end{aligned}$ | $\begin{aligned} & 1,960,089 \\ & 1,747,407 \end{aligned}$ | $\begin{aligned} & 42,122 \\ & 14,939 \end{aligned}$ | 98 99 |
| 3421 | Cutlery................................ ${ }^{\text {1963.. }}$ 1958. | 283,352 179,271 | $\begin{aligned} & 246,217 \\ & 158,890 \end{aligned}$ | $\begin{aligned} & 29,660 \\ & 12,217 \end{aligned}$ | 7,475 8,164 | $\begin{aligned} & 89 \\ & 93 \end{aligned}$ | $\begin{aligned} & 254,321 \\ & 162,177 \end{aligned}$ | $\begin{aligned} & 246,217 \\ & 158,890 \end{aligned}$ | $\begin{aligned} & 8,104 \\ & 3,287 \end{aligned}$ | 97 98 |
| 3423 | Hand and edge tools................ 1963.. | 565,590 440,150 | $\begin{aligned} & 444,926 \\ & 367,822 \end{aligned}$ | $\begin{aligned} & 69,429 \\ & 35,562 \end{aligned}$ | $\begin{aligned} & 51,235 \\ & 36,766 \end{aligned}$ | $\begin{aligned} & 87 \\ & 91 \end{aligned}$ | $\begin{aligned} & 536,090 \\ & 434,202 \end{aligned}$ | $\begin{array}{r} 444,926 \\ 367,822 \end{array}$ | $\begin{aligned} & 91,164 \\ & 66,380 \end{aligned}$ | 84 85 |
| 3425 | Hand saws and saw blades.......... $1963 .$. | $\begin{array}{r} 102,782 \\ 87,626 \end{array}$ | $\begin{aligned} & 72,103 \\ & 67,789 \end{aligned}$ | $\begin{aligned} & 20,006 \\ & 14,926 \end{aligned}$ | $\begin{array}{r} 10,673 \\ 4,911 \end{array}$ | $\begin{aligned} & 78 \\ & 82 \end{aligned}$ | $\begin{aligned} & 85,000 \\ & 75,629 \end{aligned}$ | $\begin{aligned} & 72,103 \\ & 67,789 \end{aligned}$ | $\begin{array}{r} 12,897 \\ 7,840 \end{array}$ | 85 90 |
| 3429 | Hardware, n.e.c..................... 1963.. | $1,785,134$ $1,347,879$ | $1,552,991$ $1,144,281$ | $\begin{aligned} & 158,196 \\ & 142,581 \end{aligned}$ | $\begin{aligned} & 73,947 \\ & 61,017 \end{aligned}$ | $\begin{aligned} & 91 \\ & 89 \end{aligned}$ | $\begin{aligned} & 1,663,119 \\ & 1,224,108 \end{aligned}$ | $\begin{aligned} & 1,552,991 \\ & 1,144,281 \end{aligned}$ | $\begin{array}{r} 110,128 \\ 79,827 \end{array}$ | 93 93 |

NOTE: See Introduction for an explanation of terms used.

[^113]
## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "0ther industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies
(NA) Not available
(X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3423- -- | hand and edae toois, total. .......................................... | ................. | (X) | 536,090 | (X) | 434,202 |
| 34231 -- | Mechanics' hand service tools. | ....... | (X) | 252,390 | (X) | 188,460 |
| 3423171 | Pliers........ | 1,000 mits... | 17,307 | 23,262 | 14,683 | 17,818 |
| 3423121 | Ball peen hanmers..................................................... | ...do.......... | 1,938 | 2,849 | 1,415 | 2,008 |
|  | Wrenches: |  |  |  |  |  |
| 3423133 | Socket.............................................................. | ...do.......... | 55,154 | 32,586 | 37,808 | 22,146 |
| 3423135 | Flat (open-end, box-end and combination open-end and box)..... | . . .do........ | 28,601 | 21,321 | 26,175 | 16,931 |
| 3423137 | Adjustable......................................................... | . . .do | 9,415 | 18,058 | 8,464 | 17,611 |
| 3423139 | All other.......................................................... . . | .do | 31,281 | 20,782 | 11,794 | 9,962 |
| 3423141 | Serew drivers....................................................... | ...do.......... | 52,822 | 21,005 | 37,356 | 15,947 |
| 3423151 | Automobile jacks, mechanical (exclude hydraulic and pneunatic).. | ...do.......... | 10,420 | 17,886 84,653 | (X) | 73,261 |
| 3423198 3423100 | Other mechanics' hand service tools................................. |  | (X) | 84,653 9,988 | (X) | 12,776 |
| 3423100 | Mechanics' hand service tools, n.s.k................................... |  | (X) | 9,988 | (X) | 12,776 |
| 34232 -- | Edge tools hand operated. |  | (X) | 106,258 | (X) | 90,614 |
| 3423211 | Agricultural edged hand tools, except scissors and shears (scythes, sickles, grass hooks, machetes, hay knives, and similar tools). |  | (X) | 3,110 | (X) | 2,647 |
| 3423231 | Axes, adzes, and hatchets......................................... |  | (X) | 6,429 | (x) | 7,737 |
| 3423251 | Cutting dies, for use in cutting cloth, paper, leather, etc., excluding dies for cutting metal. |  | (X) | 20,283 | (x) | 14,454 |
| 3423255 | Machine knives, except metal cutting............................... |  | (X) | 13,539 | (X) | 10,362 |
| 3423261 | Can openers (except electric). |  | (NA) | 6,647 | (NA) | 11,833 |
| 3423271 | Auger bits..... | 1,000 units... | 4,598 | 4,587 | 4,950 | 4,725 |
| 3423283 | Chisels... | !..do.......... | 7,553 | 5,837 | (NA) | 4,634 |
| 3423281 | Planes . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | (X) | 43,514 | (X) | 2,621 |
| 3423298 | Other edge tools........................................................ |  | (X) | 43,514 | (X) | 24,717 |
| 3423200 | Edge tools, n.s.k. |  | (X) | 2,312 | (X) | 6,884 |
| 34233 -- | Files, rasps, and file accessories and other hand tools............ |  | (X) | 156,026 | (X) | 142,017 |
| $3423311$ | Shovels, spades, scoops, telegraph spoons, and scrapers......... |  | (X) | 22,430 | (X) | 18,839 |
| $3423321$ | light forged hanmers, under 4 pounds, excluding ball peen hammers. $\qquad$ |  | (X) | 8,819 | (x) | 7,778 |
| 3423331 | Heavy forged tools (sledges, 4 pounds and over, picks, pick mattocks, and mauls). |  | (X) | 4,309 | (x) | 3,464 |
| 3423341 | Steel goods (forks, hoes, rakes, weeders, etc.)............. |  | (X) | 20,343 | (X) | 19,433 |
| 3423361 | Metalworking files and rasps, incluting precision files | 1,000 units... | 62,760 | 25,141 | 65,411 | 26,722 |
| 3423371 | Woodworking files and rasps.......................... | ...do.......... | (NA) | 870 | 2,791 | 1,262 |
| 3423381 | Soldering irons (electric). | do | 2,034 | 9,784 | 2,732 | 9,036 |
| 3423398 | Other hand tools, except edge tools. |  | (x) | 60,645 | (x) | 48,092 |
| 3423300 | Files, rasps, and file accessories and other hand tools, n.s.k... |  | (X) | 3,685 | (X) | 7,391 |
| 3423000 | Hand and edge tools, except machine tools and hand saws, n.e.c.... |  | (X) | 21,416 | (X) | 13,111 |
| 3425- -- | HAND SAWS AND SAW BLADES, TOTAL. |  | (X) | 85,000 | (X) | 75,629 |
|  | Power saw blades: <br> Woodworking: <br> Circular: |  |  |  |  |  |
| 3425011 | Solid tooth ${ }^{8}$. |  | (NA) | 10,103 | (NA) |  |
| 3425013 | Inserted tooth.................................................... |  | (NA) | 3,096 | (NA) | 6,059 |
| 3425015 | Band: <br> Under 2 inches $\qquad$ | 1,000 ft....... | 13,901 |  |  |  |
| 3425017 | 2 inches and over..................................................... | 1,.do.......... | , 743 | 3,655 | 13,430 | 3,098 |
| 3425019 | All other woodworking power saw blades.......................... | ................ | (NA) | 2,669 | (NA) | 2,947 |
| 3425031 | Metalworking: Circular... |  | (NA) | 4,315 | (NA) |  |
| 3425035 | Hack (power only) ................................................. | 1,000 units... | 4,773 | 6,921 | 2,758 | 4,862 |
| 3425036 3425039 | Band (flexible back, spring temper metal cutting and high speed metal cutting). $\qquad$ Other metalworking saw blades (saber, reciprocating, etc.).. | 1,000 ft...... | $119,664$ | 22,838 1,427 | 112,472 $(\mathrm{X})$ | 15,969 (X) |
|  | Hand operated saws: |  |  |  |  |  |
| 3425043 | Hacksaw blades (hand only).......................................... | 1,000 units... | 59,144 | 12,071 | 58,160 |  |
| 3425045 | Carpenter crosscuts and ripsaws............................................ | ...do.......... | 703 | 1,519 | 1,518 | 3,916 |
| 3425049 | Other handsaws (heavy handsaws, including crosscut and buck, miter, coping, pruming, compass, etc., including handsaw frames and handsaw blades sold together or handsaw blades sold separately). |  | (x) | 7,114 | (X) | 5,855 |
| 3425000 | Handsaws, saw blades and accessories, n.s.k.. |  | (X) | 5,898 | (X) | 6,599 |

[^114]
## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Value of shipments including interplant transfers $(\$ 1,000)$ |  |
| :---: | :---: | :---: | :---: |
|  |  | 1963 | 1958 |
| 3429--- | HARDWARE, N.E.C., TOTAL | 1,663,119 | 1,224,108 |
| 34291 -- | Transportation equipment hardware | 778,514 | 472,157 |
| 3429111 | Marine hardware, including shackles, rope sockets, tackle blocks, wire rope, clips, clamps, and joiner's hardware. | 34,884 | 33,104 |
| 3429131 | Aircraft hardware.............................................................................................. | 35,839 | 33,274 |
|  | Motor vehicle hardware, including lock units, door and window handles, window regulators, hinges, license plate brackets, instrument panel knobs, etc.: |  |  |
| 3429151 | Shipments to motor vehicle manufacturers (auto, truck, bus, trailer, etc.).......................... | 9668,612 9 | 9359,478 |
| 3429155 | Shipments to all other customers........................................................................... | ${ }^{9} 13,817$ | ${ }^{9} 11,088$ |
| 3429198 | Other transportation equipment hardware, including railroad car hardware............................. | 22,187 | 27,980 |
| 3429100 | Transportation equipment hardware, n.s.k........................................................................ | 3,175 | 7,233 |
| 34292-- | Furniture hardware. | 95,334 | 77,409 |
| 3429211 | Furniture hardware (exclude casters), including hardware for office and household furniture......... | 61,929 | 51,434 |
| 3429253 | Furniture casters.......................................................................................... | 23,563 | 21,164 |
| 3429255 | Other floor protective devices, including slides, glides, furniture rests, and desk leg cups........ | 5,736 | 21,164 |
| 3429200 | Furniture hardware, n.s.k....................................................................................... | 4,106 | 4,811 |
| 34293 -- | Vacuum and insulated bottles, jugs, and chest | 47,973 | 41,147 |
| 3429315 | Vacuum (air-evacuated) bottles, pitchers, servers, etc | 33,167 | 22,928 |
| 3429317 | Insulated (portable and other than air-evacuated) picnic jugs, picnic chests, coolers, etc. (except those made principally of plastics) | 14,806 | 18,219 |
| 34294 -- | Builders' hardware | 465,795 | 387,083 |
| 3429411 | Padlocks.. | 22,732 | 19,771 |
| 3429423 | Door locks, locksets, and lock trim................................................................................ | 107,182 |  |
| 3429425 3429427 34 | Night latches and deadlocks..................................................................................... | 9,326 | 97,799 |
| 3429427 3429431 | Emergency exit devices (antipanic) devices............................................................ | 10,057 |  |
| 3429431 | Miscellaneous sash, screen, and shelf hardware (window hardware, transom hardware, door pulls, and bolts, screendoor hardware, etc.). | 50,369 | 52,959 |
| 3429441 | Door closers and checking devices, including floor types............................................. | 41,081 | 30,239 |
| 3429451 | Hinges and butts, excluding cabinet hinges, including spring hinges.................................... | 40,882 | 38,583 |
| 3429461 | Cabinet hardware, including cabinet hinges and cabinet locks.......................................... | 57,082 | 34,561 |
| 3429471 | Hangers, tracks, and related items, including overhead door hardware (except sliding and folding door hardware, residential and commercial). |  |  |
| 3429473 | Sliding and folding door hardware (residential and commercial)........................................ | 12,857 | 52,864 |
| 3429498 | Other builder's hardware........................................... | 68,116 | 47,572 |
| 34294 00 | Builder's hardware, n.s.k.. | 8,626 | 12,735 |
| 34295 -- | Other hardware | 237,425 | 215,220 |
| 3429512 | Casket and casket shell hardware. | 13,617 | 10,845 |
| 3429522 | Casters and wheels, for dollies and industrial hand trucks............................................. | 41,783 | 33,181 |
| 3429532 | Trumk and luggage hardware, including locks............................................................ | 15,015 | 11,181 |
| 3429552 | Fireplace fixtures and equipment, including dampers and irons, and fire screens................... | 16,377 | 12,059 |
| 3429562 | Hose fittings and couplings............................................................................... | 63,120 | 54,396 |
| 3429565 | Refrigerator and stove hardware.......................................................................... | 21,595 | 27,298 |
| 3429598 | Other hardware, including saddlery and harness hardware, but excluding drapery hardware............. | 61,504 | 53,572 |
| 3429500 | Other hardware, n.s. | 4,414 | 12,688 |
| 3429000 | Hardware, n.e.c., n.s.k............................................................................................... | 38,078 | 31,092 |

[^115]
## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes ( $1954=100)$ |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 341-- | Metal cans. ......................................... ${ }^{\text {. } 1963 . . . ~}$ | 123 | 122 |
|  | 1958... | 113 | 117 |
| 3411- | Metal cans.............................................. . $1963 .$. . | 123 | 122 |
|  | 1958... | 113 | 117 |
| 342-- | Cutlery, hand tools, hardware cutlery......... 1963... | $\left(\begin{array}{l}1 \\ (2) \\ \hline\end{array}\right.$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3421- | Cutlery. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1963 .$. . | (1) | (1) |
|  | 1958... | ${ }^{1}$ ) | ${ }^{1}$ ) |
| 3423- | Hand and edge tools.................................... $1963 . .$. | $\left({ }^{1}\right)$ | (1) |
| 34231 | Mechanics' hand service tools.................... 1963... | 1 139 | 113 |
|  | Mechanics hand $1958 . .$. | 96 | 117 |
| 3425- | Hand saws and saw blades............................. $1963 .$. . | 89 | 148 |
|  | 1958... | 88 | 134 |
| 3429- | Hardware, n.e.c....................................... $19633 . .$. | $\left(\begin{array}{l}1 \\ (1) \\ \hline\end{array}\right.$ | $\left(\begin{array}{l}1 \\ (1) \\ \hline\end{array}\right.$ |
|  | 1958... | ${ }^{1}$ ) | ${ }^{1}$ ) |

n.e.c. Not elsewhere classified.
${ }^{1}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.
table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962^{1}$ | $1961{ }^{1}$ | $1960^{1}$ | $1959{ }^{\text {² }}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34110 | Metal cans...................................... | 2,002,211 | 2,056,211 | 2,012,649 | 1,868,601 | 1,886,862 | ${ }^{2} 1,762,346$ | ${ }^{2} 1,331,967$ | ${ }^{2} 644,422$ |
| $3421-$ | Cutlery. | 254,321 | 231,478 | 209,816 | 190,530 | 186,339 | 162,177 | 153,315 | 141,085 |
| 34211 | Cutlery, scissors, shears, trimmers and snips. | 90,484 | 83,013 | 74,884 | 72,823 | 81,705 | 77,326 | 85,485 | 81,104 |
| 34212 | Razor blades and razors, except electric. | 159,423 | 145,481 | 131,956 | 114,762 | 100,668 | 80,713 | 67,830 | 59,981 |
| 34210 | Cutlery, n.s.k............................... | 4,414 | $(2,984)$ | $(2,976)$ | $(2,945)$ | $(3,966)$ | 4,138 |  |  |
| 3423- | Hand and edge tools, except machine tools, and hand saws. $\qquad$ | 536,090 | 545,331 | 513,983 | 484,147 | 501,068 | 434,202 | 370,461 | 348,701 |
| 34231 | Mechanics' hand service tools. | 252,390 | 237,993 | 221,387 | 210,180 | 213,283 | 188,460 | 168,800 | 130,450 |
| 34232 | Edge tools.................................... | 106,258 | 122,246 | 117,876 | 112,195 | 110,923 | 90,614 | 73,686 | 63,749 |
| 34233 | Files, rasps, and file accessories and other hand tools........................... | 156,026 | 176,255 | 165,724 | 153,599 | 163,110 | 142,017 | 120,060 | 142,153 |
| 34230 | Hand and edge tools, n.s.k.................. | 21,416 | $(8,837)$ | $(8,996)$ | $(8,173)$ | $(13,752)$ | 13,111 | 7,915 | 12,349 |
| 34250 | Hand saws, saw blades, and saw accessories... | 85,000 | 86,644 | 86,622 | 84,162 | 89,593 | 75,629 | 64,540 | 62,089 |
| 3429- | Hardware, n.e.c. | 1,663,119 | 1,511,586 | 1,328,952 | 1,391,515 | 1,369,797 | 1,224,108 | 1,053,650 | 564,588 |
| 34291 | Transportation equipment hardware. | 778,514 | 622,480 | 502,068 | 583,470 | 532,912 | 472,157 | 441,014 | 203,281 |
| 34292 | Furniture hardware.. | 95, 334 | 92,539 | 87,279 | 85,688 | 94,492 | 77,409 | 60,189 | 39,134 |
| 34.293 | Vacuum and insulated bottles, jugs and chests. $\qquad$ | 47,973 | 47,974 | 45,873 | 52,969 | 48,679 | 41,147 | 27,916 | 17, 779 |
| 34294 | Builders' hardware. | 465,795 | 463,635 | 430,065 | 403,523 | 418,414 | 387,083 | 323,518 | 184,435 |
| 34295 | Other hardware. | 237,425 | 257,143 | 239,012 | 238,054 | 24, 792 | 215,220 | 191,281 | 109,222 |
| 34290 | Hardware, n.e.c., n.s.k. | 38,078 | $(27,815)$ | $(24,655)$ | $(27,811)$ | $(30,478)$ | 31,092 | 9,732 | 10,737 |

[^116]
# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.


[^117]
## table 7A. Materials by Kind: 1963 and 1958

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost <br> $(\$ 1,000)$ | Quantity | Delivered cost <br> $(\$ 1,000)$ |
|  |  |  | INDUSTRY 3411. -METAL CANS |  |  |  |
|  | Mill shapes and forms (except castings): <br> Carbon steel: <br> Wire and wire products. <br> Short tons <br> 3,353 <br> 8,525 <br> 1,865 |  |  |  |  |  |
| 331017 |  |  |  |  |  |  |  |
| 331018 | Tin plate, terneplate and black plate............................. | ...do............ | 4,611,431 | 938,805 | 4,700,337 | 889,531 |
| 331011 | Bars and bar shapes................................................... | .do........... |  |  | \{ 82 | 35 |
| 331012 | Sheet and strip..................................................... . | .do............ | 7,904 | 1,671 | 16,939 | 4,049 |
| 331019 | All other carbon steel mill shapes and forms.................... | do |  |  |  | - |
| 331020 | Alloy steel (except stainless)...................................... | ...do............ | 340 | 177 | (NA) | 110 |
| 331031 | Stainless steel mill shapes and forms............................... | .do............ | 340 | 177 | (NA) | 110 |
|  | Aluminum and aluminum base alloy: |  |  |  |  |  |
| 335202 | Sheet, plate and foil............................................. | 1,000 lbs....... |  |  |  |  |
| 335205 | Extruded shapes, including extruded rod, pipe, tube, etc....... | ...do............ | 2115,190 | 35,412 | 2,020 | 1,293 |
| 335209 | All other aluminum mill shapes and forms (wire, rod, etc.)..... | . . .do |  |  |  |  |
| 333401 | Aluminum and aluminum-base alloy refinery shapes.................. | Short tons...... | (D) | (D) | (NA) | (NA) |
| 285101 | Paints, varnishes, lacquers, japans, and enamels.................... | 1,000 gal....... | 15,657 | 39,422 | (NA) | (NA) |
| 260091 | Paper and paperboard containers, including corragated boxes....... |  | (X) | 33,253 | (NA) | (NA) |
| 970099 | All other materials and components, parts, containers, and supplies consumed. |  | (x) | 151,481 | (X) | 227,510 |
| 97600 | Materials, parts, containers, and supplies, n.s.k................... |  | (X) | 11,159 | (X) | 6,662 |
|  |  |  | INDUSTRY 3421.-CUTLERY |  |  |  |
|  | Materials, parts, containers, and supplies, total.............. |  | (X) | 64,462 | (X) | 44,352 |
|  | Mill shapes and forms (except castings): <br> Carbon steel: |  |  |  |  |  |
| 331011 | Bars and bar shapes................................................. | Short tons. | 4,300 | 773 | 2,569 | 496 |
| 331012 | Sheet and strip........................................................ . . | ...do. | 14,216 | 5,450 | 11,871 | 5,346 |
| 331013 | Plates................................................... . . . . . . . . . . | . ..do. | ${ }^{3}$ ) | $\left(^{3}\right)$ |  |  |
| 331017 331019 | Wire and wire products........................................... | . . do. |  | 109 3543 | \} 1,626 | 434 |
| 331019 | All other carbon steel mill shapes and forms................... | . ..do........... | 32,392 | ${ }^{3} 543$ | ) 1,626 |  |
|  | Alloy steel (except stainless): |  |  |  |  |  |
| $331021$ | Bars and bar shapes. | . . do. | 362 |  |  |  |
| $331029$ | All other alloy steel mill shapes and forms..................... | , | 362 | 163 | $\{1,951$ | 2,019 |
| 331031 | Stainless steel........................................................ | ...do. | 6,732 | 6,405 | 4,189 | 3,853 |
| 335102 | Copper and copper-base alloy mill shapes and forms: <br> Rod, bar and mechanical wire, including extruded and/or drawn |  |  |  |  |  |
| 335102 | shapes | 1,000 lbs....... |  |  | $\{$ |  |
| $\begin{aligned} & 335123 \\ & 335127 \end{aligned}$ | Plate, sheet and strip (including military cups and discs)..... Pipe and tube. | ...do............ |  |  | \{\} 3,279 | 1,466 |
|  | Pipe and tube.................................................... |  | 250 | 257 |  |  |
|  | Aluminum and aluminum-base alloy mill shapes and forms: |  |  |  |  |  |
| 335202 335205 3 | Sheet, plate, and foil. <br> Extruded shapes. | ...do............ | 2,755 | 1,219 | $\left\{\begin{array}{r}1,477 \\ 57\end{array}\right.$ | 717 |
| 335209 |  |  | 2,75 | 1,219 | \{\} 57 | 51 |
|  | Castings (rough and semifinished) : ${ }^{4}$ |  |  |  |  |  |
| 332011 | Iron (gray and malleable).............................................. | Short tons...... | 748 | 438 | 627 | 353 |
| 332300 | Steel....... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | . ..do. | 149 | 213 | 420 | 665 |
| 336100 | Aluminum and aluminum-base alloy..................................... . . | 1,000 lbs....... | 26 | 17 | 137 | 146 |
| 336200 | Copper and copper-base alloy............................................ | d | - |  | 109 | 67 |
| $\begin{aligned} & 339100 \\ & 970099 \end{aligned}$ | Iron and steel forgings ${ }^{4}$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Short tons. | 205 | 276 | (NA) | (NA) |
|  | All other materials and components, parts, containers, and supplies consumed. |  | (X) | 42,761 | (X) | 23,804 |
| 976000 |  |  | (X) | 4,169 | (X) | 4,832 |
|  |  |  | INDUSTRY 3423. - HAND AND EDGE TOOLS |  |  |  |
|  | Materials, parts, containers, and supplies, total.............. |  | (X) | 162,649 | (x) | 134,803 |
|  | Mill shapes and forms (except castings): <br> Carbon steel: |  |  |  |  |  |
| 331011 | Bars and bar shapes | Short tons...... | 91,726 | 17,165 | 69,319 | 13,055 |
| 331012 | Sheet and strip. | ...do............ | 60,088 | 11,858 | 54,507 | 10,381 |
| 331013 | Plates............ | . . do. | , 967 | 236 | 833 | 149 |
| 331017 | Wire and wire products............................................. . | ...do........... | 4,828 | 1,549 | 6,126 | 1,780 |
| 331019 | All other carbon steel mill shapes and forms.................... | ...do............ | 4,719 | 1,588 | 2,371 | 895 |
|  | Alloy steel (except stainless): |  |  |  |  |  |
| $331021$ | Bars and bar shapes............................................. | ...do........... | 37,330 | 10,233 | 29,995 | 8,232 |
| 331029 | All other alloy steel mill shapes and forms..................... | ...do............ | 3,413 | 1,959 | 1,734 | 1,725 |

See footnotes at end of table.

## table 7A. Materials by Kind: 1963 and 1958-Continued



See footnotes at end of table.

## TABLE 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | $\begin{aligned} & \text { Delivered } \\ & \text { cost } \\ & (\$ 1,000) \end{aligned}$ | Quantity | Delivered cost $(\$ 1,000)$ |
|  |  | Short tons <br> ...do............. | INDUSTRY 3429. -HARDWARE, N.E.C. -Continued |  |  |  |
|  | Scrap (exclude home scrap): |  | (D) | (D) <br> (D) | (NA) | (NA) |
| 999808 |  |  |  |  |  |  |  |
| $99981 ?$ | Copper and copper-base alloy............................................ |  |  |  |  | 152 | 78 |
|  | Castings (rough and semifinished) ${ }^{7}$ : |  | 58,850 | 20,449 | 38,859 | 13,893 |
| 332011 |  | . . .do........... |  |  |  |  |
| 332300 | Steel. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | . ..do........... | 4,204 | 2,344 | 12,150 | 4,626 |
| 336100 | Aluminum and aluminum-base alloy. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,000 lbs....... | $\begin{array}{r} 5,254 \\ \text { (NA) } \end{array}$ | $\begin{aligned} & 3,382 \\ & 5,585 \end{aligned}$ | $\begin{aligned} & 4,869 \\ & 9,246 \end{aligned}$ | 6,506 |
| 336200 | Copper and copper-base alloy........................................... | ...do........... |  |  |  |  |
| 970099 | All other materials and components, parts, containers, and supplies consumed |  | (X) | $\begin{array}{r} 291,804 \\ 44,121 \end{array}$ | (X) | 243,300 |
| 976000 | Materials, parts, containers, and supplies, n.s.k. ${ }^{2} . . . . . . . . . . . . .$. . |  |  |  |  | 58,627 |

[^118]
## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Metal cans (SIC 3411) | Cutlery <br> (SIC 3421) | Edge tools (SIC 3423) | Hand saws and saw blades (SIC 3425) | Hardware, n.e.c. (SIC 3429) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. | 15,044 | 2,295 | 7,860 | 1,334 | 16,036 |
| Total cost of purchased fuels.............................do.... | 7,267 | 1,069 | 3,942 | 479 | 6,702 |
| Bituminous coal, lignite, and anthracite: <br> Quantity.............................................. . . . 000 short tons. . | 67 | (S) | 50 | 3 | 182 |
| Cost................... . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 563 | (S) | 328 | 34 | 1,509 |
| Coke and breeze: <br> Quantity. .1,000 short tons.. | - | (S) | (S) | - |  |
| cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | - | (S) | (S) | - | 132 |
| Fuel oil (distillate and residual): <br> Quantity......................... 1,000 barrels of 42 gallons.. | 262 | 173 | 329 | 31 |  |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 844 | 541 | 1,290 | 117 | 1,739 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million cu.ft. . | 8,986 | 187 | 2,909 | 291 | 4,492 |
| Cost..................................................... . $\$ 1,000$. . | 5,432 | 177 | 1,995 | 273 | 2,669 |
| Other fuels....................................................do.... | 428 | (S) | 328 | 55 | 653 |
| Electric energy: |  |  |  |  |  |
| Purchased: <br> Quantity. $\qquad$ million kw. -hrs. . | 668 | 70 | 233 | 52 | 682 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 7,777 | 1,226 | 3,918 | 855 | 9,334 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . .million kw. -hrs.. | (S) | 22 | 6 | - | 35 |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total........1,000 hp.. | 364 | 48 | 204 | 27 | 424 |
| Prime movers, total.......................................... . do. | 86 | 6 | 18 | 2 | 33 |
| Drjiving generators............................................d. ${ }^{\text {do... }}$. | 6 | 5 | 4 | - | 16 |
| Not driving generators.....................................do.... | 80 | 1 | 14 | 2 | 17 |
| Electric motors, total.........................................d. ${ }^{\text {do... }}$ | 281 | 43 | 191 | 25 | 393 |
| Driven by purchased energy...............................d. ${ }^{\text {do... }}$ | 278 | 42 | 186 | 25 | 390 |
| Driven by energy generated at establishment.............do.... | 3 | 2 | 6 |  | 3 |
| Aggregate horsepower per 100 production workers. | 785 | 507 | 783 | 682 | 513 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.
$(S)$ Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

# table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry special ization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3421- | CUTIERY |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry | 161 | 11,837 | 64,281 | 9,487 | 19,312 | 43,896 | 213,998 | 72,934 | 283,352 | 12,382 |
|  | 90\% or more specialization. | 140 | 8,387 | 43,406 | 6,853 | 14,204 | 30,183 | 100,144 | 37,991 | 137,533 | 4,355 |
| 34211 | Cutlery, scissors, shears, trimimers, and snips (primary product class of estab.) Establishments with- | 96 | 7,322 | 35,227 | 6,147 | 12,318 | 25,904 | 62,713 | 34,858 | 95,447 | 1,753 |
|  | 90\% or more specialization..... | 80 | 5,867 119 | 28,167 580 | $\begin{array}{r}4,959 \\ \hline 98\end{array}$ | 10,053 176 | 20,723 424 | 47,797 | 22,898 637 | 70,530 1,720 | ( 977 |
| 3423- | HAND AND EDGE TOOLS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.... Establishments with | 716 | 31,480 | 176,837 | 24,508 | 48,716 | 125,652 | 364,265 | 207,356 | 565,590 | 10,955 |
|  | 90\% or more specialization... 75-89\% specialization. | $\begin{array}{r} 631 \\ 25 \end{array}$ | 21,741 2,862 | 120,164 16,201 | 17,134 2,205 | 34,138 4,465 | $\begin{aligned} & 87,123 \\ & 11,306 \end{aligned}$ | 249,197 33,361 | 135,518 22,642 | 378,412 57,579 | $\begin{aligned} & 7,473 \\ & 1,016 \end{aligned}$ |
| 34231 | Mechanics' hand service tools (primary product class of estab.)..... Establishments with- | 169 | 15,107 | 86,502 | 11,225 | 22,389 | 57,861 | 188,257 | 108,691 | 291,143 | 5,656 |
|  | $90 \%$ or more specialization..... <br> 75-89\% specialization. .......... | 114 22 | 8,219 1,872 | $\begin{aligned} & 45,793 \\ & 10,293 \end{aligned}$ | $\begin{aligned} & 6,105 \\ & 1,469 \end{aligned}$ | $\begin{array}{r} 12,207 \\ 2,950 \end{array}$ | $\begin{array}{r} 30,789 \\ 7,491 \end{array}$ | $\begin{array}{r} 109,751 \\ 19,921 \end{array}$ | $\begin{aligned} & 61,853 \\ & 10,744 \end{aligned}$ | 167,320 30,434 | 3,366 |
| 34232 | Edge tools (primary product class of estab.)............................... Establishments with- | 168 | 5,706 | 33,163 | 4,656 | 9,333 | 24,732 | 60,026 | 26,851 | 86,597 | 1,641 |
|  | $90 \%$ or more specialization..... <br> 75-89\% specialization........... | 137 8 | 3,410 609 | 20,030 3,655 | 2,827 449 | 5,764 858 | $\begin{array}{r} 15,434 \\ 2,216 \end{array}$ | 33,609 6,165 | $\begin{array}{r} 13,459 \\ 2,604 \end{array}$ | $\begin{array}{r} 46,622 \\ 8,611 \end{array}$ | $\begin{array}{r} 935 \\ 79 \end{array}$ |
| 34233 | Files, racks, and file accessories and other hand tools (primary product class of estab.)............ Establishments with- | 95 | 8,937 | 49,001 | 7,206 | 14,291 | 36,491 | 97,408 | 63,061 | 160,502 | 3,084 |
|  | 90\% specialization. | 67 | 4,360 | 24,258 | 3,670 | 7,066 | 18,994 | 48,754 | 27,547 | 75,970 | 1,119 |
|  | 75-89\% specialization | 11 | 1,683 | 9,303 | 1,249 | 2,586 | 6,387 | 18,649 | 15,765 | 35,722 | 498 |
| 3425- | HAND SAWS AND SAW blades |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. $\qquad$ <br> Establishments with- | 76 | 5,095 | 29,148 | 3,768 | 7,721 | 19,621 | 65,634 | 38,610 | 102,782 | 6,340 |
|  | $90 \%$ or more specialization... | 56 | 2,281 | 13,600 | 1,642 | 3,448 | 8,254 | 27,818 | 17,395 | 44,976 | $828$ |
|  | 75-89\% specialization. ....... HARDWARE, N.E.C. | 3 | 748 | 3,938 | 556 | 1,112 | 2,363 | 8,775 | 6,109 | 14,573 | $246$ |
| 3429- | Entire industry.................. | 1,069 | 88,142 | 529,217 | 70,238 | 145,633 | 383,419 | 1,063,661 | 730,482 | 1,785,134 | 70,959 |
|  | $90 \%$ or more specialization. | 899 | 67,284 | 406,329 | 53,925 | 112,241 | 296,190 | 810,751 | 550,598 | 1,353,350 | 55,778 |
|  | 75-89\% specialization. | 54 | 8,091 | 45,088 | 6,332 | 13,584 | 32,468 | 86,553 | 63,344 | 149,072 | 3,746 |
| 34291 | Transportation equipment hardware (primary product class of estab.). Establishments with- | 135 | 34,839 | 246,812 | 28,982 | 62,713 | 194,408 | 522,353 | 349,326 | 866,809 | 41,283 |
|  | $90 \%$ or more specialization..... <br> 75-89\% specialization. | 88 19 | 23,013 3,397 | $\begin{array}{r} 167,624 \\ 20,498 \end{array}$ | 19,050 2,914 | 41,508 6,066 | 131,371 16,686 | 362,237 36,993 | $\begin{array}{r} 246,333 \\ 29,697 \end{array}$ | $\begin{array}{r} 605,776 \\ 66.333 \end{array}$ | 33,312 655 |
| 34292 | Furniture hardware (primary product class of estab.). Establishnents with- | 91 | 7,564 | 40,871 | 5,739 | 12,235 | 28,386 | 67,212 | 47,309 | 114,922 | 4,461 |
|  | 90\% or more specialization..... 75-89\% specialization. | $\begin{aligned} & 60 \\ & 13 \end{aligned}$ | $\begin{aligned} & 1,730 \\ & 1,067 \end{aligned}$ | $\begin{aligned} & 8,129 \\ & 5,482 \end{aligned}$ | 1,427 672 | $\begin{aligned} & 2,852 \\ & 1,863 \end{aligned}$ | $\begin{aligned} & 5,666 \\ & 4,085 \end{aligned}$ | $\begin{array}{r} 15,969 \\ 8,083 \end{array}$ | $\begin{array}{r} 13,710 \\ 5,111 \end{array}$ | $\begin{aligned} & 29,225 \\ & 13,138 \end{aligned}$ | 713 95 |
| 34293 | Vacuum and insulated bottles, jugs, and chests (primary product class of estab.). | 9 | 2,465 | 13,295 | 1,726 | 3,248 | 7,533 | 29,657 | 25,105 | 53,627 | 1,806 |
| 34294 | Builders' hardware (primary product class of estab.)................. Establishments with- | 237 | 29,421 | 158,680 | 23,099 | 46,114 | 107,042 | 313,161 | 196,780 | 505,929 | 15,291 |
|  | 90\% or more specialization. .... | 173 | 21,747 | 114,454 | 17,369 | 34,570 | 79,606 | 221,065 | 135,166 | 351,349 | 11,278 |
|  | 75-89\% specialization.......... | 25 | 3,197 | 19,500 | 2,364 | 4,932 | 11,718 | 46,296 | 27,333 | 73,422 | 2,276 |
| 34295 | Other hardware (prinary product class of estab.) Establishments with- | 190 | 11,305 | 58,688 | 8,644 | 17,184 | 38,054 | 107,631 | 94,499 | 203,171 | 5,050 |
|  | $90 \%$ or more specialization..... | 127 | 6,054 | 34,147 | 4,493 | 9,041 | 19,937 | 60,273 | 54,844 | 116,170 | 2,152 |
|  | 75-89\% specialization.. | 14 | 1,023 | 5,760 | 820 | 1,621 | 3,963 | 10,606 | 7,033 | 17,495 | 817 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified.

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
|  | INDUSTRY 3411. -METAL CANS |  |  |  |  |  |  |  |
| Machine shop. | 128 | 29 | 53 | 46 | 2,826 | 70 | 587 | 2,169 |
| Tool and die shop. | 12 | 7 | 4 | 1 | 107 | 15 | (D) | (D) |
| Plate or structural fabrication. | 8 | 1 | 1 | 6 | 771 | (D) | (D) | (D) |
| Stamping, blanking and forming of metals. | 131 | 20 | 35 | 76 | 11,673 | 44 | 346 | 11,283 |
| Painting, lacquering and enameling on metals... | 77 | 17 | 25 | 35 | 2,319 | 41 | 227 | 2,051 |
|  | INDUSTRY 3421. -CUTLERY |  |  |  |  |  |  |  |
| Ferrous foundry. | 1 | - | - | 1 | (D) | - | - | (D) |
| Nonferrous foundry (except die casting)............ | 1 | 1 | - | - | (D) | (D) | - | - |
| Forging-presses, hamers, or upsetters (excluding manufacture of nuts, bolts, etc.). | 19 | 15 | 4 | - | 67 | 27 | 40 | - |
| Electroplating and other plating..................... | 17 | 8 | 7 | 2 | 152 | 16 | (D) | (D) |
| Heat treating of metals.......... | 50 | 42 | 5 | 3 | 201 | 59 | 47 | 95 |
| Automatic screw machine department. | 6 | 4 | 1 | 1 | 41 | (D) | (D) | (D) |
| Machine shop....................... | 46 | 23 | 19 | 4 | 413 | 50 | 157 | 206 |
| Tool and die shop. | 25 | 12 | 11 | 2 | 157 | 23 | (D) | (D) |
| Stamping, blanking and forming of metals.. | 61 | 35 | 21 | 5 | 684 | 62 | 160 | 462 |
| Painting, lacquering and enameling on metals..... | 26 | 21 | 5 | - | 77 | 36 | 41 | - |
|  | INDUSTRY 3423. -HAND AND EDGE TOOLS |  |  |  |  |  |  |  |
| Ferrous foundry... | 3 | 1 | 2 | - | 17 | (D) | (D) | - |
| Nonferrous foundry' (except die casting)............. | 9 | 7 | 2 | - | 29 | (D) | (D) | - |
| Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.). | 99 | 38 | 38 | 23 | 1,285 | 96 | 367 | 822 |
| Electroplating and other plating..................... | 59 | 32 | 26 | 1 | 295 | 54 | (D) | (D) |
| Heat treating of metals.......... | 155 | 119 | 31 | 5 | 641 | 199 | 288 | 154 |
| Automatic screw machine department. | 62 | 35 | 19 | 8 | 459 | 56 | 155 | 248 |
| Machine shop............... | 200 | 88 | 73 | 39 | 2,605 | 178 | 673 | 1,754 |
| Tool and die shop....................... | 114 | 67 | 34 | 13 | 945 | 136 | 350 | 459 |
| Stamping, blanking and forming of metals. | 162 | 83 | 60 | 19 | 1,893 | 148 | 529 | 1,216 |
| Painting, lacquering and enameling on metals. | 134 | 110 | 23 | 1 | 391 | 160 | (D) | (D) |
|  | INDUSTRY 3425. - HAND SAWS AND SAW BLADES |  |  |  |  |  |  |  |
| Forging-presses, hanmers, or upsetters (excluding manufacture of nuts, bolts, etc.) <br> Electroplating and other plating. <br> Heat treating of metals. <br> Automatic screw machine department. <br> Machine shop.. <br> Tool and die shop. <br> Stamping, blanking and forming of metals............. <br> Painting, lacquering and enameling on metals....... |  |  | - | 1 | (D) | (D) | - | (D) |
|  | 5 | 3 | 2 | - | 18 | (D) | (D) |  |
|  | 24 | 14 | 9 | 1 | 157 | 28 | (D) | (D) |
|  | 3 | 3 | - | 7 | 6 | 6 | - | ${ }^{-7}$ |
|  | 25 | 10 | 8 | 7 | 391 | 20 | 92 | 279 |
|  | 11 | 6 | 5 | 4 | 60 | 10 30 | 50 65 | 346 |
|  | 27 13 | 16 12 | 7 1 | 4 | 441 26 | (D) | (D) | 346 |
|  | INDUSTRY 3429.-HARDWARE, N.E.C. |  |  |  |  |  |  |  |
| Ferrous foundry.......................................... | 8 | 2 | 2 | 4 | 202 | (D) | (D) | 180 |
| Nonferrous foundry (except die casting)........ | 53 | 17 | 24 | 12 | 666 | 43 | 212 | 411 |
| Nonferrous die casting. | 52 | 18 | 14 | 20 | 2,045 | 38 | 128 | 1,879 |
| Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.). | 24 | 14 | 6 | 4 | 203 | 22 | 53 | 128 |
| Electroplating and other plating.................... | 149 | 67 | 41 | 41 | 3,829 | 158 | 384 | 3,287 |
| Galvanizing and other hot dip coating.. | 13 | 11 | - | 2 | 76 | (D) | (D) ${ }^{-}$ | (D) |
| Heat treating of metals............. | 52 | 44 | 6 | 2 | 223 | 74 | (D) | (D) |
| Automatic screw machine department.. | 80 | 44 | 29 | 7 | 573 | 75 | 285 | 213 |
| Machine shop........................ | 263 | 84 | 108 | 7 | 5,912 | 143 | 1,059 | 4,710 |
| Tool and die shop.......... | 225 | 126 | 72 | 27 | 3,622 | 255 | 687 | 2,680 |
| Foundry pattern shop.. | 37 | 34 | 2 | 1 | 83 | 45 | (D) | (D) |
| Plate or structural fabrication. | 35 | 21 | 14 | $9{ }^{-}$ | . 142 | 31 | 111 | 17.592 |
| Stamping, blanking and forming of metals...... | 349 | 124 | 133 | 92 | 19,136 | 200 | 1,34.4 | 17,592 1,131 |
| Painting, lacquering and enameling on metals..... | 243 | 172 | 51 | 20 | 1,847 | 275 | 441 | 1,131 |

See footnotes at end of table.

## table 9. Establishments, and Production Workers for Selected Metalworking Operations: 1963-Continued

## Footnotes for Table 9-34A

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

| Item | 3411 | 3421 | 3423 | 3425 | 3429 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total number of establishments in the industry. | 270 | 161 | 716 | 76 | 1,069 |
| Number of establishments which reported one or more of the specified operations. | 184 | 79 | 303 | 39 | 513 |
| Percent of industry production workers in these establishments. | 85-90 | 85-90 | 80-85 | 80-85 | 85-90 |
| Number of establishments which reported "none" of the operations apply. | 49 | 10 | 35 | 5 | 53 |
| Percent of industry production workers in these establishments | 10-15 | 0-5 | 0-5 | 0-5 | 0-5 |
| Percent of industry production workers in establishments which completed metalworking operations inquiry. | over 95 | 90-95 | 80-85 | 85-90 | 90-95 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual conpanies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. establishment.

## HEATING APPARATUS, EXCEPT ELECTRIC, AND PLUMBING FIXTURES

This report shows 1963 Census of Manufactures statistics for establishments classified in.each of the following industries:

SIC Code and Title<br>3431-Enameled Iron and Metal Sanitary Ware<br>3432-Plumbing Fixture Fittings and Trim (Brass Goods)<br>3433-Heating Equipment, Except Electric

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact sould be taken into account in comparing industry statistics (tables 1 to 4 ) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3431-ENAMELED IRON AND METAL SANITARY WARE

This industry comprises establishments primarily engaged in manufacturing enameled iron, cast iron, or pressed metal sanitary ware. Establishments primarily engaged in manufacturing vitreous and semivitreous pottery sanitary ware are classified in industry 3261; and those manufacturing porcelain enameled kitchen, household, and hospital ware in industry 3461 . For a detailed list of products of industry 3431 , refer to table 6A, product codes 3431002 to 3431098 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal Plumbing Fixtures Industry in 1963 totaled $\$ 234$ million. This amount included shipments of metal plumbing fixtures (primary products) valued at $\$ 184$ million, shipments of other products (secondary products) valued at $\$ 34$ million, and miscellaneous receipts (mainly resales) at $\$ 16$ million.

This industry's shipments of metal plumbing fixtures in 1963 represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was also 84 percent. Secondary products shipped by this industry in 1963 consisted mainly of plumbing fixture fittings and trim (brass goods).

Shipments of metal plumbing fixtures by this industry in 1963 represented 91 percent of all shipments of these products ( $\$ 204$ million) by all industries. In 1958 the coverage ratio was 92 percent. Another industry shipping metal plumbing fixtures included industry 3461, Metal Stampings, $\$ 9.3$ million.

The production index for the primary products of the industry increased to 136 in 1963 from the 1958 level of 104. The unit value index for 1963 was 72 compared to 83 in 1958. Both indexes were computed on a basis of $1954=100$.

Industry 3431 includes establishments which fall into two significantly different categories, namely those producing cast iron plumbing fixtures and those producing metal fixtures of pressed metal. Accordingly, the manufacturing plants included in this industry involve different manufacturing processes depending upon the line of products produced. Those fixture plants producing cast iron fixtures include significant foundry operations while the pressed metal fixture plants are more closelyallied to metal fabricating plants producing their product by forming processes (stamping, drawing, etc.).

The operations of the largest establishments in this industry cover the entire production process including the casting of the fixture, through the machining, finishing, and assembly operations. In general these processes are carried on at a single manufacturing plant. However, in a few instances the foundry operations were performed at separate locations and, accordingly, those separate foundries were classified in the foundry industries (SlC industries $3321,3322,3323,3361,3362$ and 3369). In the latter case the plants classified in this industry would be limited to machining and finishing operations on castings received from their associated plants.

Certain of the companies operating plants classified in this industry also have establishments producing allied products classified in other industries. For example, the larger fixture manufacturers also have plants engaged in manufacturing fixture fittings and such allied products as vitreous china fixtures, kitchen cabinets, warm air furnaces, boilers and other consumer durable items in the plumbing and heating line.

As is shown in table 7, certain of the more important materials consumed by the industry are pig iron, and iron and steel scrap metal consumed in the foundry operations and steel mill shapes and forms. In addition, data are also shown for the quantity of iron castings produced and consumed within the plants classified in this industry.

Data on shipments of plumbing fixtures were collected by the Bureau of the Census on a quarterly basis on Form M34E. The detailed statistics shown in table 6A were taken from the quarterly survey.

## 3432--PLUMBING FIXTURE FITTINGS AND TRIM (BRASS GOODS)

This industry comprises establishments primarily engaged in manufacturing plumbing fixture fittings and trim (brass goods). Establishments primarily engaged in the manufacture of steam or water line valves are classified in industry 3494. For a detailed list of products of industry 3432, refer to table 6A, product codes 3432001 to 3432098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Plumbing Fittings, Brass Goods, Industry in 1963 totaled $\$ 334$ million. This amount included shipments of plumbing fixture fittings and trim, brass goods (primary products ) valued at $\$ 274$ million, shipments of other products (secondary products) valued at $\$ 31$ million, and miscellaneous receipts (mainly resales) at $\$ 29$ million.

This industry's shipments of plumbing fixture fittings and trim, brass goods, in 1963 represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included metal valves for piping systems (except plumbing and heating valves) ( $\$ 3.2$ million),
and plumbing and heating valves and specialties (except plumbers brass goods) (\$3.2 million).

Shipments of plumbing fixture fittings and trim, brass goods, by this industry in 1963 represented 83 percent of all shipments of these products ( $\$ 330$ million) by all industries. In 1958 the coverage ratio was also 83 percent. Another industry shipping plumbing fixture fittings and trim, brass goods included industry 3494, Valves and Pipe Fittings, $\$ 10.8$ million.

The production index for the primary products of the industry increased to 167 in 1963 from the 1958 level of 123 . The unit value index for 1963 was 93 compared to 99 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3433-HEATING EQUIPMENT, EXCEPT ELECTRIC

This industry comprises establishments primarily engaged in manufacturing heating equipment for all purposes other than power, including all gas, oil, and stoker coal fired equipment for the automatic utilization of gaseous, liquid, and solid fuels. Establishments primarily engaged in manufacturing electric stoves and ranges are classified in industry 3631; boiler shops primarily engaged in the production of industrial, power, and marine boilers in industry 3443; and industrial process furnaces and ovens in industry 3567. For a detailed list of products of industry 3433 , refer to table 6 A , product codes 3433110 to 3433698.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Heating Equipment, Except Electric, Industry in 1963 totaled $\$ 1,020$ million. This amount included shipments of heating equipment, except electric (primary products) valued at $\$ 721$ million, shipments of other products (secondary products) valued at $\$ 226$ million, and miscellaneous receipts of $\$ 73$ million.

This industry's shipments of heating equipment, except electric, in 1963 represented 76 percent of its total product shipments. The industry specialization ratio in 1958 was 81 percent. Secondary products shipped by this industry in 1963 included steel power boilers, parts and attachments (over 15 p.s.i. steam working pressure) ( $\$ 18.6$ million), and heat transfer equipment ( $\$ 77.6$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 22 percent of the total industry shipments are represented by plants specializing in product class 34332, Warm air furnaces (except floor and wall), except parts; and 30 percent in product class 34336, Other heating equipment (except electric) and parts for nonelectric heating equipment.

Shipments of heating equipment, except electric, by this industry in 1963 represented 81 percent of all shipments of these products ( $\$ 893$ million) by all industries. In 1958 the coverage ratio was 80 percent. Another industry shipping heating equipment, except electric was industry 3585, Refrigeration Machinery, $\$ 69.2$ million.

The production index for the primary products of the industry increased to 116 in 1963 from the 1958 level of 103 . The unit value index for 1963 was 105 compared to 110 in 1958. Both indexes were computed on a basis of $1954=100$.

Inasmuch as the primary products of industry 3433 represent a wide and heterogeneous group of heating equipment products, the establishments in this industry are involved in
a variety of manufacturing processes. Many heating equipment plants are engaged in metal fabricating activities, namely, stamping and forming. In addition, a significant number of the establishments in the industry are engaged in foundry and plate fabricating activities.

Some of the companies operating plants classified in industry 3433 have establishments engaged in the production of allied products such as metal tanks, electric and nonelectric ranges, electric and nonelectric water heaters and other consumer durable items principally in the heating and cooking line.

The establishments of this industry vary greatly in the degree to which they manufacture the components used in the production of heating and cooking equipment. Some manufacturers produce practically all of the component parts and incorporate only such purchased parts as the motor, electrical controls, and blowers. Other manufacturers produce only a small part of the complete unit purchasing most of the components from other manufacturers and limiting their manufacturing activities to assembly operations.

Data are shown in table 6A for "oil burners sold separately." These statistics exclude the quantity and value of oil burners which were both produced and incorporated into other types of heating equipment in the same plant. In these instances the value of the boileror furnace-burner unit includes the value of the oil burner.

Data on shipments of domestic heating stoves, mechanical stokers, oil burners, and furnaces were collected during 1963 by the Bureau of the Census on Annual Form MA-34N, Heating and Cooking Equipment (Except Electric). The product data shown for 1963 in table 6A are from that source.

Data for unit ventilators, unit heaters, and parts for unit heaters and ventilators, and heat transfer coils were collected during 1963 by the Bureau of the Census on a quarterly basis on Form M35H, Fans and Blowers. The product data shown in table 6A were taken from the quarterly survey.


# table 1. General Statistics: 1963 and Earlier Years 

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capita! expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3431. -METAL PLUMBING FIXTURES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 75 | 81 | 45 | 11,011 | 68,162 | 8,833 | 17,501 | 50,373 | 139,859 | 96,196 | 234,896 | 5,863 | 84 | 91 |
| $1962^{1}$ | (NA) | (NA) | (NA) | 9,498 | 57,557 | 7,588 | 15,678 | 42,417 | 111,764 | 95,075 | 209,541 | $(5,432)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 8,647 | 48,682 | 7,004 | 13,950 | 37,157 | 87,485 | 78,780 | 178,453 | $(4,996)$ | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | $(9,829)$ | $(54,674)$ | $(7,933)$ | $(16,139)$ | $(41,564)$ | $(110,742)$ | $(91,128)$ | $(196,613)$ | $(5,027)$ | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | $(11,784)$ | $(68,704)$ | $(9,281)$ | $(19,842)$ | $(51,727)$ | $(133,632)$ | $(107,801)$ | $(234,931)$ | $(7,691)$ | (NA) | (NA) |
| $1958{ }^{2}$ | 56 | 63 | 41 | 12,432 | 67,848 | 10,058 | 19,179 | 50,754 | 118,555 | 95,207 | 214,872 | 8,928 | 84 | 92 |
|  | INDUSTRY 3432. -PLUMBING FITTINGS, BRASS GOODS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 247 | 250 | 102 | 15,129 | 79,336 | 12,314 | 23,988 | 58,259 | 154,752 | 181,271 | 333,832 | 6,542 | 90 | 83 |
| 1962 1 | (NA) | (NA) | (NA) | 14,044 | 73,114 | 11,204 | 21,362 | 52,933 | 136,923 | 167,940 | 306,050 | 4,872 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 13,087 | 67,566 | 10,440 | 20,353 | 48,428 | 128,881 | 145,246 | 271,906 | 4,792 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 15,272 | 76,335 | 12,364 | 23,712 | 55,851 | 140,079 | 149,152 | 289,235 | 3,546 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 15,850 | 77,183 | 13,152 | 25,621 | 58,188 | 158,077 | 155,795 | 310,854 | 4,349 | (NA) | (NA) |
| $1958{ }^{2}$ | 250 | 254 | 84 | 14,663 | 66,937 | 12,140 | 22,993 | 50,425 | 120,560 | 131,530 | 250,326 | 3,564 | 91 | 83 |
|  | PLUMBING FIXTURES AND FITTINGS ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | (NA) | 331 | 147 | 26,140 | 147,498 | 21,147 | 41,489 | 108,632 | 294,611 | 277,467 | 568,728 | 12,405 | (NA) | (NA) |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 23,542 | 130,671 | 18,792 | 37,040 | 95,350 | 248,687 | 263,015 | 515,591 | 10,304 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 21,734 | 116,248 | 17,444 | 34,303 | 85,585 | 216,366 | 224,026 | 450,359 | 9,788 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 25,101 | 131,009 | 20,297 | 39,851 | 97,415 | 250,821 | 240,280 | 485,848 | 8,573 | (NA) | (NA) |
| 1959. | (NA) | (NA) | (NA) | 27,634 | 145,887 | 22,433 | 45,463 | 109,915 | 291,709 | 263,596 | 545,785 | 12,040 | (NA) | (NA) |
| 1958 | (NA) | 317 | 125 | 27,095 | 134,785 | 22,198 | 42,172 | 101,179 | 239,115 | 226,737 | 465,198 | 12,492 | (NA) | (NA) |
| 1957 | (NA) | (NA) | (NA) | 27,691 | 128,726 | 22,684 | 41,889 | 97,325 | 222,328 | 204,331 | 426,659 | 15,888 | 87 | 87 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 30,362 | 134,926 | 25,285 | 47,877 | 104,374 | 267,048 | 212,241 | 479,319 | 16,928 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 33,729 | 149,821 | 28,752 | 56,578 | 117,941 | 288,201 | 155,059 | 443,260 | 11,836 | (NA) | (NA) |
| 1954. | 307 | 321 | 129 | 30,612 | 132,070 | 25,675 | 50,706 | 102,346 | 239,465 | 222,848 | 468,277 | 12,286 | 87 | 89 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 35,362 | 146,083 | 29,959 | 59,275 | 114,018 | 253,275 | 219,949 | 473,224 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 33,913 | 131,971 | 28,346 | 56,035 | 101,378 | 218,816 | 191,339 | 410,155 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 40,227 | 154,598 | 33,944 | 69,163 | 120,542 | 263,592 | 222,139 | 485,731 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 40,846 | 142,535 | 34,775 | 71,593 | 112,491 | 257,110 | 206,438 | 463,548 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 30,225 | 100,851 | 25,395 | 49,834 | 77,190 | 155,775 | 138,701 | 293,846 | (NA) | (NA) | (NA) |
| $\begin{aligned} & 1947 \\ & 1939^{4} \end{aligned}$ | 263 | 277 | 134 | 34,748 | 98,316 | 30,698 | 61,083 | 81,849 | 159,081 | 139,464 | 298,545 | (NA) | 90 | 92 |
|  | (NA) | 247 | (NA) | (NA) | (NA) | 22,889 | (NA) | 28,686 | 66,743 | 45,648 | 112,391 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3433.-HEATING ERUIPMENT, EXCEPT ELECTRIC |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 611 | 548 | 280 | 42,020 | 243,857 | 30,232 | 60,035 | 154,435 | 495,652 | 525,517 | 1,019,787 | 17,815 | 76 | 81 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 43,873 | 244,985 | 31,054 | 61,494 | 149,846 | 522,469 | 531,537 | 1,046,284 | 12,800 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 45,308 | 247,730 | 32,466 | 63,397 | 155,353 | 505,727 | 544, 672 | 1,052,919 | 14,453 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 45,726 | 243,887 | 33,191 | 64,278 | 152,798 | 511,946 | 517,154 | 1,019,355 | 13,114 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 46,699 | 243,227 | 34,211 | 66,648 | 154,958 | 487,040 | 542,914 | 1,020,980 | 13,351 | (NA) | (NA) |
| $1958{ }^{2}$ | 642 | 672 | 303 | 44,680 | 222,681 | 32,433 | 63,178 | 142,329 | 432,799 | 470,630 | 912,878 | 13,415 | 81 | 80 |










 rather than shipments.

## Standard Notes: - Represents zero. <br> (D) Withheld to avoid disclosing figures for individual companies. <br> (NA) Not available. <br> (X) Not

applicable
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }_{2}^{A}$ revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Accordingly, the data for $1958-1963$ are not comparable with those for earlier years.
${ }^{3}$ The two industries shown above were a single industry in 1957 and earlier years. They are shown combined so that historical data may be presented.
${ }^{4}$ No comparable figures are available for earlier years.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | $\begin{gathered} \text { Capital } \\ \text { expend- } \\ \text { itures, } \\ \text { new } \end{gathered}$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroil <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \begin{array}{c} \text { Man- } \\ \text { hours } \end{array} \\ (1,000) \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3431. - METAL PLUMBING FIXTURES |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 81 | 45 | 11,011 | 68,162 | 8,833 | 17,501 | 50,373 | 139,859 | 96,196 | 234,896 | 5,863 | 12,432 | 118,555 |
| Northeast $\qquad$ Pennsylvania..... | 26 10 | 11 | $\begin{aligned} & 1,925 \\ & 1,254 \end{aligned}$ | $\begin{array}{r} 11,574 \\ 7,528 \end{array}$ | $\begin{array}{r} 1,541 \\ 969 \end{array}$ | $\begin{aligned} & 2,834 \\ & 1,711 \end{aligned}$ | $\begin{aligned} & 8,607 \\ & 5,269 \end{aligned}$ | $\begin{aligned} & 20,994 \\ & 13,685 \end{aligned}$ | $\begin{aligned} & 16,993 \\ & 10,826 \end{aligned}$ | $\begin{aligned} & 37,635 \\ & 24,539 \end{aligned}$ | $\begin{aligned} & 825 \\ & 528 \end{aligned}$ | 1,410 | 18,455 12,834 |
| North Central $\qquad$ <br> Ohio. $\qquad$ <br> Indiana. $\qquad$ <br> Illinois. $\qquad$ | $\begin{array}{r} 24 \\ 7 \\ 3 \\ 7 \end{array}$ | $\begin{array}{r} 18 \\ 6 \\ 1 \\ 6 \end{array}$ | $\begin{aligned} & 5,233 \\ & 1,798 \end{aligned}$ | 31,961 10,390 | 4,144 1,451 | 8,320 2,579 | 23,046 7,610 | $\begin{aligned} & 65,922 \\ & 26,275 \end{aligned}$ | 46,862 19,730 | 113,425 47,016 | 2,342 | 5,930 $(2)$ | 57, 799 $(2)$ |
|  |  |  | 216723 | 1,194 | 157509 |  | 748 | 1,948 | 2,7596,011 | 4,683 | 203 | ${ }^{(2)}$ | $\begin{array}{r}(2) \\ 7 \\ \hline 224\end{array}$ |
|  |  |  |  | 4,740 |  |  | 3,002 | 10,398 |  | 16,573 | 347 | 677 |  |
| South <br> West. | 16 15 | 8 | 2,836 1,017 | 18,207 6,420 | 2,295 | 4,668 1,679 | 13,740 4,980 | 41,523 11,420 | 23,427 8,914 | 63,311 20,525 | 1,664 1,032 | \} 4,561 | 42,301 |
|  | INDUSTRY 3432.-PLUMBING FITTTINGS, BRASS GOODS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 250 | 102 | 15,129 | 79,336 | 12,314 | 23,988 | 58,259 | 154,752 | 181,271 | 333,832 | 6,542 | 14,663 | 120,560 |
| Northeast. $\qquad$ Connecticut...... Pennsylvania. $\qquad$ | $\begin{aligned} & 76 \\ & 11 \\ & 15 \end{aligned}$ | $\begin{array}{r} 28 \\ 6 \\ 5 \end{array}$ | 2,421455 | $\begin{array}{r} 11,427 \\ 2,045 \end{array}$ | $\begin{array}{r} 1,962 \\ 384 \end{array}$ | $\begin{array}{r} 3,866 \\ 767 \end{array}$ | $\begin{aligned} & 8,028 \\ & 1,593 \end{aligned}$ | $\begin{array}{r} 23,164 \\ 3,950 \end{array}$ | $\begin{array}{r} 27,550 \\ 6,211 \end{array}$ | $\begin{aligned} & 51,019 \\ & 10,198 \end{aligned}$ | $\begin{array}{r} 716 \\ 49 \end{array}$ | 2,309 | $\begin{array}{r} 18,887 \\ 5,258 \\ 2,868 \end{array}$ |
|  |  |  |  | $\begin{aligned} & 2,045 \\ & 2,308 \end{aligned}$ | 384 469 | 767 911 |  |  |  |  |  | 563 586 |  |
| North Central Ohio.. Indiana. Illinois | $\begin{array}{r} 90 \\ 28 \\ 5 \\ 21 \end{array}$ | $\begin{array}{r} 44 \\ 15 \\ 4 \\ 9 \end{array}$ | $\begin{array}{r} 7,164 \\ 3,006 \\ 728 \\ 969 \end{array}$ | $\begin{array}{r} 40,047 \\ 16,577 \\ 3,507 \\ 6,259 \end{array}$ | $\begin{array}{r} 5,718 \\ 2,430 \\ 639 \\ 762 \end{array}$ | 11,066 | $\begin{array}{r} 28,887 \\ 12,214 \\ 2,873 \\ 4,239 \end{array}$ | $\begin{array}{r} 76,495 \\ 30,794 \\ 11,650 \\ 8,797 \end{array}$ | $\begin{aligned} & 87,291 \\ & 31,256 \\ & 13,559 \\ & 15,491 \end{aligned}$ | 161,53860,96625,00424,264 | $\begin{array}{r} 2,880 \\ 1,640 \\ 221 \\ 284 \end{array}$ | $\begin{array}{r} 6,563 \\ \left({ }^{2}\right) \\ \left(2^{2}\right) \\ 1,170 \end{array}$ | $\begin{array}{r} 54,108 \\ (2) \\ (2) \\ 8,867 \end{array}$ |
|  |  |  |  |  |  | 4,360 |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 1,416 |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 1,615 |  |  |  |  |  |  |  |
| South <br> West. | 30 <br> 54 | $\begin{aligned} & 12 \\ & 18 \end{aligned}$ | $\begin{aligned} & 3,321 \\ & 2,223 \end{aligned}$ | $\begin{aligned} & 15,564 \\ & 12,298 \end{aligned}$ | $\begin{aligned} & 2,771 \\ & 1,863 \end{aligned}$ | 5,3653,691 | 12,2579,087 | 31,26423,829 | $\begin{aligned} & 37,536 \\ & 28,894 \end{aligned}$ | $\begin{aligned} & 69,038 \\ & 52,237 \end{aligned}$ | $\begin{aligned} & 1,004 \\ & 1,942 \end{aligned}$ | \} 5,791 | 47,565 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | INDUSTRY 3433.-HEATING EQUIPMENT, EXCEPT ELECTRIC |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 648 | 280 | 42,020 | 243,857 | 30,232 | 60,035 | 154,435 | 495,652 | 525,517 | 1,019,787 | 17,815 | 44,680 | 432,799 |
| New England.......Massachusetts...Connecticut..... | 47 | 1668 | $\begin{array}{r} 1,644 \\ 780 \\ 672 \end{array}$ | $\begin{aligned} & 9,344 \\ & 4,584 \\ & 3,895 \end{aligned}$ | $\begin{array}{r} 1,199 \\ 585 \\ 465 \end{array}$ | $\begin{array}{r} 2,503 \\ 1,238 \\ 932 \end{array}$ | $\begin{aligned} & 5,969 \\ & 2,965 \\ & 2,272 \end{aligned}$ | $\begin{array}{r} 16,431 \\ 7,851 \\ 6,565 \end{array}$ | $\begin{array}{r} 17,802 \\ 6,672 \\ 9,384 \end{array}$ | $\begin{aligned} & 34,071 \\ & 14,406 \\ & 15,934 \end{aligned}$ | $\begin{aligned} & 669 \\ & 280 \\ & 324 \end{aligned}$ | $\begin{array}{r} 1,344 \\ 851 \\ 415 \end{array}$ | $\begin{array}{r} 11,438 \\ 7,256 \\ 3,631 \end{array}$ |
|  | 24 13 |  |  |  |  |  |  |  |  |  |  |  |  |
| Middle Atlantic.... <br> New York. <br> ........ <br> New Jersey........ <br> Pennsylvania..... | 191625376 | 81222138 | $\begin{array}{r} 11,979 \\ 3,624 \\ 2,630 \\ 5,725 \end{array}$ | $\begin{aligned} & 72,717 \\ & 22,223 \\ & 15,406 \\ & 35,088 \end{aligned}$ | $\begin{aligned} & 8,814 \\ & 2,676 \\ & 1,867 \\ & 4,277 \end{aligned}$ | $\begin{array}{r} 17,459 \\ 5,358 \\ 3,677 \\ 8,424 \end{array}$ | $\begin{array}{r} 47,786 \\ 14,798 \\ 9,497 \\ 23,491 \end{array}$ | $\begin{array}{r} 156,828 \\ 41,806 \\ -1,641 \\ 80,381 \end{array}$ | $\begin{array}{r} 152,178 \\ 46,370 \\ 34,984 \\ 70,824 \end{array}$ | $\begin{array}{r} 308,647 \\ 92,495 \\ 66,964 \\ 149,188 \end{array}$ | $\begin{aligned} & 4,394 \\ & 1,070 \\ & 1,149 \\ & 2,175 \end{aligned}$ | $\begin{array}{r} 12,678 \\ 4,206 \\ 2,812 \\ 5,660 \end{array}$ |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 38 |  |  |  |  |  |  |  |  |  |  |  |
| East North Central. Ohio. Indiana. $\qquad$ Illinois. $\qquad$ Michigan. $\qquad$ Wisconsin. $\qquad$ | 1825526503516 | 943017241211 | $\begin{array}{r} 17,360 \\ 6,617 \\ 3,113 \\ 3,904 \\ 1,665 \\ 2,061 \end{array}$ | $\begin{array}{r} 105,320 \\ 43,601 \\ 18,828 \\ 22,909 \\ 8,091 \\ 11,891 \end{array}$ | 11,604 | 23,025 | 62,435 | 207,690 | 231,622 | 437,902 | 7,382 | 18,567 | 188,494 |
|  |  |  |  |  | 4,519 | 9,259 | 26,665 | 88,427 | 98,557 | 184,433 | 3,173 | 6,023 | 66,143 |
|  |  |  |  |  | 2,016 | 3,827 | 9,893 | 37,770 | L8,730 | 85,817 | 2,137 | 2,459 | 22,402 |
|  |  |  |  |  | 2,820 | 5,498 | 13,919 | 48,670 | 47, 365 | 95,004 | 1,265 | 6,067 | 64,515 |
|  |  |  |  |  | 922 | 1,862 | 4,915 | 14,671 | 20,206 | 37,218 | 418 | 1,706 | 13,165 |
|  |  |  |  |  | 1,327 | 2,579 | 7,046 | 18,152 | 16,764 | 35,430 | 389 | 2,312 | 22,269 |
| West North Central. | 53 | 22 | 3,067 | 16,789 | 2,500 | 5,101 | 12,560 | 38,348 | 41,466 | 78,728 | 1,199 |  |  |
| Missouri......... | 24 | 9 | 1,070 | 5,777 | 752 | 1,465 | 3,433 | 10,351 | 11,016 | 21,484 | 263 | $\left({ }^{2}\right)$ | ${ }^{(2)}$ |
| South.............. | 72 | 32 | 5,153 | 23,512 | 4,009 | 7,852 | 15,060 | 45,385 | 48,778 | 94,831 | 3,524 | 5,348 | 34,262 |
| Tennessee. | 9 | 8 | 1,686 | 7,804 | 1,264 | 2,253 | 4,761 | 13,877 | 17,987 | 33,094 | 348 | 1,972 | 13,256 |
| Alabama. | 5 | 4 | 910 | 3,714 | 791 | 1,595 | 2,751 | 6,879 | 6,213 | 13,140 | 277 | 735 | 3,988 |
| Texas.. | 19 | 3 | 414 | 2,335 | 282 | 609 | 1,234 | 6,518 | 5,752 | 12,032 | 291 | 567 | 4,992 |
| Mountain. . . . . | 10 | 1 | 113 | 322 | 91 | 167 | 271 | 810 | 1,285 | 2,138 | 19 |  |  |
| Pacific............ | 93 | 34 | 2,704 | 15,853 | 2,015 | 3,925 | 10,351 | 30,160 | 32,386 | 63,470 | 628 | \} 3,551 | 31,026 |
| California | 71 | 28 | 2,440 | 14,357 | 1,820 | 3,561 | 9,331 | 27,477 | 30,313 | 58,766 | 554 | 2,860 | 26,565 |

${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3431, Metal Plumbing Fixtures: New England-Massachusetts, 5 (20-99); Middle Atlantic-New York, 7 (20-99); New Jersey, 4 (557); East North Central-Michigan, 3 (500-999); Wisconsin, 3 (1,904); West North Central—Missouri, 1 (20-99); South Atlantic—Maryland, 3 (804); North Carolina, 1 (1-19); South Carolina, 1 (20-99); Georgia, 2 (20-99); Florida, 2 (1-19); East South Central-Kentucky, 2 (1,000-2,499); Tennessee, 2 (500-999) West South Central-Texas, 3 (226); Mountain-Colorado, l (1-19); Pacific-Califormia, 14 (1,000-2,499).
SIC 3432, Plumbing Fittings, Brass Goods: New England-Massachusetts, 8 (100-249); Rhode Island, 2 (1-19); Middle Atlantic-New York, 35 (726); New Jersey, 5 (495); East North Central—Michigan, 16 (1,000-2,499); Wisconsin, 7 (482); West North Central—Minnesota, 2 (100-249); Iowa, 3 (174); Missouri, 5 (100-249); Kansas, 3 (20-99); South Atlantic-Delaware, 2 (250-499); Maryland, 2 (20-99); West Virginia, 2 (1,000-2,499); North Carolina, 1 (20-99); South Carolina, 2 (20-99); Georgia, 1 (100-249); Florida, 7 (20-45); East South Central—Kentucky, 2 (500-999); Alabama, 3 (20-99); West South Central—Arkansas, 1 (1-19); Texas, 7 (516); Mountain-Montana, 1 (1-19); Colorado, 2 (1-19); Pacific—Washington, 2 (1-19); Oregon, 1 (1-19); California, 47 (1,000-2,499); Hawaii, 1 (1-19).
SIC 3433, Heating Equipment, Except Electrical: New England-Maine, 2 (20-99); Vermont, 1 (1-19); Rhode Island, 7 (100-249); West North CentralMinnesota, 14 (250-499); Iowa, 5 (445); North Dakota, 1 (1-19); South Dakota, 2 (1-19); Nebraska, 2 (100-249); Kansas, 5 (1,174); South AtlanticMaryland, 4 (100-249); Virginia, 6 (312); West Virginia, 1 (100-249); North Carolina, 4 (20-99); South Carolina, 1 (20-99); Georgia, 3 (441); Florida, 6 (20-99); East South Central—Kentucky, 6 (409); West South Central—Arkansas, 2 (250-499); Iouisiana, 3 (1-19); 0klahoma, 3 (134); Mountain-Montana, 2 (1-19); Colorado, 2 (1-19); Arizona, 2 (1-19); Utah, 4 (20-99); Pacific-Washington, 12 (100-249); Oregon, 10 (20-99). ${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963


 in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & \text { 2,500 } \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3431.-METAL PLUMBING FIXTURES |  |  |  |  |  |  |  |  |  |  |
| Establishments. . . . . . . . . . . number. . | 81 | 18 | 10 | 8 | 13 | 11 | 8 | 7 | 4 | 2 |  |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do.... | 11,011 | 25 | 73 | 108 | 424 | 835 | 1,442 | 2,723 | 5,381 | (D) |  |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 68,162 | 162 | 444 | 520 | 1,966 | 5,264 | 7,875 | 17,923 | 34,008 | (D) |  |
| Value added, adjusted.......do.... | 139,859 | 308 | 919 | 1,087 | 3,623 | 16,068 | 16,769 | 32,649 | 68,436 | (D) |  |
| Value of shipments...........do.... | 234,896 | 716 | 2,720 | 2,539 | 7,885 | 26,123 | 30,335 | 55,869 | 108,709 | (D) |  |
| Capital expenditures, new...do.... | 5,863 | 24 | 104 | 187 | 84 | 509 | 521 | 1,782 | 2,652 | (D) |  |
|  | INDUSTRY 3432.-PLIMBING FITTINGS, BRASS GOODS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 250 | 78 | 35 | 35 | 32 | 30 | 27 | 7 | 5 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 15,129 | 131 | 234 | 483 | 992 | 2,060 | 4,151 | 2,241 | 4,837 | (D) |  |
| Payroll...................\$1,000. . | 79,336 | 631 | 1,060 | 2,450 | 5,014 | 9,972 | 21,761 | 11,593 | 26,855 | (D) |  |
| Value added, adjusted.......do.... | 154,752 |  |  |  | 11,282 | 18,437 | 45,744 | 21,169 | 49, 1414 | (D) |  |
| Value of shipments..........do.... | 333,832 | 2,830 | 4,978 | 12,129 | 21,220 | 41,426 | 105,294 | 39,321 | 106,634 | (D) |  |
| Capital expenditures, new...do.... | 6,542 |  |  | 145 | 512 | 695 | 1,231 | 312 | 3,500 | (D) |  |
|  | INDUSTRY 3433.-HEATING EQUIPMENT, EXCEPT ELECTRIC |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 648 | 186 | 79 | 103 | 102 | 64 | 65 | 38 | 10 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... ${ }^{\text {do.... }}$ | 42,020 | 335 | 539 | 1,441 | 3,300 | 4,582 | 10,778 | 12,995 | 8,050 | (D) |  |
| Payroll.................. $\$ 1,000$. . | 243,857 | 1,470 | 2,523 | 7,638 | 17,976 | 25,638 | 61,101 | 75,702 | 51,809 | (D) |  |
| Value added, adjusted.......do.... | 495,652 | 3,423 | 4,676 | 14,899 | 32,456 | 49,798 | 129,829 | 152,217 | 108,354 | (D) |  |
| Value of shipments..........do.... | 1,019,787 | 7,248 | 9,861 | 33,473 | 72,215 | 109,298 | 258,208 | 330,631 | 198,853 | (D) |  |
| Capital expenditures, new...do.... | 17,815 | 11,927 | 148 | 377 | 1,176 | 1,158 | 4,313 | 5,172 | 3,544 | (D) | - |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
${ }^{1}$ Includes capital expenditures for plants under construction but not in operation which constitute $\$ 1-\$ 2$ million ofthe total for the industry.


## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\qquad$ <br> $\overline{\text { Col. } B+C}$ <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3431 | Metal plumbing fixtures.......... $\begin{array}{r}\text { 1963.. } \\ 1958 . .\end{array}$ | $\begin{aligned} & 234,896 \\ & 214,872 \end{aligned}$ | $\begin{aligned} & 184,248 \\ & 164,787 \end{aligned}$ | $\begin{aligned} & 34,301 \\ & 30,493 \end{aligned}$ | $\begin{aligned} & 16,347 \\ & 19,592 \end{aligned}$ | $\begin{aligned} & 84 \\ & 84 \end{aligned}$ | $\begin{aligned} & 203,517 \\ & 180,006 \end{aligned}$ | $\begin{aligned} & 184,248 \\ & 164,787 \end{aligned}$ | $\begin{aligned} & 19,269 \\ & 15,219 \end{aligned}$ | $\begin{aligned} & 91 \\ & 92 \end{aligned}$ |
| 3432 | Plumbing fittings, brass goods... $\begin{array}{r}\text { 1963.. } \\ 1958 . .\end{array}$ | $\begin{aligned} & 333,832 \\ & 250,326 \end{aligned}$ | $\begin{aligned} & 274,134 \\ & 215,210 \end{aligned}$ | $\begin{aligned} & 30,722 \\ & 21,475 \end{aligned}$ | $\begin{aligned} & 28,976 \\ & 13,641 \end{aligned}$ | $\begin{aligned} & 90 \\ & 91 \end{aligned}$ | $\begin{aligned} & 329,575 \\ & 259,485 \end{aligned}$ | $\begin{aligned} & 274,134 \\ & 215,210 \end{aligned}$ | $\begin{aligned} & 55,441 \\ & 44,275 \end{aligned}$ | $\begin{aligned} & 83 \\ & 83 \end{aligned}$ |
| 3433 | Heating equipment, except electric............................. . $1963 .$. | $\begin{array}{r} 1,019,787 \\ 912,878 \end{array}$ | $\begin{aligned} & 721,423 \\ & 677,918 \end{aligned}$ | $\begin{aligned} & 225,810 \\ & 168,599 \end{aligned}$ | $\begin{aligned} & 72,554 \\ & 66,361 \end{aligned}$ | $\begin{aligned} & 76 \\ & 81 \end{aligned}$ | $\begin{aligned} & 893,230 \\ & 836,974 \end{aligned}$ | $\begin{aligned} & 721,423 \\ & 677,918 \end{aligned}$ | $\begin{aligned} & 171,807 \\ & 159,056 \end{aligned}$ | $\begin{aligned} & 81 \\ & 80 \end{aligned}$ |

[^119]
# TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products). (b) products classified in other industries (secondary products), and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958



See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


[^120]TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


[^121]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | $\begin{aligned} & \hline \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3433- -- | HEATING EQUIPMENT, EXCEPT ELECTRIC-Continued <br> Other heating equipment, except electric, including partsContinued <br> Mechanical stokers: <br> Reported in the census of manufactures. <br> Reported on Annual Form MA-34N. <br> Class 1 (capacity under 61 pounds of coal per hour): <br> Bituminous. |  |  |  |  |  |
| 34336 -- |  |  |  |  |  |  |
| 3433654 |  | Units | (X) 8,210 | $\begin{aligned} & 9,293 \\ & 9,547 \end{aligned}$ | $\begin{array}{r} (X) \\ 16,005 \end{array}$ | $\begin{array}{r} 9,328 \\ (\mathrm{NA}) \end{array}$ |
| 3433656 |  | .do. | 2,317 | 483 | 4,797 | (NA) |
| 3433657 | Anthracite: <br> Conversion stokers ${ }^{9}$ | ...do. | 118 | 42 | 626 | (NA) |
| 3433662 |  | ...do. . | 4,121 | 2,470 | 7,357 | (NA) |
| 3433663 | Class 2 (capacity 61 to 100 pounds of coal per hour): <br> Bituminous. | ..do | 409 | 159 | 766 | (NA) |
| 3433664 | Anthracite..................................................... | . . .do. | 63 | 49 | 198 | (NA) |
| 3433665 | Class 3 (capacity 100 to 300 pounds of coal per hour)...... | .do | 669 | 452 | 1,346 | (NA) |
| 3433666 | Class 4 (capacity 301 to 1,200 pounds of coal per hour).... | do | 309 | 387 | 679 | (NA) |
| 3433667 | Class 5 (capacity 1,201 pounds of coal per hour and over): <br> Installed under fire-tube boilers. | . .do. | 29 | 201 | 66 | (NA) |
| \$4336 68 | Installed under water-tube boilers. | do | 175 | 5,304 | 170 | (NA) |
| 3433659 | Parts for unit heaters and unit ventilators: <br> Reported in the census of manufactures................................. Reported on quarterly Form M35H. |  | (X) | $\begin{aligned} & 2,252 \\ & 2,048 \end{aligned}$ | (X) | $(21)$ $(N A)$ |
|  | Unit ventilators: |  |  |  |  |  |
| 3433660 | Reported in the census of manufactures.................................... Reported on quarterly Form M35H. |  | (X) | $\begin{aligned} & 27,261 \\ & 25,984 \end{aligned}$ | (X) | $\begin{aligned} & 29,903 \\ & 28,879 \end{aligned}$ |
| 3433661 | Tanks for water heaters (sold separately)........................ | Units... | 250,381 | 5,385 | 779,429 | 15,413 |
| 3433673 | Parts and attachments for heating equipment (sold separately): <br> For warm air furnaces. |  | (X) | 17,585 | (X) | 11,915 |
| 3433674 | For cast iron and steel heating boilers |  | (X) | 15,512 | (x) | 11,037 |
| 3433683 | For mechanical stokers................ |  | (X) | 3,045 | (X) | 5,154 |
| 3433685 | For oil burners. |  | (X) | 14,565 | (X) | 9,403 |
| 3433698 | Other heating equipment, except electric (including incinerators, solar heaters, and circulating fireplace heaters) and other parts for heating equipment, except electric (sold separately).. |  | (X) | 60,367 | (x) | 1134,991 |
| 3433600 | Other heating equipment, n.s.k....................................... |  | (X) | 16,915 | (X) | 20,390 |
| 3433000 | Heating equipment, n.s.k.............................................. |  | (X) | 41,201 | (X) | 35,715 |

## Standard Notes: - Represents zero.

 applicable. n.s.k Not specified by kind.(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not_available.
(X) Not
${ }^{1}$ The quantity data for plumbing fixtures were obtained from Census Quarterly Survey M34E. In this survey it is necessary to combine certain metal fixtures with fixtures made of other materials such as vitreous china, concrete, etc. Accordingly the quantity data do not relate exactly to the value figures shown for enameled iron and metal plumbing fixtures.
${ }^{2}$ Differs from value of shipments of metal plumbing fixtures reported in the Census Quarterly Survey due to different methods of reporting values in the two surveys.
${ }^{3}$ The quantity data for vitreous china plumbing fixtures. were obtained from the Census Quarterly Survey M34E. No separate quantity data for vitreous and semivitreous sinks, laundry trays, and other plumbing fixtures are available since these items were combined, in the quarterly survey, with similar items made of other materials.
${ }^{4}$ Represents vitreous china only. In addition, shipments of $\$ 2,398$ thousand and $\$ 2,236$ thousand were reported for 1963 and 1958 , respectively, for ${ }^{5}$ plumbing fixtures made of glazed earthenware, concrete, and composition.
${ }^{5}$ For 1958, product codes 34320 , 19, 29, 39, and 48 are included with product code 3432098.
${ }^{6}$ Excludes furnace-burner and boiler-burner units, product codes 3433151, 59, 65, 31, 39, and 45. The total number of oil burners including such units is 563,227 in 1963 and 624,888 in 1958.
${ }^{7}$ Conmercial and industrial burners are those with consumption rates of 6 gallon per hour or more.
${ }^{8}$ In 1958, the value of steam or hot water heating elements were included with the value for gas-fired unit heaters.
${ }^{9}$ Conversion stoker-a conversion stoker is a mechanical stoker which may be installed in any of the common types of furraces or boilers.
${ }^{10}$ Integral unit-an integral unit consists of a boiler or furnace, an automatic coal-feeding mechanism, accessories, and usually a metal enclosure, the whole assembly having been designed as a complete, compact and coordinated heating unit.
${ }^{11}$ Parts for unit heaters and unit ventilators are included with other heating equipment, except electric, and parts for other heating equipment, except electric, code 3433698 for 1958.

## TABLE 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

\begin{tabular}{|c|c|c|c|}
\hline \multirow[b]{2}{*}{Product code} \& \multirow[b]{2}{*}{Product and year} \& \multicolumn{2}{|l|}{Indexes (1954 = 100)} <br>
\hline \& \& Production \& Unit value <br>
\hline 343-- \& Plumbing and heating, except electric.......... $\begin{array}{r}\text { 1963.. } \\ 1958 . .\end{array}$ \& 129
107 \& 96
103 <br>
\hline 3431- \& Metal plumbing fixtures................................ $1963 .$. \& 136
104 \& 72
83 <br>
\hline 3432- \& Plumbing fixture fittings and trim (brass goods)...1963..

$1958 .$. \& 167
123 \& 93
99 <br>
\hline 3433- \& Heating equipment, except electric ${ }^{1} \ldots . . . . . . . . . . . . .1963 .$.
1958.. \& 116
103 \& 105
110 <br>
\hline 34331 \& Oil burners, residential, conmercial and industrial (sold separately), except parts............. 1963.. \& 89
91 \& 86
93 <br>
\hline 34332 \& Warm air furnaces (except floor and wall), except parts.................................................. 1963.. \& 113 \& 81
100 <br>
\hline 34333 \& Cast iron heating boilers, radiators, and convectors, except parts... ............................1963.. 1958. \& 98
106 \& 135
115 <br>
\hline 34334 \& Domestic heating stoves (except electric), except parts................................................. $1963 .$. \& 84
88 \& 136
120 <br>
\hline 34335 \& Steel heating boilers (except electric), except parts.... ............................................1963.. 1958. \& 103

83 \& | 129 |
| :--- |
| 142 | <br>

\hline
\end{tabular}

[^122]TABLE 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishnents. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

Source: Current Industrial Reports Series M34N "Heating and Cooking Equipment."

## TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than \$1 million of the individual product classes are listed in footnote 1 .

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OII BURNERS, RESIDENTTAL AND INDUSTRTAL (SOLD SEPARATELY) EXCEPT PARTS (34331) | $1963{ }^{1}$ |  | CAST IRON HEATING BOILERS, RADIATORS, AND CONVECTORS, EXCEPT PARTS (34333) - <br> United States, total... <br> New England. $\qquad$ Massachusetts.............. . | $1963{ }^{1}$ |  | STEEL HEATING BOILERS ( 15 p.s.i. AND UNDER) EXCEPT PARTS (34335) Continued | $1963{ }^{1}$ | 1958 |
|  | 41,978 |  |  |  |  |  | 14,510 | 17,337 |
|  |  |  | 138,85215,0428,481 |  | East North Central......... |  |  |  |
| New England. Connecticut. $\qquad$ | $\begin{aligned} & 4,624 \\ & 3,378 \end{aligned}$ |  |  |  | All other divisions......... California................... | $\begin{aligned} & 9,844 \\ & 6,832 \end{aligned}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 4,295 \end{array}$ |  |
|  |  |  | Middle Atlantic |  |  |  |  | 93,923 |
|  |  |  | New York. . . . |  | 40,124 | OTHER HEATING RZUTPMENT (EXCEPT ELECTRIC) AND PARTS FOR NONELECTRIC HEATING EQUIPMENT (34336) |  |  |
| Middle Atlantic............. | 11,732 |  | New Jersey |  | 15,364 |  |  |  |
| New York. . . . . . . . . . . . . . . . | 6,360 |  | Pennsylvania............. | 38,435 |  |  |  |  |
| New Jersey. |  |  |  |  |  |  |  |  |
| Pennsylvania. | $2,265$ |  | North Central. Indiana. $\qquad$ | $\begin{aligned} & 27,442 \\ & 18,293 \end{aligned}$ |  |  | United States, total... | 317,330 | 268,037 |
| North Central Ohio. Illinois. |  |  | South and West............. | 2,445 |  | New England...................... <br> Massachusetts. $\qquad$ <br> Rhode Island. $\qquad$ <br> Connecticut. $\qquad$ | 11,532 | 5,352 |
|  |  |  | 5,506 |  |  | 3,240 |  |  |
|  | 7,6727,420 |  |  | DOMESTIC HEATTNG STOVES (EXCEPT ELECTRIC), EXCEPT PARTS (34334) | $1963{ }^{1}$ |  | 1958 | 2,480 3,546 | (Z) |
| South and West.. | $\begin{aligned} & 4,673 \\ & 3,868 \end{aligned}$ |  |  |  |  |  | Middle Atlantic............ | 67,99017,510 | 65,502 |
| California. |  |  | United States, total... | 79,122 | 69,774 | New York. ................. | 16,357 |  |
|  |  |  |  |  |  | New Jersey................ |  | 9,280 |
| WARM AIR FURNACES (EXCEPT FLOOR AND WALL) EXCEPT PARTS (34332) | $1963{ }^{1}$ | 1958 |  | $\begin{array}{r} 31,210 \\ 4,899 \end{array}$ | 31,499 | Pennsylvania............. | 38,168 | 39,865 |
|  |  |  |  |  | 4,162 17,562 | East North Central......... | 155,421 | 130,366 |
|  |  |  |  | 16,021 | 17,562 | Ohio........................ | 53,468 | 27,059 |
|  | 204,478 | 232,530 | West North Central......... | 16,833 | 7,086 | Illinois. <br> Michigan. <br> Wisconsin |  | 49,993 |
| United States, total.... |  |  |  |  |  |  | 44,232 |  |
|  |  |  | South Atlantic............... Georgia. $\qquad$ | $\begin{aligned} & 5,778 \\ & 2,688 \end{aligned}$ | 5,869 ${ }^{(2)}$ |  | 10,471 27,683 | 30,646 |
| Northeast. . . . . . . . . . . . . . . . | $\begin{aligned} & 31,775 \\ & 11,963 \end{aligned}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 16,261 \end{array}$ |  |  |  | Wisconsin.................... | 27,683 |  |
| New York. . . . . . . . . . . . . . . . |  |  |  | 17,465 |  | West North Central......... | 16,576 | 17,5162,783 |
|  |  |  | Tennessee. $\qquad$ <br> Alabama $\qquad$ |  | 16,922 7,699 | Minnesota................. | 4,599 |  |
| East North Central........... | 113,285 | 121,583 |  | 7,009 | 5,315 | Missouri <br> Kansas. $\qquad$ | $\begin{aligned} & 2,577 \\ & 5,780 \end{aligned}$ | 6,434 |
| Ohio..... | 69,435 | 125,556 |  |  |  |  |  |  |
| Milinois.. | 16,630 6,177 | 15,040 | All other divisions........ | 7,836 |  |  |  | 8,290 |
| Michigan................... Wisconsin.............. | $\begin{array}{r} 12,159 \\ 8,884 \end{array}$ | $\begin{aligned} & 13,011 \\ & 10,134 \end{aligned}$ | STEEL HEATING BOILERS ( 15 p.s.i. AND UNDER) EXCEPT PARTS (34335) |  |  | East South Central......... | 16,315 | 11,692 |
| Wisconsin. |  |  |  |  |  | Tennessee................ | 11,757 | 8,912 |
| West North Central........... | 19,513 | 37,272 |  | 70,269 | 62,826 | West South Central..........Texas....................... | 13,1995,646 | 6,308 |
|  |  |  | United States, total... |  |  |  |  | 3,275 |
| South........................ | 15,673 | 14,257 | Middle Atlantic.............. <br> New York. | $\begin{array}{r} 45,915 \\ 4,371 \end{array}$ | $\begin{array}{r} 39,304 \\ 6,632 \end{array}$ | Mountain. . . . . . . . . . . . . . . . . . <br> Utah. | $\begin{aligned} & 2,533 \\ & 2,046 \end{aligned}$ | (z)$(\mathrm{Z})$ |
|  |  |  |  |  |  |  |  |  |
| West. | $\begin{aligned} & 24,232 \\ & 22,942 \end{aligned}$ | $\begin{gathered} \left({ }^{2}\right) \\ 21,428 \end{gathered}$ | New Jersey. <br> Pennsylvania | $\begin{array}{r} 8,843 \\ 32,701 \end{array}$ | $\begin{array}{r} 3,636 \\ 29,036 \end{array}$ | Pacific..........................California................ | $\begin{array}{r} 28,237 \\ 26,315 \end{array}$ | 22,192 |
| California................. |  |  |  |  |  |  |  |  |

(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. (Z) Less than $\$ 1$ million reported.
${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 34331, Massachusetts, Indiana, and Wisconsin; 34332, New Jersey, Pennsylvania, Minnesota, Iowa, Missouri, Kansas, Tennessee, Oklahoma, and Texas; 34333, Connecticut, Ohio, and Illinois; 34334, Connecticut, Indiana, Michigan, Wisconsin, Missouri, Kansas, Virginia, West Virginia, Kentucky, and Texas; 34335, Ohio, Indiana, Illinois, Michigan, and Kentucky; 34336, Iowa, Nebraska, Maryland, Georgia, Kentucky, Alabama, Arkansas, Oklahoma, and Washington.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.
table 7A. Materials by Kind: 1963 and 1958


See footnotes at end of table.

## table 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | $\begin{aligned} & \text { Delivered } \\ & \text { cost } \\ & (\$ 1,000) \\ & \hline \end{aligned}$ | Quantity | Delivered cost $(\$ 1,000)$ |
|  | ```Primary metals: Pig iron....................................................................... Aluminum and aluminum-base alloy refinery shapes.................... Copper and copper-base alloy refinery shapes.``` | Short tons. <br> ...do <br> ...do. | INDUSTRY 3432.-PLUMBING FITTINGS, BRASS GOODS-Continued |  |  |  |
|  |  |  | $\begin{array}{r} \text { (D) } \\ \text { (D) } \\ 30,480 \end{array}$ | $\begin{array}{r} \text { (D) } \\ \text { (D) } \\ 13,671 \end{array}$ | $\begin{array}{r} \text { (NA) } \\ \text { (NA) } \\ 18,391 \end{array}$ | $\begin{array}{r} \text { (NA) } \\ \text { (NA) } \\ 8,230 \end{array}$ |
| 331051 |  |  |  |  |  |  |
| 333401 |  |  |  |  |  |  |
| 333122 |  |  |  |  |  |  |
|  | Scrap (excluding home scrap): |  | $\begin{array}{r} (D)^{-} \\ 6,838 \end{array}$ | $\begin{array}{r} (D) \\ 3,378 \end{array}$ | 10,297 | $\begin{array}{r} 486 \\ (\mathrm{NA}) \\ 6,257 \end{array}$ |
| 999811 | Iron and steel.. |  |  |  |  |  |
| 999808 | Aluminum and aluminum-base alloy |  |  |  |  |  |
| 999812 | Copper and copper-base alloy......................................... |  |  |  | 14,702 |  |
|  | Castings (rough and semi-finished) : ${ }^{4}$ |  |  |  | 1,888 | 475(NA) |
| 332011 | Iron (gray and malleable). | . .do. | 3,993 | 1,074 |  |  |
| 332300 | Steel...... | ...do. | (D) |  | (NA) |  |
| 336100 | Aluminum and aluminum-base alloy. | 1,000 lbs....... | 19,390 | 10,116 | 19,906 | (NA) |
| 336200 | Copper and copper-base alloy. | ...do........... |  |  |  | 10,656 |
| 339100 | Iron and steel forgings........ | Short tons...... | (D) | (D) | (NA) | (NA) |
| 970099 | All other materials, and components, parts, containers, and supplies consumed. |  | (X) | 69,219 | (X) | 57,900 |
| 976000 | Materials, components, parts, containers, and supplies consumed, n.s.k. ${ }^{2}$ | . | (X) | 12,337 | (X) | 11,641 |
|  | Materials, parts, containers, and supplies, total............... | ................... | INDUSTRY 3433.-NONELECTRIC HEATING EQUIPMENT |  |  |  |
|  |  |  | (X) | 470,096 | (X) | 412,955 |
|  | Mill shapes and forms (except castings): <br> Carbon steel: |  |  |  |  |  |
| 331011 | Bars and bar shapes................................................ | Short tons...... | $\begin{array}{r} 11,301 \\ 371,613 \end{array}$ | 2,03159,292 | 13,048424,993 | 2,40863,890 |
| 331012 | Sheet and strip..................................................... |  |  |  |  |  |
| 331013 | Plates............................................................... | . . .do............ | $\begin{array}{r} 371,613 \\ 49,279 \end{array}$ | 59,292 6,954 | 51,122 |  |
| 331015 | Structural shapes.................................................... . . | ...do............ | 49,279 2,967 | 6,954 594 | 4,136 | 7,474 825 |
| 331017 | Wire and wire products............................................. | ...do............ | 1,726 | 559 | 1,519 | 420 |
| 331019 | All other alloy steel mill shapes and forms..................... | ...do............ | 15,103 | 3,844 | 9,972 | 2,693 |
|  | Alloy steel (except stainless): |  |  | 227 |  | 390 |
| 331021 | Bars and bar shapes................................................ |  | 663 |  | 440 |  |
| 331029 | All other alloy steel mill shapes and forms..................... |  | 7,663 | 2,670 | 3,701 | 1,719 |
| 331031 | Stainless steel. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | ...do........... | 2,926 | 3,390 | 2,119 | 2,845 |
|  | Copper and copper-base alloy: | 1,000 lbs....... |  | 31 | 708 | 420 |
| 335728 | Bare wire for electrical conduction. |  | 35 |  |  |  |
| 335790 | Insulated wire and cable..... | $\begin{aligned} & \text { 1,000 lbs.......... } \\ & \text { copper content. } \end{aligned}$ | 372 | 283 | 1,077 | 730 |
| 335102 | Rod, bar, and mechanical wire..................................... | $\begin{aligned} & \text { 1,000 lbs........ } \\ & \text {...do. .......... } \end{aligned}$ | 2,5371,788 | 983 | \} $\} \quad \begin{array}{r}1,077 \\ 13,222\end{array}$ | 7,970 |
| 335123 | Plate, sheet, and strip............................................. |  |  | 1,116 |  |  |
| 335127 | Pipe and tube...................................................... | .do. | 13,408 |  |  |  |
|  | Aluminum and aluminum-base alloy: <br> Sheet, plate, and foil.......................................................... <br> Extruded shapes, rod, bar, pipe, etc.................................... <br> All other aluminum mill shapes and forms (wire, rolled rod and <br> bar, powder, etc.). |  | 16,787 |  | 12,523 | 6,048 |
| 335202 335205 3 |  | $\begin{aligned} & \text {...do................ } \\ & \text {..do............. } \end{aligned}$ |  | 6,798 439 |  |  |
| 335209 |  |  | 757 | 186 | \} 4,720 | 2,317 |
|  | Primary metals: |  |  |  |  | 5,2933,686 |
| 331051 | Pig iron. . .............................................................. | Short tons...... | $\begin{array}{r} 61,210 \\ 101,648 \end{array}$ | 3,7833,678 | $\begin{aligned} & 86,393 \\ & 89,140 \end{aligned}$ |  |
| 999811 | Iron and steel scrap (excluding home scrap)....................... | ..do............ |  |  |  |  |
|  | Casting (rough and semi-finished) ${ }^{4}$ |  |  |  |  |  |
| 332011 | Iron (gray and malleable)............................................ | ...do............. | 31,180 | 10,705 | 43,630 | 13,680 |
| 332300 | Steel................................................................... |  | 1,208 | 668 | 7,634 | 2,499 |
| 336100 | Aluminum and aluminum-base alloy. | 1,000 lbs....... | $\begin{aligned} & 3,857 \\ & 1,651 \end{aligned}$ | $\begin{aligned} & 2,892 \\ & 1,226 \end{aligned}$ | 1,232 | 757 |
| 336200 | Copper and copper-base alloy......................................... |  |  |  |  |  |
|  | Electric motors and generators: ${ }^{5}$ |  |  |  |  | $\begin{array}{r} 5,030 \\ 20,191 \\ 1,284 \end{array}$ |
| 362110 | Timing motors, synchronous and subsynchronous..................... | Number. . . . . . . . | $\begin{array}{r} 718,705 \\ 1,566,743 \\ 24,346 \end{array}$ | $\begin{array}{r} 8,087 \\ 17,865 \\ 1,728 \end{array}$ | $\begin{array}{r} 429,920 \\ 1,806,316 \\ 15,293 \end{array}$ |  |
| 362115 | Other fractional horsepower electric motors......................... | ...do. |  |  |  |  |
| 362120 | Integral horsepower motor and generators........................... | . |  |  |  |  |
|  | Bearings:Ball................................................................. |  |  |  |  |  |
| $356218$ |  |  | (X) | 538 | (X) | 258 |
| 356228 | Roller........... |  |  |  |  |  |
| 970099 | All other materials and components, parts, containers, and supplies Materials, components, parts, containers, and supplies consumed, n.s.k. ${ }^{2}$ |  | $\begin{aligned} & (\mathrm{x}) \\ & (\mathrm{X}) \end{aligned}$ | $\begin{array}{r} 263,606 \\ 57,349 \end{array}$ | (X)(X) | $\begin{array}{r} 229,596 \\ 29,492 \\ \hline \end{array}$ |
| 976000 |  |  |  |  |  |  |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. applicable. n.s.k. Not specified by kind.

## (NA) Not available.

## table 7A. Materials by Kind: 1963 and 1958-Continued

${ }^{1}$ Data are not available for castings produced and consumed in the same establishment except for iron castings which totaled 187,541 short tons in 1963 and 211,467 short tons in 1958.
${ }^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."
${ }^{3}$ For 1963, data for aluminum and aluminum-base alloy, sheet, plate, and foil, are included with "All other aluminum mill shapes and forms." ${ }^{4}$ No data are available for castings produced and consumed in the same establishment
${ }^{5}$ No data are available for 1963 on the quantities of electric motors and generators produced and consumed in the same establishment. In 1958 , there were 119,909 units of code 362115, other fractional horsepower electric motors produced and consumed in the same establishment.

## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Metal plumbing fixtures (SIC 3431) | Plumbing fittings, brass goods (SIC 3432) | Heating equipment, except electric (SIC 3433) |
| :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy................................. $\$ 1,000 .$. | 7,128 | 3,202 | 8,609 |
| Total cost of purchased fuels..........................................................d. . ${ }^{\text {do. }}$ | 4,981 | 1,318 | 4,418 |
|  | 35 | (S) | 47 |
|  | 400 | (S) | 434 |
| Coke and breeze: <br> Quantity $\qquad$ .1,000 short tons. . | 43 | - | 22 |
|  | 1,615 | - | 615 |
| Fuel oil (distillate and residual): <br> Quantity.............................................................. 1,000 barrels of 42 gallons.. | 57 | 56 | 299 |
| Cost.............................................................................. . $\$ 1,000$. . | 231 | 196 | 1,188 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): <br> Quantity. <br> .million cu.ft. | 4,594 | 1,240 | 2,906 |
|  | 2,560 | 768 | 1,920 |
| Other fuels..............................................................................d. . ${ }^{\text {. }}$. . | 175 | 100 | 261 |
| Electric energy: |  |  |  |
| Purchased: |  |  |  |
| Quantity................................................................ .million kw.-hrs.. | 167 | 126 | 258 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 2,147 | 1,884 | 4,191 |
|  | (S) | - | - |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.................................................................... $1,000 \mathrm{hp}$. | 132 | 70 | 213 |
| Prime movers, total.......................................................................do..... . | 21 | 9 | 30 |
| Driving generators...................................................................... do. | 12 | (z) | 3 |
| Not driving generators. $\qquad$ .do.... | 9 | 9 | 27 |
| Electric motors, total..................................................................do.... | 125 | 61 | 183 |
| Driven by purchased energy.........................................................d. ${ }^{\text {do.... }}$ | 110 | 61 | 183 |
| Driven by energy generated at establishment......................................do.... | 14 | - | - |
| Aggregate horsepower per 100 production workers............................................ | 1,740 | 625 | 686 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
(Z) Less than 500 horsepower.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry special ization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available

## table 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963



## table 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963-Continued

Footnotes for Table9-34B

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

| Intem |
| :--- |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
${ }^{\text {These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the }}$ establishment.

## FABRICATED STRUCTURAL METAL PRODUCTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3441-Fabricated Structural Steel<br>3442-Metal Doors, Sash, Frames, Molding, and Trim<br>3443-Fabricated Plate Work (Boiler Shops)<br>3444-Sheet Metal Work<br>3446-Architectural and Ornamental Metal Work<br>3449-Miscellaneous Metal Work

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3441—FABRICATED STRUCTURAL STEEL

This industry comprises establishments primarily engaged in manufacturing fabricated iron and steel or other metal for structural purposes, for bridges, buildings, and sections for ships, boats, and barges. Establishments primarily engaged in manufacturing metal doors, sash, frames, molding, and trim are classified in industry 3442; and fabrication work done by construction contractors at the site of construction is classified in construction industries. For a detailed list of products of industry 3441 , refer to table 6A, product codes 3441121 to 3441398 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Fabricated Structural Steel Industry in 1963 totaled $\$ 1,916$ million. This amount included shipments of fabricated structural steel (primary products) valued at $\$ 1,432$ million, shipments of other products (secondary products) valued at $\$ 237$ million, and miscellaneous receipts (mainly receipts for resales) at $\$ 247$ million.

This industry's shipments of fabricated structural steel in 1963 represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 included miscellaneous metal building materials ( $\$ 57$ million) and ornamental and structural metal work ( $\$ 31$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 69 percent of the total industry shipments are represented by plants specializing in fabricated structural metal for buildings.

Shipments of fabricated structural steel by this industry in 1963 represented 89 percent of all shipments of these products ( $\$ 1,604$ million) by all industries. In 1958 the coverage ratio was 91 percent. Other industries shipping fabricated structural steel included industry 3443, Boiler Shops, \$32million; and industry 3444, Sheet Metal Work, $\$ 12$ million.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product class of industry 3441 , other fabricated structural metal, 77 percent.
The production index for the primary products of the industry increased to 119 in 1963 from the 1958 level of 114. The unit value index for 1963 was 120 compared to 126 in 1958. Both indexes were computed on a basis of $1954=100$.

3442--METAL DOORS, SASH, FRAMES, MOLDING, AND TRIM
This industry comprises establishments primarily engaged in manufacturing ferrous and nonferrous metal and metal covered doors and sash, window and door frames and screens, molding, and trim. For a detailed list of products of industry 3442 , refer to table 6A, product codes 3442113 to 3442551 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal Doors, Sash and Trim Industry in 1963 totaled $\$ 1,254$ million. This amount included shipments of metal doors, sash and trim (primary products), valued at $\$ 1,046$ million, shipments of other products (secondary products) valued at $\$ 136$ million, and miscellaneous receipts (mainly receipts for resales) at $\$ 72$ million.

This industry's shipments of metal doors, sash, frames, and molding and trim in 1963 represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included miscellaneous metal building materials ( $\$ 32$ million) and sheet metal, roofing, drainage and siding equipment ( $\$ 16$ million).

Shipments of metal doors, sash and trim by this industry in 1963 represented 94 percent of all shipments of these products ( $\$ 1,107$ million) by all industries. In 1958 the coverage ratio was 93 percent. Other industries shipping metal doors, sash and trim included industry 3441, Fabricated Structural Metal, \$11 million; and industry 3449, Miscellaneous Metal Work, $\$ 7$ million.

The production index for the primary products of the industry increased to 158 in 1963 from the 1958 level of 146 . The unit value index for 1963 was 94 compared to 99 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3443-FABRICATED PLATE WORK (BOILER SHOPS)

This industry comprises establishments primarily engaged in manufacturing power and marine boilers, pressure and nonpressure tanks, processing and storage vessels, heat exchangers, weldments and similar products, by the process of cutting, forming and joining metal plates, shapes, bars, sheet, pipe mill products and tubing to custom or standard design for factory of field assembly. Establishments primarily engaged in
manufacturing nonelectric heating apparatus other than power boilers are classified in industry 3433, and household cooking apparatus in industry 3631. For a detailed list of products of industry 3443, refer to table 6A, product codes 3443111 to 3443959.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Boiler Shops Industry in 1963 totaled $\$ 1,623$ million. This amount included shipments of boiler shop products (primary products), valued at $\$ 1,311$ million, shipments of other products (secondary products) valued at $\$ 168$ million, and miscellaneous receipts (largely receipts for resales) at $\$ 144$ million.

This industry's shipments of boiler shop products in 1963 represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was also 89 percent. Secondary products shipped by this industry in 1963 included fabricated structural metal for buildings ( $\$ 21$ million), and general industrial machinery and equipment, n.e.c. (\$12 million).

Shipments of boiler shop products by this industry in 1963 represented 83 percent of all shipments of these products ( $\$ 1,581$ million) by all industries. In 1958 the coverage ratio was also 83 percent. Other industries shipping fabricated plate works (boiler shops) included industry 3441, Fabricated Structural Metal, $\$ 45$ million; and industry 3433, Nonelectric Heating Equipment, $\$ 22$ million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3443 , e.g., heat exchangers and steam condensers, 67 percent; fabricated steel plate, 73 percent; steel power boilers, parts and attachments, 93 percent; gas cylinders, 65 percent; metal tanks and vessels, custom fabricated and field erected, 97 percent.

## 3444-SHEET METAL WORK

This industry comprises establishments primarily engaged in manufacturing sheet metal work for buildings (not including fabrication work done by construction contractors at the place of construction) and manufacturing sheet metal stovepipes, light tanks, etc. For a detailed list of products of industry 3444, refer to table 6A, product codes 344111 to 3444398 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Sheet Metal Work Industry in 1963 totaled $\$ 1,304$ million. This amount included shipments of sheet metal work (primary products) valued at $\$ 1,031$ million, shipments of other products (secondary products) valued at $\$ 139$ million, and miscellaneous receipts (mainly receipts for resales) at $\$ 134$ million.

This industry's shipments of sheet metal work in 1963 represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was also 88 percent. Secondary products shipped by this industry in 1963 included fabricated structural metal for buildings ( $\$ 11$ million) and metal tanks complete at factory (standard line, nonpressure) ( $\$ 9$ million).

Shipments of sheet metal work by this industry in 1963 represented 78 percent of all shipments of these products ( $\$ 1,325$ million) by all industries. In 1958 the coverage ratio was 82 percent. Other industries shipping sheet metal work included industry 3312, Blast Furnaces and Steel Mills, $\$ 42$ million; and industry 3442, Metal Doors, Sash and Trim, $\$ 32$ million. These shipment totals do not take into account the volume of
sheet metal work performed by nonmanufacturing establishments, for example, the production of heating and ventilating ducts by plumbing and heating contractors, the production of skylights by roofing contractors, etc.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3444 , e.g., sheet metal roofing, siding, and drainage equipment, 62 percent.

## 3446-ARCHITECTURAL AND ORNAMENTAL METAL WORK

This industry comprises establishments primarily engaged in manufacturing architectural and ornamental metal work of ferrous and nonferrous metals, such as stairs and staircases, open steel flooring (grating), fire escapes, grills, railings, and fences and gates except wire. Establishments primarily engaged in manufacturing prefabricated and portable metal buildings and parts, and miscellaneous metal work are classified in industry 3449 . For a detailed list of products of industry 3446 , refer to table 6A, product codes 3446011 to 3446041 .

Both the code number and content for this industry for 1963 were changed from the classification system used in 1958. The composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is that architectural and ornamental works which were formally included as part of industry 3449 now comprise this new industry.

Value of shipments and other receipts of the Structural Metal Work Industry in 1963 totaled $\$ 206$ million. This amount included shipments of architectural and ornamental metal work (primary products) valued at $\$ 219$ million, shipments of other products (secondary products) valued at $\$ 36$ million, and miscellaneous receipts (mainly receipts for resales) at $\$ 14$ million.

This industry's shipments of architectural and ornamental metal work in 1963 represented 86 percent of its total product shipments. Secondary products shipped by this industry in 1963 included fabricated steel plate ( $\$ 4$ million) and other fabricated structural metal ( $\$ 2$ million).

Shipments of architectural and ornamental metal work by this industry in 1963 represented 71 percent of all shipments of these products ( $\$ 306$ million) by all industries. Other industries shipping architectural and ornamental metal work consisted mainly of industry 3441, Fabricated Structural Metal, $\$ 31$ million; and industry 3449, Miscellaneous Metal Work, N.E.C., $\$ 17$ million.

## 3449-MISCELLANEOUS METAL WORK

This industry comprises establishments primarily engaged in manufacturing miscellaneous ferrous and nonferrous metal work, such as prefabricated and portable metal buildings and parts, metal plaster bases, fabricated bar joists and concrete reinforcing bars, and prefabricated exterior metal panels. For a detailed list of products of industry 3449 , refer to table 6A, product codes 3449211 to 3449379 .

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been significantly changed from the classification system used in 1958. The change in the composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, results from the separation of architectural and ornamental work as a separate industry. Such establishments were previously part of this industry.

Value of shipments and other receipts of the Miscellaneous Metal Work Industry in 1963 totaled $\$ 704$ million. This amount included shipments of miscellaneous metal work (primary products) valued at $\$ 542$ million, shipments of other products (secondary products) valued at $\$ 68$ million, and miscellaneous receipts (mainly receipts for resales) at $\$ 92$ million.

This industry's shipments of miscellaneous metal work in 1963 represented 89 percent of its total product shipments. Secondary products shipped by this industry in 1963 included ornamental and structural metal work ( $\$ 17$ million) and fabricated structural metal for buildings ( $\$ 10$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 63 percent of the total industry shipments are represented by plants specializing in product class 34493 , miscellaneous metal building materials and curtain wall.

Shipments of miscellaneous metal work by this industry in 1963 represented 68 percent of all shipments of these products ( $\$ 793$ million) by all industries. Other industries shipping miscellaneous metal work included industry 3312, blast furnaces and steel mills, $\$ 90$ million.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3449 , prefabricated and portable metal buildings, 81 percent; 34493, miscellaneous metal building materials, 59 percent.

table 1. General Statistics: 1963 and Earlier Years

| rear | $\left[\begin{array}{c} \text { canies } \\ \text { panies } \\ \text { (numbere) } \end{array}\right]$ | Estabisimen |  | Itemplo |  | Protuction wor |  |  |  | $\begin{aligned} & \text { Cosesiof } \\ & \text { meteinils } \end{aligned}$ | $\begin{aligned} & \text { yatue of } \\ & \text { stipents } \\ & \text { (si,oon) } \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $(140)$ |  |  |  |  |  |  |  |  |  |  | (10) | (in) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $y_{12}^{12}=$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\underset{\substack{1933 \\ 1935}}{102}$ <br> ${ }_{1933}^{1935}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | inive |  |  |  |  |  |  |  |  | 485 <br> 632 |  |  |  |  |

TABLE 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establistments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (perCent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| INDUSTRY 3444.-SHEET METAL WORK-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1953. | (NA) | (NA) | (NA) | 43,119 | 196,667 | 33,424 | (NA) | 138,347 | 347,607 | 305,737 | 653,344 | (NA) | (NA) | (NA) |
| 1952. | (NA) | (NA) | (NA) | 58,526 | 242,703 | 47,945 | (NA) | 180,754 | 413,828 | 324,060 | 737,888 | (NA) | (NA) | (NA) |
| 1951. | (NA) | (NA) | (NA) | 55,163 | 213,382 | 44,949 | (NA) | 158,552 | 379,997 | 335,346 | 715,343 | (NA) | (NA) | (NA) |
| 1950. | (NA) | (NA) | (NA) | 50,248 | 176,663 | 40,536 | (NA) | 128,042 | 300,731 | 314,503 | 615,234 | (NA) | (NA) | (NA) |
| 1947. | 1,665 | 1,706 | (NA) | 42,375 | 131,739 | 34,897 | (NA) | 99,460 | 224,960 | 195,565 | 420,525 | (NA) | 83 | 82 |
| 1939. | (NA) | 1,262 | (NA) | 24,740 | 36,727 | 18,749 | (NA) | 23,079 | 66,360 | 70,981 | 137,341 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 1,392 | (NA) | 27,606 | 40,116 | 22,973 | (NA) | 29,263 | 73,161 | 85,935 | 159,096 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 1,400 | (NA) | 21,844 | 28,702 | 17,369 | (NA) | 19,551 | 51,210 | 58,123 | 109,333 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 1,229 | (NA) | 16,095 | 16,938 | 13,050 | (NA) | 12,658 | 33,344 | 35,463 | 68,807 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 1,762 | (NA) | (NA) | (NA) | 19,365 | (NA) | 25,158 | 60,101 | 56,342 | 116,443 | (NA) | (NA) | (NA) |
| $1929{ }^{9}$ | (NA) | 2,161 | (NA) | 35,547 | 61,668 | 28,593 | (NA) | 43,255 | 109,837 | 112,648 | 222,485 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 1,981 | (NA) | 30,442 | 53,253 | 24,527 | (NA) | 38,668 | 92,743 | 98,386 | 191,129 | (NA) | (NA) | (NA) |
| 1925 | (NA) | 2,107 | (NA) | 30,655 | 50,968 | 24,996 | (NA) | 37,825 | 90,963 | 84,080 | 175,043 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 2,524 | (NA) | 34,730 | 55,945 | 28,852 | (NA) | 42,446 | 95,401 | 93,507 | 188,908 | (NA) | (NA) | (NA) |
| 1921 | (NA) | 3,105 | (NA) | 50,625 | 48,213 | 25,172 | (NA) | 36,562 | 72,880 | 75,896 | 148,776 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 4,796 | (NA) | 33,503 | 44,876 | 27,640 | (NA) | 33,867 | 79,415 | 80,899 | 160,314 | (NA) | (NA) | (NA) |
| 1914 | (NA) | 4,527 | (NA) | 33,715 | 26,568 | 28,714 | (NA) | 20,518 | 44,717 | 50,174 | 94,891 | (NA) | (NA) | (NA) |
| 1909. | (NA) | 3,671 | (NA) | (NA) | (NA) | 28,448 | (NA) | 19,368 | 42,455 | 46,933 | 89,388 | (NA) | (NA) | (NA) |
| $1904{ }^{10}$ | (NA) | 1,989 | (NA) | (NA) | (NA) | 22,556 | (NA) | 13,766 | 28,934 | 27,148 | 56,082 | (NA) | (NA) | (NA) |
| INDUSTRY 3446.-ARCHITECTURAL METAL WORK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 1,334 |  | 15,587 |  | 12,474 | 24,195 | 60,613 | 148,763 | 119,313 | 269,256 | 6,102 | 86 | 71 |
| $1958{ }^{2} 11$. | (NA) | 1,343 | (NA) | 20,964 | 111,006 | 16,039 | 31,605 | 74,234 | 180,942 | 145,141 | 322,440 | 6,537 | (NA) | (NA) |
| 1954 ${ }^{11}$. | (NA) | 1,113 | (NA) | 21,009 | 89,235 | 16,115 | 32,165 | 60,687 | 149,946 | 112,837 | 262,784 | (NA) | (NA) | (NA) |
| INDUSTRY 3449.-MISCELIANEOUS METAL WORK, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 12649 | 12697 | ${ }^{12} 246$ | 24,992 | 145,042 | 16,963 | 34,510 |  | 283,427 | 420,857 | 704,166 | 11,475 | 89 | 68 |
| $1958{ }^{2} 11$ | (NA) | 248 | (NA) | 21,158 | 113,798 | 14,817 | 30,385 | 68,373 | 220,134 | 371,413 | 594,711 | 9,366 | (NA) | (NA) |
| $1954{ }^{11}$. | (NA) | 272 | (NA) | 15,286 | 67,451 | 10,906 | 22,341 | 41,255 | 124,606 | 171,234 | 295,841 | (NA) | (NA) | (NA) |
|  | INDUSTRIES 3446 AND 3449.-ARCHITECTURAL METAL WORK AND MLSCELIANEOUS METAL WORK, N.E.C. ${ }^{13}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963... | (NA) | (NA) | (NA) | 40,579 | 231,998 | 29,437 | 58,705 | 149,456 | 432,190 | 540,170 |  |  | (NA) | (NA) |
| $1962^{1} 2$. | (NA) | (NA) | (NA) | 44,535 | 256,035 | 31,910 | 63,542 | 162,344 | 450,848 | 572,771 | 1,034,461 | 22,441 | (NA) | (NA) |
| $1961{ }^{12}$ | (NA) | (NA) | (NA) | 43,470 | 241,192 | 31,299 | 61,629 | 153,944 | 435,445 | 523,341 | 997,315 | 15,936 | (NA) | (NA) |
| $1960^{1} 2$ | (NA) | (NA) | (NA) | 40,397 | 221,461 | 29,247 | 57,948 | 143,475 | 401,977 | 516,002 | 921,978 | 19,711 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 42,808 | 228,290 | 30,933 | 61,995 | 145,651 | 429,795 | 528,401 | 953,153 | (S) | (NA) | (NA) |
| $1958{ }^{3}$. | 1,532 | 1,591 | 397 | 42,122 | 224,804 | 30,856 | 61,990 | 142,607 | 401,076 | 516,554 | 917,151 | 15,903 | 87 | 74 |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ Includes data for Alaska and Hawaii.
${ }^{3}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that the industry is not conparable. The 1957 and earlier figures are on the old SIC definition of the industry.

Excludes data for Alaska and Hawaii. Number of "All Employees" in these two States was between 100 and 249.
${ }^{5}$ The figures for 1947 have been revised for comparability with the figures for 1951-1958 by including data for establishments primarily engaged in the manufacture of "Metal storm doors and sash." Value added by manufacture for 1947 on a basis comparable with 1939 , 1949 and 1950 , which have not been revised, was \$117.6 million.
${ }^{6}$ The figures for 1939 are not entirely comparable with those for earlier years. Value added by manufacture for 1939 on a basis comparable with earlier years was $\$ 29.2$ million.
${ }^{7}$ "Boiler shop products" was formerly a part of the discontinued industry "Foundry and machine-shop products, n.e.c." Separate figures for earlier years are, therefore, not available.
${ }^{8}$ Data for Alaska and Hawaii are not included.
${ }^{9}$ Figures for 1929 and earlier years do not include data for sheetmetal dairymen's supplies, classified for these years in the discontinued industry Dairymen's supplies, etc."
${ }^{10}$ "Sheetmetal work" was formerly a part of the discontinued industry "Tinsmithing, coppersmithing, and sheet iron working." Separate figures for 1899 are, therefore, not available.
${ }^{11}$ Industry 3446 was not a separate industry in the 1958 Census of Manufactures but was part of SIC 3449, Miscellaneous Metal Work, N.E.C. However, data were published in 1958 for plants classified in SIC 3449 specializing in the production of ornamental and structural metal work. This is the source of the separate data for industries 3446 and 3449 . In like manner, data were published in 1954 for plants classified in SIC 3441 (1945 edi tion) specializing in those products now classified in industries 3446 and 3449 .
${ }^{12}$ For 1963 , a sizeable number of small establishments (under 20 employees) may have been misclassified in industry 3449, Miscellaneous Metal Work, because of insufficient product information. Although this has a significant effect on the number of establishments for this industry it has a very small effect on any of the other statistics, i.e., number of employees, salaries and wages, value added, etc. It is estimated that the effect on
these principal statistics is less than 3 percent.
${ }^{13}$ Prior to 1963 "Architectural Metal Work" and "Miscellaneous Metal Work" constituted a single industry. Combined data for these two industries were obtained for 1958-1962.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{2}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3441.-FFABRICATED STRUCTURAL STEEL |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1,718 | 817 | 85,423 | 527,220 | 63,674 | $127,899$ | 350,337 | 814,805 | 1,140,975 | 1,916,048 | 28,162 | 91,252 | 821,626 |
| New England. ....... | 93 | 40 | 2,828 | 17,651 | 2,072 | 4,239 | 11,160 | 29,277 | 38,214 | 65,421 | 906 | 2,982 | 28,593 |
| Maine............. | 6 | 5 | 324 | 2,083 | 211 | 514 | 1,196 | 4,588 | 5,388 | 9,857 | (D) | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Massachusetts. | 47 | 19 | 1,369 | 8,205 | 1,040 | 2,140 | 5,584 | 11,772 | 16,298 | 27,596 | 306 | 1,292 | 11,812 |
| Rhode Island. | 8 | 4 | 198 | 1,093 | 138 | 260 | 668 | 1,926 | 1,625 | 3,423 | 38 | ${ }^{2}$ ) | ${ }^{(2)}$ |
| Connecticut...... | 27 | 9 | 686 | 4,744 | 498 | 943 | 2,685 | 8,429 | 11,240 | 18,308 | 275 | 861 | 8,808 |
| Middle Atlantic. | 397 | 186 | 21,933 | 142,039 | 16,784 | 32,172 | 97,622 | 197,107 | 252,840 | 430,615 | 8,205 | 27,312 | 260,973 |
| New York. | 191 | 80 | 5,666 | 40,519 | 4,272 | 8,666 | 27,075 | 66,256 | 67,149 | 129,807 | 1,262 | 7,522 | 77,809 |
| New Jersey. | 75 | 32 | 2,902 | 19,467 | 2,254 | 4,331 | 12,829 | 33,041 | 31,885 | 62,713 | 700 | 3,309 | 39,860 |
| Pennsylvania..... | 131 | 74 | 13,365 | 82,053 | 10,258 | 19,175 | 57,718 | 97,810 | 153,806 | 238,095 | 6,243 | 16,481 | 143,304 |
| East North Central. | 382 | 174 | 18,724 | 120,579 | 13,588 | 27,464 | 78,262 | 202,048 | 257,399 | 445,474 | 6,048 | 20,886 | 189,899 |
| Ohio.. | 102 | 48 | 4,611 | 28,777 | 3,380 | 6,854 | 18,806 | 45,348 | 62,261 | 107,073 | 1,911 | 4,737 | 43,771 |
| Indiana. | 48 | 28 | 4,722 | 29,036 | 3,529 | 6,820 | 19,413 | 42,379 | 69,794 | 103,794 | 793 | 4,551 | 29,575 |
| Illinois. | 113 | 50 | 4,206 | 26,876 | 3,156 | 6,310 | 18,456 | 46,343 | 47,832 | 92,239 | 1,798 | 5,492 | 59,248 |
| Michigan......... | 81 | 34 | 3,545 | 24,216 | 2,540 | 5,344 | 15,829 | 48,854 | 52,573 | 98,402 | 1,063 | 3,895 | 36,972 |
| Wisconsin........ | 38 | 14 | 1,640 | 11,674 | 983 | 2,136 | 5,758 | 19,124 | 24,939 | 43,966 | 483 | 2,211 | 20,333 |
| West North Central. | 121 | 62 | 5,676 | 34,621 | 4,129 | 8,511 | 21,912 | 61,784 | 92,411 | 154,135 | 1,620 | 6,287 | 61,909 |
| Minnesota. | 23 | 11 | 890 | 5,773 | 643 | 1,321 | 3,812 | 8,786 | 13,305 | 22,108 | 97 | 1,532 | 14,887 |
| Iowa.. | 25 | 12 | 1,012 | 5,774 | 783 | 1,528 | 3,853 | 10,698 | 17,130 | 29,511 | 244 | 912 | 8,742 |
| Missouri | 41 | 18 | 1,642 | 10,348 | 1,181 | 2,586 | 6,532 | 22,874 | 23,881 | 44,736 | 411 | 1,624 | 19,976 |
| Nebraska | 10 | 7 | 648 | 3,631 | 445 | 867 | 2,097 | 4,831 | 16,469 | 21,807 | 440 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| Kansas. | 18 | 11 | 1,143 | 7,153 | 853 | 1,744 | 4,573 | 11,513 | 15,364 | 26,566 | 346 | 1,223 | 10,427 |
| South Atlantic. | 180 | 103 | 8,989 | 48,793 | 6,542 | 13,859 | 30,795 | 78,330 | 126,297 | 205,064 | 3,175 | 8,116 | 62,622 |
| Maryland. | 27 | 19 | 1,017 | 6,037 | 725 | 1,491 | 3,734 | 9,345 | 14,538 | 24,190 | 323 | 1,081 | 9,055 |
| Virginia.. | 32 | 19 | 2,543 | 14,569 | 1,834 | 3,761 | 8,987 | 24,029 | 36,899 | 60,501 | 494 | 2,645 | 17,679 |
| North Carolina... | 24 | 13 | 1,361 | 7,829 | 954 | 2,145 | 4,570 | 11,665 | 23,765 | 35,862 | 1,005 | 1,057 | 7,847 |
| South Carolina. | 14 | 8 | 929 | 4,574 | 678 | 1,709 | 2,854 | 7,652 | 16,788 | 24,494 | 438 | 840 | 9,380 |
| Georgia. | 26 | 13 | 929 | 4,555 | 737 | 1,506 | 3,472 | 6,859 | 7,733 | 14,728 | 303 | 615 | 3,739 |
| Florida. | 45 | 22 | 1,571 | 7,772 | 1,135 | 2,280 | 4,846 | 12,244 | 18,954 | 30,670 | 516 | 1,471 | 11,037 |
| East South Central. | 92 | 51 | 5,545 | 29,385 | 4,189 | 8,421 | 18,990 | 46,685 | 69,269 | 114,603 | 1,686 | 4,731 | 35,615 |
| Kentucky. ........ | 10 | 5 | 219 | 1,157 | 162 | 328 | 776 | 1,815 | 2,185 | 3,797 | 85 | 171 | 1,972 |
| Tennessee. | 35 | 23 | 1,865 | 8,776 | 1,381 | 2,622 | 5,238 | 15,716 | 25,686 | 42,182 | 673 | 1,417 | 9,206 |
| Alabama.... | 34 | 16 | 2,916 | 16,645 | 2,250 | 4,614 | 11,424 | 23,692 | 32,718 | 54,618 | 730 | 2,872 | 22,989 |
| Mississippi. | 13 | 7 | 545 | 2,807 | 396 | 857 | 1,552 | 5,462 | 8,680 | 14,006 | 198 | 271 | 1,448 |
| West South Central. | 149 | 80 | 10,682 | 58,404 | 8,072 | 17,273 | 38,431 | 76,844 | 154,347 | 231,739 | 2,324 | 8,623 | 66,519 |
| Arkansas.. | 8 | 4 | 568 | 2,863 | 418 | 790 | 1,859 | 6,069 | 12,408 | 18,462 | 393 | 454 | 3,894 |
| Louisiana. | 23 | 12 | 840 | 4,645 | 645 | 1,403 | 3,184 | 11,540 | 12,117 | 23,746 | 277 | 1,027 | 8,690 |
| Oklahoma. | 18 | 13 | 2,238 | 13,257 | 1,594 | 3,296 | 7,532 | 13,997 | 36,448 | 50,954 | 434 | 2,348 | 20,298 |
| Texas. | 100 | 51 | 7,036 | 37,639 | 5,415 | 11,784 | 25,856 | 45,238 | 93,374 | 138,577 | 1,220 | 4,794 | 33,637 |
| Mountain. | 63 | 30 | 2,653 | 15,959 | 1,867 | 3,733 | 10,981 | 24,688 | 35,192 | 55,806 | 658 | 2,811 | 22,368 |
| Montana. | 6 | 3 | 106 | 633 | 77 | 139 | 433 | 815 | 1,412 | 2,248 | 26 | $\left.{ }^{(2}\right)$ | $\left(\begin{array}{l}(2) \\ (2)\end{array}\right.$ |
| Idaho.. | 6 | 2 | 176 | 889 | 120 | 227 | 581 | 1,912 | 2,100 | 3,940 | 83 | (2) | (2) |
| Colorado. | 18 | 8 | 644 | 4,069 | 476 | 963 | 2,730 | 5,009 | 7,991 | 12,775 | 162 | ${ }^{2}$ ) | (2) |
| Arizona. | 14 | 6 | 992 | 5,973 | 663 | 1,284 | 4,151 | 10,550 | 9,177 | 16,766 | 168 | 793 | 6,336 |
| Utah. | 12 | 6 | 525 | 3,269 | 377 | 793 | 2,299 | 5,244 | 9,853 | 14,223 | 129 | 563 | 4,192 |
| Pacific. | 241 | 91 | 8,393 | 59,789 | 6,431 | 12,227 | 42,184 | 98,042 | 115,006 | 213,191 | 3,540 | 19,504 | 193,128 |
| Washington | 31 | 11 | 1,431 | 9,928 | 1,159 | 2,243 | 7,563 | 17,374 | 14,433 | 30,989 | 605 | 1,502 | 13,476 |
| Oregon.. | 26 |  | 907 | 6,421 | 752 | 1,381 | 4,582 | 13,062 | 17,279 | 28,903 | 251 | 881 | 9,023 70,629 |
| Califormia. | 179 | 70 | 5,841 | 41,919 | 4,419 | 8,397 | 29,381 | 64,537 | 81,228 | 148,153 | 2,645 | 7,121 | 70,629 |
|  |  |  |  |  |  | InDUSTRY | 3442. - MET | DOORS, SA | SH, AND TRI |  |  |  |  |
| Total.. | 1,817 | 628 | 62,799 | 324,796 | 46,645 | 95,727 | 206,127 | 570,370 | 681,385 | 1,253,814 | 21,305 | 57,897 | 469,050 |
| New England. ....... | 128 | 40 | 2,922 | 14,283 | 2,115 | 4,364 | 8,519 | 26,539 | 28,572 | 55,283 | 799 | 2,529 | 20,956 |
| Maine............ | 9 | 1 | 108 | 385 | 84 | 168 | 302 | 687 | 782 | 1,417 | 17 | ${ }^{2}$ ) | ${ }^{(2)}$ |
| New Hampshire.... | 10 | 6 | 396 | 1,755 | 309 | 650 | 1,118 | 3,898 | 3,793 | 7,699 | 244 | 238 | 1,870 |
| Massachusetts.... | 62 | 17 | 1,205 | 6,043 | 919 | 1,868 | 3,928 | 10,738 | 13,584 | 24,589 | 231 | 1,263 | 10,026 |
| Rhode Island..... | 16 | 3 | 296 | 1,084 | 201 | 424 | 630 | 2,597 | 2,619 | 5,193 | 47 | 295 | 2,445 |
| Connecticut. | 31 | 13 | 917 | 5,016 | 602 | 1,254 | 2,541 | 8,619 | 7,794 | 16,385 | 260 | 674 | 6,287 |
| Middle Atlantic... | 388 | 138 | 14,480 | 76,470 | 10,599 | 22,229 | 49,038 | 131,454 | 139,024 | 269,845 | 3,514 | 14,749 | 113,905 |
| New York. | 192 | 67 | 6,790 | 36,706 | 4,776 | 9,982 | 22,305 | 59,107 | 55,572 | 114,852 | 1,740 | 7,382 | 60,830 |
| New Jersey. | 89 | 31 | 2,844 | 14,188 | 2,087 | 4,498 | 8,949 | 25,425 | 34,034 | 60,154 | 620 | 1,831 | 14,011 |
| Pennsylvania.. | 107 | 40 | 4,846 | 25,576 | 3,736 | 7,749 | 17,784 | 46,922 | 49,418 | 94,839 | 1,154 | 5,536 | 39,064 |

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> ( $\$ 1,000$ ) |  |  |  |  |  |  |
| East North Central.. | INDUSTRY 3442.-METAL DOORS, SASH, AND TRIM-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 396 | 147 | 17,261 | 94,465 | 12,985 | 26,304 | 61,704 | 162,507 | 205,735 | 369,124 | $\begin{aligned} & 7,099 \\ & 2.303 \end{aligned}$ | 18,322 | 154,981 |
| Ohio............... | 95 | 41 | 5,955 | 33,217 | 4,547 | 9,070 | 22,135 | 56,334 | 65,801 | 122,129 |  | 5,782 | 47,396 |
| Indiana. | 39 | 14 | 1,973 | 10,739 | 1,465 | 2,873 | 6,793 | 18,713 | 19,897 | 37,983 | 728 | 1,704 | 12,911 |
| Illinois. | 111 | 42 | 4,558 | 24,538 | 3,416 | 6,957 | 15,949 | 43,595 | 50,313 | 93,841 | 1,599 | 4,407 | 42,594 |
| Michigan. | 126 | 44 | 4,095 | 22,414 | 3,084 | 6,333 | 14,707 | 37,585 | 63,007 | 101,918 | 2,338 | 5,669 | 47,695 |
| Wisconsin......... | 25 | 6 | 680 | 3,557 | 473 | 1,071 | 2,120 | 6,280 | 6,717 | 13,253 | 131 | 760 | 4,385 |
| West North Central.. | 150 | 56 | 4,423 | 22,942 | 3,145 | 6,480 | 14,336 | 39,794 | 41,634 | 81,602 | 1,264 | 3,282 | 27,843 |
| Minnesota. | 32 | 9 | 713 | 3,952 | 554 | 1,130 | 2,699 | 6,358 | 6,393 | 12,613 | 173 | 456 | 3,425 |
| Iowa. |  | 7 | 379 | 1,606 | 291 | 635 | 1,025 | 2,821 | 2,967 | 6,095 | 96 | ${ }^{2}$ ) | $\left({ }^{2}\right)$ |
| Missouri | 53 | 26 | 2,560 | 14,140 | 1,777 | 3,670 | 8,701 | 22,886 | 25,046 | 47,954 | 823 | 2,097 | 17,014 |
| Nebraska | 13 | 3 | 180 | 764 | 124 | 254 | 465 | 1,079 | 1,462 | 2,507 | (D) | (2) | ${ }^{(2)}$ |
| Kansas. | 29 | 11 | 571 | 2,421 | 386 | 769 | 1,408 | 6,517 | 5,624 | 12,155 | 131 | 283 | 2,685 |
| South Atlantic. | 238 | 84 | 8,914 | 39,334 | 6,805 | 13,807 | 24,422 | 75,853 | 96,982 | 172,424 | 3,281 | 7,413 | 50,411 |
| Maryland. | 15 | 6 | 297 | 1,532 | 197 | 374 | 685 | 4,370 | 4,214 | 7,245 | 81 | 255 | 2,182 |
| Virginia. | 26 | 9 | 671 | 3,158 | 489 | 1,086 | 1,893 | 6,121 | 5,769 | 11,825 | 181 | 558 | 3,632 |
| North Carolina. | 29 | 7 | 562 | 2,220 | 420 | 857 | 1,433 | 3,461 | 6,540 | 10,014 | 193 | ${ }^{2}$ ) | ${ }^{(2)}$ |
| South Carolina | 13 | 4 | 273 | 1,096 | 214 | 442 | 750 | 2,288 | 2,537 | 4,745 | 265 | 177 | 832 |
| Georgia. | 33 | 10 | 2,201 | 10,739 | 1,680 | 3,762 | 6,960 | 21,596 | 27,346 | 49,609 | 1,272 | 1,312 | 10,382 |
| Florida. | 104 | 46 | 4,774 | 20,053 | 3,701 | 7,075 | 12,335 | 37,019 | 48,816 | 86,223 | 1,255 | 4,925 | 32,402 |
| East South Central.. | 80 | 30 | 2,586 | 11,196 | 2,021 | 4,198 | 7,593 | 20,785 | 27,757 | 48,740 | 1,430 | 2,385 | 19,835 |
| Kentucky. | 25 | 10 | 1,131 | 5,050 | 836 | 1,714 | 3,284 | 8,601 | 9,924 | 18,676 | 287 | 737 | 8,625 |
| Tennessee | 27 | 10 | 732 | 2,868 | 607 | 1,254 | 1,873 | 5,684 | 7,914 | 13,325 | 597 | ${ }^{2}$ ) | $\left({ }^{2}\right)$ |
| Alabama. | 19 | 4 | 373 | 1,907 | 299 | 643 | 1,474962 | 4,393 | 5,364 | 9,888 | 467 | 923 | 7,644 |
| Mississippi | 9 | 96 | 350 | 1,371 | 279 | 587 |  | 2,107 | 4,555 | 6,851 | 79 | $\left({ }^{2}\right)$ | (2) |
| West South Central.. | 126 | 42 | 3,897 | 16,503 | 2,979 | 6,128 | 10,031 | 32,247 | 42,869 | 75,246 | 1,668 | 3,156 | 23,183 |
| Arkansas. | 14 | 2 | 285 | 1,155 | 229 | 512 | 856 | 2,382 | 3,547 | 5,817 | 141 | 107 | 818 |
| Louisian | 13 | 7 | 584 | 2,663 | 426 | 813 | 1,577 | 4,877 | 6,924 | 12,128 | 114 | 451 | 4,015 |
| Oklahoma | 21 | 7 | 914 | 4,759 | 680 | 1,523 | 2,979 | 9,922 | 6,966 | 17,072 | 455 | 631 | 6,266 |
| Texas. | 78 | 26 | 2,114 | 7,926 | 1,644 | 3,280 | 4,619 | 15,066 | 25,432 | 40,229 | 958 | 1,967 | 12,084 |
| Mountain. | 42 | 8 | 570 | 3,203 | 397 | 803 | 1,718 | 5,577 | 5,409 | 11,048 | 120 |  | 5,382 |
| Colorado. | 22 | 4 | 288 | 1,846 | 178 | 355 | 725 | 3,053 | 3,257 | 6,329 | 54 | ${ }^{2}$ ) | $\left({ }^{2}\right)$ |
| Pacific. | 269 | 83 | 7,746 | 46,400 | 5,599 | 11,414 | 28,766 | 75,614 | 93,403 | 170,502 | 2,130 | 5,480 | 52,554 |
| Washington. | 36 | 8 | 976 | 6,562 | 720 | 1,347 | 4,319 | 10,405 | 9,742 | 20,284 | 267 | 875 | 9,242 |
| California........ | 215 69 |  | 6,353 | 37,677 4,540 |  | 9,388 | 22,794 | 61,357 | 80,727 | 143,420 | 1,769 | 4,283 | 40,811 |
|  | INDUSTRY 3443.-BOILER SHOP PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 1,383 | 601 | 75,018 | 465,372 | 54,629 | 111,409 | 310,471 | 770,064 | 860,612 | 1,622,988 | 32,910 | 90,551 | 754,972 |
| New England. | 9151 | $\begin{aligned} & 31 \\ & 24 \end{aligned}$ | 2,4011,843 | 15,545 | 1,753 | 3,756 | 9,911 | 28,020 | 23,409 | 51,369 | 1,403 | 2,699 | 22,962 |
| Massachusett |  |  |  | 12,221 | 1,331 | 2,863 | 7,616 | 22,101 | 18,743 | 40,940 | 1,057 | 1,608 | 12,663 |
| Connecticut. | 25 | 6 | 437 | 2,774 | 327 | 700 | 1,875 | 5,008 | 3,881 | 8,714 | 265 | 848 | 8,619 |
| Middle Atlantic. | 29689 | 116 | 16,893 | 107,750 | 11,959 | 24,035 | 71,033 | 165,325 | 188,481 | 349,042 | 5,178 | 24,750 | 220,431 |
| New York. |  | 26 | 3,831 | 25,596 | 2,638 | 5,502 | 16,413 | 43,698 | 36,698 | 78,920 | 1,304 | 6,530 | 59,449 |
| New Jersey. | 74 | 2466 | 2,297 | 14,520 | 1,704 | 3,532 | 10,098 | 23,205 | 20,477 | 38,785 | 646 | 2,859 | 24,770 |
| Pennsylvania. | 133 |  | 10,765 | 67,634 | 7,617 | 15,001 | 44,522 | 98,422 | 131,306 | 231,337 | 3,228 | 15,361 | 136,212 |
| East North Central.. | $\begin{array}{r}354 \\ 93 \\ \hline\end{array}$ | 156 | 20,757 | 133,196 | 14,157 | 29,046 | 82,885 | 208,145 | 213,540 | 417,809 | 7,740 | 21,972 | 190,660 |
| Ohio.. |  | 41 | 8,640 | 56,901 | 5,183 | 10,711 | 30,797 | 91,040 | 85,041 | 169,899 | 3,502 | 10,544 | 92,029 |
| Indiana. | 39 | 16 | 2,434 | 15,398 | 1,698 | 3,370 | 9,991 | 21,722 | 33,340 | 54,404 | 961 | 3,233 | 34,650 |
| Illinois. | 84 | 42 | 3,557 | 22,057 | 2,818 | 5,798 | 15,921 | 36,107 | 38,411 | 74,568 | 1,677 | 3,474 | 27,895 |
| Michigan. | 83 | 28 | 1,734 | 11,519 | 1,320 | 2,756 | 7,829 | 18,755 | 20,599 | 40,344 | 415 | 1,526 | 12,542 |
| Wisconsin. | 55 | 29 | 4,392 | 27,321 | 3,138 | 6,411 | 18,347 | 40,521 | 36,149 | 78,594 | 1,185 | 3,195 | 23,544 |
| West North Central. | 87 | 34 | 4,172 | 25,346 | 3,180 | 6,471 | 17,439 | 40,954 | 51,519 | 92,138 | 2,171 | 4,704 | 36,446 |
| Minnesota. | 14 | 7 | 620 | 3,729 | 481 | 956 | 2,625 | 4,899 | 8,230 | 13,377 | 154 | 610 | 5,479 |
| Iowa.. | 18 | 6 | 893 | 5,051 | 649 | 1,368 | 3,292 | 9,701 | 11,320 | 19,319 | 425 | 307 | 2,442 |
| Missouri. | 26 | 11 | 2,049 | 12,916 | 1,575 | 3,114 | 9,062 | 20,283 | 21,780 | 43,182 | 914 | 3,039 | 22,716 |
| Nebraska. |  | 46 | 275 | 1,797 | 211 | 459 | 1,065 | 3,395 | 6,540 | 9,998 | (D) | ${ }^{(2)}$ | ${ }^{(2)}$ |
| Kansas. | 8 16 |  | 288 | 1,606 | 222 | 482 | 1,178 | 2,402 | 2,966 | 5,310 | 103 | 609 | 4,450 |
| South Atlantic...... | 123 | 55 | 5,642 | 30,146 | 4,631 | $\begin{array}{r}9,292 \\ 564 \\ \hline\end{array}$ | 22,2961,736 | 63,492 | 64,9546,999 | 134,29513,457 |  | 5,081 | 32,704 |
| Delaware. |  | 4 | 313 | 2,163 |  |  |  | 6,931 |  |  | 3,486 | 5,492 | 5,018 |
| Maryland. | 20 | 7 | 571 | 3,247 | 443 | 903 | 2,209 | 4,798 | 6,092 | 10,594 | 100 | 517 | 3,616 |
| Virginia.. | 12 | 8 | 1,170 | 6,218 | 863 | 1,563 | 3,706 | 14,833 | 13,033 | 35,021 | 1,477 | 1,446 | 6,774 |
| North Carolina. . . | 23 | 102 | 1,201 | 6,022 | 1,078 | 2,249 | 5,018 | 8,946 | 13,304 | 22,383 | 159 | 996 | 6,609 |
| South Carolina.... | 9 |  |  | 779 | 123 | 223 | 592 | 2,006 | 1,136 | 3,060 | 263 | $\left.{ }^{2}\right)$ | ${ }^{(2)}$ |
| Ceorgia. | 19 | 12 | 1,517 | 7,727 | 1,307 | 2,646 | 6,199 | 18,832 | 16,229 | 34,601 | 1,065 | 1,199 | 7,270 |
| Florida........... | 29 | 10 | 595 | 3,163 | 458 | 934 | 2,200 | 5,827 | 7,295 | 13,002 | 229 | 302 | 2,555 |

[^123]table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture,adiuste adjusted $(\$ 1,000)$ | Cost of materials <br> $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expent itures, new $(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | $\begin{array}{\|c} \text { With } 20 \\ \text { employ } \\ \text { ees } \\ \text { or more } \\ \text { (number) } \end{array}$ | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & \text { ( } \$ 1,000 \text { ) } \end{aligned}$ | Total <br> (number) | $\begin{aligned} & \text { Mar- } \\ & \text { Mours } \\ & (1,000) \end{aligned}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| East South Central. Kentucky Alabama. | INDUSTRY 3443.-BOIEER SHOP PRODUCTS-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 551518 | 3281212 | 7,4655451,722 | $\begin{array}{r} 44,507 \\ 2,986 \\ 9,914 \end{array}$ | $\begin{array}{r} 5,645 \\ 398 \\ 1,277 \end{array}$ | $\begin{array}{r} 11,578 \\ 8,711 \\ 2,71 \end{array}$ | $\begin{array}{r} 31,983 \\ 1,990 \\ 7,666 \end{array}$ | $\begin{array}{r} 72,798 \\ 4,503 \\ 21,375 \end{array}$ | $\begin{array}{r} 73,194 \\ 5,511 \\ 24,623 \end{array}$ | 145,24010,096 | 3,703214557 | $\begin{array}{r}8,750 \\ \hline 146\end{array}$ | 64,9166,035 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | 46,108 | 557 | 1,215 | 10,819 |
| West South Central.Arkansas. ${ }^{\text {a }}$. ${ }^{\text {a }}$. | 51 | $\begin{array}{r} 85 \\ 4 \\ 9 \end{array}$ | $\begin{array}{r}9,356 \\ \hline 08\end{array}$ | 52,321 | $\begin{array}{r} 7,284 \\ 174 \end{array}$ | $\begin{array}{r} 15,592 \\ 366 \end{array}$ | $\begin{array}{r} 36,870 \\ 642 \end{array}$ | $\begin{array}{r} 105,807 \\ 1,043 \end{array}$ | $\begin{array}{r} 126,399 \\ 2,437 \end{array}$ | $\begin{array}{r} 228,971 \\ 3,497 \end{array}$ | 4,007 113 | 9,127 | 70,112 |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 895 |
| Louisiana. | 142414 |  | 1,763 | 10,690 | 1,314 | 2,866 | $\begin{aligned} & 7,215 \\ & 7,963 \end{aligned}$ | $\begin{aligned} & 18,252 \\ & 30,778 \end{aligned}$ | $\begin{aligned} & 21,542 \\ & 34,397 \end{aligned}$ | $\begin{aligned} & 38,918 \\ & 64,677 \end{aligned}$ | $\begin{aligned} & 759 \\ & 423 \end{aligned}$ | 1,541 | 20,5107 |
| Oklahoma |  | 1557 | 1,9585,427 | 11,153 | 1,541 | 3,326 |  |  |  |  |  |  |  |
| Texas. | 24 104 104 |  |  |  |  | 9,034 | 21,050 | 55,794 | 68,023 | 121,883 | 2,712 | 5,368 | 38,999 |
| Mountain. | 361211 | $\begin{array}{r} 20 \\ 6 \\ 9 \end{array}$ | $\begin{array}{r} 1,948 \\ 655 \\ 1,002 \end{array}$ | $\begin{array}{r} 12,392 \\ 4,474 \\ 6,146 \end{array}$ | $\begin{array}{r} 1,462 \\ 446 \\ 799 \end{array}$ | $\begin{array}{r} 2,946 \\ 865 \\ 1,656 \end{array}$ | $\begin{aligned} & 9,090 \\ & 2,944 \\ & 4,983 \end{aligned}$ | $\begin{array}{r} 18,881 \\ 4,231 \\ 10,990 \end{array}$ | 28,0948,79614,026 | 47,11512,872 | 550178 | 2,348 | 16,3344,8827,418 |
| Colorad |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Utah. |  |  |  |  |  |  |  |  |  | 25,500 | 272 | 1,166 |  |
|  | $\begin{aligned} & 190 \\ & 14 \\ & 150 \end{aligned}$ | $\begin{array}{r} 72 \\ 6 \\ 60 \end{array}$ | $\begin{aligned} & 6,384 \\ & 467 \\ & 5,617 \end{aligned}$ | $\begin{array}{r} 44,169 \\ 3,164 \\ 38,939 \end{array}$ | $\begin{array}{r} 4,558 \\ 374 \\ 3,947 \end{array}$ | $\begin{aligned} & 8,693 \\ & 745 \\ & 7,493 \end{aligned}$ | $\begin{gathered} 28,964 \\ 2,256 \\ 25,132 \end{gathered}$ | $\begin{array}{r} 66,642 \\ 5,636 \\ 57,549 \end{array}$ | $\begin{gathered} 91,022 \\ 6,542 \\ 81,57 \end{gathered}$ | $\begin{array}{r} 157,009 \\ 12,040 \\ 138,639 \end{array}$ | $\begin{array}{r} 4,672 \\ 375 \\ 4,184 \end{array}$ | $\begin{aligned} & 11,120 \\ & 454 \\ & 10,090 \end{aligned}$ | $\begin{array}{r} 100,407 \\ 3,066 \\ 92,530 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| INDUSTRY 3444.-SHEET METAL WORK |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total........... | 3,250 | 755 | 61,651 | 373,284 | 48,041 | 97,079 | 264,665 | 632,384 | 669,778 | 1,303,670 | 26,180 | 58,800 | 516,136 |
| New England. | 12 | 6024 | 4,052 | 24,777 | 3,201 | $\begin{array}{r} 6,526 \\ 250 \end{array}$ | $\begin{array}{r} 17,835 \\ 499 \end{array}$ | 37,1811,122 | $\begin{array}{r}\text { 28,034 } \\ \hline 002\end{array}$ | 65,0981,614 | 1,36521 | 3,600 ${ }_{(2)}$ | ${ }^{28,3}{ }^{(2)}$ |
| New Hampshire. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rhode Island. | 60 | 13 | 772 | 1,134 4,779 | 613 | 1,246 | 3,676 | 7,602 | 6,163 | 13,751 | 263 | 703 | 4,971 |
| Middle Atlanti |  | $\begin{array}{r} 185 \\ 79 \\ 49 \end{array}$ | 14,552 | 90,12040,426 | 11,3905,190 | 23,13610,486 | 65,97831,022 | $\begin{array}{r} 149,363 \\ 64,303 \\ 33,733 \end{array}$ | 124,067 | 273,601 | 4,7391,466 | 13,672 | 114569 |
| New York. | 655 <br> 291 <br> 184 |  |  |  |  |  |  |  | 44,256 | 108,780 |  | 5,4902,7735,409 | 45,144 |
| New Jersey.. |  |  | $\begin{aligned} & 3,232 \\ & 4,976 \end{aligned}$ | $\begin{aligned} & 21,293 \\ & 28,401 \end{aligned}$ | $\begin{aligned} & 2,567 \\ & 3,633 \end{aligned}$ | $\begin{aligned} & 5,282 \\ & 7,368 \end{aligned}$ | $\begin{aligned} & 15,692 \\ & 19,264 \end{aligned}$ |  |  |  | $\begin{aligned} & 1,038 \\ & 2,235 \end{aligned}$ |  | 22,358 |
| Pennsylvania. | 180 | 57 |  |  |  |  |  | 51,327 | 52,351 | 102,938 |  |  | 47,067 |
| East North Central.. | 680 | 195 | 17,489 | 108,514 | 13,407 | 27,291 | 73,999 | 186,619 | 224,968 | 410,868 | 9,059 | 15,530 | 149,472 |
| Ohio.. | 206 | 63 | 5,539 | 34,321 | 4,157 | 8,434 | 23,076 | 64,657 | 75,883 | 141,034 | 2,395 | 5,658 | 57,574 |
| Indiana. | 73 | 28 | 1,667 | 9,478 | 1,291 | 2,566 | 6,600 | 16,628 | 19,278 | 35,382 | 636 | 1,150 | 10,290 |
| Illinois. | 196 | 52 | 3,708 | 22,543 | 2,893 | 5,973 | 16,092 | 36,853 | 38,645 | 75,608 | 1,315 | 3,269 | 27,453 |
| Michigan. | 133 | 32 | 3,505 | 21,952 | 2,828 | 5,719 | 15,736 | 39,483 | 37,737 53,425 | 77,084 81,760 | 2,564 | 2,827 | 28,989 |
| Wisconsin. | 72 | 20 | 3,070 | 20,220 | 2,238 | 4,599 | 12,495 | 28,998 | 53,425 | 81,760 | 2,149 | 2,626 | 25,166 |
| West North Central.. | 204 | 58 | 5,723 | 34,028 | 4,451 | 8,917 | 23,688 | 61,053 | 68,220 | 129,958 | 2,519 | 7,806 | 64,728 |
| Minnesota. | 49 | 17 | 878 | 5,088 | 689 | 1,419 | 3,601 | 7,579 | 9,426 | 16,713 | 843 | 1,081 | 9,220 |
| Iowa. . | 32 | 8 | 1,087 | 6,796 | 873 | 1,820 | 5,041 | 10,677 | 9,829 | 20,992 | 220 | 857 | 8,806 |
| Missouri | 65 | 16 | 2,327 | 14,947 | 1,796 | 3,584 | 10,673 | 26,135 | 28,885 | 55,761 | 662 | 4,178 | 29,593 |
| Nebraska | 21 | 9 | 784 | 4,020 | 613 | 1,066 | 2,195 | 9,598 | 10,996 | 20,563 | 316 | 993 | 11,479 |
| Kansas. | 27 | 6 | 367 | 1,997 | 294 | 596 | 1,470 | 4,964 | 4,231 | 8,801 | 427 | 465 | 3,179 |
| South Atlantic. | 369 | 73 | 5,900 | 30,285 | 4,680 | 9,410 | 21,799 | 53,098 | 72,465 | 124,896 | 3,560 | 5,498 | 41,070 |
| Marylena. . | 46 | 14 | 1,026 | 6,000 | 791 | 1,742 | 4,206 | 9,413 | 11,512 | 20,393 | 365 | 915 | 8,127 |
| Virginia. | 32 | 14 | 738 | 3,522 | 582 | 1,219 | 2,522 | 6,090 | 5,736 | 12,195 | 163 | 532 | 3,823 |
| West Virginia. | 15 | 4 | 646 | 3,660 | 521 | 969 | 2,727 | 8,597 | 13,236 | 21,808 | 253 | 454 | 3,062 |
| North Carolina | 61 |  | 874 | 3,883 | 715 | 1,430 | 2,805 | 6,528 | 16,472 | 22,406 | 1,939 | 669 | 5,135 |
| Ceorgia.. | 61 | 14 | 928 | 4,519 | 740 | 1,444 | 3,294 | 7,809 | 10,563 | 18,278 | 268 | 1,024 | 7,450 |
| Florida.. | 120 | 15 | 1,356 | 6,822 | 1,037 | 2,086 | 4,665 | 12,247 | 13,517 | 25,979 | 495 | 1,586 | 11,577 |
| East South Central.. | 168 | 25 | 1,639 | 7,807 | 1,288 | 2,628 | 5,601 | 15,190 | 17,975 | 32,934 | 456 | 1,543 | 11,963 |
| Kentuckg. | 24 | 6 | 321 | 1,992 | 235 | 478 | 1,423 | 3,321 | 4,039 | 7,338 | 62 | 574 | 3,846 |
| Tennessee | 57 | 11 | 670 | 3,153 | 531 | 1,113 | 2,202 | 6,322 | 8,136 | 14,321 | 172 | 423 | 4,038 |
| Alabama.. | 46 | 7 | 446 | 1,837 | 361 | 706 | 1,404 | 3,981 | 4,423 | 8,331 | 142 | 376 | 2,775 |
| Mississippi. | 41 | 1 | 202 | 825 | 161 | 331 | 572 | 1,566 | 1,377 | 2,944 | 80 | 170 | 1,304 |
| West South Central.. | 303 | 37 | 3,249 | 16,515 | 2,500 | 5,000 | 11,871 | 25,127 | 29,178 | 55,023 | 985 | 2,974 | 20,640 |
| Arkansas.......... | 22 | 4 | 170 | 535 | 108 | 242 | 376 | 838 | 1,008 | 1,859 | 42 | 173 | 660 |
| Louisiana. | 59 | 6 | 553 | 3,021 | 436 | 858 | 2,419 | 4,840 | 4,866 | 9,498 | 151 | 356 | 2,564 |
| Oklahoma. | 50 | 6 | 488 | 2,272 | 379 | 740 | 1,647 | 3,984 | 4,901 | 9,028 | 125 | 371 | 3,017 |
| Texas. | 172 | 21 | 2,038 | 10,687 | 1,577 | 3,160 | 7,429 | 15,465 | 18,403 | 34,638 | 667 | 2,074 | 14,399 |
| Mountaiņ. | 93 | 12 | 996 | 6,045 | 824 | 1,689 | 4,799 | 11,547 | 11,695 | 23,371 | 384 | 1,126 | 10,206 |
| Colorado. | 24 | 2 | 289 | 1,902 | 239 | 483 | 1,537 | 2,965 | 2,441 | 5,355 | 71 | 285 | 2,569 |
| Arizona............ | 29 17 | 3 4 4 | 238 202 | 1,293 1,355 | 198 170 | 406 364 | 1,002 1,104 | 2,277 2,710 | 2,933 2,462 | 5,176 5,334 | 66 76 | 173 236 | 2,165 |
| Pacific.. | 507 | 110 | 8,051 | 55,193 | 6,300 | 12,482 | 39,095 | 93,206 | 93,176 | 187,921 | 3,113 | 7,051 | 75,110 |
| Washington........ | 49 | 3 | 842 | 6,164 | 675 | 1,298 | 4,765 | 9,351 | 10,135 | 20,017 | 242 | 777 | 7,580 |
| Oregon........... | 41 | 8 | 683 | 4,406 | 550 | 1,059 | 3,196 | 6,889 | 9,758 | 16,898 | (D) | 860 | 7,945 |
| California | 411 | 88 | 6,471 | 44,222 | 5,025 | 10,012 | 30,789 | 76,408 | 72,800 | 150,030 | 2,613 | 5,414 | 59,585 |

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{\text {² }}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{aligned} & \begin{array}{c} \text { Man- } \\ \text { hours } \end{array} \\ & (1,000) \end{aligned}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3449.-MISCELLANEOUS METAL WORK-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
| West South Central.. | 81 | 27 | 2,697 | 12,234 | 1,675 | 3,569 | 7,361 | 19,915 | 41,070 | 61,479 | 709 | (3) | (3) |
| Arkansas.......... | 6 | 2 | 117 | 402 | 102 | 211 | , 333 | 516 | 1,062 | 1,613 | (D) | (3) | (3) |
| Louisiana. ....... | 16 | 3 | 245 | 1,300 | 172 | 421 | 1,006 | 2,845 | 4,323 | 7,017 | (D) | (3) | (3) |
| Oklahoma.......... | 9 | 4 | + 298 | 1,768 | 209 | 446 | 1,128 | 3,039 | 3,777 | 6,854 | 93 | (3) | (3) |
| Texas.............. | 50 | 18 | 2,037 | 8,764 | 1,192 | 2,491 | 4,894 | 13,515 | 31,908 | 45,995 | 545 | (3) | (3) |
| Mountain............ | 25 | 9 | 582 | 3,171 | 431 | 962 | 2,092 | 4,723 |  | 14,937 | 191 | (3) |  |
| Colorado........... | 11 | 4 | 271 | 1,462 | 235 | 531 | 1,250 | 2,258 | 6,373 | 8,622 | 41 | (3) | (3) |
| Pacific............. | 95 | 31 | 3,239 | 23,627 | 2,104 | 4,289 | 13,942 | 46,341 | 46,037 | 92,081 |  |  |  |
| Oregon. . . . . . . . . . | 7 | 4 | 357 | 2,582 | +151 | 299 3885 | -962 | 4,599 | 8,181 | 12,964 | + 275 | (3) | (3) |
| California........ | 77 | 25 | 2,788 | 20,405 | 1,900 | 3,885 | 12,674 | 40,991 | 35,733 | 76,226 | 1,375 | (3) | (3) |

(D) Withheld to avoid disclosing figures for individual companies.
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3441, Fabricated Structural Steel: New England-New Hampshire, 2 (20-99); Vermont, 3 (100-249); West North Central-North Dakota, 2 (100-249); South Dakota, 2 (100-249); South Atlantic—Delaware, 1 (1-19); District of Columbia, 2 (20-99); West Virginia, 9 (500-999); Mountain-Wyoming, 1 (1-19); New Mexico, 3 (20-99); Nevada, 3 (20-99); Pacific-Alaska, 1 (20-99); Hawaii, 4 (100-249).
SIC 3442, Metal Doors, Sash, and Trim: West North Central-North Dakota, 2 (1-19); South Dakota, 3 (1-19); South Atlantic-Delaware, 5 (20-99); District of Columbia, 3 (1-19); West Virginia, 10 (20-99); Mountain-Montana, 3 (1-19); Idaho, 2 (1-19); New Mexico, 1 (20-99); Arizona, 6 (20-99); Utah, 6 (100-249); Nevada, 2 (1-19); Pacific-Oregon, 15 (250-499); Alaska, 1 (1-19); Hawaii, 2 (20-99).
SIC 3443, Boiler shop products: New England-Maine, 3 (1-19); New Hampshire, 4 (20-99); Vermont, l (1-19); Rhode Island, 7 (20-99); West North Central-North Dakota, 1 (1-19); South Dakota, 4 (20-99); South Atlantic-District of Columbia, 1 (20-99); West Virginia, 4 (20-99); East South Central-Tennessee, 16 ( 4,080 ); Mississippi, 6 ( 1,118 ); Mountain-Montana, 2 (20-99); Idaho, 3 (110); Wyoming, 1 (1-19); New Mexico, 4 (20-99); Arizona, 2 (20-99); Nevada, 1 (1-19); Pacific-Washington, 24 (250-499); Alaska, 2 (1-19).
SIC 3414, Sheet Metal Work: New England-Maine, 7 (20-99); Vermont, 3 (20-99); West North Central-North Dakota, 3 (20-99); South Dakota, 7 (243); South Atlantic-Delaware, 3 (1-19); District of Columbia, 3 (184); South Carolina, 28 (137); Mountain-Montana, 7 (20-99); Idaho, 7 (20-99); Wyoming, 4 (20-99); New Mexico, 4 (20-99); Nevada, 1 (20-99); Pacific-Alaska, 3 (1-19); Hawaii, 3 (20-99).
SIC 3446, Architectural Metal Work: New England-Maine, 1 (1-19); New Hampshire, 3 (1-19); Vermont, I (l-19); Rhode Island, 6 (1-19); West North Central-Iowa, 13 (20-99); South Dakota, 1 (1-19); South Atlantic-Delaware, 6 (20-99); District of Columbia. 6 (20-99); West Virginia. 4 (1-19); North Carolina, 26 (20-99); East South Central-Tennessee, 29 (153); Mississippi, 6 (20-99); West South Central-Arkansas, 10 (20-99); Louisiana, 19 (20-99); Mountain-Montana, 2 (1-19); Idaho, 4 (1-19); New Mexico, 4 (1-19); Arizona, 7 (500-999); Nevada, 3 (20-99); Pacific-Washington, 21 (20-99); Oregon, 9 (20-99); Alaska, l (1-19); Hawaii, l (1-19).
SIC 3449, Miscellaneous Metal Work: New England-Maine, 1 (20-99); New Hampshire; 1 (1-19); Rhode Isiand, 3 (20-99); Connecticut, 4 (20-99); East North Central-Wisconsin, 6 (20-99); West North Central-Iowa, 5 (250-499); South Dakota, 1 (1-19); South Atlantic-Delaware, 1 (20-99); West Virginia, 3 (250-499); South Carolina, 8 (250-499); East South Central-Tennessee, 17 (329); Mississippi, 3 (20-99); Mountain-Idano, 1 (1-19); New Mexico, 4 (20-99); Arizona, 6 (143); Utah, 2 (20-99); Nevada, 1 (20-99); Pacific—Washington, 10 (20-99); Hawaii, 1 (1-19).
${ }^{2}$ This State was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.
${ }^{3}$ Comparable data for 1958 are not available because of revisions in the Standard Industrial classifications (see text for description of this change).

TABLE 3. Detailed Statistics: 1963

| Item | Fabricated structural steel (SIC 3441) | Metal doors, sash, and trim (SIC 3442) | Boiler shop products (SIC 3443) | Sheet metal work (SIC 3444) | Architectural metal work (SIC 3446) | Miscellaneous metal work, n.e.c. (SIC 3449) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio.. | . 86 | . 88 | . 89 | . 88 | . 86 | . 89 |
| Coverage ratio.................................................... . . | . 89 | . 94 | . 83 | . 78 | .71 | . 68 |
| Establishments, total..................................number.. | 1,778 | 1,817 | 1,383 | 3,250 | 1,334 | 697 |
|  | 901 | 1,189 | 782 | 2,495 | 1,161 | 451 |
|  | 622 | 483 | 458 | 655 | 146 | 182 |
| With 100-employees or more............................ do... . | 195 | 145 | 143 | 100 | 27 | 64 |
| Proprietors and working partners.................................... <br> All employees (average for the year) | 85, 4261 | 665 62,799 | 562 75,018 | 1,763 61,651 | 1,002 15,587 | 335 24,992 |
| All employees (average for the year)............................. Payroll (all employees), total for year.................do..... | 85,423 527,220 | 62,799 324,796 | 75,018 465,372 | 61,651 373,284 | 15,587 86,956 | 24,992 145,042 |
| Production workers: |  |  |  |  |  |  |
| Average for the year......................................... | 63,674 | 46,645 | 54,629 | 48,041 | 12,474 | 16,963 |
| March........................................................ . . . . . . . . . . . . | 59,486 | 40,680 | 52,767 | 45,351 | 11,602 | 14,897 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 63,430 | 45,870 | 54,586 | 47,362 | 12,465 | 16,885 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 67,872 | 49,362 | 56,446 | 50,773 | 12,947 | 18,164 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 63,912 | 50,850 | 54,717 | 48,678 | 12,882 | 17,906 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .1,000. . | 127,899 | 95,727 | 111,409 | 97,079 | 24,195 | 34,510 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 29,277 | 20,516 | 26,751 | 22,568 | 5,666 | 7,697 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 32,680 | 23,750 | 28,211 | 24,323 | 5,992 | 8,768 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 33,279 | 25,700 | 28,070 | 25,125 | 6,149 | 9,099 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 32,669 | 25,761 | 28,377 | 25,063 | 6,387 | 8,946 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 350,337 | 206,127 | 310,471. | 264,665 | 60,613 | 88,843 |
| Cost of materials, etc., total........................d. ${ }^{\text {do. }}$ | 1,140,975 | 681,385 | 860,612 | 669,778 | 119,313 | 420,857 |
| Materials, parts, containers, and supplies consumed. $\qquad$ do. | 947,245 | 628,166 | 755,278 | 562,429 | 99,865 | 360,361 |
| Cost of resales. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 132,489 | 31,176 | 53,463 | 67,774 | 6,223 | 49,660 |
| Fuels consumed. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 5,499 | 3,578 | 7,220 | 4,429 | 693 | 1,708 |
| Electric energy: |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . .million kw, -hrs. . | 627 | 384 | 685 | 302 | 116 | 201 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 8,809 | 6,036 | 9,490 | 5,739 | 1,511 | 3,734 |
| Generated less sold....................million kw.-hrs.. | (z) | (D) | 1 | 3 | 1 | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 46,933 | 12,429 | 35,161 | 29,407 | 11,021 | 5,394 |
| Value of shipments (including resales), total.........do.... Value of resales........................................................ | $\begin{array}{r} 1,916,048 \\ 165,992 \end{array}$ | $\begin{array}{r} 1,253,814 \\ 45,549 \end{array}$ | $\begin{array}{r} 1,622,988 \\ 68,090 \end{array}$ | $1,303,670$ 88,088 | 269,256 7,776 | $\begin{array}{r} 704,166 \\ 66,073 \end{array}$ |
| Value added by manufacture, adjusted..................d. ${ }^{\text {do. }}$ | 814,805 | 570,370 | 770,064 | 632,384 | 148,763 | 283,427 |
| Manufacturers' inventories: |  |  |  |  |  |  |
| Beginring of year, total..............................do. . . . | 463,213 | 177,335 | 316,752 | 184,766 | 40,481 | 107,173 |
| Finished products...................................do. . . . | 24,072 | 47,577 | 35,499 | 47,859 | 6,290 | 37,154 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . | 272,188 | 38,177 | 155,376 | 52,169 | 15,957 | 23,054 |
| Materials, supplies, fuel, etc......................d..... | 166,953 | 91,587 | 125,877 | 84,738 | 18,234 | 46,965 |
| End of year, total....................................do. . . . | 497,896 | 180,041 | 319,523 | 189,123 | 39,441 | 109,852 |
| Finished products................................... .do.... . | 28,091 | 46,213 | 36,556 | 46,758 | 6,468 | 36,715 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 307,901 | 37,476 | 162,007 | 51,762 | 14,599 | 23,611 |
| Materials, supplies, fuel, etc....................do. ... | 161,904 | 96,352 | 120,960 | 90,603 | 18,374 | 49,526 |
| Expenditures for plant and equipment, total..........do.... | 31,283 | 23,207 | 38,856 | 28,637 | 6,496 | 12,204 |
| New, total. | 28,162 | 21,305 | 32,910 | 26,180 | 6,102 | 11,475 |
| New structures and additions to plant...............do.... | 10,347 | 5,029 | 9,359 | 7,876 | 2,084 | 3,815 |
| New machinery and equipment.........................do.... | 17,815 | 16,276 | 23,551 | 18,304 | 4,018 | 7,660 |
| Used plant and equipment..............................do.. | 3,121 | 1,901 | 5,946 | 2,457 | 394 | 729 |
| Selected operating ratios: |  |  |  |  |  |  |
| Payroll/Total employment. | 6,172 | 5,172 | 6,203 | 6,055 | 5,579 | 5,804 |
| Production workers/Total employment. | . 75 | . 74 | . 73 | . 78 | . 80 | . 68 |
| Man-hours/Production workers. | 2,009 | 2,052 | 2,039 | 2,021 | 1,939 | 2,034 |
| Production worker wages/Man-hours. | 2.74 | 2.15 | 2.79 | 2.73 | 2.51 | 2.57 |
| Cost of materials and payrolls/Total value of shipments.. | . 87 | . 80 | . 82 | . 80 | . 77 | . 80 |
| Cost of materials/Total value of shipments................ | . 60 | . 54 | . 53 | . 51 | . 44 | . 60 |
| Adjusted value added/Total employment. | 9,538 | 9,082 | 10,249 | 10,257 | 9,544 | 11,341 |
| Salaries and wages/Adjusted value added. | . 65 | . 57 | . 61 | . 59 | . 58 | . 51 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
(D) Withheld to avoid disclosing figures for individual companies.
(Z) Less than 500 thousand KWH.
table 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{gathered} 5 \text { to } 9 \\ \text { employees } \end{gathered}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 2,500 \\ \text { employees } \\ \text { and over } \end{gathered}$ |
|  | INDUSTRY 3441.-FABRICATED STRUCTURAL STEEL |  |  |  |  |  |  |  |  |  |  |
| Establishments..................number.. | 1,718 | 273 | 262 | 366 | 430 | 192 | 142 | 35 | 13 | 4 | 1 |
|  | 85,423 | 519 | 1,818 | 5,131 | 13,219 | 13,304 | 22,544 | 12,493 | 7,636 | 8,759 | (D) |
| Payroll....................\$1,000.. | 527,220 | 2,907 | 10,221 | 30,337 | 80,884 | 85,237 | 135,769 | 78,449 | 48,607 | 54,809 | (D) |
| Value added, adjusted........do.... | 814,805 | 7,286 | 18,803 | 49,119 | 133,618 | 141,728 | 225,512 | 112,407 | 61,953 | 64,379 | (D) |
| Value of shipments...........do.... | 1,916,048 | 14,056 | 38,069 | 104, 861 | 294, 820 | 319,855 | 557,576 | 302,730 | 146,641 | 137,440 | (D) |
| Capital expenditures, new....do.... | 28,162 | 357 | 808 | 2,113 | 4,598 | 4,177 | 5,995 | 4,455 | 3,970 | 1,689 | (D) |
|  | INDUSTRY 3442.-METAL DOOR, SASH, AND TRIM |  |  |  |  |  |  |  |  |  |  |
| Establishnents..............number. . | 1,817 | 528 | 310 | 351 | 338 | 145 | 104 | 31 | 9 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total....................... do.... | 62,799 | 1,076 | 2,140 | 4,921 | 10,484 | 10,035 | 16,217 | 10, 887 | 7,039 | (D) | - |
| Payroll................... $\$ 1,000$. . | 324,796 | 4,814 | 10,244 | 22,636 | 51,659 | 51,639 | 80,499 | 63,488 | 39,817 | (D) |  |
| Value added, adjusted........do.... | 570,370 | 10,274 | 18,690 | 40,685 | 90,443 | 95,412 | 141, 670 | 99,565 | 73,631 | (D) |  |
| Value of shipments...........do.... | 1,253,814 | 24, 404 | 43,913 | 95,301 | 218,726 | 209,709 | 310,791 | 211,276 | 139,694 | (D) |  |
| Capital expenditures, new....do.... | 21,305 | 491 | 644 | 1,322 | 3,790 | 3,797 | 4,780 | 3,008 | 3,473 | (D) |  |
|  | INDUSTRY 3443.-BOILER SHOP PRODUCTS |  |  |  |  |  |  |  |  |  |  |
| Establishments..............number.. | 1,383 | 314 | 208 | 260 | 304 | 154 | 94 | 21 | 24 | 2 | 2 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total....................... do.... | 75, 018 | 617 | 1,427 | 3, 669 | 9,724 | 10,587 | 14,511 | 7,573 | 26,910 | (D) | (D) |
| Payroll...................\$1,000.. | 465,372 | 4, 181 | 7,386 | 20,829 | 58, 069 | 64,093 | 87,709 | 48,132 | 174,973 | (D) | (D) |
| Value added, adjusted........dido... | 770, 064 | 9,078 | 13,423 | 35,159 | 98,252 | 106,477 | 136,738 | 83,015 | $\frac{287,922}{567,631}$ | (D) | (D) |
| Value of shipments...........do.... | 1,622,988 | 16,028 | 25,609 | 70, 529 | 215, 064 | 234,997 | 312,278 | 180,852 | 567,631 | (D) | (D) |
| Capital expenditures, new....do.... | 32,910 | ${ }^{1} 2,003$ | 557 | 1, 242 | 4,093 | 4,878 | 7,712 | 2,892 | 9,533 | (D) | (D) |
|  | INDUSTRY 3444.-SHEET METAL WORK |  |  |  |  |  |  |  |  |  |  |
| Establishments..............number. . | 3,250 | 1,305 | 587 | 603 | 478 | 177 | 80 | 15 | 5 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................... do.... | 61,651 | 2,395 | 3,891 | 8,215 | 14,653 | 12,204 | 11,542 | 5,403 | 3,348 | - | - |
| Payroll................... $\$ 1,000 .$. | 373,284 | 12,258 | 21,000 | 46,513 | 88,985 | 74,708 | 71,427 | 33, 049 | 25,344 | - | - |
| Value added, adjusted........do.... | 632,384 | 25,036 | 37,769 | 82,759 | 146, 261 | 124,024 | 115,315 | 64,111 | 37,109 | - | - |
| Value of shipments...........do... | 1,303,670 | 45, 046 | 72, 241 | 163,883 | 298,021 | 245,049 | 244,930 | 133,905 | 100,595 | - | - |
| Capital expenditures, new....do.... | 26,180 | 1,347 | 1,508 | 3,105 | 5,459 | 4,348 | 3,757 | 5,107 | 1,549 | - | - |
|  | INDUSTRY 3446.-ARCHITECTURAL METAL WORK |  |  |  |  |  |  |  |  |  |  |
| Establishments..............number. . | 1,334 | 853 | 179 | 129 | 107 | 39 | 22 | 4 | 1 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total........................do.... | 15,587 | 1,553 | 1,115 |  | 3,246 | 2,711 | 2,979 | 2,215 | (D) | - | - |
| Payroll................... $\$ 1,000 .$. | 86,956 | 7,075 | 5,564 | 9,623 | 18,313 | 15,750 | 17,317 | 13,314 | (D) | - | - |
| Value added, adjusted........do.... | 148,763 | 16,222 | 10,527 | 16,393 | 30,484 | 27,101 | 29,711 | 18,325 | (D) | - | - |
| Value of shipments...........do.... | 269,256 | 27,844 | 18,271 | 28,161 | 55, 153 | 50,932 | 53,519 | 35,376 | (D) | - | - |
| Capital expenditures, new....do.... | 6,102 | 667 | 491 | 595 | 1,225 | 907 | 1,655 | $\underline{562}$ | (D) | - | - |
|  | INDUSTRY 3449.-MISCELLANEOUS METAL WORK, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number.. | 697 | 266 | 84 | 101 | 120 | 62 | 45 | 14 | 5 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 24,992 | 412 | 569 | 1,437 | 3,819 | 4,401 | 6,884 | 4,663 | 2,807 | - | - |
| Payroll.................... ${ }^{\text {d, }}$, 000. | 145, 042 | 2,507 | 2,777 | 7,396 | 20,568 | 24,599 | 41,275 | 29,501 | 16,419 | - | - |
| Value added, adjusted........do.... | 283,427 | 5,357 | 5,535 | 14, 288 | 37,097 | 46,688 | 96,407 | 50,150 | 27,905 | - | - |
| Value of shipments...........do.... | 704, 166 | 10,099 | 11,642 | 29,739 | 111,597 | 131, 251 | 233,407 | 114, 290 | 62,141 | - | - |
| Capital expenditures, new....do.... | 11,475 | 246 | 264 | 449 | 1,780 | 1,673 | 4,036 | 1,657 | 1,370 | - | - |

## Note: Detailed figures may not add to the totals because of independent rounding.

- Represents zero. (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
${ }^{I}$ Includes capital expenditures of $\$ 1-2$ million for plants under construction but not in operation, the exact amount is withheld to avoid disclosing information for individual companies.


## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio Col. B <br> Col. B+C <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. $\bar{F}$ (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3441 | Fabricated structual steel........1963.. | $1,916,048$ $1,901,106$ | $\begin{aligned} & 1,432,515 \\ & 1,455,835 \end{aligned}$ | $\begin{aligned} & 236,844 \\ & 223,840 \end{aligned}$ | $\begin{aligned} & 246,689 \\ & 221,431 \end{aligned}$ | $\begin{aligned} & 86 \\ & 87 \end{aligned}$ | $\begin{aligned} & 1,603,982 \\ & 1,602,126 \end{aligned}$ | $\begin{aligned} & 1,432,515 \\ & 1,455,835 \end{aligned}$ | $\begin{aligned} & 171,467 \\ & 146,291 \end{aligned}$ | 89 91 |
| 3442 | Metal doors, sash, and trim...... $\begin{array}{r}1963 . . \\ 1958 . .\end{array}$ | $\begin{aligned} & 1,253,814 \\ & 1,037,371 \end{aligned}$ | $\begin{array}{r} 1,045,535 \\ 886,920 \end{array}$ | $\begin{array}{r} 135,888 \\ 82,574 \end{array}$ | $\begin{aligned} & 72,391 \\ & 67,877 \end{aligned}$ | $88$ | $1,106,662$ 951,661 | $\begin{array}{r} 1,045,535 \\ 886,920 \end{array}$ | $\begin{aligned} & 61,127 \\ & 64,741 \end{aligned}$ | 94 93 |
| 3443 | Boiler shops products ...........1963.. | $1,622,988$ $1,670,007$ | $\begin{aligned} & 1,310,479 \\ & 1,347,173 \end{aligned}$ | $\begin{aligned} & 168,329 \\ & 168,376 \end{aligned}$ | $\begin{aligned} & 144,180 \\ & 154,458 \end{aligned}$ | 89 89 | $\begin{aligned} & 1,580,802 \\ & 1,613,999 \end{aligned}$ | $\begin{aligned} & 1,310,479 \\ & 1,347,173 \end{aligned}$ | $\begin{aligned} & 270,323 \\ & 266,826 \end{aligned}$ | 83 83 |
| 3444 | Sheet metal work. . . . . . . . . . . . . . $19.1963 .$. | $\begin{aligned} & 1,303,670 \\ & 1,077,811 \end{aligned}$ | $1,030,649$ 827,471 | $\begin{aligned} & 139,393 \\ & 111,683 \end{aligned}$ | $\begin{aligned} & 133,628 \\ & 138,657 \end{aligned}$ | $\begin{aligned} & 88 \\ & 88 \end{aligned}$ | $\begin{aligned} & 1,324,673 \\ & 1,008,471 \end{aligned}$ | $\begin{array}{r} 1,030,649 \\ 827,471 \end{array}$ | $\begin{aligned} & 294,024 \\ & 181,000 \end{aligned}$ | 78 82 |
| 3446 | Architectural metal work ${ }^{1}$.........1963.. | 269,256 | 218,854 | 35,979 | 14,423 | 86 | 306,229 | 218,854 | 87,375 | 71 |
| 3449 | Miscellaneous metal work, n.e.c. ${ }^{1} 1963 .$. | 704,166 | 541,703 | 67,768 | 94,695 | 89 | 793,330 | 541,703 | 251,627 | 68 |

Note: See table 1, Explanation of terms, for primary product specialization and coverage ratios.
${ }^{1}$ Comparable data for 1958 are not available because of revisions in the Standard Industrial Classification (see text for description of this change).

## table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the miscellaneous receipts. The value of shipments of the primary products of the specified industry
primary products of the industry by all manufacturing industries. The next column(s) shows the
reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown
in separate columns provided that the figures for individual companies are not thereby disclosed.

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Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

| Prod. class code | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Fabricated structural (SIC 3441) | Metal doors, sash, and (SIC 3442 ) | $\begin{gathered} \text { Boiler } \\ \text { shop } \\ \text { products } \\ \text { (SIC 3443) } \end{gathered}$ | $\begin{gathered} \text { Sheet } \\ \text { metal work } \\ \text { (SIC 3444) } \end{gathered}$ | Architectural (SIC 3446) | $\begin{aligned} & \text { Miscel- } \\ & \text { Caneous } \\ & \text { metal work, } \\ & \text { ne.e.c. } \\ & \text { (SIC 3449) } \end{aligned}$ | $\begin{gathered} \text { Blast } \\ \text { furnaces } \\ \text { and ittel } \\ \text { mills } \\ \text { (SIC 3312) } \end{gathered}$ | Heating equipment, except electric (SIC 3433) | Ship building and repairing (SIC 3731) | $\begin{aligned} & \text { Other } \\ & \text { industries } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 34990 \\ & 35991 \\ & 3595 \\ & 35990 \\ & 35990 \\ & 36392 \\ & 37750 \\ & 39881 \end{aligned}$ | Other products-Continued | (x)(x)(x)()(x)(x)(x)(x)()()(x)(x) | 2,108 | 2, (D) | (D) | 1,486 | ( $\begin{array}{r}\text { (D) } \\ 1,361\end{array}$ | 5,5611,187 | (x) | (X) | (x) | (x) |
|  | Other fabricated wire products, not produced by wire drawers. |  |  |  |  |  |  |  |  |  |  |  |
|  | Fabricated metal products, n.e.c............................ |  |  |  | 2,868 |  |  |  |  |  |  | (x) |
|  | Chemical manuracturing industries machinery and equipment..... Other spectal industry mehinery and equipment.......... |  | (D) |  | 2,996 4,676 | (D) |  |  | (x) | ( X ( X ) | ( X ( X$)$ | (x) |
|  | General industrial machinery and equipment, n.e.c............ |  | (D) | (D) | 12,062 | (D) | (D) |  | (x) | (x) | (x) | (x) |
|  | Carburetors, pistons, and other machine shop products |  | 4,696 |  | 1,310 | 451 | (D) | (D) | (x) | (x) | (x) | (x) |
|  | Household water heaters, except electric............ |  |  |  | 3,156 |  |  |  | (x) | (x) | (x) | (x) |
|  | Truck trailers........................................ |  | (D) | 1933,601 | 2,432 | (D) |  | ${ }^{22} 11,257$ |  | ( X$)$(x)(x) |  | (x) |
|  |  |  | ${ }^{18} 46,875$ |  | 2,27620565,270 | ${ }^{21} 48,517$ |  |  |  |  | (x) | (x) |
|  | Other secondary products ${ }^{17}$.................................. |  |  |  |  |  | 14,509 |  |  | (x) |  |  |
|  | iscellaneous receipts. | $(x)$(x)( | 246,68917,321 | 72,391 | 144,180 | 133,628 | 14,423 | 94,695 | (x) | (x) | (x) |  |
|  | Contract and commission |  |  | 5,511 | 21,050 | 20,775 | 883 | 3,886 | (x) | (x) |  | (x) |
|  | Scrap | (x) | 4, 031 | 11,356 | 4,03819,656 | 2,26314,522 | $\begin{array}{r}452 \\ 3,303 \\ \hline\end{array}$ | 1,09214,876 | (x) | (x) | (X) | (X) |
|  | Installation work by manufacturing plant employ | (x) | 47,133165,992 |  |  |  |  |  |  |  |  |  |
|  | Resales.. | (X) |  | 45,5496,114 | $\begin{aligned} & 68,090 \\ & 31,346 \end{aligned}$ | $\begin{array}{r} 88,088 \\ 7,980 \end{array}$ | $\begin{aligned} & 7,776 \\ & 2,009 \end{aligned}$ | $\begin{array}{r} 66,073 \\ 6,765 \end{array}$ | (X) | (x) | (x) | (x) |
|  | Other. | (X) | 12,212 |  |  |  |  |  |  |  |  |  |

(X) Not applicable. (D) Withheld to avoid disclosing figures for individual companies. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. (X) Not applicable.

${ }^{3}$ Includes an amount between $\$ 2$ and $\$ 5$ million each produced in industry 3491, Metal Barrels, Drums, and Pails; and industry 3642 , Lighting Fixtures.


Gray Iron Foundries; industry 3519 , Internal Combustion Engines; indus
bines.

$$
\begin{aligned}
& \text { een } \$ 5 \text { and } \$ 10 \text { mille } \\
& \text { nges and Turbines. } \\
& \text { and and industry } 3585 \\
& \text { and industry } 3351 \text {. }
\end{aligned}
$$

; ind industry 3351, Food Products Machinery
323,
on



 ${ }^{16}$ Includes an amount between $\$ 2$ and $\$ 5$ million each produced in industry 3531 , Construction Machinery; and industry 3561 , Pumps and Compressors.




 Industrial fans and blowers; 3564
 cars, new.


$$
\begin{aligned}
& \text { Refrigeration Machinery. } \\
& \text { od Products Machinery. }
\end{aligned}
$$ , which totals more than $\$ 2$ million but is

ngs; industry
dustry 3461, Metal Stampings; and also an amount between $\$ 2$ and $\$ 5$ millio osing individual company figures: 35641 , electron tubes (except glass blanks)
withheld to avoid disclosing individual company figures.

## TABLE 5 B.



## TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3441- -- | FABRICATED STRUCTURAL STEEL, TOTAL................................. |  | (x) | 1,603,982 | (X) | 1,602,126 |
| 34411 -- | Fabricated structural metal for buildings........................... |  | (X) | 984, 049 | (X) | 930, 399 |
| 3441121 | Iron and steel (for sale to other companies): ${ }^{1}$ Industrial.................................................... | Short tons..... | 996,877 | 306,883 | 899, 069 |  |
| 3441125 | Commercial, residential, and institutional...................... | ...do........... | 859,141 | 242,974 | 1,018,993 | 263, 742 |
| 3441127 | Public utilities: <br> Quantity reported............................................................. Quantity not reported. | . . .do. | $\begin{array}{r} 105,480 \\ (\mathrm{X}) \end{array}$ | 34, 389 | 173,776 $(\mathrm{X})$ | $\begin{aligned} & 56,128 \\ & 16,766 \end{aligned}$ |
|  | Iron and steel (for installation by same company on the site of construction): |  |  |  |  |  |
| 3441161 | Industrial | Short tons..... | 452, 286 | 160,129 | 281,612 |  |
| 3441165 | Commercial, residential, and institutional..................... | . . do. | 538, 511 | 165,590 | 319,885 | 103,653 |
| 3441167 | Public utilities: <br> Quantity reported. $\qquad$ <br> Quantity not reported $\qquad$ | .do | $\begin{array}{r} 30,286 \\ (\mathrm{X}) \end{array}$ | 10,853 1,896 | 37, 889 | 13,768 3,230 |
| 3441171 | Aluminum. .............................................................. | Short tons..... | 12,480 | 18,918 | (NA) | (NA) |
| 3441100 | Fabricated structural metal for buildings, n.s.k.................. |  | (X) | 42,417 | (X) | ${ }^{2} 105,221$ |
| 34412 -- | Fabricated structural metal for bridges............................... | Short tons..... | (X) | 224, 879 | 843,511 | 279,624 |
| 3441211 | Iron and steel (for sale to other companies): Highway bridges, trestles and viaducts........................ | ...do........... | 506,476 | 136,068 | 659, 091 | 219,183 |
| 3441215 | Railway bridges, trestles and viaducts......................... | ...do.......... | 20, 167 | 6,045 | 54, 225 | 18,978 |
| 3441251 | Iron and steel bridges, trestles and viaducts (highway and railway for installation by same company on the site of construction). | . .do. | 191, 564 | 69,344 | 130,195 | 41,463 |
| 3441271 | Aluninum. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | (NA) | 3,080 | (NA) | (NA) |
| 3441200 | Fabricated structural metal for bridges, n.s.k.................... |  | (X) | 10,342 | (X) | $\left.{ }^{2}\right)$ |
| 34413 -- | Other fabricated structural metal..................................... | ................. | (X) | 287,248 | (x) | 261,992 |
| 3441311 | Iron and steel (for sale to other companies): ${ }^{1}$ <br> For ships, boats, and barges: <br> Quantity reported. <br> Quantity not reported. | Short tons..... | $\begin{array}{r} 14,626 \\ (X) \end{array}$ | $\begin{aligned} & 8,956 \\ & 1,138 \end{aligned}$ | $\begin{array}{r} 44,590 \\ (\mathrm{X}) \end{array}$ | $\begin{array}{r} 20,928 \\ 4,347 \end{array}$ |
| 3441341 | For transmission towers, substations, radio antenna towers, and supporting structures. | Short tons..... | 151,9.59 | 50,460 | 160,936 | 59,948 |
| 3441351 | Other fabricated structural iron and steel, excluding pressure vessels and storage tanks, fabricated reinforcing bars, bar joists, fabricated metal buildings, steel flooring and roof decks, which are separate: <br> Quantity reported............................................................ <br> Quantity not reported. | ....do................ | $\begin{array}{r} 306,477 \\ (\mathrm{X}) \end{array}$ | $\begin{array}{r} 108,974 \\ 13,150 \end{array}$ | $\begin{array}{r} 297,500 \\ \text { (X) } \end{array}$ | $\begin{array}{r} 103,829 \\ 18,467 \end{array}$ |
|  | Iron and steel (for installation by same company on the site of construction or for shipbuilding): |  |  |  |  |  |
| 3441361 | For ships, boats and barges.................................... |  | (NA) | 332, 500 | (NA) | ${ }^{3} 7,712$ |
| 3441371 | For transmission towers, substations, radio antenna towers, and supporting structures. | Short tons..... | 57,748 | 23,333 | 3,543 | 2,628 |
| 3441381 | Other fabricated structural iron and steel, excluding pressure vessels and storage tanks, fabricated reinforcing bars, bar joists, fabricated metal buildings, steel flooring and roof decks, which are separate: <br> Quantity reported................................................................ <br> Quantity not reported. | ....do.............. | $\begin{array}{r} 59,759 \\ (\mathrm{X}) \end{array}$ | $\begin{array}{r} 22,527 \\ 7,713 \end{array}$ | $\begin{array}{r} 64,366 \\ (\mathrm{X}) \end{array}$ | $\begin{array}{r} 36,495 \\ 7,638 \end{array}$ |
| 3441383 | Aluminum: <br> For ships, boats, and barges. $\qquad$ |  | (NA) | ${ }^{3} 516$ | (NA) | (NA) |
| 3441385 | For transmission towers and other structures, excluding tanks, fabricated metal buildings, etc., which are separate.......... |  | (NA) | 1,281 | (NA) | (NA) |
| 3441398 | Structural metal, other than iron, steel, or aluminum........... |  | (NA) | 1,644 | (NA) | ( ${ }_{(2)}$ |
| 3441300 | Other fabricated structural metal, n.s.k.......................... | . | (X) | 15,056 | (X) | ${ }^{(2)}$ |
| 3441000 | Fabricated structural metal, n.s.k. |  | (X) | 107,806 | (X) | 130,111 |

See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958 <br> -Continued



[^124]
## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



See footnotes at end of table.

TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



Note: Data for 1958 exclude Alaska and Hawaii.

- Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. n.s.k. Not specified by kind.
(X) Not applicable.
${ }^{1}$ For some products value data only were reported by some establishments. In those instances where such values amounted to less than 10 percent of the total value of the product, an estimated quantity figure has been included in the total quantity for the product.
${ }^{2}$ In 1958 "Fabricated structural metal for bridges, not specified by kind" and "Other fabricated structurai metal, not specified by kind" were combined with "Fabricated structural metal for buildings, not specified by kind."
${ }^{3}$ Does not include structural metal fabricated for own use by establishments building ships.
${ }^{4}$ In 1958, metal doors constructed of metals other than iron and steel or aluminum were included with those of aluminum construction when such were collected separately and with those of iron and steel and aluminum construction when such doors were treated as a single product.
${ }^{5}$ This quantity was valued at $\$ 17,915$ thousand. The remaining $\$ 5,807$ thousand was reported without quantity
${ }^{6}$ This quantity was valued at $\$ 17,609$ thousand. The remaining $\$ 6,914$ thousand was reported without quantity.
${ }^{7}$ This quantity was valued at $\$ 148,374$ thousand. The remaining $\$ 22,925$ thousand was reported without quantity.
${ }^{8}$ This quantity was valued at $\$ 111,156$ thousand. The remaining $\$ 12,196$ thousand was reported without quantity.
${ }^{9}$ This quantity was valued at $\$ 4,838$ thousand. The remaining $\$ 767$ thousand was reported without quantity.
10 This quantity was valued at $\$ 33,833$ thousand. The remaining $\$ 7,476$ thousand was reported without quantity.
${ }^{11}$ Data represent thousands of linear feet.
${ }^{12}$ The product class structure for this industry has been revised effective with 1963. Accordingly, totals for selected product classes differ from previously published figures.

131958 data for products 3443200 and 3443400 are not, separately, comparable with data for 1963 . The total for these two products is comparable.
${ }^{14}$ Data differ from related data published in Current Industrial Reports Series M34G, "Steel Power Boilers" because of the following factors:
(a) In survey M34G the data represent new orders whereas Census of Manufactures data represent shipments.
(b) In survey M34G the data relate to boilers of 100 square feet of heating surface and over whereas the Census of Manufactures includes those of under 100 square feet of heating surface.
${ }^{15}$ In 1958, marine boilers were not reported separately from stationary power boilers.
${ }_{16}$ In 1958, product code 3443700 is combined with product code 3443500 .
${ }^{17}$ This quantity was valued at $\$ 30,529$ thousand. The remaining $\$ 5,358$ thousand represents value for which no quantity was reported.
${ }^{18}$ This quantity was valued at $\$ 79,206$ thousand. The remaining $\$ 12,615$ thousand represents value for which no quantity was reported.
${ }^{19}$ This quantity was valued at $\$ 23,843$ thousand. The remaining $\$ 3,675$ thousand represents value for which no quantity was reported.
${ }^{20}$ This quantity was valued at $\$ 12,790$ thousand. The remaining $\$ 1,910$ thousand represents value for which no quantity was reported.
${ }^{21}$ Metal siding of other than steel and aluminum, product code 3444119 is included with metal roofing of other than steel and aluminum, 3444115 .
${ }^{22}$ In 1958, all sheet-metal work, not specified by kind, is included in product code 3444000.
${ }^{23}$ Because of the lack of sufficient product detail on the reports for small establishments in the 1958 Census of Manufactures it was not possible to
effect a precise distinction between fabricated structural iron and steel, not specified by kind (3441000) and miscellaneous metal work, not specified
by kind. Accordingly, the value of such shipments, $\$ 130,111$ thousand, are included in the data for SIC 3441.

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes ( $1954=100)$ |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 344 | Structural metai products....................... ${ }^{\text {1963.. }}$ 1958.. | $\left(\begin{array}{l}1 \\ (1) \\ \hline\end{array}\right.$ | $(1)$ $(1)$ |
| 3441 | Fabricated structural steel......................... $19.1963 .$. | 119 | 120 |
| 34411 | Fabricated structural metal for buildings......... $1963 .$. | 117 | 126 |
| 34412 | Fabricated structural metal for bridges..........1963.. | ${ }^{110}$ | 109 |
|  | 1958.. | 109 | 129 |
| 34413 | Other fabricated structural metal.................1963.. $1958 .$. | 126 106 | 109 127 |
| 3442 | Metal doors, sash, and trim¹..................... 1963.. | 158 146 | 94 99 |
| 34421 | Metal doors and frames (except storm doors)......1963.. | 180 | 106 |
| 34.422 | Metal window sash and frames.................. $1953 .$. | 125 | 102 |
|  | 1958.. | 133 | 104 |
| 34424 | Metal combination screen and storm sash and doors......................................................... . .1963.. | 145 | 81 |
|  | 1958. | 150 | 91 |
| 34425 | Metal window and door screens (except combination) and metal weatherstrip................1963.. |  | 93 |
|  | (1958.. | 145 | 93 |
| 3443 | Boiler shop products................................ ${ }^{\text {1963.. }}$ 1958.. | $(1)$ $(1)$ | $(1)$ $(1)$ |
| 3444 | Sheet metal work.....................................1963.. | (1) | (1) |
| 34441 | Sheet metal roofing and siding and roof 1988 |  |  |
|  | drainage and equipment...........................1963.. |  |  |
|  | 1958.. | 111 | 126 |
| 3449 | Miscellaneous metal work. ............................1963.. | (1) | (1) |
|  | 1958.. | (1) |  |
| 34493 | Miscellaneous metai building materials............1963.. | $\begin{aligned} & 234 \\ & 143 \end{aligned}$ | $\begin{aligned} & 102 \\ & 119 \end{aligned}$ |

[^125]
## table 6c. Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | 1962 | 1961 | 1960 | 1959 | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3441- | Fabricated structural steel...........\$1,000.. | 1,603,982 | 1,514,210 | 1,487,562 | 1,498,365 | 1,385,844 | 1,602,126 | 1,103,873 | 527,127 |
| 34411 | Fabricated structural metal for buildings: Quantity. . ........................ short tons.. Value. ...................................... . $\$ 1,000$. . | $\begin{array}{r} 3,126,874 \\ 984,049 \end{array}$ | $3,011,397$ 924,499 | $2,928,245$ 911,584 | $2,927,580$ 903,678 | $2,727,232$ 839,892 | $\begin{array}{r} 3,135,012 \\ 930,399 \end{array}$ | $\begin{array}{r} \text { (NA) } \\ 682,858 \end{array}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ |
| 34412 | Fabricated structural metal for bridges: Quantity............................. short tons. . Value...................................... . $\$ 1,000$. . | $\begin{aligned} & 728,398 \\ & 224,879 \end{aligned}$ | $\begin{aligned} & 713,920 \\ & 214,176 \end{aligned}$ | $\begin{aligned} & 694,000 \\ & 223,083 \end{aligned}$ | $\begin{aligned} & 692,714 \\ & 218,508 \end{aligned}$ | $\begin{aligned} & 680,627 \\ & 222,019 \end{aligned}$ | $\begin{aligned} & 843,511 \\ & 279,624 \end{aligned}$ | $\begin{aligned} & 775,727 \\ & 199,315 \end{aligned}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ |
| 34413 | Other fabricated structural metal: Quantity......................... . . short tons. . Value. . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. | $\begin{aligned} & 856,791 \\ & 287,248 \end{aligned}$ | $\begin{aligned} & 801,211 \\ & 284,430 \end{aligned}$ | $\begin{aligned} & 703,000 \\ & 266,972 \end{aligned}$ | $\begin{aligned} & 762,984 \\ & 287,411 \end{aligned}$ | $\begin{aligned} & 569,352 \\ & 220,619 \end{aligned}$ | $\begin{aligned} & 666,128 \\ & 261,992 \end{aligned}$ | $\begin{array}{r} (\mathrm{NA}) \\ 182,558 \end{array}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ |
| 34410 | Fabricated structural metal, n.s.k. $\$ 1,000$. | 107,806 | (S) | (S) | (S) | (S) | 130,111 | (NA) | (NA) |
| 3442- | Metal doors, sash, and trim..........\$1,000.. | 1,106,662 | 1,030,617 | 972,277 | 975,982 | 1,006,945 | 951,661 | 657,022 | (NA) |
| 34421 | Metal doors and frames (except storm doors)...........................\$1,000.. | 289,581 | 271,595 | 245,778 | 218,487 | 222,038 | 192,389 | 149,836 | 52,074 |
| 34422 | Metal window sash and frames (except storm sash)................... $\$ 1,000$. . | 308,781 | 265,566 | 262,261 | 274,813 | 293,170 | 285, 311 | 206,224 | 90,780 |
| 34423 | Metal molding and trim and store fronts................................... $\$ 1,000$. . | 116,800 | 137,324 | 117,433 | 123,043 | 110,405 | 97,283 | 68,131 | 46,278 |
| 34424 | Metal combination screen and, storm sash and doors.................\$1,000.. | 221,353 | 231,366 | 218,773 | 232,536 | 247, 804 | 231,510 | 169,794 | 27,393 |
| 34425 | Metal window and door screens (except combination) and metal window strip............................. $\$ 1,000$. . | 56,676 | 68,914 | 62,037 | 67,902 | 77,566 | 64,611 | 47,929 | (NA) |
| 34420 | Metal doors, sash, and trim, n.s.k. ..................................... . $\$ 1,000$. . | 113,471 | (S) | (S) | (S) | (S) | 80,557 | 15,108 | 6,916 |
| 3443- | Boiler shop products..................\$1,000.. | 1,580,802 | 1,420,760 | 1,390,859 | 1,411,181 | 1,458,970 | 1,613,999 | 1,234,427 | (NA) |
| 34431 | Heat exchangers and steam condensers. . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 160,548 | 126,741 | 155,073 | 145,961 | 150,665 | 187,243 | 162,757 | 63,296 |
| 34432 34433 | Fabricated steel plate ${ }^{1}$...............do.... | 374,197 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 34433 | Steel power boilers, parts, and attachments (over $15 \mathrm{p} . \mathrm{s} . \mathrm{i}$. steam working pressure). $\qquad$ do.... | 340,739 | 341,932 | 304,717 | 296,915 | 336,579 | 409,549 | 264,831 | 131,163 |
| 34434 | Gas cylinders ${ }^{1}$. . . . . . . . . . . . . . . . . . . . do.... | 46,348 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 34435 | Metal tanks, complete at factory <br> (standard line, pressure).............do.... | 104,442 |  |  |  |  |  |  |  |
| 34437 | Metal tanks complete at factory (standard line nonpressured) ${ }^{2}$........do.... | 145,586 | 305,189 | 290,835 | 282,635 | 301,215 | 269,006 | 228,692 | (NA) |
| 34438 | Metal tanks and vessels custom fabricated at the factory ${ }^{3}$...........do.... | 197,109 |  |  |  |  |  |  |  |
| 34439 | Metal tanks and vessels custom <br> fabricated and field erected ${ }^{3}$........do.... | 123,278 | 240,007 | 232,185 | 264,935 | 245,668 | 293,828 | 258,866 | (NA) |
| 34430 | Fabricated plate work (boiler shops), n.s.k.................................... | 88,555 | (S) | (S) | (S) | (S) | 70,077 | 14,322 | 27,534 |
| 3444- | Sheet metal work.......................... ${ }^{\text {do }}$ | 1,324,673 | 1,183,151 | 1,132,457 | 1,134,577 | 1,096,058 | 1,008,471 | 727,620 | 410,640 |
| 34441 | Sheet metal roofing, siding, and drainage equipment............................. | 306,172 | 242,864 | 231,719 | 231,302 | 215,425 | 185,775 | 132,957 | 90,242 |
| 34,442 | Culverts, flumes, irrigation pipes...do.... | 137,527 | 132,162 | 126,970 | 134,527 | 135,741 | 126,878 | 94,061 | 48,113 |
| 344,43 | Other sheet metal work................d. ${ }^{\text {do. }}$ | 731,750 | 580,238 | 560,125 | 547,584 | 537,868 | 485,913 | 408,825 | 223,954 |
| 34440 | Sheet metal work, n.s.k...............do. | 149,224 | (S) | (S) | (S) | (S) | 209,905 | 91,777 | 48,331 |
| 34460 | Architectural and ornamental <br> metal work ${ }^{4}$.......................................... | 306,229 | 356,675 | 354,927 | 339,801 | 346,121 | 332,941 | 265,349 | 76,163 |
| 3449- | Miscellaneous metal work, n.e.c. ${ }^{5}$......do. | 793.330 | 702,557 | 710,215 | 645.321 | 622,370 | 602,625 | 356,469 | (NA) |
| 34492 | Prefabricated and portable metal buildings and parts......................... | 224,549 | 192,533 | 195,082 | 181,456 | 195,863 | 195,123 | 116,023 | 68,409 |
| 34493 | Miscellaneous metal building materials. |  |  |  |  |  |  |  |  |
| 34490 | Miscellaneous metal work, n...............do..... | 506,500 | (NA) | (NA) | $\begin{array}{r} 463,865 \\ \text { (NA) } \end{array}$ | (NA) | (NA) | (NA) | $\begin{array}{r} 94,614 \\ \text { (NA) } \end{array}$ |

(NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the
basis of a consistency review.
${ }^{1}$ The product class structure has been revised effective with 1963, accordingly, totals for selected product classes differ from previously published figures
${ }_{3}^{2}$ This product class was previously included with product class 34435 .
${ }^{3}$ Product classes 34438 and 34439 were previously a single product class 34436 , Metal tanks and vessels, custom fabricated at the factory.
${ }^{4}$ This product class was previously identified as product class 34491.
${ }^{5}$ This 4 digit product class group previously included product class 34460 , Architectural and ornamental metal work.

# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.


[^126]
# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued 

\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline Product class and geographic area \& \multicolumn{2}{|c|}{Value of shipments} \& Product class and geographic area \& \multicolumn{2}{|r|}{Value of shipments} \& Product class and geographic area \& \multicolumn{2}{|c|}{Value of shipments} \\
\hline METAL MOLDING AND TRIM AND STORE FRONTS (34423) \& \(1963^{1}\) \& 1958 \& \multirow[b]{2}{*}{METAL WINDOW AND DOOR SCREENS EXCEPT COMBINATTON AND METAL WEATHEPSTRTP (34425)} \& \(1963{ }^{1}\) \& 1958 \& FABRICATED STEEL PLATE (34432) -Continued \& \multicolumn{2}{|c|}{\(1963{ }^{1}\)} \\
\hline United States, total.. \& 116,800 \& 97,283 \& \& \& \& West North Central.......... \& \& 29,882
3,466 \\
\hline \multirow[t]{3}{*}{\begin{tabular}{l}
New England. \\
New Hampshire............... . \\
Massachusetts
\end{tabular}} \& \multirow[t]{3}{*}{\[
\begin{aligned}
\& 7,216 \\
\& 3,705 \\
\& 2,394
\end{aligned}
\]} \& \multirow[t]{3}{*}{\[
\begin{array}{r}
5,384 \\
\left({ }^{2}\right) \\
(2) \\
(2)
\end{array}
\]} \& United States, \& 56,676 \& \multirow[t]{2}{*}{64,611} \& Missouri \& \& 15,809 \\
\hline \& \& \& \& \& \& Nebr \& \& 4,577 \\
\hline \& \& \& New England. \& 1,846 \& 1,688 \& South Atlantic \& \& \\
\hline \multirow[t]{2}{*}{Middle Atlantic...............
Pennsylvania...............} \& \multirow[t]{2}{*}{\[
\begin{array}{r}
13,562 \\
6,173
\end{array}
\]} \& \multirow[t]{2}{*}{\[
\begin{gathered}
13,506\left({ }_{(2)}\right)
\end{gathered}
\]} \& \multirow[t]{2}{*}{Middle Atlantic...............
\(\begin{gathered}\text { New York................... }\end{gathered}\).} \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& 7,436 \\
\& 4,612
\end{aligned}
\]} \& \multirow[t]{2}{*}{\[
\begin{array}{r}
10,721 \\
4,069
\end{array}
\]} \& South Atlantic............. \& \multirow[t]{2}{*}{} \& \multirow[t]{2}{*}{5,559
7,679
1,721} \\
\hline \& \& \& \& \& \& Virginia................
North Caroiina \& \& \\
\hline \multirow[t]{4}{*}{} \& 39 \& 42,875 \& \multirow[t]{2}{*}{East North Central.} \& 15,335 \& 20,593 \& \multirow[t]{2}{*}{South Carolina.} \& \& \multirow[t]{2}{*}{1,826} \\
\hline \& 4,584 \& 5,361 \& \& 2,954 \& 6,486 \& \& \& \\
\hline \& \multirow[t]{2}{*}{13,238
20,420} \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& 17,759 \\
\& 13,636
\end{aligned}
\]} \& \multirow[t]{2}{*}{\begin{tabular}{l}
Indiana. \\
Illinois.
\end{tabular}} \& 1,743 \& 1,316 \& \multirow[t]{3}{*}{East South Central...........
Tennessee...................} \& \& \multirow[t]{2}{*}{13,170
1,676} \\
\hline \& \& \& \& \[
\begin{aligned}
\& 9,266 \\
\& 1,286
\end{aligned}
\] \& \multirow[t]{2}{*}{(2)} \& \& \& \\
\hline South Atlantic... \& 37,270 \& 19,739 \& \& \& \& \& \multicolumn{2}{|r|}{9,121} \\
\hline East South Central. \& 4,881 \& 2,749 \& West North Central...........
Missouri................... \& \[
\begin{aligned}
\& 4,403 \\
\& 3,273
\end{aligned}
\] \& \[
\begin{gathered}
4,147 \\
\left(2^{2}\right)
\end{gathered}
\] \& \multirow[t]{2}{*}{West South Central Louisiana. Texas.} \& \multicolumn{2}{|r|}{\[
\begin{array}{r}
23,236 \\
1,514
\end{array}
\]} \\
\hline West South Central. \& 4,433 \& 2,322 \& South Atlantic
Florida..... \& \[
\begin{aligned}
\& 7,361 \\
\& 5,458
\end{aligned}
\] \& \[
\begin{array}{r}
11,114 \\
8,799
\end{array}
\] \& \& \multicolumn{2}{|r|}{19,842} \\
\hline Pacific. \& 9,693 \& 10,281 \& East So \& 3,383 \& 4,297 \&  \& \multicolumn{2}{|r|}{\multirow[t]{2}{*}{14,829
3,291}} \\
\hline \multirow[t]{2}{*}{All other divisi} \& \multirow[t]{4}{*}{(Z)} \& \multirow[t]{4}{*}{(z)} \& West South \& 8,082 \& 6,022 \& Utah. \& \& \\
\hline \& \& \& West. \& 8,830 \& \& \multirow[t]{3}{*}{Pacific. Oregon.
\(\qquad\) California} \& \multicolumn{2}{|r|}{\multirow[t]{3}{*}{\[
\begin{array}{r}
58,904 \\
7,405 \\
49,363
\end{array}
\]}} \\
\hline \multirow[t]{3}{*}{METAL COMBINATION SCREEN AND STORM SASH AND DOORS (34424)} \& \& \& ali \& 8,460 \& 5,789 \& \& \& \\
\hline \& \& \& \multirow[t]{2}{*}{HEAT EXCHANGERS AND STEAM
CONDENSERS ( 34431 )} \& \& \& \& \& \\
\hline \& \multirow[b]{2}{*}{221,353} \& \multirow[t]{2}{*}{231,510} \& \& \multirow[b]{2}{*}{160,548} \& \multirow[b]{2}{*}{187,243} \& \multirow[t]{2}{*}{STEEL POWER BOILERS, PARTS AND ATTACHMENTS (OVER 15 P.S.I. STEAM WORKING PRESSURE (34433)} \& 1963 \& 1958 \\
\hline \multirow[t]{2}{*}{} \& \& \& United States, total...... \& \& \& \& \& \\
\hline \& \multirow[t]{2}{*}{\[
\begin{array}{r}
16,132 \\
9,374
\end{array}
\]} \& 12,658 \& \& \multirow[t]{2}{*}{} \& \& \multirow[t]{2}{*}{\begin{tabular}{l}
PRESSURE (34433) \\
United States, total
\end{tabular}} \& \multirow[t]{2}{*}{340,739} \& \multirow[t]{2}{*}{409,549} \\
\hline Massachusetts
Connecticut.. \& \& 6,911 \& \multirow[t]{2}{*}{New England. Massachusetts.} \& \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& \left({ }^{2}\right) \\
\& \left({ }^{2}\right)
\end{aligned}
\]} \& \& \& \\
\hline Connecticut. \& \multirow[t]{2}{*}{4,637} \& 2,793 \& \& 5,370 \& \& \multirow[t]{2}{*}{\begin{tabular}{l}
United States, total..... \\
Middle Atlantic..............
Pennsylvania............
\end{tabular}} \& \multirow[t]{3}{*}{\[
\begin{aligned}
\& 94,165 \\
\& 58,605
\end{aligned}
\]} \& \multirow[t]{2}{*}{121,382
61,392} \\
\hline Middle Atlantic. \& \& \multirow[t]{2}{*}{86,132
35,777} \& Middle Atlantic............. \& \multirow[t]{2}{*}{61,713
24,027} \& 104,114 \& \& \& \\
\hline New York. . \& \multirow[t]{2}{*}{26,098
21,951} \& \& New York.. \& \& 30,714 \& Pennsylvania............... \& \& \multirow[b]{3}{*}{146,493 \({ }_{(2)}\)} \\
\hline New Jersey.. \& \& 18,802 \& New Jersey. \& 8,803 \& 28,167 \& East North Central...... \& \multirow[t]{2}{*}{\[
\begin{array}{r}
102,924 \\
64,925
\end{array}
\]} \& \\
\hline Pennsylvania. \& 18,325 \& 31,553 \& Pennsylvani \& 28,883 \& 45,233 \& Ohio. \& \& \\
\hline \multirow[t]{6}{*}{\begin{tabular}{l}
East North Central. \\
Ohio. \\
Indiana. \\
Illinois. \\
Michigan. \\
Wisconsin.
\end{tabular}} \& \multirow[t]{2}{*}{75,799
29,538} \& \multirow[t]{2}{*}{78,955} \& \multirow[t]{3}{*}{} \& \multirow[t]{3}{*}{29,917
4,390
18,596} \& \multirow[t]{2}{*}{40,046
2,252} \& West North Central \& 6,236 \& 9,341 \\
\hline \& \& \& \& \& \& \multirow[t]{2}{*}{} \& 4,145 \& \multirow[t]{2}{*}{2,518
2,049} \\
\hline \& 4,161 \& 3,705 \& \& \& 17,631 \& \& 4,145 \& \\
\hline \& \[
\begin{aligned}
\& 21,384 \\
\& 18,389
\end{aligned}
\] \& \[
\begin{array}{r}
22,487 \\
22,056
\end{array}
\] \& East South Central............ \& 3,843 \& \({ }^{(2)}\) \& All other divisions....... \& 133,269 \& 129,815 \\
\hline \& \multirow[t]{2}{*}{18,339
2,327} \& \multirow[t]{2}{*}{1,355} \& \multirow[t]{2}{*}{West South Central............
Louisiana..................} \& \multirow[t]{3}{*}{\[
\begin{gathered}
30,827 \\
1,153 \\
18,678
\end{gathered}
\]} \& \multirow[t]{2}{*}{\[
\begin{array}{r}
16,713 \\
(2) \\
(2)
\end{array}
\]} \& \multirow[t]{2}{*}{GAS CYLINDERS (34434)} \& \multicolumn{2}{|c|}{\multirow[t]{2}{*}{\(1963{ }^{1}\)}} \\
\hline \& \& \& \& \& \& \& \& \\
\hline \multirow[t]{4}{*}{\begin{tabular}{l}
West North Central. \\
Minnesota. \\
Iowa.. \\
Missouri \\
Nebraska \(\qquad\) \\
Kansas. \(\qquad\)
\end{tabular}} \& \multirow[t]{4}{*}{\[
\begin{array}{r}
24,598 \\
2,851 \\
3,897 \\
9,577 \\
1,3886 \\
6,555
\end{array}
\]} \& \multirow[t]{4}{*}{\[
\begin{array}{r}
21,741 \\
4,618 \\
8,212 \\
4,387 \\
4(7) \\
4,044
\end{array}
\]} \& \multirow[t]{2}{*}{\begin{tabular}{l}
Oklahoma \\
Texas.
\end{tabular}} \& \& \[
\begin{array}{r}
\left({ }^{(2)}\right) \\
9,845
\end{array}
\] \& United States, total..... \& \multicolumn{2}{|r|}{\multirow[t]{2}{*}{46,348
13,780}} \\
\hline \& \& \& \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& 8,095 \\
\& 7,716
\end{aligned}
\]} \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& 16,632 \\
\& \left({ }^{2}\right)
\end{aligned}
\]} \& \multirow[t]{2}{*}{Middle Atlantic..............
New Jersey.................} \& \& \\
\hline \& \& \& \multirow[t]{2}{*}{} \& \& \& \& \multicolumn{2}{|r|}{3,015} \\
\hline \& \& \& \& 17,017 \& 9,738 \& East North Central. \& \& 22,259 \\
\hline South Atlantic. \& 13,979 \& 8,900 \& \multirow[t]{2}{*}{FABRICATED STEEL PLATE (34432)} \& \multicolumn{2}{|c|}{\multirow[t]{2}{*}{\(1963{ }^{1}\)}} \& \multirow[t]{2}{*}{West South Central Texas.} \& \multicolumn{2}{|r|}{\multirow[t]{2}{*}{\[
\begin{aligned}
\& 1,768 \\
\& 1,662
\end{aligned}
\]}} \\
\hline Delaware. \& 1,262 \& 1,059 \& \& \& \& \& \& \\
\hline Maryland. Virginia. \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& 3,218 \\
\& 1,813
\end{aligned}
\]} \& \& \multirow[t]{2}{*}{United States, total......} \& \multicolumn{2}{|r|}{\multirow[t]{2}{*}{374,197}} \& \multirow[t]{2}{*}{Pacific. California} \& \multicolumn{2}{|r|}{\multirow[t]{2}{*}{\[
\begin{aligned}
\& 6,767 \\
\& 6,767
\end{aligned}
\]}} \\
\hline North Carolina. \& \& 1,275

(2) \& \& \& \& \& \& <br>

\hline East South Cent \& \multirow{4}{*}{$$
\begin{array}{r}
12,915 \\
5,696 \\
4,956
\end{array}
$$} \& \multirow{4}{*}{\[

$$
\begin{gathered}
11,435 \\
7,283 \\
\binom{2}{\hline}
\end{gathered}
$$

\]} \& \multirow[t]{4}{*}{} \& \& \multirow[t]{3}{*}{\[

$$
\begin{aligned}
& 41,732 \\
& 25,533 \\
& 15,632
\end{aligned}
$$
\]} \& \multirow[t]{2}{*}{All other divisions........} \& \multicolumn{2}{|r|}{\multirow[t]{4}{*}{(Z)}} <br>

\hline Kentucky.. \& \& \& \& \& \& \& \& <br>
\hline Tennessee, \& \& \& \& \& \& \& \& <br>
\hline \& \& \& \& \& \& \multirow[t]{2}{*}{FACTORY (STANDARD LINE, PRESSURE) (34435)} \& \& <br>

\hline West South Central \& \multirow[t]{3}{*}{$$
\begin{aligned}
& 3,896 \\
& 1,907 \\
& 1,570
\end{aligned}
$$} \& \multirow[t]{3}{*}{\[

$$
\begin{array}{r}
2,214 \\
(Z) \\
1,810
\end{array}
$$

\]} \& \multirow[t]{4}{*}{| New York. |
| :--- |
| New Jersey. |
| Pennsylvania. |} \& \& \multirow[t]{4}{*}{\[

$$
\begin{array}{r}
6,146 \\
6,146 \\
7,776 \\
89,186
\end{array}
$$
\]} \& \& \multicolumn{2}{|r|}{\multirow[b]{3}{*}{104,442}} <br>

\hline Oklahoma \& \& \& \& \& \& United States, total. \& \& <br>
\hline Tex \& \& \& \& \& \& \& \& <br>

\hline \& \multirow[t]{3}{*}{$$
\begin{aligned}
& 2,438 \\
& 1,807
\end{aligned}
$$} \& \& \& \& \& New England. \& \& 1,584

1,034 <br>
\hline Mountain.
Colorad \& \& 2,266 \& East North Cent \& \& 66,940 \& Mas \& \& 1,034 <br>

\hline Colora \& \& $$
1,175
$$ \& Ohio.... \& \& 22,865

7,023 \& \& \& <br>
\hline Pacific.. \& 5,222 \& \& Indiana. \& \& 16,353 \& Nidale At1antic \& \& 2,345 <br>
\hline Washington \& 1,339 \& (z) \& Michigan. \& \& 12,702 \& New Jersey. \& \& 3,955 <br>
\hline California \& 3,383 \& 6,071 \& Wisconsi \& \& 7,997 \& Pennsylvani \& \& 3,237 <br>
\hline
\end{tabular}

## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued



See footnotes at end of table.

# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued 

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OTHER SHEET METAL WORK (34443) | $1963^{1}$ | 1958 | RCHTTECTURAL AND ORNAMENTAL | $1963^{1}$ | 1958 | PREFABRICATED AND PORTABLE METAL BUILDING AND PARTS (34492)-Continued | $1963{ }^{1}$ | 1958 |
|  | 731,750 | 485,913 | WALL AND OTHER EXTERIOR <br> PANELS ( 34460 ) -Continued |  |  |  |  |  |
| United States, total. |  |  |  |  |  | East South Central.............Kentucky.............. | $\begin{array}{r} 16,203 \\ 5,014 \end{array}$ | 15,552 ${ }_{\left({ }^{(2)} \text { ) }\right.}$ |
| New England.... | 42,983 | $\begin{aligned} & 26,129 \\ & 20,390 \end{aligned}$ | East North Central.......... | 74,37327,559 |  |  |  |  |
| Massachusetts. | 30,023 |  | Ohio.............. |  | 90,115 28,627 | West South Central. Louisiana. Texas. | 19,4464,36410,478 | $\begin{aligned} & 14,930 \\ & \left({ }^{2}\right) \\ & 10,699 \end{aligned}$ |
|  | 1,829 |  | Indiana | 7,771 | 6,899 |  |  |  |
| Middle Atlantic <br> New York. <br> New Jersey <br> Pennsylvania. | $\begin{array}{r} 163,365 \\ 76,135 \\ 34,053 \\ 53,177 \end{array}$ | $\begin{array}{r} 111,711 \\ 48,358 \\ 23,054 \\ 40,299 \end{array}$ | Michigan............... | $\begin{gathered} 11,691 \\ 6,891 \end{gathered}$ | $\begin{array}{r} 20,815 \\ 6,458 \end{array}$ | West. California | $\begin{aligned} & 33,326 \\ & 29,457 \end{aligned}$ | $\begin{aligned} & 20,438 \\ & 16,763 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |
|  |  |  | West North Central... | 16,679 | 18,1 |  |  |  |
| East North Cen | 229,216 | 144.853 | Minneso | 5,696 1,660 | 7,547 2,561 | MISCELLANEOUS METAL BUILDING MATERIALS AND CURTATN WAIJ$\text { (34, } 93 \text { ) }$ |  |  |
| Ohio. | 81,039 | 55,4,7 | Missouri | 6,649 | 2,561 6,208 |  |  |  |
| Indiana. | 25,864 | 9,327 30,614 | Kansas. . | 1,953 | 1,054 |  |  |  |
| Michigan.. | 51,310 | 27,275 |  |  | $\begin{array}{r} 34,116 \\ 8,450 \end{array}$ | ited States, total. | 506,50 | 407,502 |
| Wisconsin. | 27,063 | 22,190 | South Atlantic........... | $\begin{array}{r}38,401 \\ 8,405 \\ \hline\end{array}$ |  |  |  |  |
| West North Cen | 83,798 | 63,683 | District of | 1,427 | 1,914 | New England. | 10,3925,899 | 8,1563,363$(Z)$ |
| Minnesota. | 13,288 | 11,886 | Virginia. | 6,460 | 6,000 |  |  |  |
| Iowa. | 14,366 | 8,889 | North Carolina. | 1,826 ${ }^{\text {2, }}$ (Z) |  |  | 1,752 |  |
| Missouri | 32,935 | 32,106 | South Carolina |  |  | Middle Atlantic............. | 76,014 64,409 |  |
| Nebraska | 16,743 | 6,065 | Georgia. | 3,249 | 2,412 |  |  |  |  |
| Kansas. | 3,727 | 1,602 | Florida | 5,382 | 5,257 | New York. | 13,780 | 14,352 |
| South Atlanti | 54,095 | 33,272 | East South Central.... | 15,833 | 19,156 | New Jersey | $\begin{aligned} & 14,696 \\ & 47,538 \end{aligned}$ | 16,914 |
| Maryland.. | 15,708 | 5,380 | Kentucky............ | 6,505 | 5,719 |  |  |  |
| Virginia. | 5,873 | 3,074 | Tennessee $\ldots . . . . . . . . . . . . . . . . ~$Alabama.......... | $\begin{aligned} & 2,351 \\ & 6,381 \end{aligned}$ | 7,0595,913 | East North Ceritral.......... | 123,179 | 108,087 |
| West Virginia | 1,690 | 1,703 |  |  |  |  |  |  |
| North Carol | 5,435 | 4,384 | West South Central... | 18,415 | 33,903 | Ohio.............................. | 42,9418,738 | 1,615 |
| Georgia.. | 7,087 | 5,119 |  |  |  |  |  |  |
| Florida. | 15,161 | 12,709 | Arkansas.. | 1,465 | (z) | Illinois. | 51,088 | 46,928 |
| East South Ce | 15,887 | 8,909 | Louisiana Oklahoma |  | 1,127 <br> 3 | Michigan. <br> Wisconsin. | $\begin{array}{r} 11,389 \\ 9,023 \end{array}$ | 811,058 |
| Kentucky . | 4,358 | 2,418 |  | $\begin{array}{r}3,853 \\ 12,044 \\ \hline 12\end{array}$ | 3,578 8,857 |  |  |  |
| Tennessee | 5,575 | 2,238 |  |  |  |  |  |  |
| Alabama | 5,104 | 3,463 | Mountain. <br> Colorado $\qquad$ | $\begin{gathered} 11,391 \\ 1,439 \end{gathered}$ | 9,190 | West North Central.......... | 48,512 | 26,922 |
| West South Central... | 27,741 |  |  |  | 1,4,415 | Iowa................................ | 17,7823,9371 |  |
| Arkansas.. | 1,123 | (z) | Utah. | $4,867$ |  |  |  | 3,2731,883$(2)$ |
| Louisiana | 4,888 | 2,163 | Pacific...... | 34,154 | 31,301 | Kansas.. | 4,900 |  |
| Oklahoma | 3,014 | 2,029 | Washington. | ,172 |  |  |  |  |
| тexas... | 18 | 14,260 | Californi | 31,156 | 25,737 | South Atlantic....... |  | 59,696 |
| Colorado <br> Arizona. <br> Utah. | $\begin{array}{r} 10,722 \\ 4,295 \\ 4,177 \\ 1,357 \end{array}$ | $\begin{aligned} & 6,070 \\ & 2,655 \\ & 2\left({ }^{2}\right) \\ & 1,118 \end{aligned}$ | PREFABRICATED AND PORTABLE METAL BUILDING AND PARTS$(34492)$ |  |  | Maryland...... | 11,588 | 15,582 |
|  |  |  |  |  |  | Virginia. | 12,099 | 6,660 |
|  |  |  |  |  |  | West Virgini | 10,532 |  |
|  |  |  |  |  |  | North Caro | 5,919 | 3,166 |
| $\underset{\text { Pacific..... }}{\text { Washinot }}$ | 103,943 | 72,543 | United States, t | 224,549 | 195,123 | South Carol | 15,981 | 13,145 |
| Washington | 10,491 | 7,839 |  | 224,5491,843 |  |  |  |  |
| Oregon. | 87,568 | 59,757 | New England. |  | 8,965 |  |  |  |
| Califor |  |  | Middle Atlantic. New York. New Jersey Pennsylvania. | $\begin{array}{r} 27,130 \\ 9,477 \\ 2,011 \\ 15,672 \end{array}$ | $\begin{gathered} 12,167 \\ 7,586 \\ 1,496 \\ 3,4085 \end{gathered}$ |  | $\begin{array}{r} 34,606 \\ 8,086 \\ 21,935 \end{array}$ | $\begin{array}{r} 24,828 \\ 4,647 \\ 18,682 \end{array}$ |
|  |  |  |  |  |  |  |  |  |
| METAL WORK (EXCEPT CURTAIN |  |  |  |  |  |  |  |  |
| WALL AND OTHER EXTERIOR |  |  |  |  |  |  |  |  |
| PANELS ) (34460) |  |  | Ohio <br> Illinois <br> Wisconsin | $\begin{gathered} 92,841 \\ 21,900 \\ 46,263 \\ 6,938 \end{gathered}$ | $\begin{aligned} & 94,402 \\ & 30,269 \\ & 38,131 \\ & \left({ }^{2}\right) \end{aligned}$ |  | $\begin{aligned} & 52,373 \\ & 11,863 \\ & 34,886 \end{aligned}$ | 44,8799,28628,606 |
| United States, total.. | 306,229 | 332,941 |  |  |  |  |  |  |
| New England. . | $\begin{array}{r} 15,272 \\ 8,952 \\ 5,710 \end{array}$ | $\begin{array}{r} 19,091 \\ 8,709 \\ 9,128 \end{array}$ |  |  |  |  |  |  |
| Massachusetts |  |  | $\begin{aligned} & \text { West North Central. } \\ & \begin{array}{r} \text { Missouri.......... } \\ \text { Kansas......... } \end{array} . \end{aligned}$ | $\begin{array}{r} 19,554 \\ 2,355 \\ 1,890 \end{array}$ | $\begin{array}{r} 2,591 \\ 2,604 \\ 1,406 \end{array}$ |  | $\begin{array}{r} 14,756 \\ 6,321 \\ 1,520 \end{array}$ | 15,044$(2)$3,960 |
| Connecticut................ |  |  |  |  |  |  |  |  |
| Midale Atlantic | $\begin{aligned} & 81,7111 \\ & 39,469 \\ & 11,772 \\ & 30,470 \\ & \hline \end{aligned}$ | $\begin{aligned} & 97,935 \\ & 43,568 \\ & 13,858 \\ & 40,519 \\ & \hline \end{aligned}$ |  |  |  |  |  |  |
| New York. |  |  |  | $\begin{array}{r} 14,2006 \\ 5,356 \\ 4,590 \\ \hline \end{array}$ | $\begin{array}{r} 6,078 \\ \text { (Z) } \\ 3,239 \\ \hline \end{array}$ |  |  | $\begin{array}{r} 55,481 \\ 43,084 \\ \hline \end{array}$ |
| New Jersey. |  |  |  |  |  |  | $\begin{array}{r} 76,887 \\ 60,571 \\ \hline \end{array}$ |  |
| Pennsylvania. |  |  |  |  |  |  |  |  |

(Z) Less than \$1 million.
${ }^{1}$ For the specified product classes, shipments of over $\$ 1$ million were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 34411, Vermont, North Dakota, South Dakota, New Mexico, and Nevada; 34412, Maine, Massachusetts, Connecticut, South Dakota, Kansas, Georgia, Tennessee, Arkansas, Louisiana, Arizona, and Washington; 34413, West Virginia, Idaho, Utah, and Washington; 34421, Phode Island, Connecticut, Kentucky, Alabama, Arkansas, and Louisiana; 34422, Virginia, Kentucky, and Alabama; 34423, New Jersey, Georgia, Florida, Kentucky, Okiahoma, Texas, Washington, and California; 34424, Alabama; 34425, New Hampshire, Pennsylvania, Alabama, Oklahoma, and Texas; 34431, Rhode Island, Connecticut, Ohio, Michigan, Missouri, Maryland, Kentucky, and Tennessee; 34432, Minnesota, Kansas, Mississippi, and Washington; 34433, New York, New Jersey, Indiana, Illinois, Michigan, Minnesota, Iowa, Missouri, Virginia, North Carolina, Georgia, Tennessee, Mississippi, and Texas; 34434, Pennsylvania, Ohio, Indiana, Illinois, and Wisconsin; 34435, Indiana, Michigan, Nebraska, Georgia, Alabama, Mississippi, Louisiana, and Colorado; 34437, Arkansas, Louisiana, and Oregon; 34438, Indiana, Michigan, Delaware, Virginia, West Virginia, North Carolina, and Louisiana; 34439, Indiana, Illinois, Wisconsin, Iowa, Georgia, Kentucky, Tennessee, Alabana, Mississippi, Utah, and Oregon; 34441, New York, New Jersey, Iowa, Virginia, West Virginia, North Carolina, Tennessee, and Mississippi; 34442, Maine, Massachusetts, Maryland, Georgia, Kentucky, Alabama, Louisiana, Montana, Idaho, Colorado, and Washington; 34443, Maine, South Dakota, District of Columbia, and South Carolina; 34460, West Virginia, and Arizona; 34492, Massachusetts, Indiana, Michigan, Iowa, Nebraska, Alabama, Oklahoma, and Oregon; 34493, Maine, Rhode Island, Missouri, Georgia, Kentucky, Mississippi, Arkansas, Louisiana, New Mexico, Arizona, Washington, and Oregon.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported, but exact figures are withheld to avoid disclosure of individual company figures.
table 7A. Materials by Kind: 1963 and 1958


[^127]table 7A. Materials by Kind: 1963 and 1958-Continued


[^128]table 7A. Materials by Kind: 1963 and 1958-Continued


[^129]
## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962


Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Eavipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard
Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
(Z) Less than 500 horsepower.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ Industry 3446 was part of industry 3449 in the year 1962.

## table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All empioyees |  | Production workers |  |  | Value added by manufacture, adjusted ( $\$ 1,000$ ) | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3441- | FABRICATED STRUCTURAL METAL |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. | 1,718 | 85,423 | 527, 220 | 63,674 | 127,899 | 350,337 | 814,805 | 1,140,975 | 1,916,048 | 28,162 |
|  | $90 \%$ or more specialization... 75-89\% specialization........ | 1,270 164 | 53,938 $\mathbf{9 , 7 6 5}$ | $\begin{array}{r} 329,724 \\ 62,770 \end{array}$ | 40,707 6,969 | $\begin{aligned} & 80,547 \\ & 14,598 \end{aligned}$ | $\begin{array}{r} 223,789 \\ 39,079 \end{array}$ | $\begin{array}{r} 519,365 \\ 92,948 \end{array}$ | $\begin{aligned} & 681,430 \\ & 138,932 \end{aligned}$ | $\begin{array}{r} 1,167,460 \\ 228,657 \end{array}$ | $\begin{array}{r} 18,090 \\ 3,374 \end{array}$ |
| 34411 | ```Fabricated structural metal for buildings (primary product class of estab.).......................... Establishments with-``` | 959 | 56,141 | 356,787 | 40,663 | 83,573 | 228,846 | 558,445 | 768,079 | 1,313,310 | 17,176 |
|  | $90 \%$ or more specialization..... <br> 75-89\% specialization........... | 545 138 | 19,348 8,179 | 123,166 52,602 | 14,237 5,968 | $\begin{aligned} & 29,285 \\ & 12,129 \end{aligned}$ | $\begin{aligned} & 80,128 \\ & 34,452 \end{aligned}$ | $\begin{array}{r} 206,561 \\ 71,549 \end{array}$ | $\begin{aligned} & 252,031 \\ & 112,817 \end{aligned}$ | $\begin{aligned} & 459,276 \\ & 187,391 \end{aligned}$ | $\begin{aligned} & 6,019 \\ & 2,016 \end{aligned}$ |
| 34412 | ```Fabricated structural metal for bridges (primary product class of estab.). Establishments with-``` | 53 | 7,693 | 44,543 | 5,875 | 11,471 | 30,626 | 72,447 | 107,908 | 172,164 | 1,421 |
|  | 90\% or more specialization..... <br> 75-89\% specialization........... | $\begin{array}{r} 8 \\ 11 \end{array}$ | $\begin{array}{r} 366 \\ 1,967 \end{array}$ | $\begin{array}{r} 2,314 \\ 11,520 \end{array}$ | $\begin{array}{r} 208 \\ 1,544 \end{array}$ | 430 2,965 | 1,149 8,186 | 5,400 21,717 | $\begin{array}{r} 4,228 \\ 29,984 \end{array}$ | 9,351 49,078 | 42 253 |
| 34413 | Other fabricated structural metal (primary product class of estab.). Establishments with- | 240 | 14,941 | 89,389 | 12,039 | 22,839 | 64,908 | 120,689 | 189,673 | 293,307 | 6,573 |
|  | 90\% or more specialization..... <br> 75-89\% specialization........... | $\begin{array}{r} 134 \\ 26 \end{array}$ | $\begin{aligned} & 3,163 \\ & 1,239 \end{aligned}$ | $\begin{array}{r} 17,592 \\ 7,721 \end{array}$ | 2,420 984 | $\begin{aligned} & 4,743 \\ & 2,075 \end{aligned}$ | 12,291 5,350 | $\begin{aligned} & 27,895 \\ & 11,671 \end{aligned}$ | $\begin{aligned} & 33,041 \\ & 13,768 \end{aligned}$ | $\begin{array}{r} 60,897 \\ 25,280 \end{array}$ | 1,169 349 |
| 3442- | METAL DOORS, SASH, AND FRANE |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry............. <br> Establishments with- | 1,817 | 62,799 | 324,796 | 46,645 | 95,727 | 206,127 | 570,370 | 681,385 | 1,253,814 | 21,305 |
|  | 90\% or more specialization... <br> 75-89\% specialization......... | $\begin{array}{r} 1,577 \\ 82 \end{array}$ | $\begin{array}{r} 44,301 \\ 5,594 \end{array}$ | $\begin{array}{r} 217,193 \\ 29,763 \end{array}$ | $\begin{array}{r} 33,137 \\ 4,025 \end{array}$ | $\begin{array}{r} 67,677 \\ 8,162 \end{array}$ | $\begin{array}{r} 137,985 \\ 17,985 \end{array}$ | $\begin{array}{r} 396,206 \\ 51,180 \end{array}$ | $\begin{array}{r} 484,273 \\ 60,017 \end{array}$ | $\begin{aligned} & 882,951 \\ & 111,605 \end{aligned}$ | $\begin{array}{r} 14,051 \\ 2,448 \end{array}$ |
| 34421 | Metal doors and frames (except storm doors) (primary product |  |  |  |  |  |  |  |  |  |  |
|  | class of estab.).............. | 274 | 15,180 | 88,811 | 11,170 | 23,301 | 57,553 | 155,277 | 136,384 | 290,882 | 4,579 |
|  | $90 \%$ or more specialization..... <br> 75-89\% specialization........... | $\begin{array}{r} 184 \\ 18 \end{array}$ | $\begin{aligned} & 8,516 \\ & 1,486 \end{aligned}$ | $\begin{array}{r} 49,297 \\ 8,513 \end{array}$ | 6,185 995 | $\begin{array}{r} 12,773 \\ 2,083 \end{array}$ | $\begin{array}{r} 31,252 \\ 5,091 \end{array}$ | $\begin{aligned} & 88,101 \\ & 12,882 \end{aligned}$ | $\begin{aligned} & 70,752 \\ & 14,386 \end{aligned}$ | $\begin{array}{r} 157,961 \\ 27,211 \end{array}$ | $\begin{array}{r} 2,566 \\ 445 \end{array}$ |
| 34422 | Metal window sash and frames (except storm sash) (primary product class of estab.)...... Establishments with- | 322 | 19,725 | 103,667 | 14,702 | 29,617 | 64,589 | 174,741 | 213,928 | 388,537 | 5,911 |
|  | $90 \%$ or more specialization... <br> 75-89\% specielization. ........ | $\begin{array}{r} 185 \\ 41 \end{array}$ | $\begin{aligned} & 7,010 \\ & 1,649 \end{aligned}$ | $\begin{array}{r} 32,554 \\ 7,197 \end{array}$ | $\begin{aligned} & 5,281 \\ & 1,276 \end{aligned}$ | $\begin{array}{r} 10,719 \\ 2,532 \end{array}$ | $\begin{array}{r} 19,665 \\ 4,227 \end{array}$ | $\begin{aligned} & 57,499 \\ & 14,761 \end{aligned}$ | $\begin{aligned} & 80,031 \\ & 20,157 \end{aligned}$ | $\begin{array}{r} 138,636 \\ 34,845 \end{array}$ | $\begin{array}{r} 1,417 \\ 795 \end{array}$ |
| 34423 | Metal molding and trim and store fronts (primary product class of |  |  |  |  |  |  |  |  |  |  |
|  | estab.) <br> Establishments with- | 88 | 5,381 | 28,307 | 4,036 | 8,583 | 18,189 | 56,778 | 70,931 | 127,340 | 3,267 |
|  | 90\% or"more specialization..... 75-89\% specialization. ......... . | $\begin{array}{r}54 \\ 8 \\ \hline\end{array}$ | 2,721 524 | $\begin{array}{r} 13,829 \\ 3,373 \end{array}$ | 2,258 348 | 4,848 730 | $\begin{array}{r} 10,297 \\ 2,019 \end{array}$ | $\begin{array}{r} 28,359 \\ 7,174 \end{array}$ | $\begin{array}{r} 33,825 \\ 8,373 \end{array}$ | $\begin{aligned} & 61,852 \\ & 15,454 \end{aligned}$ | $\begin{aligned} & 818 \\ & 859 \end{aligned}$ |
| 34424 | Metal combination screen and storm sash and doors (primary product class of estab.). $\qquad$ Establishments with- | 526 | 12,895 | 60,791 | 9,511 | 19,088 | 36,401 | 106,549 | 159,441 | 267,797 | 3,842 |
|  | 90\% or more specialization. | 352 73 | 6,982 | 31,329 | 5,210 | 10,448 | 19,143 | 56,555 | 84,234 | 141,240 | 1,710 |
| 34425 |  |  |  |  |  |  |  |  |  |  |  |
|  | Metal window and door screens (primary product class of estab.). Establishments with- | 84 | 2,728 | 13,974 | 2,050 | 4,289 | 8,731 | 28,832 | 30,248 | 59,028 | 1,326 |
|  | 90\% or more specialization..... <br> 75-89\% specialization. | 50 14 | 889 305 | 4,270 | 693 217 | $\begin{array}{r}1,370 \\ \hline 454\end{array}$ | 2,818 | 9,372 | 10,217 | 19,610 7 | 284 387 |
| 3443- | BOILER SHOP PRODUCTS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................... <br> Establishments with- | 1,383 | 75,018 | 465,372 | 54,629 | 111,409 | 310,471 | 770,064 | 860,612 | 1,622,988 | 32,910 |
|  | 90\% or more specialization... <br> 75-89\% specialization......... | 1,092 85 | $\begin{array}{r} 54,151 \\ 6,688 \end{array}$ | $\begin{array}{r} 333,741 \\ 42,961 \end{array}$ | $\begin{array}{r} 39,217 \\ 5,209 \end{array}$ | $\begin{aligned} & 80,162 \\ & 10,559 \end{aligned}$ | $\begin{array}{r} 221,980 \\ 31,424 \end{array}$ | $\begin{array}{r} 557,958 \\ 79,231 \end{array}$ | $\begin{array}{r} 598,440 \\ 98,871 \end{array}$ | $\begin{array}{r} 1,148,421 \\ 173,490 \end{array}$ | $\begin{array}{r} 22,987 \\ 2,401 \end{array}$ |

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963--Continued



## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued



## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
|  | INDUSTRY 3441.-FABRICATED STRUCTURAL STEEL |  |  |  |  |  |  |  |
| Ferrous foundry. <br> Nonferrous foundry (except die casting) <br> Nonferrous die casting <br> Forging-presses, hammers, or upsetters'(excluding manufacture of nuts, bolts, etc.). <br> Electroplating and other plating. <br> Galvanizing and other hot dip coating <br> Heat treating of metals. <br> Automatic screw machine department <br> Machine shop. <br> Tool and die shop. <br> Foundry pattern shop <br> Plate or structural fabrication <br> Stamping, blanking and forming of metals <br> painting, lacquering and enameling on metals | 16 | 5 | 7 | 4 | 266 | 8 | 70 | 188 |
|  | 7 | 3 | 3 | 1 | (59 |  | (D) | (D) |
|  | 1 | 1 |  | - | (D) | (D) |  |  |
|  | 27 | 17 | 8 | 2 | 176 |  |  | (D) |
|  | 4 | 3 | 1 | - | 9 | (D) | (D) |  |
|  |  | 1 | 2 | 4 | 162 | (D) |  | 137 |
|  | 16 | 12 | 4 | - | 55 | 19 | 36 |  |
|  |  | 8 | $5{ }_{5}$ | 20 | - 99 |  |  |  |
|  | 197 | 121 | 56 | 20 | 1,595 | 228 | 508 | 859 |
|  | 25 | 24 |  | 1 | 69 58 | (D) |  | (D) |
|  | $\begin{array}{r}13 \\ 751 \\ \hline\end{array}$ | $\begin{array}{r}8 \\ 145 \\ \hline\end{array}$ | 291 | 315 | 33, 583 | 197 | 48 3,102 |  |
|  | 154 | 94 | 43 | 17 | 1,146 | 179 | 3,395 | $\begin{array}{r}30,454 \\ 572 \\ \hline\end{array}$ |
|  | 422 | 329 | 80 | 13 | 1,654 | 505 | 662 | 487 |
|  | INDUSTRY 3442.-METAL DOORS, SASH, ANS TRIM |  |  |  |  |  |  |  |
| Ferrous foundry <br> Nonferrous foundry (except die casting) <br> Nonferrous die castine <br> Forging-presses, hammers, or upsetters (excluding <br> manufacture of nuts, bolts, etc.) <br> Electroplating and other plating. <br> Galvanizing and other hot dip coating <br> Heat treating of metals. <br> Automatic screw machine department <br> Machine shop. <br> Tool and die shop <br> Foundry pattern shop. <br> Plate or structural fabrication <br> Stamping, blanking and forming of metals <br> Painting, lacquering and enameling on metals | 1 | - | 1 | - | (D) |  | (D) |  |
|  | 10 | 4 | 5 | ? | 116 | ${ }_{6}$ | (D) | (D) |
|  |  | 4 | 3 | 1 | 70 | 9 | (D) | (D) |
|  | 11 | 5 | 6 | - | 73 | 7 | 66 |  |
|  | 26 | 11 | 11 | 4 | 343 | 34 | 102 | 207 |
|  | 4 | 2 | - | 2 | 54 | (D) |  | (D) |
|  | 19 | 14 | 5 | - | 71 | ${ }^{26}$ | 45 |  |
|  | 4 | 2 | 2 |  | 15 | (D) | (D) |  |
|  | 105 | 56 | 36 | 13 | 1,069 | 108 | 347 | 614 |
|  | 74 | 50 | 22 | 2 | 373 | 100 | (D) | (D) |
|  | 57 | 5 | 15 |  |  | ${ }_{3}^{6}$ |  |  |
|  | $\begin{array}{r}57 \\ 207 \\ \hline\end{array}$ | 24 <br> 99 | 15 49 | 18 59 |  | 35 163 | 148 500 |  |
|  | 207 172 |  | 49 24 | 59 9 | 4,531 | 163 218 |  | 3,868 294 |
|  | INDUSTRY 3443.-BOILER SHOP PRODUCTS |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Ferrous foundry <br> Nonferrous foundry (except die casting) <br> Nonferrous die casting. | 6 | 1 | 1 | 4 | 299 | (D) | (D) | (D) |
|  | 2 |  | 1 |  | (D) | (D) | (D) |  |
|  |  |  |  |  |  |  |  |  |
| Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.) Electroplating and other plating.............................. | 13 | 4 | 7 | 2 | 198 | 12 | (D) | (D) |
|  | , | 2 |  | 1 | (D) | (D) |  |  |
| Electroplating and other plating. Galvanizing and other hot dip coating.................... | 8 | 6 | 1 | 1 | $\begin{array}{r}67 \\ 294 \\ \hline\end{array}$ | (D) | (D) | (D) |
| Galvanizing and other hot dip coating................Heat treating of metals.......................Automatic screw machine department............ | 70 | 52 | 14 | 4 | 294 | 94 | 101 | 99 |
|  | 10 | 9 | 86 | 1 | $\begin{array}{r}42 \\ 284 \\ \hline 8\end{array}$ | (D) |  | (D) 1.839 |
| Automatic screw machine department............................................. | 234 | 112 | 86 | 36 | 2,854 | 205 | 810 |  |
| Tool and die shop................................... | 24 | 15 9 | 8 | 1 | $\stackrel{212}{75}$ | 35 19 |  | (D) |
| Foundry pattern shop <br> Plate or structural fabrication $\qquad$ | 15 | 97 | $\begin{array}{r}6 \\ 188 \\ \hline\end{array}$ | 226 | $\begin{array}{r}\text { 7 } \\ \hline 19,486\end{array}$ | 141 | 56 1,974 | 17,371 |
| Plate or structural fabrication............................ Stamping, blanking and forming of metals............... | 214 | 113 | 74 | $\begin{array}{r}226 \\ \\ \hline\end{array}$ | 3,006 | 220 | 1,647 | 2,139 |
| Stamping, blanking and forming of metals................ Painting, lacquering and enameling on metals.......... | 301 | 266 | 30 | 5 | 861 | 400 | 271 | 190 |
|  | INDUSTRY 3444.-SHEET METAL WORK |  |  |  |  |  |  |  |
| Ferrous foundry...................................... |  | 2 | - | 1 | 24 | (D) | - |  |
|  | 3 | 2 |  | 1 | ${ }^{142}$ | (D) | - | (D) |
|  | 1 |  |  |  | (D) | (D) |  |  |
| Nonferrous die casting. <br> Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.). | 12 | 10 | 1 | 1 | 82 | (D) | (D) | (D) |
| Eletroplating and other plating....................... | 11 | 11 |  | - | 18 | 18 | - |  |
|  | 27 | 13 | 8 |  | 106 | 20 | 86 | - |
| Galvanizing and other hot dip coating.................. | 17 | 17 |  |  | 30 | 30 | - |  |
| Heat treating of metals................................ Automatic. screw machine department....... |  | 7 |  |  | 13 | 13 |  |  |
|  | 182 | 121 | 50 | 11 | 996 | 229 | ${ }^{378}$ | 389 |
|  | 118 | 94 | 22 | 2 |  | 161 |  | (D) |
| Tool and die shop.... | 17 | 15 | $\begin{array}{r}2 \\ 68 \\ \hline\end{array}$ |  | 2,473 | ( 162 |  |  |
|  | 189 619 | 82 233 | 68 243 | 39 143 | 2,473 8,879 | 162 390 | 608 2,286 | -1,703 |
| Stamping, blanking and forming of metals....... | 302 | 240 | 54 | 8 | 1,063 | 336 | 422 | 305 |

# tABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963-Continued 

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
| Ferrous foundry .......................... Nonferrous die casting. <br> Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.) Galvanizing and other hot dip coating Heat treating of metals. Automatic screw machine department Machine shop Tool and die shop. Foundry pattern shop Plate or structural fabrication. Stamping, blanking and forming of metals Painting, lacquering and enameling on metals | INDUSTRY 3446..-ARCHITECTURAL METAL WORK |  |  |  |  |  |  |  |
|  | 6 | 2 | 3 | 1 | 60 | (D) | (D) | (D) |
|  | 6 | 2 | 4 |  | 41 | (D) | (D) |  |
|  | 3 | 2 | 1 |  | 13 | (D) | (D) | - |
|  | 17 | 14 | 1 | 2 | 70 | 15 | (D) | (D) |
|  | , | 4 | 2 | - | 22 | (D) | (D) | - |
|  | 1 | 1 | - | - | 4 | (D) |  |  |
|  | 5 | 4 | 1 | - | 9 | (D) | (D) | - |
|  | 4 | 3 | 8 | 3 | 52 58 | (D) |  | (D) |
|  | 52 | 41 | 8 | 3 | 286 |  | 114 |  |
|  | 25 | 18 | 6 | 1 | 101 | 25 | (D) | (D) |
|  | 10 | 8 | 2 | - | 32 | (D) | (D) |  |
|  | 103 | 44 | 43 | 16 | 1,646 | 90 | 434 | 1,122 |
|  | 74 | 40 | 25 | 9 | 670 | 63 | 238 | 369 |
|  | 158 | 145 | 10 | 3 | 379 | 221 | 74 | 84 |
|  | INDUSTRY 3449.-MISCELLANEOUS METAL WORK |  |  |  |  |  |  |  |
| Ferrous foundry. <br> Nonferrous foundry (except die casting) Nonferrous die casting. Forging-presses, hammers, or upsetters (excluding | 4 | 4 |  |  |  |  |  | - |
|  | 1 | $\frac{1}{3}$ |  | - | $(D)$ 3 | ${ }_{(0)}^{(D)}$ | - | - |
|  | 6 | 4 |  |  |  |  | (D) |  |
| Electroplating and other plating....................... | 2 | 1 | 1 | - | (D) | (D) | (D) | - |
| Galvanizing and other hot dip coating.................. | 7 | 1 | - | - | (D) | (D) |  | - |
| Heat treating of metals........................... | 7 | 4 | 3 |  | 25 |  | 20 | - |
| Automatic screw machine department.................. | 5 | 3 | 2 |  | 23 | (D) | (D) |  |
| Machine shop.......................................... | 52 | 25 | 27 | 6 | 452 | 40 | 170 | 242 |
| Tool and die shop............................... | 20 | 16 | 4 |  | 74 | 32 | 42 |  |
| Foundry pattern shop.......... | 3 | 3 |  |  |  | 3 |  |  |
| Plate or structural fabrication........................ | 94 | 22 | 30 | 42 | 2,695 | 29 | 297 | 2,369 |
| Stamping, blanking and forming of metals............. | 75 | 23 | 17 | 35 |  | 35 | 172 | 1,980 |
| Painting, lacquering and enameling on metals......... | 84 | 56 | 22 | 6 | 485 | 92 | 197 | 196 |

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of tris undercoverage is shown in terms of production worker employment on the last line of the table below.

| Item | Industry |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3441 | 3442 | 3443 | 3444 | 3446 | 3449 |
| Total number of establishments in the industry........................................... | 1,718 | 1,817 | 1,383 | 3,250 | 1,334 | 697 |
| Number of establishments which reported one or more of the specified operations........ Percent of industry production workers in these establishments........................ | $\begin{array}{r} 866 \\ 70-75 \end{array}$ | $\begin{array}{r} 362 \\ 45-50 \end{array}$ | 637 $70-75$ | 811 $50-55$ | 226 $60-65$ | 169 $60-65$ |
| Number of establishments which reported that "none" of the operations apply. | 250 | 634 | 194 | 710 | 157 | 134 |
| Percent of industry production workers in these establishments.. | 1-5 | 10-15 | 1-5 | 10-15 | 15-20 | 10-15 |
| Percent of industry production workers in establishments which completed metalworking operations inquiry. | 75-80 | 60-65 | 75-80 | 60-65 | 75-80 | 70-75 |

(D) Withheld to avoid disclosing figures for individual companies.
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not, as in table 4 , based on total employment in the establishment.

## SCREW MACHINE PRODUCTS, BOLTS, METAL STAMPINGS, AND METAL SERVICES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3451 -Screw Machine Products<br>3452-Bolts, Nuts, Rivets, and Washers<br>3461-Metal Stampings<br>3471 -Electroplating, Plating, Polishing, Anodizing, and Coloring<br>3479-Coating, Engraving, and Allied Services, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3451 -SCREW MACHINE PRODUCTS

This industry comprises establishments primarily engaged in manufacturing automatic or hand screw machine products from rod, bar, or tube stock of metal, fiber, plastics, or other materials. The products of this industry consist of a wide variety of unassembled parts and are usually manufactured on a job or order basis. Establishments primarily engaged in manufacturing standard bolts, nuts, rivets, screws, and other industrial fasteners on headers, threaders, and nut forming machines are classified in industry 3452. For a detailed list of products of industry 3451 , refer to table 6A, product codes 3451012 to 3451098 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Screw Machine Products Industry totaled $\$ 589$ million. This amount included shipments of screw machine products (primary products) valued at $\$ 539$ million, shipments of other products (secondary products) valued at $\$ 19$ million, and miscellaneous receipts at $\$ 32$ million.

This industry's shipments of screw machine products represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent. Secondary products shipped by this industry in 1963 included bolts, nuts, and other standard industrial fasteners ( $\$ 4.4$ million), and headed products (produced by cold and hot heading) other than industrial fasteners ( $\$ 2.8$ million).

Shipments of screw machine products by this industry represented 90 percent of all shipments of these products ( $\$ 599$ million) by all industries. In 1958 the coverage ratio was 87 percent. Other industries shipping screw machine products included industry 3452, Bolts, Nuts, Rivets, and Washers, \$21.3 million; and industry 3717, Motor Vehicles and Parts, $\$ 5.6$ million.
Industry 3451 includes establishments producing a wide variety of items such as small machinery parts, etc., on hand operated and automatic screw machines from rod, bar, and tube stock and from castings and forgings. These products are produced almost entirely on a job or order basis. Included are screw machine departments or plants of companies primarily engaged in producing finished end products where such activities could be reported separately. However, in many instances captive screw machine operations were so integrated with other activities that separate reports were not obtained and the entire establishment was classified on the basis of its primary products.
As shown in table 7A, the principal materials consumed by the screw machine products industry are carbon steel bar stock and copper rod, bar, and mechanical wire. These materials, together with the other specific materials listed in table 7A accounted for 63 percent of the total cost of materials consumed by this industry.

## 3452—BOLTS, NUTS, RIVETS, AND WASHERS

This industry comprises establishments primarily engaged in manufacturing bolts, nuts, screws, rivets, washers, formed and threaded wire goods, and special industrial fasteners. Rolling mills engaged in manufacturing similar products are classified in Major Group 33, and establishments primarily engaged in manufacturing screw machine products in industry 3451 . For a detailed list of products of industry 3452 , refer to table 6A, product codes 3452101 to 3452398 .
The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Bolts, Nuts, Rivets, and Washers Industry totaled $\$ 1,218$ million. This amount included shipments of bolts, nuts, rivets, and washers (primary products) valued at $\$ 1,058$ million, shipments of other products (secondary products) valued at $\$ 92$ million, and miscellaneous receipts (mainly resales) at $\$ 68$ million.

This industry's shipments of bolts, nuts, rivets, and washers represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included screw machine products ( $\$ 21.3$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 74 percent of the total industry shipments are represented by plants specializing in product class 34521, Bolts, nuts, and other standard industrial fasteners.

Shipments of bolts, nuts, rivets, and washers by this industry represented 90 percent of all shipments of these products ( $\$ 1,176$ million) by all industries. In 1958 the coverage ratio was 87 percent.

Plants included in industry 3452 in general are engaged in the manufacture of bolts, nuts, screws, and rivets of standard types and sizes on heading, threading, and nut forming machines. These establishments may be also engaged in the production of special industrial fasteners which require special or added operations or the use of special tools and fixtures. These items include bolts, nuts, screws, etc., of nonstandard types and sizes and special fasteners made by stamping and other forming processes. To a lesser extent these plants manufacture standard type bolts, nuts, screws, etc., on automatic and hand operated screw machines.

The selected materials listed in table 7 accounted for 70 percent of the total cost of materials consumed by industry 3452 establishments. Carbon steel bars and wire, the two principal materials consumed, represented 41 percent of the cost of materials used by the bolt, nut, washer, and rivet industry.

The production index for the primary products of the industry increased to 137 in 1963 from the 1958 level of 99 . The unit value index for 1963 was 124 compared to 123 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3461 -METAL STAMPINGS

This industry comprises establishments primarily engaged in manufacturing metal stampings. These establishments generally operate on a job or order basis, manufacturing metal stampings for sale to others or for interplant transfer. Establishments which produce metal stampings for incorporation in end products produced in the same establishment are classified on the basis of the end products. For a detailed list of products of industry 3461, refer to table 6A, product codes 3461111 to 3461898.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Establishments in industry 3461 produce both job stampings and finished end products. Job stampings are made from materials owned by the stamping establishments as well as from materials owned by the customer and processed by the stamping establishments on a contract or commission basis. These stampings are mainly parts which are sold to manufacturers for incorporation into any of a wide variety of products such as refrigerators, agricultural machinery, radio, and television sets. Finished end products manufactured by establishments in this industry include cooking, kitchen, and hospital utensils (including domestic pressure cookers and porcelain enameled utensils), pails, ash cans, garbage cans, perforated metal products, metal commercial and home canning closures, as well as a large variety of miscellaneous items. Table 8 presents selected statistics for establishments classified according to their degree of specialization in the primary products of this industry.

Value of shipments and other receipts of the Metal Stampings Industry totaled $\$ 2,679$ million. This amount included shipments of metal stampings (primary products) valued at $\$ 2,135$ million, shipments of other products (secondary products) valued at $\$ 410$ million, and miscellaneous receipts (mainly resales) at $\$ 134$ million.

This industry's shipments of metal stampings represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 included special dies and tools, die sets, jigs, and fixtures ( $\$ 66$ million), and other small household electric appliances ( $\$ 31$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 27 percent of the total industry shipments are represented by plants specializing in product class 34612 , Job stamping, except automotive; and 31 percent in product class 34613 , Automotive job stampings.

Shipments of metal stampings by this industry represented 86 percent of all shipments of these products ( $\$ 2,484$ million) by all industries. In 1958 the coverage ratio was 87 percent.

This coverage ratio measures only the coverage of this industry in terms of the total measurable output of metal stampings. This output is limited to the value of stampings
(including the specific stamped products which are classified as primary products of this industry) which were produced for sale or for interplant transfer by establishments classified in industry 3461 and by establishments in other industries where these products were produced as secondary products. However, no data are available on the value of stampings produced and used as component parts by establishments classified in other industries. Such a value, if it could be measured, might approximate or even exceed the total value of all stampings produced commercially or for interplant transfer. While no such value figure is available, table 9 for most of the industries within Major Groups 34, 35, 36, and 37, does show the importance of specific metalworking operations including "stamping, blanking, forming, and drawing." These data are based on the number of employees engaged in the operations listed.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3461, e.g., 34614, Stamped and spun hospital utensils and cooking and kitchen household utensils, aluminum, 99 percent; and 34618 , Other stamped and pressed metal end products, 74 percent.
lndustry 3461 includes the stamping departments of establishments primarily engaged in producing fabricated metal products where such stamping activities could be reported separately. However, where captive stamping operations were closely integrated with other activities, such as in the production of household appliances, farm equipment, motor vehicles, etc., separate reports were not obtained.

Plants in the Metal Stampings Industry commonly perform a number of auxiliary metalworking operations. As shown in table 9 , a considerable number of establishments in this industry maintain tool and die departments and machine shops for the production of stamping and forming dies used in their metal fabricating operations.

The Bureau of the Census collects monthlydata on commercial and home canning closures of metal which are primary products of industry 3461 . These statistics are published in the Current Industrial Reports Series M34H, Closures for Glass Containers and Crowns. The census figures shown in table 6A differ slightly from the sum of the 1963 monthly data for metal closures because a few establishments not included in the monthly survey reported the manufacture of metal closures in the census. In other instances manufacturers covered by the monthly survey submitted revised annual data on their 1963 census reports. The monthly survey M34H also covers closures other than metal. Since these products, such as plastic caps and paper closures, are not primary products of industry 3461 they have been classified in other appropriate industries for the census.

## 3471-ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

This industry comprises establishments primarily engaged in all types of electroplating, plating, anodizing, coloring, and finishing of metals and formed products for the trade. Most of the work done in this industry is done on materials owned by others.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Plating and Polishing lndustry totaled $\$ 518$ million. This amount included shipments of electroplating, plating, and polishing (primary products) valued at $\$ 502$ million, shipments of other products (secondary products) valued at $\$ 10$ million, and miscellaneous receipts (mainly resales) at $\$ 5$ million.

3479-COATING, ENGRAVING, AND ALLIED SERVICES, NOT ELSEWHERE CLASSIFIED
This industry comprises establishments primarily engaged in performing the following types of services on metals: (1) enameling, lacquering, and varnishing metal products
for the trade; (2) hot dip galvanizing of mill sheets, plates and bars, castings, and formed products fabricated of iron and steel; in hot dip coating such items with aluminum, lead, or zinc; in retinning cans and utensils; (3) in engraving, chasing and etching jewelry, silverware, notarial and other seals and other metal products for the trade and for job contracting for purposes other than printing; (4) and other metal services, n.e.c. Establishments primarily engaged in electroplating, plating, polishing, anodizing, coloring, and finishing of metals and formed products for the trade are classified in industry 3471 ; and those producing porcelain enameled products in industry 3461. For a detailed list of products of industry 3479 , refer to table 6A, product codes 3479011 to 3479051.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal Coating, Engraving, Etc., Industry totaled $\$ 322$ million. This amount included shipments of coating, engraving, and allied services, n.e.c. (primary products) valued at $\$ 286$ million, shipments of other products (secondary products) valued at $\$ 23$ million, and miscellaneous receipts (mainly resales), at $\$ 13$ million.

Industry 3479 includes establishments engaged primarily in enameling materials owned by others. Establishments primarily engaged in manufacturing vitreous-enameled products from their own materials are included in industry 3461. In addition, industry 3479 covers both vitreous and other types of enameling (such as baked enameling) whereas industry 3461 includes only vitreous-enameling establishments as well as those producing other types of metal stampings.

This industry includes establishments primarily engaged in galvanizing iron and steel sheets or formed products; in coating iron sheets or formed products with aluminum, lead, or zinc; and in retinning cans and utensils. Most of the work done in this industry is done on materials owned by others. Rolling mills engaged in galvanizing, tinning, and other coating are classified in industry 3312, Blast Furnaces and Steel Mills, and establishments primarily engaged in manufacturing galvanized steel wire from purchased metal rods or bars are classified in industry 3315, Steel Wire Drawing, Etc.

Also included are establishments primarily engaged in engraving, chasing, and etching jewelry, silverware, notarial seals, and other metal products for the trade, for purposes other than printing. Establishments primarily engaged in preparing metal lithographic plates and in printing from such media are classified in industry 2752, Printing, Lithographic; establishments primarily engaged in engraving and etching steel and copper plates and in using these plates to print stationery, visiting cards, etc., are included in industry 2753, Engraving and Plate Printing; and establishments primarily engaged in preparing photoengraved plates (halftones and line-cuts) are classified in industry 2793, Photoengraving.


METAL STAMPINGS: SIC 346


table 1. General Statistics: 1963 and Earlier Years

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted <br> $(\$ 1,000)$ | Cost of materials <br> $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Cov- <br> erage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |


| 1963. | INDISSTRY 3451.-SCREW MACHINE PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1,861 | 1,874 | 516 | 36,909 | 213,172 | 30,796 | 64,270 | 159,991 | 358,961 | 232,878 | 588,981 | 18,676 | 97 | 90 |
| $1962{ }^{\text {i }}$ | (NA) | (NA) | (NA) | 36,513 | 192,070 | 29,964 | 58,870 | 140,181 | 312,415 | 210,628 | 518,251 | (12,636) | (NA) | (NA) |
| $1961{ }^{1}$. | (NA) | (NA) | (NA) | 32,087 | 164,361 | 26,312 | 50,824 | 116,568 | 268,787 | 186,696 | 457,982 | $(8,764)$ | (NA) | (NA) |
| $1960{ }^{1}$. | (NA) | (NA) | (NA) | 35,178 | 177,097 | 28,919 | 57,705 | 129,876 | 300,654 | 204,245 | 502,843 | (S) | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 34,153 | 169,230 | 28,930 | 58,086 | 129,436 | 301,277 | 221,704 | 519,095 | (S) | (NA) | (NA) |
| 1958. | 1,785 | 1,792 | 419 | 31,836 | 154,925 | 25,892 | 51,915 | 113,989 | 249,975 | 175,111 | 425,113 | 11,222 | 94 | 87 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 38,722 | 182,223 | 32,390 | 66,675 | 135,061 | 296,665 | 194,840 | 490,070 | 12,608 | (NA) | (NA) |
| $1956{ }^{1}$. | (NA) | (NA) | (NA) | 38,864 | 178,084 | 32,683 | 67,481 | 133,654 | 292,034 | 204,467 | 491,574 | 17,061 | (NA) | (NA) |
| $1955{ }^{1}$. | (NA) | (NA) | (NA) | 36,227 | 162,123 | 30,627 | 64,864 | 122,124 | 267,359 | 192,910 | 454,089 | 14,521 | (NA) | (NA) |
| 1954. | 1,791 | 1,795 | 411 | 35,009 | 151,444 | 29,694 | 61,030 | 112,641 | 243,565 | 158,592 | 406,457 | 11,886 | 93 | 82 |
| $1953{ }^{1}$. | (NA) | ( NA ) | (NA) | 46,289 | 206,105 | 40,321 | 88,682 | 164,255 | 350,721 | 223,068 | 573,789 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$. | (NA) | (NA) | (NA) | 44,264 | 184,490 | 39,006 | 86,121 | 148,721 | 322,539 | 219,693 | 542,232 | (NA) | (NA) | (NA) |
| 1951 ${ }^{1}$. | (NA) | (NA) | (NA) | 41,071 | 162,326 | 36,268 | 79,406 | 131,064 | 292,056 | 205,106 | 497,162 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$. | (NA) | (NA) | (NA) | 30,096 | 103,496 | 25,469 | 53,776 | 82,128 | 184,373 | 127,350 | 311,723 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$. | (NA) | (NA) | (NA) | 22,761 | 77,926 | 18,614 | 36,099 | 57,461 | 120,400 | 74,417 | 194,817 | (NA) | (NA) | (NA) |
| 1947. | 1,205 | 1,209 | (NA) | 28,623 | 87,292 | 24,859 | 52,461 | 69,235 | 144,791 | 77,224 | 222,015 | 10,800 | 94 | 86 |
| $1939{ }^{2}$. | (NA) | 288 | (NA) | (NA) | (NA) | 10,571 | (NA) | 14,287 | 31,654 | 20,910 | 52,564 | (NA) | (NA) | (NA) |

INDUSTRY 3452. - BOLTS, NUTS, RIVETS, AND WASHERS


INDUSTRY 3451 and 3452.-TOTAL FOR BOLTS, NUTS, RIVETS, AND WASHERS AND SCREW MACHINE PRODUCTS ${ }^{2}$

| 1963.. | (NA) | 2,447 | 839 | 94,527 | 584,198 | 74,768 | 156,772 | 417,468 | 1,054,237 | 760,738 | 1,807,228 | 50,107 | (NA) | (NA) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19621. | (NA) | (NA) | (NA) | 93,933 | 552,714 | 73,497 | 150,596 | 381,302 | 961,513 | 725,293 | 1,676,281 | $(43,622)$ | (NA) | (NA) |
| $1961{ }^{1}$. | (NA) | (NA) | (NA) | 87,118 | 488,442 | 67,793 | 134,472 | 331,346 | 830,034 | 632,090 | 1,463,466 | $(30,009)$ | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 93,699 | 508,511 | 73,251 | 146,773 | 350,859 | 896,513 | 669,524 | 1,547,680 | (NA) | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 92,949 | 508,191 | 74,018 | 153,409 | 357,619 | 937,298 | 708,958 | 1,632,010 | ( NA ) | (NA) | (NA) |
| 1958. | (NA) | 2,317 | 702 | 85,106 | 440,964 | 66,094 | 132,494 | 305,875 | 754,706 | 545,719 | 1,305,441 | 54,929 | (NA) | (NA) |
| 1957 | (NA) | (NA) | (NA) | 98,179 | 500,758 | 79,030 | 161,821 | 357,138 | 881,664 | 593,228 | 1,455,196 | 64,051 | (NA) | (NA) |
| $1956{ }^{1}$ | ( Na ) | (NA) | (NA) | 97,609 | 482,554 | 78,799 | 163,964 | 349,524 | 846,367 | 592,146 | 1,413,070 | 53,295 | (NA) | (NA) |
| $1955{ }^{1}$. | (NA) | (NA) | (NA) | 95,987 | 460,855 | 78,480 | 169,102 | 339,701 | 835,497 | 591,958 | 1,399,464 | 51,542 | (NA) | (NA) |
| 1954. | (NA) | 2,252 | 667 | 88,738 | 397,679 | 72,003 | 147,457 | 285,660 | 665,077 | 477, 375 | 1,144,939 | 37,976 | (NA) | (NA) |
| $1953{ }^{1}$. | (NA) | (NA) | (NA) | 103,832 | 470,489 | 86,956 | 189,414 | 359,511 | 834,095 | 553,963 | 1,388,058 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 96,916 | 420,602 | 81,555 | 177,736 | 321,924 | 770,360 | 504,241 | 1,274,601 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$. | (NA) | (NA) | (NA) | 94,539 | 394,843 | 80,254 | 179,588 | 306,641 | 786,991 | 517,202 | 1,304,193 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 76,413 | 280,000 | 63,269 | 136,617 | 213,442 | 541,826 | 341,119 | 882,943 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$. | (NA) | (NA) | (NA) | 65,293 | 219,989 | 52,584 | 104, 378 | 159,281 | 370,128 | 231,826 | 601,954 | (NA) | (NA) | (NA) |
| 1947 | (NA) | 1,573 | (NA) | 77,858 | 238,806 | 65,767 | 138,356 | 185,025 | 430,242 | 255,525 | 685,767 | (NA) | (NA) | (NA) |
| $1939{ }^{2}$. | (NA) | 507 | (NA) | (NA) | (NA) | 31,293 | (NA) | 40,503 | 95,653 | 71,544 | 167,197 | (NA) | (NA) | (NA) |
| 1937.. | (NA) | 449 | (NA) | 43,125 | 63,685 | 38,127 | (NA) | 50,118 | 113,748 | 87,056 | 200,804 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 439 | (NA) | 31,854 | 40,274 | 27,524 | (NA) | 30,200 | 63,921 | 56,528 | 120,449 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 358 | (NA) | 21,624 | 21,266 | 18,722 | (NA) | 16,106 | 37,488 | 28,835 | 66,323 | (NA) | (NA) | (NA) |
| 1931.. | (NA) | 391 | (NA) | (NA) | (NA) | 22,565 | (NA) | 23,655 | 50,167 | 33,014 | 83,181 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 390 | (NA) | 40,557 | 66,117 | 36,056 | (NA) | 51,103 | 124,692 | 83,675 | 208,367 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 333 | (NA) | 31,038 | 45,840 | 27,304 | (NA) | 35,379 | 71,684 | 64,212 | 135,896 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 332 | (NA) | 31,704 | 46,101 | 27,978 | (NA) | 36,136 | 71, 958 | 63,583 | 135,541 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 316 | (NA) | 32,829 | 46,332 | 29,196 | (NA) | 37,150 | 73,938 | 63,439 | 137,377 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 293 | (NA) | 21,677 | 27,430 | 18,801 | (NA) | 19,614 | 32,970 | 28,587 | 61,557 | (NA) | (NA) | (NA) |
| 1919. | (NA) | 298 | (NA) | 36,956 | 47,137 | 33,118 | (NA) | 37,943 | 80,407 | 64,812 | 145,219 | (NA) | (NA) | (NA) |
| 1914. | (NA) | 180 | (NA) | 20,671 | 13,085 | 18,747 | (NA) | 10,221 | 18,546 | 18,321 | 36,867 | (NA) | (NA) | (NA) |
| 1909. | (NA) | 162 | (NA) | 17,945 | 10,164 | 16,476 | (NA) | 8,217 | 17,425 | 16,273 | 33,698 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 121 | (NA) | 12,543 | 6,490 | 11,543 | (NA) | 5,140 | 10,043 | 9,489 | 19,532 | (NA) | (NA) | (NA) |
| 189 | (NA) | 105 | (NA) | 11,854 | 5,282 | 11,187 | (NA) | 4,416 | 8,845 | 9,791 | 18,636 | (NA) | (NA) | (NA) |

[^130]table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted <br> ( $\$ 1,000$ ) | Cost of materials <br> $(\$ 1,000)$ | Value of shipments <br> ( $\$ 1,000$ ) | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |

INDUSTRY 3461. -METAL STAMPINGS

| 1963 | 2,491 | 2,574 | 1,116 | 132,179 | 772,557 | 108,336 | 222,005 | 567,309 | 1,368,993 | 1,324,939 | 2,678,996 | 64,248 | 84 | 86 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1962^{1}$ | (NA) | (NA) | (NA) | 132,797 | 754,943 | 107,820 | 224,828 | 546,941 | 1,310,428 | 1,305,551 | 2,605,775 | 68,728 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 125,312 | 684,112 | 100,597 | 207,293 | 486,134 | 1,181,190 | 1,160,058 | 2,338,008 | 48,387 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 134,290 | 729,036 | 107,966 | 225,649 | 521,060 | 1,220,361 | 1,229,952 | 2,450,795 | 56,508 | (NA) | (NA) |
| 1959 | (NA) | (NA) | (NA) | 135,264 | 727,827 | 109,693 | 227,258 | 524,330 | 1,240,511 | 1,269,112 | 2,498,962 | $(80,926)$ | (NA) | (NA) |
| 1958. | 2,372 | 2,454 | 1,039 | 125,300 | 644,217 | 99,759 | 199,664 | 457,345 | 1,045,220 | 1,039,387 | 2,095,409 | 50,407 | 86 | 87 |
| 1954. | (NA) | 2,320 | 930 | 135,472 | 594,833 | 112,338 | 225,687 | 440,746 | 958,067 | 868,005 | 1,841,508 | 39,290 | (NA) | (NA) |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 176,732 | 765,310 | 150,112 | 304,690 | 593,182 | 1,253,327 | 1,248,509 | 2,501,836 | (NA) | (NA) | (NA) |
| 1952 | (NA) | (NA) | (NA) | 148,799 | 622,345 | 122,244 | 255,230 | 462,789 | 978,556 | 917,602 | 1,896,152 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 159,300 | 603,762 | 133,158 | 272,528 | 454,910 | 989,891 | 1,000,456 | 1,990,347 | (NA) | (NA) | (NA) |
| 1950 | (NA) | (NA) | (NA) | 148,657 | 528,704 | 124,140 | 256,925 | 400,806 | 875,998 | 878,694 | 1,754,692 | (NA) | (NA) | (NA) |
| 1949 | (NA) | (NA) | (NA) | 125,487 | 417,054 | 105,893 | 206,489 | 308,403 | 657,000 | 617,043 | 1,274,043 | (NA) | (NA) | (NA) |
| 1947 | (NA) | 2,032 | (NA) | 144,961 | 418,609 | 125,725 | 153,130 | 329,141 | 691,229 | 554,963 | 1,246,192 | (NA) | (NA) | (NA) |
| $1939{ }^{3}$. | (NA) | 1,020 | (NA) | (NA) | (NA) | 67,991 | (NA) | 81,420 | 192,100 | 178,430 | 370,530 | (NA) | (NA) | (NA) |

INDUSTRY 3471.-PLATING AND POLISHING

| $1963{ }^{4}$ | 2,968 | 3,023 | 677 | 44,962 | 223,504 | 37,722 | 74,846 | 169,592 | 370,202 | 148,320 | 517,572 | 20,032 | $\left({ }^{5}\right)$ | ${ }^{5}$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1962^{1}$ | (NA) | (NA) | (NA) | 49,249 | 231,454 | 41,624 | 80,369 | 182,024 | 401,231 | 147,858 | 549,107 | 25,541 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 43,898 | 200,502 | 37,073 | 71,644 | 161,284 | 330,935 | 128,289 | 458,662 | $(16,196)$ | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 44,232 | 199,972 | 38,137 | 72,589 | 161,491 | 336,996 | 128,307 | 465,123 | 19,071 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 43,307 | 189,521 | 37,158 | 72,001 | 142,341 | 325,751 | 127,291 | 451,251 | $(15,185)$ | (NA) | (NA) |
| 1958 | 2,614 | 2,646 | 542 | 36,471 | 156,274 | 30,543 | 59,082 | 117,703 | 253,784 | 106,108 | 359,116 | 15,877 | $\left({ }^{5}\right)$ | $\left({ }^{5}\right.$ ) |
| 1954 | 2,423 | 2,451 | 465 | 36,066 | 136,933 | 31,221 | 62,878 | 105,443 | 214,330 | 92,867 | 307,398 | 12,862 | $\left({ }^{5}\right)$ | (5) |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 40,999 | 157,457 | 35,493 | 72,804 | 122,885 | 259,280 | 106,642 | 365,922 | (NA) | (NA) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (NA) | 24,934 | 98,777 | 21,981 | 45,883 | 77,853 | 163,414 | 90,747 | 254,161 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$. | (NA) | (NA) | (NA) | 26,595 | 95,024 | 23,941 | 48,160 | 76,517 | 172,246 | 90,550 | 262,796 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 26,812 | 83,009 | 23,879 | 49,775 | 68,619 | 150,227 | 84,794 | 235,021 | (NA) | (NA) | (NA) |
| 1947. | 1,789 | 1,804 | (NA) | 28,626 | 77,503 | 25,951 | 52,156 | 65,388 | 127,890 | 52,786 | 180,676 | (NA) | ${ }^{5}$ ) | (5) |
| 1939. | (NA) | 643 | (NA) | 9,653 | 12,548 | 8,206 | (NA) | 9,383 | 20,868 | 7,300 | 28,168 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 547 | (NA) | 9,330 | 12,300 | 8,256 | (NA) | 9,828 | 19,871 | 6,815 | 26,686 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 553 | (NA) | 7,206 | 8,974 | 6,238 | (NA) | 6,941 | 13,679 | 4,649 | 18,328 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 423 | (NA) | 4,435 | 4,295 | 3,956 | (NA) | 3,715 | 7,680 | 2,352 | 10,032 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 464 | (NA) | (NA) | (NA) | 4,107 | (NA) | 5,642 | 10,282 | 2,802 | 13,084 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 534 | (NA) | 6,843 | 12,094 | 5,928 | (NA) | 9,537 | 18,929 | 4,799 | 23,728 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 419 | (NA) | 4,126 | 6,995 | 3,556 | (NA) | 5,629 | 10,595 | 3,335 | 13,930 | (NA) | (NA) | (NA) |
| 1925 | (NA) | 449 | (NA) | 3,843 | 6,340 | 3,337 | (NA) | 5,254 | 9,900 | 2,541 | 12,441 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 446 | (NA) | 4,017 | 6,350 | 3,374 | (NA) | 5,195 | 9,684 | 2,613 | 12,297 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 392 | (NA) | 2,844 | 4,325 | 2,460 | (NA) | 3,563 | 6,081 | 1,960 | 8,041 | (NA) | (NA) | (NA) |
| 191 | (NA) | 515 | (NA) | 3,442 | 4,537 | 3,024 | (NA) | 3,794 | 7,751 | 2,639 | 10,390 | (NA) | (NA) | (NA) |
| 191 | (NA) | 479 | (NA) | 2,918 | 2,094 | 2,584 | (NA) | 1,713 | 3,437 | 1,336 | 4,773 | (NA) | (NA) | (NA) |
| 190 | (NA) | 461 | (NA) | 3,004 | 1,895 | 2,717 | (NA) | 1,652 | 3,305 | 1,205 | 4,510 | (NA) | (NA) | (NA) |
| 190 | (NA) | 312 | (NA) | 2,087 | 1,225 | 1,943 | (NA) | 1,093 | 2,218 | 747 | 2,965 | (NA) | (NA) | (NA) |
| 1899. | (NA) | 302 | (NA) | 2,201 | 1,042 | 2,086 | (NA) | 949 | 1,936 | 784 | 2,720 | (NA) | (NA) | (NA) |

INDUSTRY 3479.-METAL COATING, ENGRAVING, ETC.

| $1963{ }^{4}$. |  |  |  |  |  |  |  |  |  |  |  |  | (5) | (5) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1962^{1}$. | 1,227) | 1,258) | (NA) | 20,669 | -107,587 | 17,113 | 34,998 | 79,136 67,408 | 184,546 | 132,087 | 229,139 | (10,556) | (NA) | (NA) |
| 1961 . . | (NA) | (NA) | (NA) | 18,492 | 85,201 | 15,546 | 31,265 | 61,367 | 143,775 | 96,473 | 241,121 | (8,474) | (NA) | (NA) |
| $1960{ }^{1}$. ${ }^{\text {d }}$ | (NA) | (NA) | (NA) | 18,896 | 83,419 | 15,7774 | 33,499 | 60,811 | 148,386 | 108,387 | 254,763 | 6,512 | (NA) | (NA) |
| 1959 ${ }^{1} . . . . . .$. | (NA) | (NA) | (NA) | 18,357 | 79,851 | 15,424 | 31,185 | 59,205 | 137,427 | 106,011 | 244,888 | 6,227 | (NA) | (NA) |
| $1958{ }^{4}$. | 986 | 1,003 | 192 | 15,680 | 68,046 | 12,892 | 25,206 | 49,985 | 108,379 | 88,846 | 196,389 | 4,678 | ${ }^{5}$ ) | $\left({ }^{5}\right.$ ) |
| $1954{ }^{4}$ | (NA) | 782 | 163 | 12,305 | 45,625 | 10,450 | 20,797 | 33,739 | 108,402 | 34,542 | 105,233 | 3,409 | (5) | (5) |
| 1947. | (NA) | 604 | (NA) | 10,433 | 28,618 | 9,217 | (NA) | 23,135 | 47,443 | 23,366 | 70,809 | (NA) | (5) | (5) |
| 1939. | (NA) | 257 | (NA) | 5,265 | 7,678 | 4,452 | (NA) | 5,271 | 12,349 | 6,647 | 18,996 | (NA) | (NA) | (NA) |
| $1937{ }^{6}$. | (NA) | 215 | (NA) | (NA) | (NA) | 6,139 | (NA) | 7,434 | 15,967 | 9,048 | 25,015 | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustrnent is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

## table 1. General Statistics: 1963 and Earlier Years-Continued

## Footnotes for Table 1-34D-Continued

Standard Notes: - Represents zoro.
(D) Withheld to avoid disclosing figures for individual conpanies.
(NA) Not available.
(X) Not applicable.
 basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishnents canvassed in the annuel survey of manu-
 lishonts. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The
 data.
${ }^{2}$ The figures for 1939 are not entirely comparable with those for earlier years. However, the figures for the "Bolts, nuts, washers, and rivets" and the "Screw machine products" industries have been combined so that figures can be shown for the period $1899-1958$.
${ }^{3}$ No comparable figures are available prior to 1939.
${ }^{4}$ In this industry which contains a large number of very small establishments there is a possibility that some of these small establishments have been misclassified as to industry. This would not significantly affect the statistics other than the number of establishments.
${ }^{5}$ Relationships not meaningful because of the predominance of miscellaneous receipts, particularly receipts for contract and commission work on materials owned by others.
${ }^{6}$ No comparable figures are available prior to 1937.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted$(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3451. -SCREW MACHINE PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |
| Totsl.......... | 1,874 | 516 | 36,909 | 213,172 | 30,796 | 64,270 | 159,991 | 358,961 | 232,878 | 588,981 | 18,676 | 31,836 | 249,975 |
| New England... | 312 | 80 | 6,105 | 32,653 | 5,090 | 10,652 | 24,079 | 51,152 | 28,535 | 79,478 | 3,343 | 5,517 | 39,088 |
| Massachusetts.... | 89 | 26 | 2,086 | 10,968 | 1,730 | 3,714 | 8,132 | 16,653 | 10,169 | 26,655 | 1,290 | 1,824 | 12,457 |
| Connecticut...... | 172 | 47 | 3,378 | 18,495 | 2,841 | 5,858 | 13,659 | 29,614 | 15,661 | 45,259 | 1,660 | 3,147 | 23,087 |
| Middle Atlantic.... | 368 | 96 | 6,056 | 33,258 | 5,065 | 10,209 | 24,942 | 56,827 | 32,283 | 89,037 | 3,047 | 5,592 | 40,683 |
| New York......... | 166 | 46 | 3,126 | 17,156 | 2,631 | 5,288 | 12,792 | 28,322 | 18,297 | 46,687 | 1,189 | 2,776 | 20,334 |
| New Jersey....... | 118 | 30 | 1,767 | 10,252 | 1,448 | 3,029 | 7,570 | 18,587 | 8,486 | 27,023 | 1,513 | 1,564 | 12,337 |
| Pennsylvania..... | 84 | 20 | 1,163 | 5,850 | 986 | 1,892 | 4,580 | 9,918 | 5,500 | 15,327 | 345 | 1,252 | 8,012 |
| East North Central. | 858 | 266 | 19,051 | 112,799 | 16,044 | 33,892 | 85,776 | 191,785 | 143,181 | 332,398 | 8,797 | 16,136 | 131,282 |
| Ohio.... | 200 | 63 | 4,976 | 28,671 | 4,208 | 8,664 | 21,670 | 45,943 | 33,543 | 77,412 | 2,051 | 4,592 | 36,314 |
| Indiana. | 70 | 22 | 1,723 | 9,115 | 1,492 | 3,065 | 7,213 | 17,214 | 11,181 | 28,370 | 695 | 1,436 | 11,363 |
| Illinois. | 246 | 77 | 5,753 | 33,432 | 4,748 | 9,864 | 25,153 | 52,728 | 33,685 | 86,620 | 2,871 | 4,877 | 39,796 |
| Michigan.. | 284 | 90 | 5,587 | 35,735 | 4,763 | 10,514 | 27,415 | 66,096 | 58,970 | 124,509 | 2,616 | 4,489 | 38,206 |
| Wisconsin........ | 58 | 14 | 1,012 | 5,846 | 833 | 1,785 | 4,325 | 9,804 | 5,802 | 15,487 | 564 | 742 | 5,603 |
| West North Central. | 68 | 22 | 1,680 | 9,760 | 1,373 | 2,779 | 7,214 | 15,867 | 9,052 | 25,003 | 1,777 | 1,633 | 12,577 |
| Minnesota........ | 25 | 9 | 670 | 4,056 | 582 | 1,143 | 3,214 | 6,372 | 3,487 | 10,029 | 1,283 | 529 | 4,481 |
| Missouri.......... | 30 | 8 | 810 | 4,767 | 621 | 1,298 | 3,316 | 7,892 | 4,741 | 12,558 | 445 | 909 | 6,894 |
| South Atlantic..... | 29 | 4 | 408 | 1,854 | 333 | 683 | 1,364 | 4,978 | 1,769 | 6,738 | 171 | 271 | 1,899 |
| East South Central. | 7 | 4 | 184 | 878 | 149 | 318 | 668 | 1,732 | 988 | 2,647 | 152 | 121 | 816 |
| West South Central. | 19 | 8 | 365 | 1,998 | 305 | 684 | 1,457 | 3,456 | 2,116 | 5,492 | 187 | 194 | 1,723 |
| West.................. <br> Colorado | 213 4 | 36 3 | 3,060 | 19,972 | 2,437 95 | 5,053 192 | 14,491 432 | 33,164 1,040 | 14,954 757 | 48,188 1,717 | 1,202 59 | 2,372 | 21,907 |
| California....... | 194 | 31 | 2,811 | 18,599 | 2,235 | 4,651 | 13,475 | 30,526 | 13,728 | 44,392 | 1,085 | 2,102 | 19,498 |
|  | INDUSTRY 3452. -BOLTS, NUTS, RIVETS, AND WASHERS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total... | 573 | 323 | 57,618 | 371,026 | 43,972 | 92,502 | 257,477 | 695,276 | 527,860 | 1,218,247 | 31,431 | 53,270 | 504,731 |
| New England........ | 68 | 43 | 8,395 | 47,677 | 6,234 | 13,028 | 32,000 | 88,910 | 50,128 | 139,190 | 3,148 | 9,247 | 70,823 |
| Massacnusetts.... | 21 | 13 | 4,373 | 24,954 | 3,238 | 6,755 | 17,012 | 41,967 | 24,362 | 66,461 | 1,016 | 4,641 | 34,974 |
| Connecticut...... | 32 | 20 | 2,923 | 17,059 | 2,116 | 4,465 | 10,880 | 36,639 | 18,089 | 54,977 | 1,666 | 3,486 | 27,522 |
| Middle Atlantic.... | 122 | 58 | 12,094 | 77,603 | 9,000 | 18,390 | 53,585 | 143,341 | 97,840 | 240,366 | 5,063 | 11,511 | 110,957 |
| New York. . . . . . . . | 45 | 18 | 2,975 | 18,250 | 2,160 | 4,373 | 11,430 | 36,101 | 29,536 | 66,281 | 1,426 | 2,465 | 25,643 |
| New Jersey....... | 28 | 17 | 3,200 | 22,196 | 2,294 | 4,749 | 14,939 | 44,766 | 23,904 | 67,935 | 2,053 | 2,638 | 25,760 |
| Pennsylvania..... | 49 | 23 | 5,919 | 37,157 | 4,546 | 9,268 | 27,216 | 62,474 | 44,400 | 106,150 | 1,584 | 6,408 | 59,554 |
| East North Central. | 259 | 158 | 28,585 | 194,156 | 22,067 | 47,128 | 136,519 | 357,819 | 306,677 | 659,791 | 18,037 | 25,788 | 244,435 |
| Or.io.............. | 73 | 51 | 9,638 | 63,367 | 7,477 | 15,530 | 44,542 | 110,478 | 104,678 | 213,578 | 4,826 | 9,226 | 86,121 |
| Indiana.......... | 12 | 8 | 1,107 | 7,063 | 839 | 1,730 | 4,933 | 13,961 | 12,618 | 26,749 | 616 | 1,292 | 12,811 |
| Illinois......... | 96 | 59 | 12,596 | 86,228 | 9,677 | 21,388 | 61,058 | 160,670 | 117,052 | 275,916 | 7,843 | 11,175 | 105,204 |
| Miciigan......... | 68 | 37 | 4,555 | 32,962 | 3,566 | 7,398 | 23,063 | 64,312 | 65,652 | 128,413 | 4,346 | 3,489 | 33,898 |
| Wisconsin........ | 10 | , | 689 | 4,536 | 508 | 1,082 | 2,923 | 8,398 | 6,677 | 15,135 | 406 | 606 | 6,401 |
| West Nortin Central. | 12 | 6 | 548 | 3,188 | 409 | 838 | 2,045 | 5,870 | 5,812 | 11,621 | 333 | 613 | 4,374 |
| Missouri......... | 6 | 3 | 233 | 1,415 | 166 | 330 | 819 | 2,795 | 2,389 | 5,132 | 141 | 295 | 2,050 |
| South Atlantic..... | 11 | 7 | 1,510 | 7,444 | 1,270 | 3,037 | 5,356 | 21,273 | 14,128 | 34,821 | 1,323 | 1,107 | 10,626 |
| East South Central. | 12 | 6 | 1,147 | 6,532 | 963 | 1,887 | 4,852 | 10,977 | 12,177 | 22,993 | 912 | 801 | 8,853 |
| West South Central. | 16 | 6 | 566 | 2,470 | 493 | 762 | 1,833 | 4,115 | 4,495 | 9,549 | 189 | 327 | 3,291 |
| West. $\qquad$ <br> California....... | 73 | 39 | 4,773 | 31,956 | 3,536 | 7,432 | 21,287 | 62,971 | 36,603 | 99,916 | 2,426 | 3,876 | 51,372 |
|  | 68 | 37 | 4,669 | 31,351 | 3,464 | 7,295 | 20,917 | 62,063 | 35,687 | 98,029 | 2,411 | 3,778 | 50,341 |
|  | INDUSTRY 3461. -METAL STAMPINGS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 2,574 | 1,116 | 132,179 | 772,557 | 108,336 | 222,005 | 567,309 | 1,368,993 | 1,324,939 | 2,678,996 | 64,248 | 125,300 | 1,045,220 |
| New England........ | 257 | 104 | 10,493 | 58,172 | 8,253 | 16,859 | 40,068 | 99,268 | 72,215 | 170,157 | 4,077 | 9,741 | 67,846 |
| Massachusetts.... | 112 | 49 | 3,428 | 18,076 | 2,740 | 5,726 | 12,643 | 28,900 | 20,028 | 48,763 | 953 | 3,553 | 23,377 |
| Rhode Island..... | 35 | 11 | 715 | 3,531 | 582 | 1,148 | 2,425 | 8,190 | 5,458 | 13,654 | 229 | 614 | 4,865 |
| Connecticut...... | 103 | 42 | 6,244 | 36,084 | 4,838 | 9,787 | 24,639 | 61,344 | 46,200 | 106,398 | 2,882 | 5,526 | 39,259 |

[^131]table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted ( $\$ 1,000$ ) | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Middle Atlantic.... New York.......... New Jersey....... Pennsylvania..... | INDUSTRY 3461. -METAL STAMPINGS—Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 629 | 247 | 32,767 | 195,165 | 26,557 | 53,802 | 143,749 | 344, 131 | 301,066 | 643,000 | 14,163 | 32,577 | 265,720 |
|  | 342 | 125 | 12,122 | 66,021 | 9,773 | 19,911 | 46,571 | 114, 604 | 92,700 | 206,659 | 3,866 | 11,780 | 91,021 |
|  | 154 | 57 | 6,048 | 35,324 | 4,782 | 9,734 | 24,660 | 59,795 | 52,364 | 112,634 | 3,090 | 5,655 | 49,587 |
|  | 133 | 65 | 14,597 | 93,820 | 12,002 | 24,157 | 72,518 | 169,732 | 156,002 | 323,707 | 7,207 | 15,142 | 125,112 |
| East North Central. | 1,112 | 551 | 66,710 | 401,161 | 55,078 | 113,219 | 295,508 | 709,713 | 724,451 | 1,426,566 | 31,809 | 63,316 | 552,220 |
| Ohio............. | 253 | 137 | 17,452 | 106,843 | 14,426 | 29,779 | 81,342 | 179,500 | 186,092 | 361,493 | 7,456 | 17,124 | 130,646 |
| Indiana.. | 92 | 40 | 7,042 | 42,602 | 5,868 | 11,758 | 32,732 | 75,126 | 76,640 | 151,514 | 2,702 | 0,246 | 59,255 |
| Illinois.. | 337 | 151 | 16,769 | 101,397 | 13,781 | 28,206 | 73,665 | 177,495 | 155,582 | 333,968 | 6,266 | 17,115 | 151,709 |
| Michigan.. | 343 | 178 | 15,496 | 97,241 | 12,852 | 26,755 | 70,279 | 176,604 | 207,318 | 381,613 | 6,646 | 13,672 | 127,333 |
| Wisconsin.. | 87 | 45 | 9,951 | 53,078 | 8,151 | 16,721 | 37,490 | 100,988 | 98,819 | 197,978 | 8,739 | 9,159 | 83,277 |
| West North Central. | 109 | 55 | 5,115 | 28,628 | 4,153 | 8,411 | 20,756 | 48,145 | 40,834 | 88,277 | 3,679 | 4,354 | 34,477 |
| Minnesota........ | 48 | 29 | 2,223 | 12,727 | 1,766 | 3,641 | 8,919 | 20,467 | 13,861 | 34, 186 | 804 | 1,450 | 11,020 |
| Iowa. . . | 12 | 6 | 912 | 4,613 | 731 | 1,562 | 3,356 | 6,966 | 7,855 | 14,770 | 295 | 1,041 | 7,690 |
| Missouri.. | 40 | 16 | 1,704 | 9,592 | 1,425 | 2,739 | 7,144 | 18,277 | 17,343 | 35,132 | 2,523 | 1,562 | 13,542 |
| South Atlantic..... | 74 | 36 | 5,782 | 28,521 | 5,001 | 10,293 | 22,916 | 56,718 | 75,931 | 130,859 | 5,367 | 5,950 | 42,512 |
| Maryland......... | 15 | 7 | 1,342 | 8,184 | 1,083 | 2,187 | 6,344 | 13,863 | 20,491 | 33,683 | (D) | 2,058 | 15,832 |
| West Virginia.... | 10 | 7 | 1,113 | 5,122 | 967 | 1,836 | 4,193 | 7,834 | 9,647 | 17,588 | 339 | 1,515 | 9,036 |
| North Carolina... | 13 | 5 | 267 | 1,376 | 214 | 464 | 942 | 2,170 | 1,174 | 3,315 | 129 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Georgia.......... | 18 | 10 | 1,857 | 7,718 | 1,718 | 3,671 | 6,679 | 16,157 | 22,990 | 38,799 | 1,181 | 1,244 | 8,993 |
| East South Central. | 53 | 33 | 4,566 | 21,855 | 3,802 | 8,049 | 15,595 | 42,134 | 47,602 | 88,668 | 2,146 | 2,506 | 18,377 |
| Kentucky......... | 16 | 14 | 1,667 | 9,555 | 1,346 | 2,848 | 6,758 | 14,951 | 14,747 | 29,260 | 660 | 1,432 | 9,234 |
| Alabama.......... | 9 | 4 | 441 | 1,804 | 335 | 543 | 1,007 | 4,312 | 5,072 | 9,156 | 166 | 513 | 5,050 |
| West South Central. | 49 | 12 | 1,049 | 5,002 | 866 | 2,084 | 3,697 | 10,272 | 11,500 | 21,577 | 504 | 1,002 | 7,780 |
| Texas.. | 36 | 9 | 655 | 3,275 | 534 | 1,416 | 2,402 | 7,094 | 7,967 | 15,058 | 364 | 535 | 3,809 |
| Mountain........... | 13 | 3 | 133 | 761 | 105 | 209 | 559 | 1,243 | 948 | 2,156 | 89 | 77 | 164 |
| Pacific............. Washington. ...... . California. $\qquad$ | 278 | 75 | 5,564 | 33,292 | 4,521 | 9,079 | 24,461 | 57,369 | 50,392 |  | 2,414 | 5,777 |  |
|  | 12 253 | 74 |  | 1,114 |  | 262 8,724 |  | 1,595 55,160 | 2,379 47,612 | 3,928 102,785 | 93 2,282 | 189 5,537 | 2,095 53,691 |
| California........ | 253 | 74 | 5,330 |  | 4,329 | 8,724 | 23,512 | 55,160 |  | 102,785 | 2,282 | 5,537 |  |
|  | INDUSTRY 3471.-PLATING AND POLISHING |  |  |  |  |  |  |  |  |  |  |  |  |
| Total........... | 3,023 | 677 | 44,962 | 223,504 | 37,722 | 74,846 | 169,592 | 370,202 | 148,320 | 517,572 | 20,032 | 36,471 | 253,784 |
| New England........ | 330 | 76 | 5,252 | 24,510 | 4,443 | 8,637 | 18,329 | 38,741 | 13,909 | 52,608 | 1,958 | 4,560 | 27,955 |
| Massachusetts.... | 117 | 35 | 1,888 | 8,957 | 1,555 | 3,129 | 6,498 | 13,356 | 4,728 | 18,084 | 903 | 1,543 | 9,246 |
| Rhode Island..... | 91 | 15 | 1,323 | 4,752 | 1,169 | 1,991 | 3,674 | 7,371 | 2,721 | 10,087 | 326 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Connecticut...... | 113 | 26 | 1,966 | 10,377 | 1,661 | 3,396 | 7,890 | 17,506 | 6,245 | 23,716 | 713 | 1,743 | 12,376 |
| Middle Atlantic.... | 704 | 132 | 8,951 | 42,848 | 7,473 | 15,004 | 32,618 | 72,439 | 29,512 | 101,833 | 3,393 | 8,780 | 58,963 |
| New York.......... | 417 | 82 | 5,434 | 24,758 | 4,636 | 9,309 | 18,967 | 41,086 | 14,786 | 55,825 | 1,631 | 5,515 | 36,486 |
| New Jersey....... | 158 | 27 | 1,872 | 9,810 | 1,486 | 2,976 | 7,302 | 15,963 | 5,606 | 21,554 | 949 | 1,848 | 12,159 |
| Pennsylvania..... | 129 | 23 | 1,645 | 8,280 | 1,351 | 2,719 | 6,349 | 15,390 | 9,120 | 24,454 | 813 | 1,417 | 10,318 |
| East North Central. | 1,022 | 280 | 17,883 | 90,748 | 15,089 | 29,782 | 68,738 | 152,657 | 68,851 | 221,112 | 7,654 | 13,699 | 96,538 |
| Ohio............. | 247 | 63 | 4,070 | 20,871 | 3,401 | 6,730 | 15,838 | 34,401 | 18,451 | 52,713 | 2,047 | 3,170 | 22,598 |
| Indiana.......... | 80 | 23 | 1,561 | 7,850 | 1,294 | 2,570 | 5,867 | 15,379 | 5,453 | 20,810 | 818 | 1,189 | 9,199 |
| Illinois......... | 287 | 82 | 5,371 | 27,680 | 4,561 | 8,950 | 20,902 | 46,390 | 20,328 | 66,614 | 2,263 | 4,799 | 33,837 |
| Michigan......... | 339 | 98 | 5,966 | 29,701 | 5,056 | 10,051 | 22,653 | 49,318 | 22,152 | 71,439 | 2,163 | 3,771 | 26,215 |
| Wisconsin.. | 69 | 14 | 915 | 4,646 | 777 | 1,481 | 3,478 | 7,169 | 2,467 | 9,536 | 363 | 770 | 4,689 |
| West North Central. | 118 | 25 | 2,010 | 10,245 | 1,662 | 3,168 | 7,424 | 17,478 | 5,937 | 23,348 | 1,039 | 1,319 | 9,901 |
| Minnesota. . . . . . | 30 | 6 | 674 | 3,861 | 556 | 1,028 | 2,609 | 6,438 | 2,376 | 8,801 | 508 | 482 | 3,978 |
| Missouri. | 60 | 14 | 1,034 | 4,972 | 852 | 1,624 | 3,728 | 8,536 | 2,637 | 11,124 | 373 | 599 | 4,234 |
| Kansas. | 11 | 3 | 145 | 729 | 126 | 256 | 549 | 1,171 | 615 | 1,786 | 88 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ |
| South Atlantic..... | 117 | 21 | 1,794 | 7,412 | 1,561 | 3,191 | 5,816 | 12,494 | 4,753 | 17,093 | 1,396 | 899 | 5,583 |
| Maryland. . . . . . . | 18 |  | 106 | 511 | 86 | 179 | 385 | 764 | 360 | 1,122 | - 29 | 129 | 1,028 |
| Virginia......... | 15 | 1 | 132 | 612 | 108 | 207 | 447 | 989 | 306 | 1,297 | 54 | $\left({ }^{2}\right)$ | (2) |
| North Carolina... | 16 | 3 | 230 | 862 | 196 | 404 | 651 | 1,515 | 909 | 2,424 | 191 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Florida.. | 39 | 7 | 412 | 1,686 | 336 | 694 | 1,294 | 3,09? | 782 | 3,770 | 142 | 220 | 1,346 |
| East South Central. | 59 | 14 | 648 | 2,647 | 555 | 1,041 | 2,141 | 4,563 | 1,602 | 6,176 | 219 | 307 | 1,835 |
| Kentucky. . . . . . . | 16 | 4 | 164 | 843 | 131 | 225 | 648 | 1,315 | 414 | 1,729 | 53 | ${ }^{2}$ ) | ${ }^{(2)}$ |
| Tennessee.. | 24 | 9 | 346 | 1,198 | 307 | 587 | 985 | 2,195 | 753 | 2,957 | 106 | 132 | 738 |
| West South Central. | 105 | 21 | 1,228 | 5,749 | 1,028 | 2,121 | 4,546 | 9,509 | 3,566 | 13,019 | 903 | 812 | 5,841 |
| Oklahoma. ........ | 19 | 4 | 279 | 1,223 | 242 | 460 | 962 | 1,774 | 1,081 | 2,840 | 150 | 153 | 1,112 |
| Texas.. | 74 | 15 | 825 | 4,017 | 677 | 1,440 | 3,145 | 6,724 | 2,062 | 8,746 | 569 | 587 | 4,248 |

See footnotes at end of table.

## TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted ( $\$ 1,000$ ) | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3471. - PLATING AND POLISHING $\rightarrow$ Continued |  |  |  |  |  |  |  |  |  |  |  |  |
| Mountain. Colorado $\qquad$ Arizona. $\qquad$ | 45 15 15 | 10 3 5 | 514 141 250 | 2,745 1,737 1,370 | 423 117 202 | 814 242 361 | 2,128 551 1,047 | 4,117 1,105 1,937 | 1,398 370 745 | 5,467 1,420 2,687 | 418 124 238 | 264 $\left(^{2}\right)$ 764 | $\begin{array}{r} 1,668 \\ (2) \\ 930 \end{array}$ |
| Pacific............. Washington. Oregon. California | 523 18 16 484 | 98 2 3 93 | 6,682 212 166 6,279 | 36,600 1,523 356 34,089 | 5,488 163 135 5,170 | 11,088 318 259 10,477 | 27,852 1,065 624 26,069 | 58,204 2,435 1,063 54,573 | 18,792 697 279 17,621 | 76,916 3,129 1,352 72,110 | $\begin{array}{r} 3,052 \\ 52 \\ 64 \\ 2,931 \end{array}$ | 5,831 155 220 5,456 | 45,500 1,287 1,332 42,881 |
| Oregon............. <br> California....... | INDUSTRY 3479.-METAL COATING, ENGRAVING, ETC. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 1,258 | 276 | 20,669 | 107,110 | 17,113 | 34,998 | 79,136 | 184,546 | 137,211 | 322,139 | 8,656 | 15,680 | 108,379 |
| New England........ | 154 | 25 | 1,676 | 7,993 | 1,437 | 2,939 | 6,158 | 12,762 | 5,213 | 18,025 | 363 | 1,241 | 8,028 |
| Massachusetts.... <br> Rhode Island |  | 16 3 | 995 261 | 4,972 | 853 <br> 224 | 1,787 | 3,890 | 8,281 1,417 | 3,223 | 11,551 1,834 | 194 40 | 889 $(2)$ | 6,126 ${ }_{(2)}$ |
| Middle Atlantic... | 325 | 65 | 5,206 | 25,962 | 4,242 | 8,737 | 18,366 | 43,357 | 23,746 | 67,624 | 1,728 | 4,297 | 27,692 |
| New York. . ....... | 189 | 27 | 2,100 | 10,283 | 1,735 | 3,559 | 7,256 | 15,810 | 7,579 | 23,581 | 551 | 2,213 | 13,015 |
| New Jersey....... | 83 | 21 | 1,405 | 7,130 | 1,166 | 2,442 | 5,239 | 11,214 | 5,777 | 16,911 | 570 | 1,000 | 6,741 |
| Pennsylvania..... | 53 | 17 | 1,701 | 8,549 | 1,341. | 2,736 | 5,871 | 16,333 | 10,390 | 27,132 | 607 | 1,084 | 7,936 |
| East North Central. | 318 | 103 | 7,999 | 43,574 | 6,639 | 13,733 | 32,248 | 76,101 | 63,336 | 139,399 | 3,387 | 5,740 | 40,404 |
| Illinois......... | 122 | 41 | 3,139 | 18,238 | 2,497 | 4,889 | 12,704 | 31,307 | 30,505 | 61,798 | 805 | 2,970 | 23,429 |
| Michigan.......... | 82 | 29 | 1,789 | 8,555 | 1,533 | 3,252 | 6,537 | 15,390 | 13,939 | 29,205 | 903 | (2) | $\left({ }^{2}\right)$ |
| West North Central. | 62 | 8 | 692 | 3,345 | 566 | 1,122 | 2,577 | 6,244 | 2,870 | 9,181 | 347 | 600 | 5,981 |
| Minnesota........ | 17 | 2. | 169 | 731 | 143 | 280 | 560 | 1,725 | 523 | 2,259 | 70 | 191 | 1,402 |
| South Atlantic..... | 46 | 13 | 1,034 | 5,259 | 829 | 1,645 | 3,593 | 8,471 | 11,404 | 19,800 | 867 | 426 | 3,597 |
| Maryland......... | 16 | - | 522 | 3,093 | 392 | 789 | 1,883 | 4,630 | 4,534 | 9,064 | 344 | 337 | 2,995 |
| Florida........... | 14 | 2 | 143 | 555 | 125 | 252 | 472 | 1,174 | 362 | 1,573 | 69 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| East South Central. | 25 | 9 | 458 | 1,672 | 398 | 781 | 1,412 | 3,635 | 1,515 | 5,149 | 122 | 250 | 1,720 |
| Kentucky.......... | 6 | 4 | 191 | 6 644 | 172 | 343 | 601 | 1,508 | 266 | 1,774 | 46 | ${ }^{2}$ ) | ${ }^{(2)}$ |
| Tennessee... | 10 | 2 | 109 | 356 | 85 | 146 | 254 | 812 | 380 | 1,186 | 30 | 149 | 863 |
| West South Central. | 70 | 16 | 1,015 | 4,916 | 878 | 1,789 | 3,868 | 9,148 | 5,102 | 13,666 | 696 | 1,160 | $6,845$ |
| Oklahoma.. | 8 | 2 | 111 | 533 | 101 | 196 | 398 | 926 | 426 | 1,352 | 50 | ${ }^{2}$ ) | $\left(^{2}\right)$ |
| Texas. | 53 | 11 | 711 | 3,514 | 610 | 1,252 | 2,799 | 6,031 | 2,989 | 8,435 | 269 | 1,030 | 5,665 |
| Mountain. .......... | 21 | 2 | 137 | 644 | 120 | 224 | 532 | 1,159 | 643 | 1,802 | 252 | 80 |  |
| Colorado. | 11 | 2 | 104 | 518 | 90 | 166 | 416 | 914 | 556 | 1,472 | 242 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Pacific............ | 237 | 35 | 2,452 | 13,745 | 2,004 | 4,028 | 10,382 | 23,669 | 23,382 | 47,493 | 894 | 1,886 | 13,424 |
| California. | 207 | 34 | 2,332 | 13,159 | 1,901 | 3,833 | 9,874 | 22,472 | 22,867 | 45,783 | 827 | 1,812 | 12,696 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
applicable
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown
below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3451, Screw Machine Products: New England-Maine, 1 (1-19); New Harmshire, 4 (20-99); Vermont, 3 (20-99); Fhode Island, 43 (555); West North Central-Iowa, 7 (100-249); Nebraska, 3 (20-99); Kansas, 3 (20-99); South Atlantic-Maryland, 7 (100-249); West Virginia, 1 (20-99); North Carolina, 2 (1-19); South Carolina, 1 (1-19); Ceorgia, 4 (20-99); Florida, 14 (20-99); East South Central-Tennessee, 5 (100-249); Alabama, 2 (20-99); West South Central-Arkansas, 5 (20-99); Oklahoma, 2 (20-99); Texas, 12 (100-249); Mountain-Arizona, 5 (20-99); Pacific-Washington, 6 (20-99); Oregon, 4 (20-99).
SIC 3452, Bolts, Nuts, Rivets, and Washers: New England-New Hanpshire, 3 (100-249); Vermont, 1 (1-19); Rhode Island, 11 (855); West North Central-Minnesota, 4 (250-499); Iowa, l (20-99); Kansas, l (1-19); South Atlantic-Delaware, l (1-19); Maryland, 2 (100-249); Virginia, 1 (100-249); North Carolina, 2 (1000-2499); Georgia, l (1-19); Florida, 4 (124); East South Central-Kentucky, 1 (100-249); Tennessee, 3 (1-19); Alabama, 6 (500-999) ; Mississippi, 2 (100-249); West South Central-Oklahoma, 5 (100-249); Texas, 11 (250-499); Mountain-Arizona, 1 (1-19); Paciric-Washington, 3 (20-99); Oregon, I (20-99).
SIC 3461, Metal Stampings: New England-Maine, 1 (20-99); New Harpshire, 4 (20-99); Vermont, 2 (1-19); West North Central-North Dakota, 2 (1-19); Nebraska, 5 (20-99); Kansas, 2 (100-249); South Atlantic-Delaware, 2 (250-499); Virginia, 1 (1-19); South Carolina, 4 (549); Florida, 11 (250-499); East South Central-Tennessee, 21 (1630); Mississippi, 7 (828); West South Central-Arkansas, 2 (20-99); Louisiana, 5 (316); 0klahoma, 6 (20-99); Mountain-Wyoming, 1 (20-99); Colorado, 7 (20-99); Arizona, 1 (1-19); Utah, 3 (20-99); Nevada, 1 (1-19); Pacific-Oregon, 13 (20-99).
SIC 3471, Plating and Polishing: New England-Maine, 1 (1-19); New Hampshire, 5 (20-99); Vermont, 3 (1-19); West North Central-Iowa, 16 (100249); Nebraska, 1 (1-19); South Atlantic-Delaware, 2 (1-19); District of Columbia, 5 (20-99); West Virginia, 4 (20-99); South Carolina, 6 (100-249); Georgia, 12 (636); East South Central-Alabama, 16 (100-249); Mississippi, 3 (20-99); West South Central-Arkansas, 5 (100-249); Louisiana, 7 (20-99); Mountain-Montana, 1 (1-19); Idaho, 2 (1-19); New Mexico, 3 (1-19); Utah, 7 (20-99); Nevada, 2 (1-19); PacificHawaii, 5 (20-99).
SIC 3479, Metal Coating, Engraving, Etc.: New England-Maine, 1 (1-19); New Harpshire, 1 (1-19); Connecticut, 29 (250-499); East North CentralOhio, 76 (2124); Indiana, 12 (498); Wisconsin, 26 (449); West North Central-Iowa, 4 (20-99); Missouri, 33 (464); South Dakota, 1 (1-19); Nebraska, 3 (1-19); Kansas, 4 (1-19); South Atlantic—Delaware, 1 (20-99); Virginia, 5 (20-99); North Carolina, 4 (20-99); South Carolina, 2 (20-99); Georgia, 4 (177); East South Central-Alabama, 8 (100-249); Mississippi, 1 (1-19); West South Central-Arkansas, 1 (1-19); Louisiana, 8 (100-249); Mountain-Idaho, 1 (1-19); Wyoming, I (1-19); New Mexico, 1 (1-19); Arizona, 5 (1-19); Utah, 2 (1-19); Pacific-Washington, 15 (20-99); Oregon, 13 (20-99).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958
report showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

| Item | Screw machine products (SIC 3451) | Bolts, nuts, rivets, and washers (SIC 3452) | Metal stampings (SIC 346 1) | Plating and polishing (SIC 3471) | Metal coating, engraving, etc. (SIC 3479) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  Coverage ratio. ${ }^{3}$. | .97 .90 | .92 .90 | . 84 | $\left(\begin{array}{l}2 \\ (2) \\ (2)\end{array}\right.$ | $(2)$ $(2)$ |
|  | 1,874 | 573 250 | 2,574 1,458 | 3,023 2,346 | $\begin{array}{r}1,258 \\ \hline 88\end{array}$ |
| With 20 to 99 employees.................................. . . do. | - 462 | 188 | 1,418 | 2,637 | 245 |
| With 100 employees or more............................do.... | 54 | 135 | 298 | 40 | 31 |
| Proprietors and working partners........................do.... All employees (average for the year) ${ }^{\text {a }}$. ${ }^{\text {a }}$............do... | 979 36,909 | 57,618 | 848 132,179 | 1,816 44,962 | 707 20,669 |
| Payroll (all employees), total for year............... $\$ 1,000$. . | 213,172 | 371,026 | 772,557 | 223,504 | 107,110 |
| Production workers: |  |  |  |  |  |
| Average for the year...................................number.. | 30,796 | 43,972 | 108,336 | 37,722 | 17,113 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 31,155 | 44,544 | 108,483 | 36,897 | 16,760 |
| May . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 31,123 | 43,544 | 107,494 | 37,102 | 17,267 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 30,512 | 43,275 | 106,634 | 37,698 | 17,358 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 30,443 | 44,566 | 110,880 | 39,193 | 17,428 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 1,000.. | 64,270 | 92,502 | 222,005 | 74,846 | 34,998 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . | 16,292 | 23,584 | 54,312 | 18,316 | 8,220 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 16,369 | 23,481 | 55,702 | 18,683 | 8, 882 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 15,520 | 21,941 | 53,768 | 18,805 | 8,927 |
| Oc tober-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 16,089 | 23,496 | 58,223 | 19,042 | 8,969 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 159,991 | 257,477 | 567,309 | 169,592 | 79,136 |
| Cost of materials, etc., total..........................do... | 232,878 | 527,860 | 1,324,939 | 148,320 | 137,211 |
| Materials, parts, containers, and supplies consumed..do.... | 183,688 | 433,638 | 1,171,137 | 114,865 | 122,854 |
| Cost of resales.......................................... .do.... | 5,520 | 44,854 | 51,023 | 2,798 | 2,547 |
| Fuels consumed. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 1,507 | 5,458 | 11,704 | 7,727 | 4,283 |
| Electric energy: |  |  |  |  |  |
| Purchased: <br> Quantity. $\qquad$ .million kw.-hrs.. | 198 | 590 | 1,214 | 721 | $180$ |
| Cost.......................................................... $\$ 1,000 .$. | 4,261 | 8,405 | 17,957 | 12,738 | 3,070 |
| Generated less sold......................million kw.-hrs.. | (D) | (D) | 24 | 7 | 1 |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 37,902 | 35,505 | 73,118 | 10,192 | 4,457 |
| Value of shipments (including resales), total..........do. | 588,981 | 1,218,247 | 2,678,996 | 517,572 | 322,139 |
| Value of resales.............................................do. | 6,864 | 54,232 | 66,129 | 3,782 | 7,189 |
| Value added by manufacture, adjusted...................do.... | 358,961 | 695,276 | 1,368,993 | 370,202 | 184,546 |
| Manufacturers' inventories: |  |  |  |  |  |
| Beginning of year, total............................... do. | 54,106 | 214,688 | 336,751 | 20,461 |  |
| Finished products. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 12,158 | 105,497 | 95,765 | 2,878 | 6,749 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 20,984 | 35,031 | 88,313 | 1,624 | 4,017 |
| Materials, supplies, fuel, etc........................do. | 20,964 | 74,160 | 152,673 | 15,959 | 14,068 |
| End of year, total........................................do. | 58,835 | 222,167 | 360,833 | 22,104 | 27,450 |
| Finished products................ . . . . . . . . . . . . . . . . . . . . . . . . | 14,431 | 107,883 | 102,149 | 3,625 | 6,469 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 21,569 | 37,534 | 96,865 | 1,827 | 3,915 |
| Materials, supplies, fuel, etc.......................do. | 22,835 | 76,750 | 161,819 | 16,652 | 17,066 |
| Expenditures for plant and equipment, total.............do. | 24,209 | 35,914 | 73,166 | 22,786 | 9,331 |
|  | 18,676 | 31,431 | 64,248 | 20,032 | 8,656 |
| New structures and additions to plant..............do... | 3,891 | 5,360 | 16,054 | 4,814 | 2,119 |
| New machinery and equipment..........................do.. | 14,785 | 26,071 | 48,194 | 15,218 | 6,537 |
| Used plant and equipment...............................do.... . | 5,533 | 4,483 | 8,918 | 2,754 | 675 |
| Selected operating ratios: |  |  |  |  |  |
| Payroll/Total employment. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 5,776 | 6,439 | 5,845 | 4,971 | 5,182 |
| Production workers/Total employment. | . 83 | . 76 | . 82 | . 84 | . 83 |
| Man-hours/Production workers...... | 2,087 | 2,104 | 2,049 | 1,984 | 2,045 |
| Production worker wages/Man-hours............................. | 2.49 | 2.78 | 2.59 | 2.27 | 2.26 |
| Cost of materials and payrolls/Total value of shipments.... | . 76 | . 74 | . 78 | . 72 | . 76 |
| Cost of materials/Total value of shipments.................. | . 40 | . 43 | . 49 | . 29 | . 43 |
| Adjusted value added/Total employment........................ | 9,726 | 12,067 | 10,357 | 8,234 | 8,929 |
| Salaries and wages/Adjusted value added..................... | . 59 | . 53 | . 56 | . 60 | . 58 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. ${ }_{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products. materials owned by others.
${ }^{3}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.
table 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $250 \text { to }$ <br> employees | $500 \text { to }$ $999$ <br> employees | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} \text { 2,500 } \\ \text { employees } \\ \text { and over } \end{gathered}$ |
|  | INDUSTRY 3451. -SCREW MACHINE PRODUCTS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 1,874 | 608 | 328 | 422 | 346 | 116 | 46 | 8 | - | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 36,909 | 1,057 | 2,229 | 5,830 | 10,502 | 7,963 | 6,753 | 2,575 | - | - | - |
| Peyroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 213,172 | 5,452 | 11,366 | 31,971 | 60,033 | 48,913 | 40,371 | 15,066 | - | - |  |
| Value added, adjusted.......do.... | 358,961 | 13,287 | 20,293 | 56,402 | 105,075 | 78,041 | 61,632 | 24,231 | - | - |  |
| Value of shipments..........do.. | 588,981 | 21,695 | 33,577 | 91,103 | 173,081 | 134,136 | 95,571 | 39,818 | - | - |  |
| Capital expenditures, new...do... | 18,676 | 782 | 1,171 | 2,533 | 5,395 | 3,609 | 2,991 | 2,195 | - | - |  |
|  | INDUSTRY 3452.-BOLTS, NUTS, RIVETS, AND WASHERS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 573 | 90 | 63 | 97 | 123 | 65 | 80 | 25 | 23 | 6 | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do. | 57,618 | 182 | 412 | 1,371 | 3,877 | 4,420 | 12,377 | 9,167 | 15,615 | 10,197 | (D) |
| Payroll. . . . . . . . . . . . . . $\$ 1,000$. . | 371,026 | 1,276 | 2,407 | 7,636 | 23,834 | 27,946 | 76,303 | 61,025 | 101,650 | 68,949 | (D) |
| Value added, adjusted.......do.... | 695,276 | 3,774 | 6,052 | 14,410 | 49,518 | 58,900 | 146,223 | 119,659 | 186,071 | 110,669 | (D) |
| Value of shipments..........do.... | 1,218,247 | 6,352 | 11,697 | 30,004 | 96,059 | 116,533 | 278,275 | 197,610 | 304,646 | 177,071 | (D) |
| Capital expenditures, new...do.... | 31,431 | 261 | 775 | 966 | 3,364 | 2,530 | 9,367 | 4,570 | 5,815 | 3,783 | (D) |
|  | INDUSTRY 3461. -METAL STAMPINGS |  |  |  |  |  |  |  |  |  |  |
| Establishments............ . number. . | 2,574 | 577 | 407 | 474 | 553 | 265 | 202 | 65 | 19 | 11 | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total....... . . . . . . . . . . . . . ${ }_{\text {do }}^{\text {do. . . }}$ | 132,179 772,557 | 1,118 6,996 | 2,732 13,736 | 6,676 35,330 | 17,243 97,725 | 18,374 105,312 | 31,563 177,532 | 22,433 130,595 | 12,409 76,263 | 19,631 |  |
| Payroll.................. $\$ 1,000 .$. Value added, | 772,557 $1,368,993$ | 1,996 14,086 | 13,736 28,542 | 35,330 63,442 | 97,725 166,820 | 105,312 184,470 | 177,532 309,134 | 130,595 | 76,263 118,725 | $\frac{129,068}{250,172}$ | (D) |
| Value of shipments...........do.... |  | 25,994 | 45,995 | 118,363 | 303,546 | 352,695 | 613,575 | 490,631 | 255,180 | 473,017 | (D) |
| Capital expenditures, new...do.... | $64,248$ | 12,804 | 1,217 | 2,494 | 7,669 | 8,355 | 11,912 | 11,951 | 8,310 | 9,536 | (D) |
|  | INDUSTRY 3471. -PLATING AND POLISHING |  |  |  |  |  |  |  |  |  |  |
| Establishments. . . . . . . . . . number. . | 3,023 | 1,148 | 597 | 601 | 504 | 133 | 36 | 4 | - | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 44,962 | 2,036 | 4,027 | 8,433 | 15,376 | 9,024 | 4,973 | 1,093 | - | - | - |
| Payroll..................\$1,000. . | 223,504 | 10,082 | 19,280 | 41,751 | 76,785 | 45,694 | 23,948 | 5,964 | - | - |  |
| Value added, adjusted.......do.... | 370,202 | 18,568 | 33,273 | 68,652 | 124,261 | 76,877 | 40,053 | 8,518 | - | - |  |
| Value of shipments............do.... Capital expenditures, new...do.... | 517,572 | 24,433 | 44,110 | 91,892 | 171,920 | 112,238 | 59,729 | 13,250 | - | - |  |
|  | 20,032 | 1,082 | 1,598 | 3,184 | 7,649 | 4,190 | 1,768 | 561 | - | - | - |
|  | INDUSTRY 3479.-METAI COATING, ENGRAVING, ETC. |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 1,258 | 548 | 230 | 204 | 178 | 67 | 25 | 5 | 1 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.....................do.... | 20,669 | 916 | 1,510 | 2,729 | 5,321 | 4,606 | 3,498 | 2,089 | (D) | - | - |
| Payroll. ................ $\$ 1,000 .$. | 107,110 | 4,089 | 6,971 | 13,168 | 27,058 | 24,035 | 19,717 | 12,072 | (D) | - |  |
| Value added, adjusted.......do.... | 184,546 | 9,380 | 12,311 | 23,403 | 45,457 | 42,678 | 31,385 | 19,932 | (D) | - | - |
| Value of shipments.........ddo.... | 322,139 | 12,993 | 16,891 | 31,919 | 67,339 | 76,050 | 71,430 | 45,517 | (D) | - | - |
| Capital expenditures, new...do.... | 8,656 | 444 | 541 | 942 | 1,991 | 2,189 | 1,537 | 1,012 | (D) | - | - |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
${ }^{1}$ Includes capital expenditures of approximately $\$ 1-\$ 2$ million for plants under construction but not in operation.


## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\text { Col. B }}{\text { Col } \mathrm{B}+\mathrm{C}}$ $\overline{\mathrm{Col} . \mathrm{B}+\mathrm{C}}$ <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3451 | Screw machine products............ $1963 .$. | 588,981 425,113 | $\begin{aligned} & 538,685 \\ & 373,345 \end{aligned}$ | $\begin{aligned} & 18,755 \\ & 22,953 \end{aligned}$ | $\begin{aligned} & 31,541 \\ & 28,815 \end{aligned}$ | $\begin{aligned} & 97 \\ & 94 \end{aligned}$ | $\begin{aligned} & 599,424 \\ & 428,805 \end{aligned}$ | $\begin{aligned} & 538,685 \\ & 373,345 \end{aligned}$ | $\begin{array}{r} 60,739 \\ 55,460 \end{array}$ | $\begin{aligned} & 90 \\ & 87 \end{aligned}$ |
| 3452 | Bolts, nuts, rivets, and washers...1963.. | $\begin{array}{r} 1,218,247 \\ 880,328 \end{array}$ | $\begin{array}{r} 1,058,382 \\ 754,705 \end{array}$ | $\begin{aligned} & 92,019 \\ & 72,061 \end{aligned}$ | $\begin{aligned} & 67,846 \\ & 53,562 \end{aligned}$ | $\begin{aligned} & 92 \\ & 91 \end{aligned}$ | $\begin{array}{r} 1,175,719 \\ 859,446 \end{array}$ | $1,058,382$ 754,705 | $\begin{aligned} & 117,337 \\ & 104,741 \end{aligned}$ | $\begin{aligned} & 90 \\ & 87 \end{aligned}$ |
| 3461 | Metal stampings. . . . . . . . . . . . . . . . 1963.. 1958. | 2,678,996 2,095,409 | $\begin{aligned} & 2,134,816 \\ & 1,688,259 \end{aligned}$ | $\begin{aligned} & 410,369 \\ & 281,378 \end{aligned}$ | $\begin{aligned} & 133,811 \\ & 125,772 \end{aligned}$ | $\begin{aligned} & 84 \\ & 86 \end{aligned}$ | $\begin{aligned} & 2,483,666 \\ & 1,948,110 \end{aligned}$ | $\begin{aligned} & 2,134,816 \\ & 1,694,528 \end{aligned}$ | $\begin{aligned} & 348,850 \\ & 253,582 \end{aligned}$ | $\begin{aligned} & 86 \\ & 87 \end{aligned}$ |
| 3471 | $\text { Plating and polishing..................1963.. } 1958 . \text {. }$ | $\begin{aligned} & 517,572 \\ & 359,116 \end{aligned}$ | $\begin{aligned} & 1501,949 \\ & { }^{1} 349,686 \end{aligned}$ | $\begin{array}{r} 10,269 \\ 4,419 \end{array}$ | $\begin{aligned} & 5,354 \\ & 5,011 \end{aligned}$ | $\begin{aligned} & \left(\begin{array}{l} 1 \\ (1) \\ (1) \end{array}\right) \end{aligned}$ |  | $\begin{aligned} & 501,949 \\ & 349,686 \end{aligned}$ | $(2)$ $(2)$ | $(2)$ $(2)$ |
| 3479 | Metal coating, engraving, etc.....1963.. | $\begin{aligned} & 322,139 \\ & 196,389 \end{aligned}$ | $\begin{aligned} & \mathbf{1}_{286,484} \\ & \mathbf{1}_{184,050} \end{aligned}$ | $\begin{array}{r} 22,600 \\ 8,930 \end{array}$ | $\begin{array}{r} 13,055 \\ 3,409 \end{array}$ | $\begin{aligned} & \left(\begin{array}{l} 1 \\ (1) \\ (1) \end{array}\right) \end{aligned}$ | $\begin{aligned} & \left(\begin{array}{l} 3 \\ (3) \\ (3) \end{array}\right) \end{aligned}$ | $\begin{aligned} & 286,484 \\ & 184,050 \end{aligned}$ | $(3)$ $(3)$ | $(3)$ $(3)$ |

NOTE: See Introduction for an explanation of terms used.
${ }^{1}$ Specialization ratio is not meaningful because of the predominance of receipts for contract and commission work on materials owned by others. Such receipts are treated as primary products for this industry.
${ }^{2}$ Data on receipts for plating and polishing are not available for establishments classified outside industry 3471.
${ }^{3}$ Data on receipts for metal coating and engraving, etc. are not available for establishments classified outside industry 3479 .

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963


#### Abstract

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous


receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." In. dustries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


[^132]TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry:
1963-Continued


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

| Prod. class code | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Metal coating, engraving, etc. (SIC 3479) | Other industries | Prod. <br> class <br> code | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Metal coating, engaving, etc. (SIC 3479) | Other industries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34790 | METAL COATING, ENGRAVING, ETC. , INDUSTRY <br> Total shipments and receipts of the industry. <br> Metal coating and engraving, $\qquad$ <br> Secondary products. $\qquad$ | (X) <br> ( ${ }^{3}$ ) <br> (X) | $\begin{array}{r} 322,139 \\ 286,484 \\ 22,600 \end{array}$ | (x) <br> (3) (x) |  | METAL COATING, ENGRAVING, ETC., INDUSTRY-Continued <br> Miscellaneous receipts. $\qquad$ <br> Resales $\qquad$ <br> Scrap and salable refuse. $\qquad$ <br> Other. $\qquad$ | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \\ & \text { (X) } \\ & \text { (X) } \end{aligned}$ | $\begin{array}{r} 2 \\ 2 \\ 13,055 \\ 7,189 \\ 1,227 \\ 4,639 \end{array}$ | $\begin{aligned} & \text { (X) } \\ & \text { (X) } \\ & \text { (X) } \\ & \text { (X) } \end{aligned}$ |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Data on receipts for electroplating, plating and polishing not available for establishments classified outside the Plating and Polishing Industry.
${ }^{2}$ Does not include receipts for contract work on materials owned by others. These receipts are included in the primary products of the industry. ${ }^{\text {D Data }}$ on receipts for coating and engraving on metal are not available for establishments classified outside the Metal Coating, Engraving, etc.,
ndustry. Industry.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958



See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | Value $(\$ 1.000)$ |
| 34710-11 | ELECTROPLATING, PLATING AND POLISHING ${ }^{7}$. |  | (X) | 501,949 | (X) | 349,686 |
| 34790 -- | Netal coating and encraving, N.E.C. | ..... | (X) | 286,484 | (X) | 184,050 |
| 3479011 | Engraving on metal ${ }^{7}$. .................. |  | (X) |  |  |  |
| 3479031 3479051 | Galvanizing and other hot dip coating ${ }^{7}$. |  | (X) | 52,569 140,101 | \} (x) | 184,050 |
| 3479000 | Metal coating and engraving, n.s.k. ${ }^{7}$. |  | (X) |  |  |  |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind
${ }^{1}$ Data are limited to vitreous-enameled products produced from materials owned by the producing company. Data no not include the value of receipts for enameling work done on materials owned by others (enameling of products for the trade).
${ }^{2}$ Data are limited to washing machine parts (sold separately).
${ }^{3}$ "Job stampings" are mainly parts which are sold to other manufactures for incorporation into their own products. Job stampings may be made from materials owned by the establishment or from materials owned by the customer. These figures represent only those stampings made from materials owned by the establishment performing the stamping operation.
${ }^{4}$ Data represent electrical appliance stampings (except refrigeration and washing machines).
${ }^{5}$ Figures for 1963 and 1958 as reported on Monthly Survey M34H, "Closures for Containers", are as follows:

| Product | Unit of measure | Quantity of shipments including interplant transfers |  |
| :---: | :---: | :---: | :---: |
|  |  | 1963 | 1958 |
| Metal commercial closures for glass containers: |  |  |  |
| Aluminum screw thread and lug type. | 1,000 units... | 1,913,304 | 1,973,869 |
| Tin mill screw thread and lug type. | ...do......... | 7,280,227 | 7,776,361 |
| Vacuum types, aluminum and tin.... | .do. |  | \{ 4,301,953 |
| Other types, aluminum and tin mill. | do. | ) 6,553,092 | $\{600,916$ |
| Metal closures for metal and plastic containers. | ...do......... | 1,103,215 | (NA) |
| Crowns. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,000 gross... | 315,771 | 306,765 |
| Home canning closures for glass containers, total. | . . do. ........ | 9,991 | 14,382 |
| Tin mill products: |  |  |  |
| Metal lids......... |  | 7,648 |  |
| Metal screw bands. |  |  | 3,005 |
| Other home canning closures, including zinc screw caps and bands (one-piece), glass lids, shoulder seal jar rings, top seal jar rings and other type home canning closures. | ..do.......... | \} 2,343 | $\left\{\begin{array}{l} \\ 942\end{array}\right.$ |

(NA) Not available.
${ }^{6}$ For 1958 product code 3461849 is combined with product code 3461898.
${ }^{7}$ Value consists principally of receipts for work done on materials owned by others. The value represents only work done by establishments classified in the industry to which the product (service) is primary.

TABLE 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes ( $1954=100)$ |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 345-- | Screw machine products, bolts, etc.............. $\begin{array}{r}1963 . . \\ 1958 . .\end{array}$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3451- | Screw machine products......................................... $1963 .$. 1958.. | (1) $(1)$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3452- | Bolts, nuts, rivets, and washers ${ }^{2}$.................... $1963 .$. | 137 99 | 124 |
| 34521 | Standard industrial fasteners (bolts, nuts, screws, etc.)................................................ $1963 .$. | 118 95 | 124 123 |
| 3461- | Metal stampings.................................................... . $1963 .$. | $\left(\begin{array}{l}1 \\ (1) \\ \\ \\ \end{array}\right.$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 34616 | Metal commercial closures except crowns..........1963.. | 134 | 114 |
| 34617 | Metal crowns for glass and metal containers.......1963.. $1958 .$. | 96 94 | 108 |
| 347-- | Metal services, n.e.c........................................1963.. | $(3)$ $(3)$ | $\left(\begin{array}{l}3 \\ (3) \\ \hline\end{array}\right.$ |

n.e.c. Not elsewhere classified.
${ }^{1}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.
${ }^{2}$ Adjusted to include special industrial fasteners (product class 34522) and headed products produced by cold and hot heading, other than industrial fasteners (product class 34523).
${ }^{3}$ Not applicable to these service industries-namely, plating and polishing (industry 3471) and metal coating, engraving, etc. (industry 3479).

## table 6c. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (x) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manu-
factures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments.
The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ Data for product class 34523, Headed products (produced by cold and hot heading) other than industrial fasteners, are included with product class 34522, Special industrial fasteners (nonstandard).
${ }^{3}$ Represents only work done by establishments classified in the industry to which the product (service) is primary.

# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.


See footnotes at end of table.

## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CROWNS (34617) | $1963{ }^{1}$ | 1958 | OTHER STAMPED AND PRESSED METAL END PRODUCTS (34618) -Continued | $1963{ }^{7}$ | 1958 | OTHER STAMPED AND PRESSED METAL END PRODUCTS (34618)-Continued | $1963{ }^{1}$ | 1958 |
| United States, total... | 81,977 | 80,751 |  |  |  |  |  |  |
| Northeast........................ . <br> Pennsylvania. | $\begin{array}{r} 24,915 \\ 9,997 \end{array}$ | $\begin{aligned} & \binom{2}{2} \end{aligned}$ | Middle Atlantic............. <br> New York. $\qquad$ <br> New Jersey. $\qquad$ <br> Pennsylvania................ | 73,298 | 50,358 | West North Central........... Missouri.................... . . . | $\begin{array}{r} 21,796 \\ 8,451 \end{array}$ | $\begin{array}{r} 16,768 \\ 7,865 \end{array}$ |
| North Central | 22,629 | 15,908 |  | 33,599 24,363 |  |  |  | $\begin{array}{r} 5,090 \\ 3,237 \\ (2) \end{array}$ |
| Illinois. | 13,327 | (2) |  | 9,870 | 5,54, | South Atlantic............... | 8,013 |  |
| South and West............... | 34,433 | 40,033 |  | 29,829 | 20,451 | West Virginia. . . . . . . . . . . . Georgia. | $\begin{aligned} & 2,869 \\ & 1,591 \end{aligned}$ |  |
| OTHER STAMPED AND PRESSED METAL END PRODUCIS (34618) |  |  | East North Central Ohio. |  | $\begin{array}{r} 106,687 \\ 46,947 \end{array}$ | East South Central........... Kentucky. | $\begin{array}{r} 10,787 \\ 1,876 \end{array}$ | $\begin{array}{r} 5,232 \\ \left({ }^{2}\right) \end{array}$ |
| United States, total.... | 250,679 | 223,271 | Ohio. <br> Indiana | $\begin{aligned} & 27,136 \\ & 11,534 \end{aligned}$ |  |  |  |  |
| New England.. . . . . . . . . . . . . . | 30,574 | 20,772 | Illinois. | 31,664 | 31,514 |  |  |  |
| Massachusetts............. | 8,922 | 7,594 | Michigan. . . . . . . . . . . . . . | 7,976 | 5,207 | West South Central. . . . . . . . . | $\begin{array}{r} 2,261 \\ 14,277 \end{array}$ | 2,984$(2)$ |
| Connecticut. . . . . . . . . . . . . | 16,442 | 9,995 | Wisconsin. . . . . . . . . . . . . | 11,372 | 5,898 | West. . . . . . . . . . . |  |  |

[^133]TABLE 7A. Materials by Kind: 1963 and 1958


[^134]table 7A. Materials by Kind: 1963 and 1958-Continued

| code | Material | Unit of neasue | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantiy | $\begin{aligned} & \text { Delivesed } \\ & \text { cost } \\ & \text { cosimom } \end{aligned}$ | Quantity | Delivered cost <br> cost (\$1 000 |
|  | Materials, parts, containers, and supplies, total <br> Mill shapes and forms (except castings) <br> arbon steel: <br> Bars and bar shapes <br> Sheet and strip. <br> Wiructural shapes.... <br> Tinplate, terme plate, and black plat <br> All other carbon steel mill shapes and forms. | Short tons | tinuspry 3,61..-nemat starincs |  |  |  |
|  |  |  | (x) |  | (x) | ${ }^{924,207}$ |
|  |  |  |  |  |  |  |
| - |  |  |  |  |  |  |
| ${ }^{331013}$ |  |  |  |  |  |  |
| 边 |  |  |  |  |  | 8, |
|  |  |  |  |  |  |  |
| ${ }^{331021}$ |  |  |  | ${ }^{3} 2,0,944$ |  | 24,517 |
| 331029 |  |  |  |  |  |  |
| ${ }^{331031}$ | sta |  | 66,963 | 74,027 | ${ }^{59,187}$ | ,702 |
|  | Copper and oopper-base alloy: |  | ${ }^{132}$ | 1,18350 | 2,565188 | 1,521150 |
| 335790 | Irsulated virie and cabi |  |  |  |  |  |
| 335102 335123 | Rod, bar, and mechanical. .. | 1,000 17s. | coin19,023 <br> 6,525 <br> 3,520 |  | 70,303 | 33,50 |
| 335127 |  |  |  |  |  |  |
|  | Alunimun and alumnumb-bese alloy: |  |  |  | $\begin{gathered} 168,783 \\ 13,552 \\ \hline \end{gathered}$ |  |
| 335202 <br> 335209 <br> 3 | (ex |  |  |  |  |  |
| 3.8 | Zinc and zincobase alloy refinery |  | 12,072 | 3,506 | 11,390 | 2,6 |
|  | Castings (rouyd and semif thishee): ${ }^{4}$ |  |  |  |  |  |
|  | Irros (ray and nalleatie)....... |  |  |  |  |  |
| 336100 <br> 366200 |  | ${ }^{1,0000} 1$ 10s |  |  |  |  |
| 28220 | Therosesting |  | 43,23147,710 | ci,766 | (nas) | ${ }_{(1 \mathrm{Na}}^{(1 \mathrm{~A})}$ |
| 282130 97099 | Thermolastic resins ......................................... |  |  |  |  |  |
|  |  |  |  |  | (x) |  |
|  <br>  ${ }_{2}^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed forms." <br> ${ }^{3}$ Does not include castings produced and consumed in the same establishment. <br> ${ }^{4}$ In 1963 there were, in addition, 1,857 short tons of steel castings produced and consumed in the same establishment. Data for other types of castings produced and consumed in the same establishment for 1963 and for all types of castings in 1958 are not available. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962


Note: Detail may not add to totals because of independent rounding. Figures for fuels, and electric energy for 1962 and horsepower of power equipmint as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment -in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
(Z) Less than 500 horsepower.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \\ & \hline \end{aligned}$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3461- | METAL STAMPINGS-Continued |  |  |  |  |  |  |  |  |  |  |
| 34615 | ```Metal commercial closures, except crowns (primary product class of estab.)................... Establishments with- 90% or more specialization....``` | 36 25 | 5,732 <br> 3,789 | 33,114 <br> 23,057 | $\begin{aligned} & 4,684 \\ & 3,036 \end{aligned}$ | 9,221 5,853 | 24,077 16,270 | $\begin{aligned} & 66,935 \\ & 45,687 \end{aligned}$ |  | $\begin{array}{r} 14,167 \\ 97,659 \end{array}$ | $\begin{aligned} & 2,951 \\ & 1,735 \end{aligned}$ |
| 34617 | ```Crowns (primary product class of estab.)........................... Establishments with- 90% or more specialization....``` | 20 12 | $\begin{aligned} & 4,265 \\ & 1,103 \end{aligned}$ | 27,506 <br> 7,114 | 3,438 882 | 6,942 1,851 | 20,898 4,762 | 50,418 13,816 | 75,443 22,130 | 125,436 36,466 | 7,002 662 |
| 34618 | Other stamped and pressed metal end products (primary product class of estab.)...................... Establishments with$90 \%$ or more specialization.... 75-89\% specialization......... | $\begin{array}{r} 205 \\ 122 \\ 22 \end{array}$ | $\begin{array}{r} 14,347 \\ 4,904 \\ 1,598 \end{array}$ | $\begin{array}{r} 79,991 \\ 26,413 \\ 7,549 \end{array}$ | $\begin{array}{r} 11,515 \\ 4,068 \\ 1,301 \end{array}$ | $\begin{array}{r} 22,317 \\ 7,937 \\ 2,513 \end{array}$ | $\begin{array}{r} 56,737 \\ 19,285 \\ 5,471 \end{array}$ | $\begin{array}{r} 137,963 \\ 47,360 \\ 15,304 \end{array}$ | $\begin{array}{r} 125,096 \\ 43,432 \\ 11,087 \end{array}$ | $\begin{array}{r} 261,971 \\ 90,962 \\ 25,917 \end{array}$ | $\begin{array}{r} 6,269 \\ 2,196 \\ 795 \end{array}$ |

# TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963 



NOTE: Very small establishments were not requested to report their metal working operations, and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

| Item | Industry |  |  |
| :---: | :---: | :---: | :---: |
|  | 3451 | 3452 | 3461 |
| Total number of establishments in the industry | 1,874 | 573 | 2,574 |
| Number of establishments which reported one or more of the specified operations. Percent of industry production workers in these establishments..................... | $\begin{array}{r} 956 \\ 80-85 \end{array}$ | 317 $75-80$ | $\begin{aligned} & 1,442 \\ & 80-85 \end{aligned}$ |
| Number of establishments which reported "none" of the operations apply. Percent of industry production workers in these establishments...... | $\begin{array}{r} 54 \\ 0-5 \end{array}$ | 62 $5-10$ | 93 $0-5$ |
| Percent of industry production workers in establishments which completed the metalworking operations inquiry. | 85-90 | 80-85 | 80-85 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.
${ }^{2}$ Industry 3451 is composed of establishments primarily engaged in producing screw machine products. However, only 860 of the 1,874 establishments classified in the industry reported such operations. Most of the remaining establishments in the industry, consisting of small plants with fewer than 5 employees, reported on"short-form" schedules which did not include a metalworking operations inquiry. In addition, there is evidence that some of the establishments with 5 to 20 employees did not answer this inquiry. Also, some establishments in this industry probably have no automatic screw machines but are limited to hand-operated screw machines.
${ }^{3}$ Since industry 3461 is composed of establishments primarily engaged in producing metal stanpings, all establishments classified in the industry should have reported stamping, blanking and forming operations. However, only 1,328 of the $\mid 2,574$ establishments classified in the industry reported such operations; 93 establishments reported no metalworking operations; and the remainder, consisting mainly of small plants with fewer than 5 employees reported on "short-form" schedules which did not include a metalworking_operation inquiry. In addition, there is evidence that many of the establishments with 5 to 49 employees did not answer this inquiry.

## FABRICATED METAL PRODUCTS, N.E.C.

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SlC Code and Title<br>3481-Miscellaneous Fabricated Wire Products<br>3491 -Metal Shipping Barrels, Drums, Kegs, and Pails<br>3492-Safes and Vaults<br>3493-Steel Springs<br>3494-Valves and Pipe Fittings, Except Plumbers' Brass Goods<br>3496-Collapsible Tubes<br>3497-Metal Foil and Leaf<br>3498-Fabricated Pipe and Fabricated Pipe Fittings<br>3499-Fabricated Metal Products, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4 ) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3481 -MISCELLANEOUS FABRICATED WIRE PRODUCTS

This industry comprises establishments primarily engaged in manufacturing miscellaneous fabricated wire products from purchased wire. Rolling mills engaged in manufacturing wire products are classified in Major Group 33; establishments manufacturing nonferrous wire nails and spikes in industry 3399; those drawing and insulating nonferrous wire in industry 3357; and those assembling wire bedsprings or seats are classified in Major Group 25. For a detailed list of products of industry 3481, refer to table 6A, product codes 3481111 to 3481998 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Fabricated Wire Products, N.E.C., Industry in 1963 totaled $\$ 1,031$ million. This amount included shipments of fabricated wire products (primary products) valued at $\$ 904$ million, shipments of other products (secondary products) valued at $\$ 71$ million, and miscellaneous receipts (mainly receipts for sale of products bought and resold) at $\$ 56$ million.

This industry's shipments of fabricated wire products in 1963 represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included steel springs ( $\$ 14$ million) and metal stampings (\$6 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 15 percent of the total industry shipments are represented by plants specializing in precision mechanical springs; 22 percent in other wire springs; and 32 percent in other fabricated wire products.

Shipments of fabricated wire products, n.e.c., by this industry in 1963 represented 65 percent of all shipments of these products ( $\$ 1,399$ million) by all industries. In 1958 the coverage ratio was 64 percent. Industry 3315, Steel Wire Drawing, Etc., shipped $\$ 186$ million of fabricated wire products.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3481 , e.g., noninsulated ferrous wire rope, etc., 43 percent; precision mechanical springs, 86 percent; other wire springs, 87 percent; and fencing and fence gates, 46 percent.

The production index for the primary products of the industry decreased to 122 in 1963 from the 1958 level of 106 . The unit value index for 1963 was 118 compared to 112 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3491 -METAL SHIPPING BARRELS, DRUMS, KEGS, AND PAILS

This industry comprises establishments primarily engaged in manufacturing ferrous and nonferrous shipping barrels, drums, kegs, and pails. For a detailed list of products of industry 3491 , refer to table 6A, product codes 3491111 to 3491331.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal Barrels, Drums, and Pails Industry in 1963 totaled $\$ 303$ million. This amount included shipments of metal barrels, drums, kegs, and pails (primary products) valued at $\$ 275$ million, shipments of other products (secondary products) valued at $\$ 23$ million, and miscellaneous receipts (mainly receipts for sale of products bought and resold) at $\$ 6$ million.

This industry's shipments of metal barrels, drums, kegs, and pails in 1963 represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was also 92 percent. Secondary products shipped by this industry in 1963 included metal cans (\$7 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 72 percent of the total industry shipments are represented by plants specializing in steel shipping barrels and drums.

Shipments of metal barrels, drums, kegs, and pails by this industry in 1963 represented 86 percent of all shipments of these products ( $\$ 318$ million) by all industries. In 1958 the coverage ratio was also 86 percent. Other industries shipping metal barrels, drums, kegs, and pails included industry 3411 , Metal Cans, $\$ 11.7$ million; and industry 3461 , Metal Stampings, $\$ 7.3$ million.

The production index for the primary products of the industry increased to 110 in 1963 from the 1958 level of 102 . The unit value index for 1963 was 132 compared to 121 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3492-SAFES AND VAULTS

This industry comprises establishments primarily engaged in manufacturing fire or burglary resistive steel safes and vaults (except concrete grave vaults-industry 3272 , and metal grave vaults-industry 3988), and similar fire or burglary resistive products. For a detailed list of products of industry 3492, refer to table 6A, product codes 3492013 to 3492098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Safes and Vaults lndustry in 1963 totaled \$78 million.

This industry's shipments of safes and vaults in 1963 represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 82 percent.

Shipments of safes and vaults by this industry in 1963 represented between 90 and 95 percent of all shipments of these products ( $\$ 59$ million) by all industries. ln 1958 the coverage ratio was 97 percent.

## 3493-STEEL SPRINGS

This industry comprises establishments primarily engaged in manufacturing leaf springs, hot wound springs, and coiled flat springs. Establishments primarily engaged in manufacturing wire springs are classified in industry 3481, and rolling mills manufacturing steel springs in industry 3312. For a detailed list of products of industry 3493, refer to table 6A, product codes 3493011 to 3493098 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Steel Springs Industry in 1963 totaled $\$ 158$ million. This amount included shipments of steel springs (primary products) valued at $\$ 137$ million, shipments of other products (secondary products) valued at $\$ 14$ million, and miscellaneous receipts at $\$ 7$ million.

This industry's shipments of steel springs in 1963 represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 81 percent. Secondary products shipped by this industry in 1963 included precision mechanical springs ( $\$ 7$ million).

Shipments of steel springs by this industry in 1963 represented 67 percent of all shipments of these products ( $\$ 205$ million) by all industries. In 1958 the coverage ratio was 69 percent. Other industries shipping steel springs included industry 3481, Fabricated Wire Products, N.E.C., $\$ 16$ million.

The production index for the primary products of the industry increased to 124 in 1963 from the 1958 level of 89 . The unit value index for 1963 was 125 compared to 116 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3494-VALVES AND PIPE FITTINGS, EXCEPT PLUMBERS' BRASS GOODS

This industry comprises establishments primarily engaged in manufacturing valves for controlling the flow of liquids or gases in pipes and mains, and for machinery. Establishments primarily engaged in manufacturing faucets, spigots, and similar plumbers' brass goods and fittings are classified in industry 3432. For a detailed list of products of industry 3494, refer to table 6A, product codes 3494111 to 3494498 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Valves and Pipe Fittings Industry in 1963 totaled $\$ 1,589$ million. This amount included shipments of valves and pipe fittings (primary products) valued at $\$ 1,300$ million, shipments of other products (secondary products) valued at $\$ 214$ million, and miscellaneous receipts (mainly receipts for products bought and resold) at $\$ 74$ million.

This industry's shipments of valves and pipe fittings in 1963 represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent. Secondary products shipped by this industry in 1963 included aircraft engine parts and accessories ( $\$ 13$ million) and other refrigeration and air-conditioning equipment ( $\$ 12$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 46 percent of the total industry shipments are represented by plants specializing in metal valves for piping systems and 31 percent in metal fittings and unions for piping systems.

Shipments of valves and pipe fittings by this industry in 1963 represented 85 percent of all shipments of these products ( $\$ 1,525$ million) by all industries. In 1958 the coverage ratio was 88 percent. Other industries shipping valves and pipe fittings included industry 3561, Pumps and Compressors, $\$ 34$ million; and industry 3533, Oil Field Machinery, \$5 million.

The production index for the primary products of the industry increased to 129 in 1963 from the 1958 level of 104 . The unit value index for 1963 was 127 compared to 125 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3496-COLLAPSIBLE TUBES

This industry comprises establishments primarily engaged in manufacturing collapsible tubes defined as cylindrical containers for viscous products, made of thin flexible metal, usually of tin, tin-lined lead, lead, lead-tin alloy, or aluminum, with integral shoulder and neck, provided with an appropriate size opening in the throat, and usually with a screw cap made of plastic material for closure over the neck. For a detailed list of products of industry 3496, refer to table 6A, product codes 3496011 to 3496029.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Collapsible Tubes Industry in 1963 totaled $\$ 51$ million. This amount included shipments of collapsible tubes (primary products) valued at $\$ 44$ million, shipments of other products (secondary products) valued at $\$ 6$ million, and miscellaneous receipts (mainly receipts for products bought and resold) at $\$ 1$ million.

This industry's shipments of collapsible tubes in 1963 represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent.

Shipments of collapsible tubes by this industry in 1963 represented 100 percent of all shipments of these products ( $\$ 44$ million) by all industries. In 1958 the coverage ratio was also 100 percent.

The production index for the primary products of the industry increased to 115 in 1963 from the 1958 level of 98 . The unit value index for 1963 was 112 compared to 111 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3497-METAL FOIL AND LEAF

This industry comprises establishments primarily engaged in manufacturing gold, silver, tin, and other metal foil (including converted metal foil) and leaf. Establishments primarily engaged in manufacturing plain aluminum foil are classified in industry 3352. For a detailed list of products of industry 3497, refer to table 6A, product codes 3497023 to 3497057 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal Foil and Leaf Industry in 1963 totaled $\$ 181$ million. This amount included shipments of metal foil and leaf (primary products) valued at $\$ 147$ million, shipments of other products (secondary products) valued at $\$ 29$ million, and miscellaneous receipts at $\$ 5$ million.

This industry's shipments of metal foil and leaf in 1963 represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. Secondary products shipped by this industry in 1963 included miscellaneous gravure printing (\$4 million).

Shipments of metal foil and leaf by this industry in 1963 represented 45 percent of all shipments of these products ( $\$ 330$ million) by all industries. In 1958 the coverage ratio was 52 percent. Other industries shipping metal foil and leaf consisted mainly of industry 3352, Aluminum Rolling and Drawing, $\$ 135$ million; and industry 2641, Paper Coating and Glazing, $\$ 18$ million.

The production index for the primary products of the industry increased to 177 in 1963 from the 1958 level of 84 . The unit value index for 1963 was 131 compared to 128 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3498-FABRICATED PIPE AND FABRICATED PIPE FITTINGS

This industry comprises establishments primarily engaged in fabricating pipe and pipe fittings from purchased pipe, by cutting, threading, bending, etc. Establishments primarily engaged in manufacturing cast iron pipe and fittings, including cast and forged pipe fittings which have been machined and threaded, are classified in industry 3321 ; welded and heavy riveted pipe in industry 3317; and seamless steel pipe in industry 3317. Establishments primarily engaged in manufacturing products, such as bannisters. railings, and grilles from pipe are classified in industry 3446. For a detailed list of products of industry 3498 , refer to table 6A, product codes 3498013 to 3498019 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Fabricated Pipe and Fittings Industry in 1963 totaled $\$ 306$ million. This amount included shipments of fabricated pipe and
fittings (primary products) valued at $\$ 260$ million, shipments of other products (secondary products) valued at $\$ 21$ million, and miscellaneous receipts (mainly receipts for products bought and resold) at $\$ 25$ million.

This industry's shipments of fabricated pipe and fittings in 1963 represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 89 percent.

Shipments of fabricated pipe and fittings by this industry in 1963 represented 91 percent of all shipments of these products ( $\$ 287$ million) by all industries. In 1958 the coverage ratio was 93 percent. Other industries shipping fabricated pipe and fittings (primary products) included industry 3494, Valves and Pipe Fittings, $\$ 4$ million; and industry 3499, Fabricated Metal Products, N.E.C., $\$ 3$ million.

## 3499-FABRICATED METAL PRODUCTS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing fabricated metal products, not elsewhere classified. Establishments primarily engaged in manufacturing advertising novelties are classified in industry 3993. For a detailed list of products of industry 3499, refer to table 6A, product codes 3499051 to 3499059.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Fabricated Metal Products, N.E.C., Industry in 1963 totaled $\$ 573$ million. This amount included shipments of fabricated metal products, n.e.c. (primary products) valued at $\$ 469$ million, shipments of other products (secondary products) valued at $\$ 60$ million, and miscellaneous receipts (mainly receipts for products bought and resold) at $\$ 44$ million.

This industry's shipments of fabricated metal products in 1963 represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent. Secondary products shipped by this industry in 1963 included wood products, n.e.c. (\$3 million), job stampings, except automotive ( $\$ 2$ million), and fabricated pipe and fittings (\$3 million).

Shipments of fabricated metal products, n.e.c., by this industry in 1963 represented 62 percent of all shipments of these products ( $\$ 753$ million) by all industries. In 1958 the coverage ratio was also 62 percent. Other industries shipping fabricated metal products included industry 3429, Hardware, N.E.C., $\$ 13$ million; and industry 3461, Metal Stampings, $\$ 12$ million.

FABRICATED WIRE PRODUCTS, N.E.C.: SIC 348


FABRICATED METAL PRODUCTS, N.E.C.: SIC 349

U.S. OEPARTMENT OF COMMERCE
table 1. General Statistics: 1963 and Earlier Years

| Year | $\begin{gathered} \text { Com- } \\ \text { panies } \\ \text { (number) } \\ \hline \end{gathered}$ | Establistments |  | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted( $\$ 1,000$ ) | Cost of materials $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expentitures, new$(\$ 1,000)$ | $\begin{array}{\|c} \text { spe } \\ \text { sial- } \\ \text { ization } \\ \text { artio } \\ \text { (per- } \\ \text { cent) } \\ \hline \end{array}$ | Cov- <br> erage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{aligned} & \text { Total } \\ & \text { (number) } \end{aligned}$ | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| INDUSTRY 3481.-FABRICATED WIRE PROJUCTS, N.E.c. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 1,464 | 1,567 | 557 | 55,514 | 297,626 | 45,070 |  | 213,329 |  |  |  |  |  |  |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 60,364 | 325,554 | 48,407 | 100,635 | 226,601 | 561,389 | 512,263 | 1,067, 822 | 32,547 | (NA) | (NA) |
| $1961{ }^{1}$. | (NA) | (NA) | (NA) | 57,405 | 300,298 | 45,822 | 94,876 | 208,087 | 510,512 | 472,342 | 983,642 | 22,473 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 60,874 | 307,217 | 48,858 | 99,456 | 218,029 | 518,9444 | 494, 353 | 1,016,382 | 28,657 | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 60,714 | 308,9444 | 49,322 | 103,382 | 222,745 | 535,323 | 520,507 | 1,052,956 | 24,856 | (NA) | (NA) |
| 1958. | 1,371 | 1,463 | 538 | 55,476 | 261,027 | 44, 225 | 86,278 | 184,432 | 439,940 | 425,981 | 874,923 | 18,105 | 91 | 64 |
| 19571 | ( NA) | (NA) | (NA) | 62,313 63,397 | 286,158 | 50,604 | 98,389 | 208,300 | 503,679 | 442,910 | 939,980 | 23, 815 | 89 | 68 |
| $1955{ }^{1}$. | (NA) | (NA) | (NA) | 63,397 63,948 | 284,801 276,411 | 52,448 54,040 | 105,120 108,048 | 209,891 209,013 | 505,726 484,084 | 434,205 <br> 405,995 | 928,656 879,942 | 17,655 | (NA) | (NA) |
| 1954.. | 1,205 | 1,275 | 498 | 59,929 | 243,904 | 50,067 | 99,329 | 181,835 | 413,310 | 352,480 | 768,709 | 17,503 | (NA) | ${ }_{63}$ |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 65,907 | 268,627 | 55,619 | 112,820 | 208,208 | 450,277 | 390,879 | 841,156 | (NA) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 64,108 | 247,261 | 53,983 | 106,773 | 185,892 | 401,457 | 325,531 | 726,988 | (NA) | (NA) | (NA) |
| 19551 | (NA) | (NA) | (NA) | 65,426 | 241,277 | 55,178 | 111,372 | 184,354 | 416,314 | 351,699 | 768,013 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 65,048 | 216,199 | 56,295 | 112,901 | 169,476 | 372,096 | 305,767 | 677, 863 | (NA) | (NA) | (NA) |
| $1949{ }^{19}$ | ( NA ) | (NA) | (NA) | 55,281 | 175,483 | 46,626 | 96,500 | 137, 412 | 273,994 | 220,065 | 496,885 | (NA) | (NA) | (NA) |
| 1939 |  | 669 | (NA) | 56,973 | 161,759 | 49,371 | 100,490 | $\begin{array}{r}128,736 \\ \hline 35,53\end{array}$ | 266,966 | 199,007 | 465,973 | 5,540 |  | 60 |
| 1937. | (NA) | 563 | (NA) | 37,880 | 50,569 | 33,471 | (NA) | 39,207 | 86,214 | 78,296 | 164,510 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 536 | ( NA) | 28,797 | 33,811 | 25,165 | (NA) | 25,426 | 61,585 | 55,984 | 117,569 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 429 | (NA) | 20,270 | 18,433 | 17,633 | (NA) | 14,155 | 39,300 | 35,220 | 74,520 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 494 | (NA) | (NA) | (NA) | 17,226 | (NA) | 17,386 | 46,386 | 40,308 | 86,694 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 547 | (NA) | 25,609 | 37,501 | 22,388 | (NA) | 27,912 | 78,661 | 68,144 | 146,805 | (NA) | (NA) | (NA) |
| 1927 | (NA) | 512 | (NA) | 25,174 | 35,875 | 21,697 | (NA) | 26,439 | 65,443 | 63,093 | 128,536 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 462 | (NA) | 22,406 | 31,835 | 19,268 | (NA) | 23,835 | 55, 825 | 59,604 | 115,429 | (NA) | (NA) | (NA) |
| 1923 | (NA) | 462 | (NA) | 19,307 | 25,574 | 16,783 | (NA) | 19,341 | 47, 968 | 52, 288 | 100,248 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 413 | (NA) | 13,695 | 18,462 | 11,485 | (NA) | 13,314 | 29,346 | 37,039 | 66,385 | (NA) | (NA) | (NA) |
| 1919. | (NA) | 558 552 55 | (NA) | 17,883 | 21,585 | 15,224 | (NA) | 15,506 | 39,795 | 50,754 | 90,549 | (NA) | (NA) | (NA) |
| $\begin{aligned} & 1914 . \\ & 1909 . \end{aligned}$ | (NA) | 552 611 | (NA) | 14,196 | 9,593 | 12,126 | (NA) | 6,719 6,331 | 17,675 | 24,114 24,394 | 41, 789 41,938 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 649 | (NA) | 15,315 | 8,217 | 13,379 | (NA) | 6,331 6,100 | 15,182 | 24,394 17,856 | 41,938 33,038 | (NA) | (NA) (NA) | (NA) (NA) |
| 1899............ | (NA) | 596 | (NA) | 10,137 | 4,834 | 9,142 | (NA) | 3,894 | 9,027 | 10,813 | 19,840 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3491.-METAL BARrRLS, DRUMS, AND PAILS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 , | 95 | 145 | 93 | 10,508 | 66,614 | 8,480 | 17,713 | 49,127 | 119,617 | 183,880 | 343,423 |  | 92 | 86 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 9,592 | 62,158 | 7,634 | 15,956 | 45,084 | 104,419 | 174,977 | 279,535 | $(5,582)$ | (NA) | (NA) |
| $1961{ }^{1}$ |  | (NA) | (NA) | 9,209 | 55,543 | 7,291 | 14,755 | 39,921 | 97,244 | 158,533 | 257,101 | 4,147 | (NA) | (NA) |
| $196{ }^{1}$ | (NA) | (NA) | (NA) | 9,769 | 55,579 | 7,827 | 14,882 | 38,978 | 93,601 | 163,186 | (256,342) | 5,665 | (NA) | (NA) |
| $19591 . . . . . .$. | ( NA$)^{78}$ | (NA) | (NA) | $(9,406)$ | (54,795) | (7,693) | $(15,309)$ | $(40,167)$ | (105,702) | $(171,511)$ | ( 277,616 | $(4,186)$ | (NA) | (NA) |
| 1958 (new) 1958 (old) ${ }^{3} \ldots$ | 78 ( NA$)$ | 126 | 75 | 9,496 9,055 | 53,200 | 7,584 | 15,244 | 38,766 | 96,171 | 153,135 | 250, 256 | 5,332 | 92 | 86 |
| 1958 (old) ${ }^{3} \ldots$ | (NA) | 121 | 70 | 9,055 | 50,427 | 7,239 | 14,246 | 36,352 | 91,230 | 150,911 | 242,574 | 4,416 | 92 | 86 |
| 19571 | (NA) | (NA) | (NA) | 10,420 | 56,727 | 8,437 | 17,447 | 42,692 | 104,053 | 175,630 | 278,925 | 5,433 | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 10,547 | 55,249 | 8,724 | 18,570 | 42,414 | 102,020 | 168,667 | 269,567 | 7,841 | (NA) | (NA) |
| 19551 | ( NA) | (NA) | (NA) | 10,657 | 52,342 | 8,832 | 18,919 | 40,490 | 95,616 | 156,489 | 253,450 | 7,786 | (NA) | (NA) |
| 1954 | 51 | 93 | 63 | 10,585 | 48,501 | 8,687 | 17,924 | 37,058 | 85,667 | 137,670 | 224,920 | 5,860 | 82 |  |
| 1953 | (NA) | (NA) | (NA) | 10,027 | 45,596 | 8,353 | 17,037 | 34,885 | 76,687 | 126,573 | 203,260 | ( NA ) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 9,773 | 39,687 | 8,278 | 16,729 | 30,807 | 78,159 | 113,317 | 191,476 | (NA) | (NA) | ( NA ) |
| 1951 | (NA) | (NA) | (NA) | 11,181 | 41,786 | 9,636 | 19,649 | 33,625 | 98,838 | 147,356 | 246,194 | (NA) | (NA) | (NA) |
| 19501. | (NA) | (NA) | (NA) | 9,329 | 30,713 | 8,305 | 15,965 | 24,706 | 72,831 | 110,218 | 183,049 | (NA) | (NA) | (NA), |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 8,574 | 27,555 | 7,347 | 13,504 | 21,183 | 66,127 | 90,060 | 156,187 | (NA) | (NA) | (NA) |
| 1947. | 47 | 71 |  | 10,927 | 31,368 | 9,341 | 18,483 | 24,955 | 64,186 | 109,086 | 173,272 | 3,607 | 83 | 83 |
| 1939. | (NA) | 64 | (NA) | 6,964 | 9,545 | 6,072 | (NA) | 7,360 | 16, 838 | 32,328 | 49,166 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 58 | (NA) | 7,051 | 9,159 | 6,231 | (NA) | 7,357 | 17, 879 | 30,296 | 48,175 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 64 <br> 58 | ( NA ( NA$)$ | 6,481 7,015 | 7,624 | 5,761 6,517 | ( NA ( NA$)$ | 5,839 | 13,560 12,364 | 21,090 | 34,650 30,399 | (NA) | ( NA$)$ (NA) | ( NA$)$ (NA) |
| 1931. | (NA) | 52 | ( NA ) | (NA) | (NA) | 3,253 | (NA) | 3,513 | 8,654 | 12,990 | 21,644 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 53 | (NA) | 4,666 | 7,665 | 4,110 | (NA) | 5,769 | 15,878 | 21,947 | 37,825 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 39 | (NA) | 3,344 | 5,390 | 2,853 | (NA) | 3,986 | 9,369 | 14,736 | 24,105 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 33 | (NA) | 2,286 | 3,866 | 2,021 | (NA) | 2,914 | 7,185 | 12,743 | 19,928 | (NA) | ( NA ) | (NA) |
| 1923. | (NA) | 39 | (NA) | 3,145 | 4,912 | 2,668 | (NA) | 3,363 | 8,431 | 14,818 | 23,249 | (NA) | (NA) | (NA) |
| 19194........... | (NA) | 31 | (NA) | 2,445 | 3,525 | 2,013 | (NA) | 2,323 | 5,258 | 9,267 | 14,525 | (NA) | (NA) | (NA) |
|  | (NA) | 33 | (NA) | 3,956 | 5,899 | 3,322 | ( NA ) | 4,435 | 9,792 | 15,151 | 24,943 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3492.-SAFES AND VAULTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 28 | 32 | 15 | 3,346 | 21,782 | 2,304 | 4,817 | 14,041 | 56,223 | 24,269 | 78,012 | 1,794 | 81 | 9-95 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 3,300 3,383 | 20,825 | 2,070 | $4,390$ | 12,323 | 50,901 | 20,559 | 71, 254 | $\begin{array}{r} 934 \\ 1.343 \end{array}$ | (NA) | (NA) |
| $1966{ }^{1}$ | (NA) | (NA) | (NA) | 3,383 <br> 3,581 | 20,183 | 2,169 2,368 | 4,456 4,661 4,83 | 12,231 | 49,240 46,614 | 20,677 | 69,546 | 1,343 | (NA) | ( NA ( NA ) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 3,724 | 20,062 | 2,391 | 4,838 | 12,577 | 44,202 | 19,429 | 62,257 | 1,021 | (NA) | ( NA ) |
| 1958.. | 31 | 33 | 12 | 3,495 | 15,843 | 2,323 | 4,417 | 10,722 | 39,537 | 18,514 | 58,790 | ,683 | 82 | 97 |

[^135]TABLE 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | $\begin{gathered} \text { Value } \\ \text { added by } \\ \text { manufacture, } \\ \text { adjusted } \\ (\$ 1,000) \end{gathered}$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3492.-SAFES AND VAULTS—Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1957{ }^{1} 2$ | (NA) | (NA) | (NA) | 3,548 | 14,869 | 2,402 | 4,492 | 10,054 | 38,141 | 15,225 | 51,858 | 627 | 86 | 97 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 3,072 | 14,037 | 2,295 | 4,629 | 9,787 | 35,604 | 15,213 | 50,566 | 622 | (NA) | (NA) |
| 1954 | 25 | 26 | 10 | 3,442 | 15,030 | 2,581 | 5,050 | 10,341 | 29,583 | 12,398 | 41,758 | 714 | 87 | 97 |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 3,752 | 14,985 | 2,796 | (NA) | 10,754 | 29,211 | 11,276 | 40,487 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 3,773 | 14,120 | 2,961 | (NA) | 10,790 | 28,695 | 13,976 | 42,671 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 4,166 | 13,800 | 2,648 | (NA) | 7,848 | 21,154 | 12,405 | 33,559 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 3,048 | 9,511 | 2,286 | (NA) | 6,263 | 17,450 | 8,379 | 25,829 | (NA) | (NA) | (NA) |
| 1947. | 26 | 26 | (NA) | 3,754 | 10,117 | 3,004 | 6,035 | 7,437 | 19,434 | 9,782 | 29,216 | 580 | 98 | 98 |
| 1939. | (NA) | 16 | (NA) | 1,558 | 2,286 | 1,236 | (NA) | 1,589 | 3,671 | 2,413 | 6,084 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 14 | (NA) | 1,359 | 1,951 | 1,132 | (NA) | 1,445 | 3,151 | 1,998 | 5,149 | (NA) | (NA) | (NA) |
| 1935 | (NA) | 14 | (NA) | 1,060 | 1,280 | 809 | (NA) | 800 | 2,047 | 1,266 | 3,313 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 21 | (NA) | 1,208 | 1,058 | 933 | (NA) | 643 | 1,980 | 938 | 2,918 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 25 | (NA) | (NA) | (NA) | 2,044 | (NA) | 2,176 | 7,534 | 4,073 | 11,607 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 27 | (NA) | 3,782 | 6,442 | 3,033 | (NA) | 4,439 | 12,970 | 6,392 | 19,362 | (NA) | (NA) | (NA) |
| $1927{ }^{4}$ | (NA) | 25 | (NA) | 3,936 | 5,796 | 3,386 | (NA) | 4,494 | 11,214 | 7,226 | 18,440 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3493.-STEEL SPRINGS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 91 | 96 | 49 | 6,287 | 41,321 | 5,110 | 10,633 | 31,398 | 69,305 | 89,063 | 157,704 | 1,962 | 91 | 67 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 7,036 | 45,680 | 5,489 | 11,573 | 33,717 | 77,303 | 88,604 | 165,132 | 2,954 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 6,356 | 38,570 | 4,891 | 9,901 | 27,720 | 60,508 | 70,856 | 131,091 | $(2,027)$ | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 6,629 | 40,337 | 5,235 | 10,718 | 29,672 | 65,442 | 79,282 | 143,274 | 2,626 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 7,078 | 40,824 | 5,592 | 11,045 | 29,535 | 67,644 | 84,194 | 150,398 | (2,140 | (NA) | (NA) |
| 1958 | 84 | 90 | 53 | 6,758 | 35,607 | 5,242 | 9,978 | 25,499 | 54,135 | 65,639 | 120,525 | 1,721 | 81 | 69 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 9,194 | 51,289 | 7,436 | 15,341 | 38,740 | 80,175 | 124,146 | 200,253 | (S) | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 9,005 | 48,950 | 7,327 | 15,268 | 37,497 | 79,036 | 118,564 | 1.94,749 | 4,270 | (NA) | (NA) |
| $1955{ }^{1}$. | (NA) | (NA) | (NA) | 9,759 | 50,309 | 8,108 | 17,470 | 39,944 | 79,914 | 120,925 | 198,543 | (S) | (NA) | (NA) |
| 1954. | 89 | 101 | 43 | 7,078 | 33,304 | 5,650 | 11,429 | 24,510 | 50,768 | 70,853 | 122,928 | 36,127 | 84 | 74 |
| $1953{ }^{1}$. | (NA) | (NA) | (NA) | 8,120 | 38,569 | 6,755 | (NA) | 29,371 | 62,949 | 75,775 | 138,724 | (NA) | (NA) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (NA) | 7,377 | 33,069 | 6,195 | (NA) | 25,337 | 54,406 | 65,535 | 119,941 | (NA) | (NA) | (NA) |
| 1951 ${ }^{1}$ | (NA) | (NA) | (NA) | 7,968 | 32,629 | 6,880 | (NA) | 25,646 | 55,858 | 72,248 | 128,106 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 7,179 | 27,555 | 5,813 | (NA) | 20,455 | 46,362 | 59,246 | 105,608 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 7,158 | 25,289 | 5,794 | (NA) | 19,245 | 45,354 | 46,287 | 91,641 | (NA) | (NA) | (NA) |
| 1947. | 68 | 81 | (NA) | 7,760 | 24,938 | 6,747 | 14,135 | 20,233 | 45,876 | 46,770 | 92,646 | 2,285 | 89 | 68 |
| 1939 | (NA) | 53 | (NA) | 3,591 | 5,739 | 2,940 | (NA) | 4,277 | 10,249 | 12,795 | 23,044 | (NA) | (NA) | (NA) |
| 1937 | (NA) | 57 | (NA) | 4,412 | 7,151 | 3,902 | (NA) | 5,804 | 11,080 | 16,153 | 27,233 | (NA) | (NA) | (NA) |
| 1935 | (NA) | 49 | (NA) | 3,595 | 4,609 | 3,146 | (NA) | 3,566 | 7,184 | 11,049 | 18,233 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 60 | (NA) | 2,508 | 2,581 | 2,112 | (NA) | 1,972 | 4,870 | 5,543 | 10,413 | (NA) | (NA) | (NA) |
| $1931{ }^{4}$ | (NA) | 77 | (NA) | (NA) | (NA) | 2,561 | (NA) | 3,101 | 6,247 | 6,367 | 12,614 | (NA) | ( NA ) | (NA) |
|  | INDUSTRY 3494.-VALVES AND PIPE FITTIINGS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 580 | 646 | 374 | 80,407 | 500,009 | 58,148 | 116,929 | 321,239 | 942,700 | 651,964 | 1,588,509 | 38,951 | 86 | 85 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 81,278 | 491,448 | 57,933 | 116,414 | 311,696 | 932,953 | 655,184 | 1,570,548 | 38,351 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 76,358 | 446,371 | 54,199 | 107,417 | 277,651 | 820,905 | 616,418 | 1,418,545 | 29,911 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 74,987 | 424,565 | 54,205 | 105,682 | 273,009 | 768,973 | 577,541 | 1,343,254 | 32,004 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 75,980 | 424,354 | 56,096 | 110,748 | 280,416 | 820,939 | 573,390 | 1,357,093 | 35,066 | (NA) | (NA) |
| 1958. | 549 | 590 | 347 | 76,844 | 410,225 | 55,930 | 110,634 | 269,608 | 732,618 | 512,950 | 1,263,960 | 34,108 | 89 | 88 |
| 1957 | (NA) | (NA) | (NA) | 80,035 | 419,524 | 60,203 | 121,247 | 282,034 | 814,214 | 614,715 | 1,414,042 | (S) | 87 | 90 |
| 1956 ${ }^{1}$ | (NA) | (NA) | (NA) | 78,644 | 406,194 | 62,188 | 126,282 | 283,746 | 800,026 | 614,723 | 1,356,185 | (S) | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 74,485 | 355,531 | 57,929 | 119,148 | 250,762 | 665,292 | 500,416 | 1,126,802 | (s) | (NA) | (NA) |
| 1954. | 523 | 556 | 314 | 75,016 | 333,213 | 58,425 | 115,312 | 235,730 | 579,006 | 416,111 | 989,463 | 24,869 | 85 | 86 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 78,954 | 348,685 | 61,658 | 127,484 | 252,872 | 604,376 | 406,757 | 1,011,133 | ( NA ) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 80,068 | 348,347 | 63,695 | 131,294 | 253,237 | 614,183 | 389,375 | 1,003,558 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 81, 621 | 344,441 | 66,045 | 139,629 | 254,000 | 617,228 | 399,311 | 1,016,539 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 70,284 | 261,964 | 56,786 | 115,823 | 188,669 | 456,915 | 288,501 | -745,416 | (NA) | (NA) | (NA) |
| $1949^{1}$ | (NA) | (NA) | (NA) | 64,246 | 219,245 | 50,941 | 99,892 | 153,424 | 384,740 | 204,115 | 588,855 | (NA) | (NA) | (NA) |
| $1947{ }^{1939}$ | ( 4.36 | 452 298 | (NA) | 79, 713 (NA) | 237,921 $(\mathrm{NA})$ | 65,522 32,159 | 132,012 (NA) | 183,763 43,936 | 392,090 107,511 | 241,681 57,416 | 633,771 164,927 | 20,877 $(\mathrm{NA})$ | 82 (NA) | 90 (NA) |
| 19394. | (NA) | 298 | (NA) | (NA) | (NA) | 32,159 | (NA) | 43,936 | 107,511 | 57,416 | 164,927 | (NA) | (NA) | ( NA ) |
|  | INDUSTRY 3496.-COLTAPSIBLE TUBES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 18 | 24 | 19 | 3,984 | 18,804 | 3,540 | 6,923 | 14,771 | 30,562 | 20,396 | 51,027 | 1,925 | 88 | 100 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 4,062 | 18,362 | 3,632 | 7,222 | 16,309 | 28,854 | 19,172 | 47,630 | 2,054 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 4,177 | 18,058 | 3,433 | 7,349 | 16,204 | 27,395 | 20,544 | 47,977 | 842 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 3,955 | 17,539 | 3,493 | 7,145 | 15,616 | 28,877 | 19,867 | 48,625 | 1,244 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 4,039 | 17,317 | 3,563 | 7,250 | 15,355 | 28,443 | 20,836 | 48,673 | 2,060 | (NA) | (NA) |
| 1958. | 18 | 22 | 20 | 3,837 | 16,118 | 3,367 | 6,852 | 12,453 | 25,257 | 19,183 | 44,700 | 1,572 | 91 | 100 |
| 1957 | (NA) | (NA) | (NA) | 3,673 | 14,926 | 3,261 | 6,467 | 11,478 | 23,667 | 15,710 | 39,379 | 1,082 | 89 | 100 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 4,313 | 16,399 | 3,872 | 7,704 | 12,936 | 26,022 | 16,936 | 43,014 | 1,050 | (NA) | (NA) |
| 1954. |  |  |  | 4,302 | 14,934 | 3,856 | 7,643 | 11,783 | 22,429 | 15,707 | 38,067 | 1,369 | 93 | 100 |
| 1953 | (NA) | (NA) | (NA) | 4,082 | 13,360 | 3,679 | 7,114 | 10,902 | 20,533 | 13,877 | 34,410 | ( NA ) | (NA) | (NA) |

[^136]
## table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Cov- <br> erage <br> ratio <br> (per- <br> cent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total (number) | with 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3496.-COLLAPSIBLE TUBES--Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1947 | 19 | 19 | (NA) | 3,866 | 9,415 | 3,475 | 6,886 | 7,205 | 16,942 | 10,055 | 26,997 | 1,477 | 91 | 100 |
| 1939. | (NA) | 14 | (NA) | 2,195 | 2,695 | 1,933 | (NA) | 1,903 | 4,536 | 4,936 | 9,472 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 15 | (NA) | 2,164 | 2,437 | 1,983 | (NA) | 1,872 | 3,913 | 5,272 | 9,185 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 16 | (NA) | 2,138 | 2,306 | 1,961 | (NA) | 1,750 | 3,539 | 4,966 | 8,505 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 17 | (NA) | 1,881 | 1,735 | 1,750 | (NA) | 1,482 | 3,090 | 3,834 | 6,924 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 17 | (NA) | (NA) | ( NA ) | 1,737 | (NA) | 1,634 | 3,492 | 4,142 | 7,634 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 17 | (NA) | 1,968 | 2,429 | 1,821 | (NA) | 1,782 | 3,527 | 5,386 | 8,913 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 17 | (NA) | 2,169 | 2,568 | 1,984 | (NA) | 1,918 | 4,247 | 7,104 | 11,351 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 16 | (NA) | ( NA ) | (NA) | 1,948 | (NA) | 1,877 | 3,755 | 5,694 | 9,449 | (NA) | (NA) | (NA) |
| $1923{ }^{4}$ | (NA) | 12 | (NA) | 1,413 | 1,448 | 1,297 | (NA) | 1,161 | 2,143 | 3,047 | 5,190 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3497.-METAL FOIL AND LEAF |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963.. |  |  |  | 4,981 | 32,438 | 3,733 | 7,831 | 21,775 | 63,486 | 117,887 | 180,567 | 6,410 | 84 | 45 |
| $1962{ }^{1}$. | (NA) | (NA) | (NA) | 3,465 | 23,688 | 2,410 | 5,454 | 15,228 | 48,912 | 74,531 | 120,593 | $(4,857)$ | (NA) | (NA) |
| $1961{ }^{1}$. | (NA) | (NA) | (NA) | 3,109 | 20,826 | 2,226 | 4,969 | 13,534 | 40,248 | 63,127 | 102,185 | $(3,983)$ | (NA) | (NA) |
| 1960 | (NA) | (NA) | (NA) | 3,275 | 20,888 | 2,369 | 5,473 | 13,456 | 43,125 | 66,684 | 109,527 | (S) | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 3,376 | 20,839 | 2,441 | 5,543 | 14,239 | 41,560 | 70,316 | 110,071 | (S) | (NA) | (NA) |
| $1958{ }^{4}$ | 59 | 66 | 31 | 3,500 | 18,709 | 2,522 | 5,149 | 12,118 | 38,063 | 59,165 | 96,438 | 3,296 | 83 | 52 |
|  | INDUSTRY 3498. -FABRICATED PIPE AND FITTINGS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 328 | 349 | 146 | 13,007 | 79,087 | 9,346 | 18,733 | 51,671 | 144, 598 | 161,499 | 305,640 | 5,099 | 92 | 91 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 12,090 | 77,328 | 8,699 | 17,768 | 50,475 | 130,264 | 175,325 | 301,593 | 3,417 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 11, 841 | 71,991 | 8,510 | 16,977 | 46,125 | 136,448 | 156,314 | 287,401 | $(5,225)$ | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 13,464 | 77,542 | 9,738 | 19,885 | 50,712 | 124,256 | 178,478 | 304,973 | 5,224 | (NA) | (NA) |
| 1959 | (NA) | (NA) | (NA) | 13,331 | 77,990 | 9,706 | 20,001 | 50,159 | 143,401 | 185,940 | 327,124 | 5,494 | (NA) | (NA) |
| 1958. | 273 | 286 | 136 | 15,214 | 84,015 | 11,139 | 22,238 | 55,347 | 155,621 | 174,661 | 329, 979 | 4,103 | 89 | 93 |
| $1957{ }^{1956}$ | (NA) | (NA) | (NA) | 14,295 | 78,257 | 10,900 | 21,229 | 52,613 | 154,887 | 143,272 | 287, 645 | (S) | (NA) | (NA) |
| ${ }_{195651}{ }^{1}$ | (NA) | (NA) | (NA) | 13,457 | 68,278 | 10,285 | 19,881 | 47,521 | 139,233 | 128,638 | 257,720 | (S) | (NA) | (NA) |
| 1955 | (NA) | (NA) | (NA) | 12,495 | 58,603 | 9,549 | 18,291 | 40,787 | 104,789 | 111,255 | 214,246 | (S) | (NA) | (NA) |
| 1954. | 237 | 250 | 130 | 12,670 | 62,092 | 9,943 | 19,352 | 43,945 | 122,408 | 122,283 | 249,923 | 4,804 | 92 |  |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 12,858 | 64,240 | 10,368 | (NA) | 46,801 | 111,522 | 98,489 | 210,011 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 12,793 | 62,580 | 8,974 | (NA) | 37,813 | 98,790 | 87,676 | 186,466 | (NA) | (NA) | (NA) |
| 1951. | (NA) | (NA) | (NA) | 12,152 | 51,586 | 8,998 | (NA) | 34,538 | 91, 855 | 88,901 | 180,756 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 10,514 | 38,304 | 8,236 | (NA) | 26,795 | 84,303 | 74,023 | 158,326 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$. | (NA) | (NA) | (NA) | 9,867 | 37,745 | 7,427 | (NA) | 21,868 | 80,982 | 61,412 | 142,394 | (NA) | (NA) | (NA) |
| 1947...... |  | 212 | (NA) | 10,568 | 33,362 | 8,273 | 16,781 | 23,172 | 58,786 | 57,190 | 115,976 | 4,084 | 82 | 83 |
|  | (NA) |  | (NA) | (NA) | (NA) | 2,792 | (NA) | 3,737 | 10,842 | 12,172 | 23,014 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3499. -FABRTCATED METAL PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 1,254 | 1,277 | 346 | 28,302 | 151,919 | 22,209 | 45,673 | 105,063 | 299,326 | 276,264 | 573,185 | 16,189 | 89 | 62 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 24,125 | 130,817 | 18,258 | 39,071 | 84,439 | 237,877 | 238,432 | 469,200 | $(16,647)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 21,237 | 112,807 | 15,819 | 33,798 | 69,773 | 204,000 | 198,831 | 401, 629 | 10,741 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 22,527 | 112,386 | 17,027 | 36,160 | 72,559 | 199,811 | 205,925 | 403,688 | 12,605 | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 23,027 | 108,601 | 17,870 | 34,058 | 73,104 | 212,268 | 188,031 | 397,915 | (S) | ( NA ) | (NA) |
| 1958.... | 962 | 974 | 213 | 20,200 | 93,199 | 15,600 | 29,845 | 62,747 | 180,132 | 160,374 | 340,096 | 11,362 | 88 | 62 |
| 19571 | (NA) | (NA) | (NA) | 19,087 | 82,869 | 15,236 | 29,002 | 58,022 | 169,812 | 151,655 | 314,705 | 8,220 | (NA) | (NA) |
| $1956{ }^{1}$ 。 | (NA) | (NA) | (NA) | 19,683 | 80,586 | 15,775 | 29,841 | 56,070 | 165,598 | 149,018 | 306,420 | 10,830 | (NA) | (NA) |
| $1955{ }^{1}$. | (NA) | (NA) | (NA) | 20,277 | 80,107 | 16,542 | 32,243 | 56,562 | 158,348 | 134,687 | 282, 802 | (S) | (NA) | (NA) |
| 1954. | 1,017 | 1,026 | 183 | 18,069 | 68,191 | 14,556 | 28,228 | 47,982 | 130,687 | 120,894 | 254,081 | 8,088 | 85 | 53 |
| 1947. | 430 | 438 | (NA) | 7,633 | 21,190 | 6,377 | 13,288 | 15,560 | 39,967 | 33,238 | 73,205 | 2,028 | 90 | 60 |
| $1939{ }^{4}$. | (NA) | 104 | (NA) | (NA) | (NA) | 5,097 | (NA) | 6,802 | 19,328 | 13,085 | 32,413 | (NA) | (NA) | ( NA ) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the l5th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior ol 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ Data for Alaska and Hawaii are excluded for years prior to 1958.
${ }^{3}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification, accordingly, the data for 19581963 are not comparable with those for earlier years.
${ }^{4}$ No separate figures are available for prior years.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expend itures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3481. -FABRICATED WIRE PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total... | 1,567 | 557 | 55,514 | 297,626 | 45,070 | 72,096 | 213,329 | 539,137 | 490,937 | 1,030,876 | 24,795 | 55,476 | 439,940 |
| New England.. | 146 | 59 | 4,375 | 21,299 | 3,555 | 7,790 | 15,281 | 36,275 | 26,332 | 61,848 | 1,234 | 4,972 | 35,647 |
| Massachusetts. | 55 | 22 | 1,530 | 6,848 | 1,240 | 2,532 | 4,909 | 12,760 | 11,380 | 23,507 | 481 | 2,219 | 15,233 |
| Phode Island.. | 14 | 2 | 197 | 1,014 | 168 | 348 | 833 | 1,904 | 1,593 | 3,543 | 229 | 138 | 832 |
| Connecticut.. | 71 | 35 | 2,614 | 13,321 | 2,119 | 4,857 | 9,450 | 21,408 | 13,236 | 34,451 | 519 | 2,603 | 19,509 |
| Middle Atlantic.... | 414 | 131 | 13,868 | 73,701 | 11,196 | 22,605 | 53,463 | 146,472 | 113,261 | 260,568 | 5,018 | 14,271 | 117,298 |
| New York... | 216 | 59 | 4,665 | 23,070 | 3,745 | 7,635 | 16,391 | 40,957 | 33,113 | 73,182 | 1,350 | 4,943 | 34,641 |
| New Jersey... | 90 | 24 | 2,935 | 16,688 | 2,390 | 4,628 | 11,957 | 35,930 | 24,581 | 60,748 | 871 | 2,662 | 25,822 |
| Pennsylvania..... | 108 | 48 | 6,268 | 33,943 | 5,061 | 10,342 | 25,115 | 69,585 | 55,567 | 126,638 | 2,797 | 6,666 | 56,835 |
| East North Central. | 439 | 179 | 21,908 | 126,272 | 18,032 | 36,833 | 92,148 | 203,220 | 186,115 | 390,014 | 9,392 | 22,373 | 175,216 |
| Ohio.... | 101 | 33 | 2,588 | 14,031 | 2,102 | 4,264 | 9,825 | 25,464 | 20,193 | 45,697 | 930 | 4,412 | 39,410 |
| Indiana. | 56 | 28 | 3,107 | 16,389 | 2,626 | 5,258 | 12,578 | 27,194 | 25,452 | 52,574 | 1,145 | 2,666 | 19,950 |
| Illinois........ | 168 | 69 | 8,528 | 48,841 | 7,045 | 14,143 | 35,274 | 74,043 | 73,241 | 147,872 | 3,599 | 7,456 | 57,858 |
| Michigan......... | 88 | 41 | 6,827 | 42,538 | 5,553 | 11,684 | 31,215 | 69,283 | 62,111 | 131,594 | 3,013 | 6,777 | 46,681 |
| Wisconsin........ | 26 | - | 858 | 4,473 | 706 | 1,484 | 3,256 | 7,236 | 5,118 | 12,277 | 705 | 1,062 | 11,317 |
| West North Central. | 86 | 36 | 3,358 | 17,825 | 2,654 | 5,385 | 11,988 | 33,576 | 32,370 | 65,649 | 2,017 | 3,177 | 27,910 |
| Minnesota. | 21 | 4 | 465 | 2,655 | 403 | 858 | 2,088 | 4,558 | 3,394 | 7,908 | 205 | 464 | 3,668 |
| Iowa.. | 12 | 5 | 553 | 2,658 | 475 | 935 | 1,979 | 4,702 | 5,519 | 10,148 | 463 | 439 | 2,415 |
| Missouri | 36 | 19 | 1,951 | 10,748 | 1,467 | 2,985 | 6,788 | 20,845 | 20,208 | 40,891 | 1,259 | 1,922 | 19,016 |
| Kansas. | 10 | 7 | 314 | 1,385 | 252 | 483 | 934 | 2,615 | 2,489 | 5,056 | 87 | 283 | 2,412 |
| South Atlantic. | 80 | 28 | 3,014 | 12,957 | 2,445 | 4,919 | 8,825 | 28,448 | 37,697 | 65,842 | 2,290 | 2,608 | 22,779 |
| Maryland.. | 18 | 6 | 1,020 | 5,166 | 752 | 1,461 | 3,129 | 14,455 | 14,236 | 28,185 | 1,074 | 1,152 | 12,927 |
| North Carolina... | 19 | 11 | 1,137 | 3,912 | 1,005 | 2,028 | 3,008 | 5,725 | 11,946 | 17,432 | 470 | 856 | 4,294 |
| Florida. | 29 | 5 | 494 | 2,325 | 398 | 863 | 1,595 | 4,977 | 6,405 | 11,343 | 344 | 230 | 2,443 |
| East South Central. | 52 | 26 | 2,439 | 10,613 | 1,966 | 4,121 | 7,032 | 26,104 | 23,390 | 49,024 | 1,535 | 1,616 | 10,872 |
| Tennessee... | 17 | 10 | 833 | 3,234 | 650 | 1,378 | 2,100 | 6,404 | 5,931 | 12,174 | 153 | 708 | 3,372 |
| Alabama. | 17 | 8 | 519 | 2,361 | 438 | 936 | 1,734 | 7,088 | 7,506 | 14,215 | 401 | 272 | 3,730 |
| West South Central. | 73 | 24 | 1,700 | 8,030 | 1,319 | 2,907 | 5,601 | 18,022 | 25,978 | 44,224 | 704 | 1,724 | 12,569 |
| Oklahoma......... | 13 | 2 | 235 | 1,109 | 165 | 339 | 635 | 2,951 | 3,897 | 7,020 | 85 | 435 | 2,271 |
| Texas. | 51 | 18 | 1,339 | 6,403 | 1,056 | 2,324 | 4,617 | 13,227 | 21,100 | 34,461 | 576 | 978 | 8,220 |
| Mountain... | 26 | 4 | 278 | 1,367 | 225 | 448 | 866 | 2,589 | 3,015 | 5,634 | 150 | 196 | 1,517 |
| Colorado. | 10 | 2 | 143 | 830 | 109 | 217 | 500 | 1,311 | 1,467 | 2,786 | 79 | 126 | 1,076 |
| Pacific.. | 251 | 70 | 4,574 | 25,562 | 3,678 | 7,088 | 18,125 | 44,431 | 42,779 | 88,073 | 2,455 | 4,539 | 36,132 |
| Washington....... | 20 |  | 297 | 1,764 | 226 | 434 | 1,214 | 3,237 | 4,160 | 7,410 | 98 | 229 | 2,653 |
| California....... | 212 | 60 | 4,071 | 22,871 | 3,276 | 6,391 | 16,247 | 39,564 | 36,996 | 77,489 | 2,313 | 4,205 | 32,970 |


|  |  |  |  |  |  | TRY | VETAL | , DRU | AND PAT |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total.......... | 145 | 93 | 10,508 | 66,614 | 8,480 | 17,713 | 49,127 | 119,617 | 183,880 | 303,423 | 6,412 | 9,496 | 96,171 |
| New England........ | 6 | 2 | 121 | 722 | 91 | 201 | 456 | 1,219 | 2,405 | 3,635 | 115 | 127 | 885 |
| Middle Atlantic.... | 38 | 26 | 3,015 | 19,264 | 2,467 | 5,255 | 14,255 | 35,272 | 51,621 | 86,536 | 1,507 | 2,472 | 25,085 |
| New York.. | 13 | 4 | 417 | 2,248 | 362 | 749 | 1,852 | 3,882 | 6,654 | 10,373 | 230 | 372 | 2,903 |
| New Jersey. | 13 | 13 | 1,921 | 12,856 | 1,530 | 3,220 | 9,219 | 23,447 | 31,569 | 54,937 | 1,128 | 1,272 | 14,073 |
| Pennsylvania..... | 12 | 9 | 677 | 4,160 | 575 | 1,286 | 3,184 | 7,943 | 13,398 | 21,226 | 149 | 828 | 8,109 |
| North Central. | 48 | 34 | 4,527 | 29,576 | 3,627 | 7,473 | 21,561 | 51,789 | 68,020 | 120,625 | 2,776 | 4,249 | 39,016 |
| Ohio.. | 15 | 14 | 1,571 | 9,942 | 1,320 | 2,498 | 7,698 | 15,152 | 22,912 | 38,200 | 808 | 1,647 | 13,108 |
| Illinois | 16 | 12 | 2,082 | 14,768 | 1,629 | 3,596 | 10,485 | 27,063 | 34,130 | 61,037 | 1,483 | 2,110 | 21,857 |
| South Atlantic.... | 12 | 5 | 229 | 1,077 | 202 | 402 | 837 | 2,700 | 5,017 |  | 62 | 270 | 2,967 |
| East South Central. | 8 | 5 | 276 | 1,333 | 236 | 521 | 1,039 | 2,885 | 6,228 | 9,028 | 142 | 354 | 3,713 |
| West South Central. | 17 | 11 | 1,269 | 8,177 | 1,011 | 2,085 |  |  | 31,010 | 47,330 | 592 | 1,122 | 15,062 |
| Texas............ | 9 | 6 | 709 | 4,400 | 562 | 1,128 | 3,219 | 8,830 | 16,638 | 25,315 | 313 | 571 | 8,468 |
| West............... | 16 | 10 | 1,071 | 6,465 | 846 | 1,776 | 4,948 | 9,121 | 19,579 | 28,509 | 1,218 | 902 | 9,443 |
| Califormia...... | 12 | 9 | 1,015 | 6,146 | 798 | 1,691 | 4,698 | 8,371 | 18,296 | 26,484 | 1,190 | 879 | 9,254 |
|  | INDUSTRY 3492.-SAFES AND VAUUTS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.. | 32 | 15 | 3,346 | 21,782 | 2,304 | 4,817 | 14,041 | 56,223 | 24,269 | 78,012 | 1,794 | 3,495 | 39,537 |
| Northeast. . . . . . . . | 5 | 2 | 95 | 549 | 64 | 122 | 272 | 1,094 | 724 | 1,909 | 34 | 208 | 1,709 |
| North Central, South and West.... | 27 | 13 | 3,251 | 21,233 | 2,240 | 4,695 | 13,769 | 55,129 | 23,545 | 76,103 | 1,760 | 3,287 | 37,828 |

[^137]table 2. General Statistics, by Geographic Areas: 1963 and 1958--Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expend itures, new$(\$ 1,000)$ | All emrployees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3493.-STEEL SPRINGS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total... | 96 | 49 | 6,287 | 41,321 | 5,110 | 10,633 | 31,398 | 69,305 | 89,063 | 157,704 | 1,962 | 6,758 | 54,135 |
| New England.. | 8 | 1 | 72 | 434 | 52 | 112 | 295 | 674 | 456 | 1,156 | 14 | $\left.{ }^{2}\right)$ | $\left.{ }^{2}\right)$ |
| Middle Atlantic.... <br> New York. . . . . . . . . | 22 7 | 16 4 | 1,872 525 | 12,568 3,889 | 1,543 448 | 3,207 972 | 9,627 3,152 | 22,894 6,665 | 27,681 10,742 | 50,054 17,188 | 781 184 | 2,041 | 15,329 3,302 |
| East North Central. Illinois | 34 6 | 22 3 | 3,591 | 24,167 4,210 | 2,960 506 | 6,175 1,036 | 18,854 3,148 | 38,036 6,285 | 54,842 9,696 | 92,675 16,024 | 1,010 316 | 2,526 527 | 21,160 5,365 |
| Michigan. | 17 | 12 | 1,629 | 11,196 | 1,353 | 2,876 | 8,831 | 19,589 | 25,577 | 45,038 | 343 | 917 | 7,327 |
| West North Central. South | 5 | 2 | 77 221 | 358 1,003 | 64 183 | 128 390 | 290 772 | 594 2,280 | 541 1,361 | 1,153 3,672 | 7 86 | $(2)$ $(2)$ | $(2)$ $(2)$ |
| Pacific. Califormia. | 18 | 4 | 454 | 2,791 | 308 | 621 | 1,560 | 4,827 | 4,182 | 8,994 | 64 | 449 | 3,809 |
|  | 13 | 3 | 387 | 2,396 | 265 | 533 | 1,315 | 4,076 | 3,632 | 7,699 | 58 | 376 | 3,197 |
|  | INDUSTRY 3494.-VALVES AND PIPE FITTINGS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 646 | 374 | 80,407 | 500,009 | 58,148 | 116,929 | 321,239 | 942,700 | 651,964 | 1,588,509 | 38,951 | 76,844 | 732,618 |
| New England........ | 68 | 37 | 8,730 | 52,115 | 5,918 | 12,120 | 32,025 | 88,634 | 60,439 | 153,511 | 4,322 | 9,594 | 76,600 |
| Massachusetts.... | 44 | 21 | 5,101 | 31,101 | 3,287 | 6,834 | 18,134 | 49,827 | 36,388 | 88,039 | 1,930 | 5,439 | 44,434 |
| Connecticut...... | 13 | 9 | 2,222 | 12,889 | 1,573 | 3,069 | 8,229 | 22,702 | 13,340 | 38,246 | 1,854 | 2,811 | 19,506 |
| Middle Atlantic.... | 166 | 93 | 18,839 | 114,081 | 13,449 | 26,883 | 73,654 | 215,517 | 130,780 | 343,832 | 10,290 | 16,659 | 155,842 |
| New York. | 45 | 21 | 4,166 | 23,050 | 3,164 | 6,492 | 16,630 | 41,279 | 26,212 | 66,579 | 4,331 | 3,390 | 31,387 |
| New Jersey. | 50 | 27 | 3,951 | 26,151 | 2,488 | 5,085 | 14,051 | 49,921 | 26,022 | 75,301 | 1,632 | 3,357 | 32,897 |
| Pennsylvania.... | 71 | 45 | 10,722 | 64,880 | 7,797 | 15,306 | 42,966 | 124,317 | 78,546 | 201,952 | 4,327 | 9,912 | 91,558 |
| East North Central. | 173 | 113 | 29,570 | 191,888 | 21,707 | 42,936 | 124,369 | 340,905 | 260,532 | 596,627 | 11,838 | 32,260 | 300,574 |
| Ohio... | 57 | 35 | 9,471 | 59,070 | 7,283 | 14,751 | 40,419 | 106,083 | 68,419 | 170,878 | 4,315 | 8,166 | 81,059 |
| Indiana. | 22 | 18 | 3,767 | 23,254 | 2,770 | 5,301 | 14,754 | 45,753 | 36,981 | 81,435 | 1,037 | 2,945 | 35,696 |
| Illinois. | 55 | 35 | 10,506 | 70,916 | 7,430 | 14,406 | 44,178 | 125,129 | 92,198 | 218,910 | 3,650 | 15,289 | 136,109 |
| Miehigan. | 30 | 20 | 4,442 | 29,354 | 3,339 | 6,664 | 19,535 | 50,666 | 50,408 | 99,071 | 1,929 | ${ }^{(2)}$ | $\left({ }^{2}\right)$ |
| Wisconsin. | 9 | 5 | 1,384 | 9,294 | 885 | 1,814 | 5,483 | 13,274 | 12,526 | 26,333 | 907 | ${ }^{2}$ ) | $\left.{ }^{2}\right)$ |
| West North Central. | 28 | 16 | 4,724 | 28,259 | 3,292 | 6,925 | 18,196 | 73,885 | 41,279 | 111,631 | 1,703 | 2,844 | 37,354 |
| Iowa....... | 8 | 5 | 2,165 | 13,005 | 1,470 | 3,229 | 8,461 | 32,305 | 19,173 | 51,595 | 1,123 | 1,644 | 21,635 |
| Missouri. | 9 | 5 | 1,453 | 9,213 | 1,007 | 2,016 | 5,511 | 26,056 | 10,969 | 33,635 | 123 | 600 | 5,715 |
| South Atlantic.. | 24 | 13 | 1,530 | 7,401 | 1,222 | 2,487 | 5,400 | 12,905 | 9,008 | 21,831 | 688 | 1,524 | 13,203 |
| East South Central. | 18 | 11 | 6,046 | 34,423 | 4,983 2,397 | 9,182 | 25,455 | 67,425 29,342 | 48,784 | 115,744 | 2,618 789 | 4,998 2,294 | 50,943 19,406 |
| Alabama.......... | 6 | 4 | 2,789 | 14,758 | 2,397 | 4,131 | 10,910 | 29,342 | 15,622 | 42,704 |  |  | 19,406 |
| West South Central. | 64 | 36 | 4,580 | 26,688 | 3,168 | 6,642 | 16,216 | 57,973 | 43,199 | 102,898 | 1,793 | 3,935 | 45,235 |
| Oklahoma......... | 16 |  | 558 | 3,810 | 401 | 898 | 2,330 | 7,675 | 3,786 | 11,954 | 243 | ${ }^{2}$ ) | $\left({ }^{2}\right)$ |
| Texas. | 38 | 22 | 3,186 | 19,407 | 2,155 | 4,522 | 11,370 | 42,420 | 35,196 | 77,817 | 1,410 | 3,034 | 35,417 |
| Mountain. | 9 | 5 | 619 | 4,216 | 414 | 849 | 2,271 | 9,496 | 8,740 | 17,426 | 511 | 515 | 5,368 |
| $\begin{array}{r} \text { Pacific.............. } \\ \quad \text { California....... } \end{array}$ | 96 | 50 | 5,769 | 40,938 | 3,995 | 8,905 | 23,653 | 75,960 | 49,203 | 125,009 | 5,188 | 4,515 | 47,499 |
|  | 88 | 48 | 5,607 | 39,867 | 3,875 | 8,653 | 22,963 | 74,263 | 47,183 | 121,149 | 5,120 | 4,394 | 45,982 |
|  | INDUSTRY 3496.-COLLAPSIBLE TUBES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 24 | 19 | 3,984 | 18,804 | 3,540 | 6,923 | 14,771 | 30,562 | 20,396 | 51,027 | 1,925 | 3,837 | 25,257 |
| Northeast........... <br> North Central...... <br> South and West..... | 12 | 11 | 2,659 | 12,399 | 2,380 | 4,620 | 9,841 | 18,603 | 12,332 | 30,788 | 1,445 | 2,442 | 15,213 |
|  | 7 5 | 4 | 355 970 | 1,532 | $\begin{aligned} & 298 \\ & 862 \end{aligned}$ | $\begin{array}{r} 625 \\ 1,678 \end{array}$ | 1,087 3,843 | 2,860 | 1,723 6,341 | 4,567 15,672 | 80 400 | 300 1,095 | 2,027 8,017 |
|  | INDUSTRY 3497.-METAL FOIL AND LEAF |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 67 | 40 | 4,981 | 32,438 | 3,733 | 7,831 | 21,775 | 63,486 | 117,887 | 180,567 | 6,410 | 3,500 | 38,063 |
| Middle Atlantic.... <br> New Jersey. $\qquad$ | 26 | 10 5 | 655 360 | 4,173 2,445 | 518 280 | 1,087 597 | 2,851 1,591 | 8,331 5,658 | 13,940 8,186 | $\begin{aligned} & 21,815 \\ & 13,606 \end{aligned}$ | $\begin{aligned} & 748 \\ & 651 \end{aligned}$ | $\begin{aligned} & 655 \\ & \left({ }^{2}\right) \end{aligned}$ | $\begin{array}{r} 6,717 \\ \left({ }^{2}\right) \end{array}$ |
| East North Central. | 12 | 8 | 1,454 | 9,867 | 1,054 | 2,209 | 6,358 | 21,693 | 34,403 | 55,823 | 2,229 | 1,193 | 12,694 |
| South.............. | 9 | 8 | 1,417 | 8,719 | 1,096 | 2,331 | 6,245 | 17,198 | 45,633 | 62,853 | 2,420 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Pacific.. | 8 | 6 | 560 | 4,103 | 360 | 710 | 2,176 | 5,684 | 8,464 | 13,839 | 479 | 521 | 6,233 |
| All other divisions | 12 | 8 | 895 | 5,576 | 705 | 1,494 | 4,145 | 10,580 | 15,447 | 26,237 | 534 | (2) | ${ }^{2}$ ) |
| Connecticut...... | 6 | 4 | 344 | 1,881 | 260 | 561 | 1,354 | 5,402 | 5,430 | 10,510 | 46 | $\left.{ }^{2}\right)$ | $\left.{ }^{2}\right)$ |

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | Wages <br> ( $\$ 1,000$ ) |  |  |  |  |  |  |
|  | INDUSTRY 3498. -FABRICATED PIPES AND FITTIINGS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 349 | 146 | 13,0э7 | 79,087 | 9,346 | 18,733 | 51,671 | 144,598 | 161,499 | 305,640 | 5,099 | 15,214 | 155,621 |
| New England......... . Massachusetts.... | 20 9 | 7 3 | 538 332 | 2,925 1,685 | 420 | 823 476 | 1,998 | 5,626 3,609 | 4,477 2,682 | 9,517 5,793 | 120 | 438 $(2)$ | 3,839 $(2)$ |
| New Yoric.......... | 23 | 14 | 1,486 | 2,827 | 459 995 | 2,031 | 5,351 | -6,240 | 16,828 | 32,039 | 611 | 1,727 | 18,625 |
| Pennsylvania..... | 44 | 24 | 2,548 | 16,524 | 1,612 | 3,022 | 9,602 | 32,545 | 30,497 | 62,738 | 821 | 2,426 | 37,817 |
| East North Central. | 93 | 40 | 3,603 | 21,554 | 2,777 | 5,540 | 15,197 | 42,227 | 46,974 | 88,978 | 1,989 | 5,308 | 48,851 |
| Ohio............. | 29 | 14 | 1,834 | 11,839 | 1,366 | 2,705 | 8,265 | 25,459 | 26,411 | 51,395 | 795 | 3,582 | 39,995 |
| Illinois......... | 20 | 9 | 447 | 2,466 | 370 | 743 | 1,863 | 3,884 | 6,286 | 10,377 | 139 | 627 | 5,155 |
| Michigan......... | 27 | 11 | 844 | 4,884 | 655 | 1,317 | 3,428 | 8,352 | 8,661 | 17,096 | 432 | 683 | 429 |
| West North Central. | 17 | 4 | 357 | 1,552 | 231 | 474 | 1,150 | 1,052 | 5,201 | 8,086 | 93 | 1,295 | 13,392 |
| Missouri.......... | 12 | 3 | 298 | 1,226 | 182 | 376 | 911 | 604 | 4,535 | 6,993 | 61 | 955 | 10,790 |
| South Atlantic. | 20 | 10 | 1,005 | 6,068 | 658 | 1,375 | 3,456 | 9,956 | 10,642 | 20,668 | 465 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Florida. | 6 | 2 | 131 | 666 | 102 | 184 | 353 | 1,189 | 2,150 | 3,346 | 62 | 121 | 642 |
| East South Central. | 6 | 2 | 66 | 354 | 55 | 107 | 258 | 393 | 795 | 1,168 | 2 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| West South Central. | 45 | 19 | 1,519 | 9,750 | 1,206 | 2,501 | 7,076 | 15,041 | 23,405 | 38,447 | 396 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Texas. | 40 | $1 E$ | 1,435 | 9,280 | 1,138 | 2,378 | 6,733 | 14,373 | 22,709 | 37,063 | 345 | 1,019 | 8,312 |
| Califormia........ | 59 | 19 | 1,304 | 8,258 | 933 | 1,909 | 5,598 | 15,633 | 16,416 | 31,913 | 499 | 1,156 | 10,983 |
|  | 45 | 14 | 921 | 6,147 | 697 | 1,467 | 4,148 | 12,162 | 12,511 | 24,588 | 258 | 949 | 8,860 |
|  | INDUSTRY 3499. - FABRICATED METAL PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 1,277 | 346 | 28,302 | 151,919 | 22,209 | 45,673 | 105,063 | 299,326 | 276,264 | 573,185 | 16,189 | 20,200 | 180,132 |
| New England. ....... | 101 | 28 | 2,359 | 12,966 | 1,800 | 3,751 | 8,194 | 22,280 | 16,590 | 38,665 | 1,203 | 1,812 | 13,844 |
| Massachusetts.... | 52 | 12 | 939 | 5,537 | 729 | 1,487 | 3,445 | 9,588 | 7,480 | 16,774 | 437 | 866 | 7,878 |
| Phode Island..... | 14 | 3 | 559 | 2,780 | 381 | 827 | 1,504 | 5,085 | 2,460 | 7,546 | (D) | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Connecticut...... | 29 | 12 | 751 | 4,145 | 601 | 1,249 | 2,879 | 6,622 | 6,171 | 12,773 | 249 | 526 | 3,675 |
| Middle Atlantic... | 369 | 99 | 6,736 | 33,281 | 5,374 | 10,957 | 23,243 | 62,354 | 59,596 | 123,339 | 2,183 | 4,573 | 36,192 |
| New York......... | 221 | 56 | 3,595 | 17,927 | 2,916 | 5,913 | 12,713 | 33,926 | 30,731 | 65,684 | 992 | 2,944 | 22,568 |
| New Jersey....... | 67 | 15 | 1,157 | 6,268 | 874 | 1,828 | 4,196 | 11,167 | 8,480 | 19,970 | 469 | 639 | 4,774 |
| Pennsylvania..... | 81 | 28 | 1,984 | 9,086 | 1,584 | 3,216 | 6,334 | 17,261 | 20,385 | 37,685 | 722 | 990 | 8,850 |
| East North Central. | 340 | 114 | 11,535 | 65,547 | 9,013 | 18,533 | 45,868 | 127,806 | 217,772 | 244,936 | 8,281 | 9,544 | 89,765 |
| Ohio.............. | 69 | 26 | 1,859 | 10,421 | 1,333 | 2,760 | 6,804 | 19,090 | 21,026 | 40,235 | 832 | 1,517 | 13,328 |
| Indiana.. | 27 | 11 | 1,473 | 8,765 | 1,120 | 2,354 | 6,288 | 15,754 | 12,261 | 27,825 | 733 | 2,132 | 16,893 |
| mlinois.. | 142 | 42 | 4,783 | 26,196 | 3,873 | 7,834 | 18,970 | 58,364 | 55,812 | 113,524 | 5,397 | 4,037 | 42,284 |
| Michigan......... | 79 | 27 | 2,952 | 17,754 | 2,322 | 4,841 | 12,205 | 29,764 | 24,295 | 54,161 | 1,107 | ${ }^{(2)}$ |  |
| Wisconsin. | 23 | 8 | 468 | 2,411 | 365 | 744 | 1,601 | 4,834 | 4,378 | 9,191 | 212 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| West North Central. | 84 | 23 | 1,955 | 10,919 | 1,473 | 3,024 | 7,218 | 19,648 | 21,483 | 40,968 |  |  |  |
| Minnesota........ | 29 | 10 | 875 | 5,196 | 690 | 1,407 | 3,683 | 9,240 | 9,157 | 18,480 | 594 | ${ }^{2}$ ) | (2) |
| Iowa... | 11 | 3 | 155 | 930 | 111 | 222 | 486 | 1,472 | 1,069 | 2,592 | 68 | (2) | $\left({ }^{2}\right)$ |
| South Atlantic..... | 91 | 22 | 1,724 | 8,418 | 1,398 | 3,019 | 6,025 | 26,424 | 28,049 | 53,937 | 1,100 | 1,945 | 21,637 |
| Maryland......... | 17 | 7 | 647 | 3,443 | 538 | 1,183 | 2,480 | 10,523 | 11,861 | 22,422 | 398 | 601 | 10,164 |
| Georgia.......... | 12 | 1 | 254 | -979 | 226 | 516 | 768 | 1,555 | 2,081 | 3,617 | 36 | ${ }^{2}$ ) | (2) |
| Florida. | 35 | 5 | 300 | 1,389 | 221 | 458 | 907 | 2,643 | 2,516 | 5,237 | 69 | 995 | 6,513 |
| East South Central. | 24 | 11 | 474 | 2,120 | 400 | 795 | 1,600 | 5,333 | 3,455 | 7,208 | 361 |  |  |
| Kentucky......... . | 13 | 7 | 312 | 1,511 | 269 | 560 | 1,139 | 4,112 | 2,156 | 4,722 | 323 | ${ }^{2}$ ) | (2) |
| West South Central. | 63 | 15 | 996 | 4,619 | 846 | 1,744 | 3,574 | 7,486 | 7,413 | 15,071 | 499 |  | 1,570 |
| Louisiana........ | 6 38 | 3 7 | 105 | 415 2,382 | 82 371 | 157 771 | 250 1,832 | 1,145 2,829 | 1,132 2,733 | 2,290 5,753 | 72 135 | $(2)$ 162 | $\left({ }^{2}\right)$ 1,066 |
| West............... | 205 | 34 | 2,523 | 14,049 | 1,905 | 3,850 | 9,341 | 27,995 | 21,906 | 49,061 | 1,411 | 1,131 | 9,142 |
| Colorado.. | 9 | 1 | 119 | 668 | 96 | 192 | 526 | 1,690 | 1,648 | 3,287 | 1,44 | ${ }^{\text {1 }}$ (2) | ${ }^{(2)}$ |
| California... | 157 | 29 | 2,129 | 12,105 | 1,585 | 3,211 | 7,831 | 23,931 | 18,349 | 41,496 | 1,193 | 949 | 7,667 |

[^138](NA) Not available.
(X) Not

[^139]Footnotes continued on next page.

## TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

Footnotes for Table 2-34E-Continued

${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3481. Fabricated Wire Products, N.E.C.: New England—Maine, 2 (1-19); New Hampshire, 2 (1-19); Vermont, 2 (1-19); West North Central-North Dakota,

1 (1-19); Nebraska, 6 (20-99); South Atlantic—Delaware, 1 (20-99); Virginia, 3 (164); West Virginia, 1 (20-99); South Carolina, 2 (1-19);
East South Central-Kentucky, 10 (500-999); Mississippi, 8 (250-499); West South Central—Arkansas, 4 (20-99); Louisiana, 5 (20-99); MountainNew Mexico, 1 (1-19); Arizona, 11 (100-249); Utah, 4 (20-99); Pacific-Oregon, 17 (100-249); Hawaii, 2 (20-99).
SIC 3491, Metal Barrels, Drums, and Pails: New England—Massachusetts, 4 (20-99); Connecticut, 2 (20-99); East North Central-Indiana, 1 (100-249); Michigan, 4 (20-99); Wisconsin, 4 (100-249); West North Central-Minnesota, 2 (100-249); Iowa, 2 (20-99); Missouri, 2 (20-99); Kansas, 2 (100-249); South Atlantic-Maryland, 1 (20-99); West Virginia, 4 (20-99); South Carolina, 1 (1-19); Georgia, 4 (20-99); Florida, 2 (20-99); East South CentralTennessee, 1 (20-99); Alabama, 5 (100-249); Mississippi, 2 (1-19); West South Central-Louisiana, 6 (500-999); Oklahoma, 2 (1-19); MountainColorado, 2 (1-19); Pacific-Washington, 1 (1-19); Oregon, 1 (1-19).
SIC 3492, Safes and Vaults: New England—Connecticut, 1 (1-19); Middle Atlantic-New York, 3 (20-99); Pennsylvania, 1 (20-99); East North CentralOhio, 9(2,911); Indiana, 3 (100-249); Illinois, 2 (1-19); South Atlantic-Florida, l (1-19); West South Central-Texas, 2 (20-99); PacificCalifornia, 10 (179).
SIC 3493, Steel Springs: New England-Vermont, l (1-19); Massachusetts, 2 (20-99); Connecticut, 5 (20-99); Middle Atlantic-New Jersey, l (l-19); Pennsylvania, 14 (1,000-2,499); East North Central-Ohio, 7 (742); Indiana, 4 (574); West North Central-Minnesota, 1 (1-19); Iowa, 1 (20-99); Missouri, 3 (20-99); South Atlantic-North Carolina, 1 (1-19); Florida, 1 (1-19); East South Central—Mississippi, 1 (100-249); West South CentralTexas, 6 (101); Pacific-Washington, 3 (20-99) Oregon, 1 (20-99); Hawaii, 1 (1-19).
SIC 3494, Valves and Pipe Fittings: New England—Maine, 2 (20-99); New Hampshire, 1 (100-249); Rhode Island,8(1,000-2,400); West North CentralMinnesota, 5 (645); Nebraska, 2 (250-499); Kansas, 4 (100-249); South Atlantic-Delaware, 2 (100-249); Maryland, 2 (20-99); Virginia, 3 (154); West Virginia, 2 (250-499); North Carolina, 4 (250-499); Georgia, 2 (250-499); Florida, 9 (152); East South Central-Kentucky, 6 (2,037); Tennessee, 6 (1,220); West South Central-Arkansas, 8 (250-499); Louisiana, 2 (500-999); Mountain-Wyoming, 1 (1-19); Colorado, 6 (566); Arizona, 1 (1-19); Utah, 1 (20-99); Pacific-Washington, 4 (1-19); Oregon, 4 (100-249).
SIC 3496, Collapsible Tubes: New England-Rhode Island, 1 (20-99); Connecticut, 1 (500-999); Middle Atlantic-New York, l (1-19); New Jersey, 7 (1,000-2,499);Pennsylvania, 2 (250-499); East North Central—Ohio, l (1-19); Indiana, 1 (20-99); Illinois, 1 (100-249); Michigan, 2 (20-99); Wisconsin,
1 (1-19); West North Central-Iowa, 1 (20-99); South Atlantic-West Virginia, l (500-999); East South Central-Kentucky, l (100-249); West South Central-Arkansas, 1 (100-249); Pacific-California, 2 (20-99).
SIC 3497, Metal Foil and Leaf: New England-Vermont, 2 (20-99); Massachusetts, 3 (116); Middle Atlantic-New York, 13 (250-499); Pennsylvania, 2 (20-99); East North Central-Ohio, 3 (500-999); Indiana, l (100-249); Illinois, 8 (577); West North Central-Missouri, I (250-499); South Atlantic-Maryland, 1 (20-99); Virginia, 2 (500-999); North Carolina, 1 (20-99); East South Central—Kentucky, 4 (500-999); West South Central-Texas, 1 (l-19); PacificWashington, 1 (1-19); California, 7 (500-999).
SIC 3498, Fabricated Pipes and Fittings: New England—Maine, 2 (20-99); Rhode Island, 1 (20-99); Connecticut, 8 (100-249); East North Central-Indiana, 6 (231); Wisconsin, ll (247); West North Central—Minnesota, l (20-99); Iowa, 1 (1-19); Nebraska, l (l-19); Kansas, 2 (20-99); South Atlantic-Delaware, 2 (100-249); Maryland, 2 (20-99); Virginia, 2 (1-19); West Virginia, l (250-499); North Carolina, 4 (202); South Carolina, 1 (20-99); Georgia, 2 (20-99); East South Central-Tennessee, 2 (20-99); Alabama, 1 (20-99); Mississippi, 3 (1-19); West South Central-Iouisiana, 2 (l-19); Oklahoma, 3 (20-99); Mountain-Colorado, 1 (20-99); New Mexico, 1 (1-19); Arizona, 1 (1-19); Pacific-Washington, 5 (20-99); Oregon, 6 (250-499).
SIC 3499, Fabricated Metal Products, N.E.C.: New England-Maine, 2 (20-99); New Hampshire, 3 (20-99); Vermont, 1 (1-19); West North Central-Missouri, 9 29 (814); North Dakota, 1 (1-19); South Dakota, 2 (1-19); Nebraska, 3 (1-19); Kansas, 12 (20-99); South Atlantic-District of Columbia, 1 (1-19); Virginia, 9 (20-99); West Virginia, 5 (163); North Carolina, 6 (122); South Carolina, 6 (100-249); East South Central-Tennessee, 5 (20-99); Alabama, 5 (20-99); Mississippi, l (1-19); West South Central_Arkansas, 7 (318); Oklahoma, 12 (120); Mountain Montana, 2 (1-19); Idaho, 1 (1-19); Wyoming, 2 (1-19); New Mexico, 1 (1-19); Arizona, 6 (100-249); Utah, 3 (1-19); Nevada, 2 (1-19); Pacific-Washington, 9 (20-99); Oregon, 12 (20-99); Hawaii, 1 (1-19).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report
showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

| Item | Fabricated wire products, n.e.c. <br> (SIC 3481) | Metal barrels, drums, and pails (SIC 3491) | $\begin{array}{\|l} \begin{array}{c} \text { Safes and } \\ \text { vaults } \\ \text { (SIC 3492) } \end{array} \end{array}$ | $\begin{gathered} \text { Steel } \\ \text { springs } \\ \text { (SLC 3493) } \end{gathered}$ | Valves and pipe fittings (SIC 3494) | Collapsible tubes (SIC 3496) | Metal foil and leaf (SIC 3497) | Fabricated pipe and fittings (SIC 3498) | Fabricated metal products, п.e.c. (SIC 3499) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio ${ }^{1}$. | . 93 | . 92 | . 81 | . 91 | . 86 | . 88 | . 84 | . 92 | . 89 |
| Coverage ratio ${ }^{2}$..................... | . 65 | . 86 | .90-. 95 | . 67 | . 85 | 1.00 | 45 | . 91 | . 62 |
| Establishments, total................................... . number. . | 1,567 | 145 | 32 | 96 | 646 | 24 | 67 | 349 | 1,277 |
| With 1 to 19 employees. . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 1,010 | 52 | 17 | 47 | 272 | 5 | 27 | 203 | 931 |
| With 20 to 99 employees..................................d. do. | 415 | 56 | 12 | 30 | 192 | 9 | 28 | 113 | 304 |
| With 100 employees or more.............................. do. | 142 | 37 | 3 | 19 | 182 | 10 | 12 | 33 | 42 |
| Proprietors and working partners.........................do. | 1,407 | 46 | 27 | 61 | 283 | 6 | 24 | 248 | 1,152 |
| All employees (average for the year).................... do.... | 55,514 | 10,508 | 3,346 | 6,287 | 80,407 | 3,984 | 4,981 | 13,007 | 28,302 |
| Payroll (all employees), total for year............... $\$ 1,000 .$. | 297,626 | 66,614 | 21,782 | 41,321 | 500,009 | 18,804 | 32,438 | 79,087 | 151,919 |
| Production workers: |  |  |  |  |  |  |  |  |  |
| Average for the year................................... number.. | 45,070 | 8,480 | 2,304 | 5,110 | 58,148 | 3,540 | 3,733 | 9,346 | 22,209 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 44,576 | 8,352 | 2,219 | 5,084 | 57,745 | 3,413 | 3,553 | 9,144 | 21,792 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 45,127 | 8,570 | 2,213 | 5,234 | 58,100 | 3,463 | 3,745 | 9,475 | 21,977 |
| August. | 44,857 | 8,776 | 2,343 | 5,007 | 59,377 | 3,591 | 3,769 | 9,618 | 22,460 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 46,091 | 8,218 | 2,446 | 5,112 | 57,362 | 3,690 | 3,849 | 9,183 | 22,659 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 92,096 | 17,713 | 4,817 | 10,633 | 116,929 | 6,923 | 7,831 | 18,733 | 45,673 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 22,353 | 4,323 | 1,254 | 2,650 | 29,178 | 1,688 | 1,879 | 4,534 | 11,131 |
| April-June . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 23,061 | 4,606 | 1,178 | 2,730 | 29,767 | 1,760 | 1,945 | 4,760 | 11,462 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 22,709 | 4,537 | 1,223 | 2,554 | 28,430 | 1,642 | 1,994 | 4,752 | 11,260 |
| October-December.......................... . . . . . . . . . . . . do. . . . | 23,973 | 4,259 | 1,169 | 2,704 | 29,554 | 1,834 | 2,017 | 4,687 | 11,820 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | 213,329 | 49,127 | 14,041 | 31,398 | 321,239 | 14,771 | 21,775 | 51,671 | 105,063 |
| Cost of materials, etc., total............................do. | 490,937 | 183,880 | 24,269 | 89,063 | 651,964 | 20,396 | 117,887 | 161,499 | 276,264 |
| Materials, parts, containers, and supplies consumed..do. | 433,668 | 176,034 | 20,169 | 82,268 | 569,770 | 19,336 | 114,843 | 141,679 | 235,976 |
| Cost of resales...........................................d. . . | 29,104 | 2,761 | 3,549 | 3,113 | 40,691 | 303 | 770 | 13,674 | 22,498 |
| Fuels consumed. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 3,649 | 1,695 | 186 | 1,948 | 7,873 | 268 | 522 | 1,091 | 2,034 |
| Electric energy: |  |  |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |  |  |
| Quantity.................................. million kw.-hrs.. | 338 | 122 |  |  | 670 | 35 | 80 | 79 | 231 |
| Cost. .............................................. . $\$ 1,000$. . | 5,712 | 1,980 | 241 | 972 | 9,966 | 487 | 1,011 | 1,409 | 3,747 |
| Generated less sold......................million kw.-hrs.. | (D) | - | - | - | (D) | - | - | (D) | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 18,804 | 1,410 | 124 | 762 | 23,664 | 2 | 741 | 3,646 | 12,009 |
| Value of shipments (including resales), total..........do. | 1,030,876 | 303,423 | 78,012 | 157,704 | 1,588,509 | 51,027 | 180,567 | 305,640 | 573,185 |
| Value of resales.........................................d. ${ }^{\text {do. }}$ | 38,362 | 3,031 | 4,830 | 5,063 | 46,558 | 341 | 871 | 15,292 | 31,643 |
| Value added by manufacture, adjusted....................do. | 539,137 | 119,617 | 56,223 | 69,305 | 942,700 | 30,562 | 63,486 | 144,598 | 299,326 |
| Manufacturers' inventories: |  |  |  |  |  |  |  |  |  |
| Beginning of year, total.................................do. | 150,688 | 49,433 | 13,300 | 19,526 | 381,082 | 4,954 | 25,122 | 70,374 | 87,180 |
| Finished products......................................do | 59,365 | 7,589 | 4,596 | 3,026 | 155,678 | 1,937 | 8,197 | 25,196 | 28,906 |
| Work-in-process... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 28,830 | 6,025 | 3,860 | 5,414 | 138,683 | 669 | 5,093 | 12,571 | 21,930 |
| Materials, supplies, fuel, etc.......................do. | 62,493 | 35,819 | 4,844 | 11,086 | 86,721 | 2,348 | 11,832 | 32,607 | 36,344 |
| End of year, total.......................................d. do. | 150,692 | 49,513 | 15,714 | 21,061 | 385,426 | 5,033 | 28,737 | 69,813 | 91,556 |
| Finished products...................................... . ${ }^{\text {do }}$ | 59,541 | 7,555 | 5,546 | 3,419 | 161,618 | 1,900 | 8,981 | 24,499 | 31,326 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 28,352 | 6,133 | 5,390 | 5,685 | 138,898 | 637 | 5,115 | 13,725 | 21,915 |
| Materials, supplies, fuel, ete.......................do | 62,799 | 35,825 | 4,778 | 11,957 | 84,912 | 2,496 | 14,641 | 31,589 | 38,315 |
| Expenditures for plant and equipment, total............do. | 27,675 | 7,614 | 1,958 | 2,162 | 44,610 | 2,008 | 6,473 | 6,381 | 18,182 |
| New, total............................................ do. | 24,795 | 6,412 | 1,794 | 1,962 | 38,951 | 1,925 | 6,410 | 5,099 | 16,189 |
| New structures and additions to plant..............do. | 6,036 | 825 | 774 | 292 | 11,262 | 415 | 1,164 | 1,197 | 5,228 |
| New machinery and equipment......................... do. | 18,759 | 5,587 | 1,020 | 1,670 | 27,689 | 1,510 | 5,246 | 3,902 | 10,961 |
| Used plant and equipment...............................do.... | 2,880 | 1,202 | 164 | 200 | 5,659 | 83 | 63 | 1,282 | 1,993 |
| Selected operating ratios: |  |  |  |  |  |  |  |  |  |
| Payroll/Total employment. | 5,343 | 6,339 | 6,510 | 6,572 | 6,218 | 4,720 | 6,512 | 6,071 | 5,368 |
| Production workers/Total employment | . 81 | . 81 | . 69 | . 81 | . 72 | . 89 | . 75 | . 72 | . 78 |
| Man-hours/Production workers. | 2,043 | 2,089 | 2,091 | 2,081 | 2,011 | 1,956 | 2,098 | 2,004 | 2,057 |
| Production worker wages/Man-hours............................. | 2.32 | 2.77 | 2.91 | 2.95 | 2.75 | 2.13 | 2.78 | 2.76 | 2.30 |
| Cost of materials and payrolls/Total value of shipments.... | . 76 | . 83 | . 59 | . 83 | . 73 | . 77 | . 83 | . 79 | . 75 |
| Cost of materials/Total value of shipments.................. | . 48 |  | . 31 | . 56 | . 41. | . 40 | . 65 | . 53 | . 48 |
| Adjusted value added/Total employment........................ Salaries and wages/Adjusted value added................ | $\begin{array}{r}9,712 \\ \hline .55\end{array}$ | 11,383 <br> .56 | 16,803 .39 | 11,024 .60 | 11,779 .53 | 7,671 .62 | 12,746 .51 | 11,100 .55 | 10,576 .51 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of iractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terns used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufac-
turing establishments.

## table 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | 2,500 employees and over |
|  | INDUSTRY 3481.-FABRICATED METAL PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 1,567 | 517 | 250 | 243 | 281 | 134 | 109 | 24 | 9 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do.... | 55,514 | 1,009 | 1,701 | 3,326 | 8,759 | 9,127 | 16,423 | 8,425 | 6,744 | - | - |
| Pay roll. . . . . . . . . . . . . . . . $\$ 1,000$. . | 297,626 | 5,230 | 7,850 | 15,338 | 43,034 | 46,168 | 87,408 | 49,759 | 42,839 | - | - |
| Value added, adjusted.......do.... | 539,137 | 10,481 | 20,396 | 28,371 | 80,125 | 82,194 | 155,199 | 98,424 | 63,947 | - | - |
| Value of shipments..........dd..... | 1,030,876 | 20,632 | 35,374 | 53,333 | 158,759 | 165,949 | 298,764 | 183,801 | 114,264 | - | - |
| Capital expenditures, new...do.... | 24,795 | 11,112 | 1,113 | 1,294 | 3,984 | 3,163 | 7,263 | 4,593 | 2,273 | - | - |
|  | INDUSTRY 3491.-METAL BARRELS, DRUMS, AND PAILS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 145 | 22 | 14 | 16 | 27 | 29 | 31. | 6 | - | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
|  | 10,508 | $\begin{array}{r}40 \\ 185 \\ \hline\end{array}$ | 96 402 74 | 233 1,227 | 863 4,480 | 2,095 12,431 | 5,109 33,515 | $\begin{array}{r}2,072 \\ 14,374 \\ \hline 2,4\end{array}$ | - | - | - |
| Value added, adjusted.......d.do... | 119,617 | 354 | 740 | 2,652 | 8,951 | 22,488 | 63,023 | 21,409 | - | - | - |
| Value of shipments..........do.... | 303,423 | 921 | 2,217 | 7,136 | 25,683 | 69,505 | 147,900 | 50,061 | - | - | - |
| Capital expenditures, new...do.... | 6,412 | 15 |  |  | 564 | 1,482 | 3,149 | 1,018 | - | - | - |
|  | INDUSTRY 3492.-SAFES AND VAULTS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number.. | 32 | 10 | 4 | 3 | 8 | 4 | 1 | - | - | 2 | - |
| All employees: |  |  |  |  |  |  |  |  |  | (D) |  |
| Total.......................do.... | 3,346 | 12 | $\begin{array}{r}25 \\ 152 \\ \hline\end{array}$ | 2,309 | (D) | (D) | (D) | - | - | (D) | - |
| Payroll.................. $\$ 1,000$. . Value added, adjusted......do... | 21,782 56,223 | 90 214 | 152 <br> 358 | $\frac{21,540}{55,651}$ | (D) | (D) | (D) | - | - | (D) | - |
| Value added, adjusted........do.... | 56,223 | 358 | 531 | 77,123 | (D) | (D) | (D) | - | - | (D) | - |
| Capital expenditures, new...do.... | 1,794 | 6 | 18 | 1,770 | (D) | (D) | (D) | - | - | (D) | - |
|  | INDUSTRY 3493.-STEEL SPRINGS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number.. | 96 | 19 | 10 | 18 | 19 | 11 | 14 | 3 | 2 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do.... | 6,287 | 22 | 73 | 251 | 587 | 749 | 2,307 | 2,298 | (D) | - | - |
| Payroil. . . . . . . . . . . . . \$1,000. . | 41,321 | 137 | 387 | 1,593 | 3,344 | 4,849 | 14,967 | $\frac{16,044}{25,882}$ | (D) | - | - |
| Value added, adjusted.......do.... | 69,305 | 259 | 822 | 2,945 | 6,161 | 8,918 | 24,718 | $\frac{25,482}{63,833}$ | (D) | - | - |
| Value of shipments............do.... Capital expenditures, new...do.... | 157,704 | 415 | 1,693 | 4,909 | 10,419 | 16,472 | 59,963 | 63,833 | (D) | - | - |
|  | 1,962 | 8 | 9 | 37 | 113 | 371 | 1,011 | 413 | (D) | - | - |
|  | INDUSTRY 3494.-VALVES AND PIPE FITTINGS |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total..........................do..... <br> Payroll <br> \$1,000. | 80,407 500,009 | 157 <br> 895 | 481 2,798 | 1,392 | 3, 601 21,326 | 6,025 35,636 | 14,662 | 17,137 107,960 | 21,136 135,944 | 15,816 | - |
| Value added, adjusted........d. do... | 942,700 | 1,942 | 5,127 | 17,318 | 40,924 | 70,205 | 176,765 | 200,320 | 254,467 | 175,632 | - |
| Value of shípments..........do.... | 1,588,509 | 3,561 | 9,753 | 29,771 | 75,176 | 124,931 | 322, 349 | 325,887 | 417,370 | 279,721 | - |
| Capital expenditures, new...do.... | $38,951$ | 1795 | 213 | 603 | 2,244 | 2,717 | 9,052 | 7,699 | 8,893 | 6,735 | - |
|  | INDUSTRY 3496.-COLLAPSIBIE TUBES |  |  |  |  |  |  |  |  |  |  |
| Establishments............... number. . All employees: | 24 | 4 | - | 1 | 4 | 5 | 5 | 1 | 4 | - | - |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 3,984 | $\frac{16}{15}$ | - | (D) | 166 | 391 | 1,243 | (D) | 2,168 | - | - |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 18,804 | $\frac{45}{79}$ | - | (D) | 680 | 1,870 | 5,685 | (D) | 10,524 | - | - |
| Value added, adjusted.......do.... | 30,562 | $\frac{79}{75}$ | - | (D) | 1,310 | 2,693 | 9,559 | (D) | 16,921 | - | - |
| Value of shipments..........do.... | 51,027 | $1 \overline{65}$ | - | (D) | 2,050 | 4,773 | 16,428 | (D) | 27,611 | - | - |
| Capital expenditures, new...do.... | 1,925 | 27 | - | (D) | (D) | 97 | 704 | (D) | 1,097 | - | - |

See footnotes at end of table.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963-Continued

| Item | Establish ments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & 1 \text { to } 4 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 10 \text { to } 19 \\ & \text { employees } \end{aligned}$ | $\begin{gathered} 20 \text { to } 49 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 50 \text { to } 99 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} \text { 2,500 } \\ \text { employees } \\ \text { and over } \end{gathered}$ |
| Establishments............... number. . <br> All employees: <br> Patal.. <br> do... <br> Value added, adjusted <br> .......do.... <br> Value of shipments. <br> ......do..... <br> Capital expenditures, new...do.... | Industry 3497.-METAL FOIL AND LEAF |  |  |  |  |  |  |  |  |  |  |
|  | 67 | 10 | 9 | 8 | 16 | 12 | 6 | 5 | 1 | - | - |
|  | 4,981 | 14 | 65 | 114 | 479 | 915 | 867 | 2,527 | (D) | - |  |
|  | 32,438 | 75 | 402 | 670 | 2,926 | 5,432 | 5,888 | 17,045 | (D) | - |  |
|  | 63,486 | 164 | 974 | 1,760 | 7,011 | 9,328 | 12,732 | 31,517 | (D) | - |  |
|  | 180,567 | 594 | 3,011 | 4,962 | 18,869 | 23,493 | 28,860 | 100,778 | (D) | - |  |
|  | 6,410 | 14 | 13 | 120 | 738 | 696 | 512 | 4,317 | (D) | - |  |
|  | INDUSTRY 3498.-FABRICATED PTPE AND FITTINGS |  |  |  |  |  |  |  |  |  |  |
| Establishments........... number.. | 349 | 92 | 51 | 60 | 80 | 33 | 25 | 5 | 3 | - | - |
| Total....................do.. | 13,007 | 124 | 355 | 806 | 2,488 | 2,286 | 3,774 | 1,486 | 1,688 | - | - |
| Payroll..................\$1,000.. | 79,077 | 981 | 2,022 | 4,528 | 13,676 | 13,434 | 24,370 | 9,634 | 10,442 | - | - |
| Value added, adjusted.......do... | 144,599 | 1,782 | 4,517 | 8,071 | 24,708 | 25,962 | 42,992 | 16,763 | 19,803 | - |  |
| Value of shipments..........do.... | 305,640 | 4,006 | 7,635 | 16,684 | 62,705 | 52, 000 | 84,771 | 39,315 | 38,584 | - |  |
| Capital expenditures, new...do.... | 5,099 | 84 | 141 | 292 | 1,236 | 589 | 1,790 | 525 | 442 | - | - |
|  | INDUSTRY 3499.-FABRICATED METAL PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments............number.. | 1,277 | 469 | 222 | 240 | 211 | 93 | 31 | 8 | 3 | - | - |
|  | 28,302 | 873 | 1,516 | 3,285 | 6,427 | 6,443 | 5,099 | 2,773 | 1,886 | - | - |
| Payroll.................. $\ddagger 1,000 .$. | 151,919 | 3,767 | 7,234 | 17,237 | 32,771 | 36,274 | 26,490 | 16,647 | 11,499 | - | - |
| Value added, adjusted.......do.... | 299,326 | 8,473 | 14,062 | 32,824 | 59,818 | 86,447 | 48,509 | 28,099 | 21,094 | - |  |
| Value of shipments..........d.... | 573,185 | 16,300 | 25,628 | 59,913 | 114, 460 | 171,145 | 99,986 | 54,058 | 31,695 | - | - |
| Capital expenditures, new...do.... | 16,189 | ${ }^{2} 3,237$ | 801 | 1,841 | 2,923 | 2,823 | 1,507 | 2,059 | 998 | - | - |

[^140]
## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\mathrm{Col} \cdot \mathrm{~B}}{\mathrm{Col} \cdot \mathrm{~B}+\mathrm{C}}$ <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry <br> $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3481 | Fabricated wire products, n.e.c...1963.. $\begin{array}{r}1958 . .\end{array}$ | $1,030,876$ 874,923 | 903,884 744,522 | $\begin{aligned} & 71,099 \\ & 69,588 \end{aligned}$ | $\begin{aligned} & 55,893 \\ & 60,813 \end{aligned}$ | 93 91 | $\begin{aligned} & 1,399,261 \\ & 1,164,232 \end{aligned}$ | $\begin{aligned} & 903,884 \\ & 744,522 \end{aligned}$ | $\begin{aligned} & 495,377 \\ & 419,710 \end{aligned}$ | $\begin{array}{r} 165 \\ 64 \end{array}$ |
| 3491 | Metal barrels, drums, and pails... $\begin{array}{r}1963 . . \\ 1958 . .\end{array}$ | 303,423 250,256 | 274,551 | $\begin{aligned} & 22,966 \\ & 18,974 \end{aligned}$ | $\begin{aligned} & 5,906 \\ & 8,701 \end{aligned}$ | 92 92 | 317,873 258,953 | $\begin{aligned} & 274,551 \\ & 222,581 \end{aligned}$ | $\begin{aligned} & 43,322 \\ & 36,372 \end{aligned}$ | 86 86 |
| 3492 | Safes and vaults.................. 1963.. 1958. | $\begin{aligned} & 78,012 \\ & 58,790 \end{aligned}$ | $\begin{array}{r} \text { (D) } \\ 43,680 \end{array}$ | $\begin{array}{r} \text { (D) } \\ 9,630 \end{array}$ | $\begin{array}{r} \text { (D) } \\ 5,480 \end{array}$ | 81 82 | $\begin{array}{r} 59,328 \\ 45,088 \end{array}$ | (D) 43,680 | (D) 1,408 | $90-95$ 97 |
| 3493 | Steel springs...................... ${ }^{\text {1963. }}$ 1958. | $\begin{aligned} & 157,704 \\ & 120,525 \end{aligned}$ | 136,509 91,489 | $\begin{aligned} & 14,161 \\ & 21,908 \end{aligned}$ | $\begin{aligned} & 7,034 \\ & 7,128 \end{aligned}$ | 91 81 | $\begin{aligned} & 205,235 \\ & 133,143 \end{aligned}$ | $\begin{array}{r} 136,509 \\ 91,489 \end{array}$ | $\begin{aligned} & 68,726 \\ & 41,654 \end{aligned}$ | 67 69 |
| 3494 | Valves and pipe fittings........... 1963.. 1958. | $\begin{aligned} & 1,588,509 \\ & 1,263,960 \end{aligned}$ | $\begin{aligned} & 1,299,931 \\ & 1,050,020 \end{aligned}$ | $\begin{aligned} & 214,195 \\ & 143,878 \end{aligned}$ | $\begin{aligned} & 74,383 \\ & 70,062 \end{aligned}$ | 86 88 | $\begin{aligned} & 1,525,399 \\ & 1,193,012 \end{aligned}$ | $\begin{aligned} & 1,299,931 \\ & 1,050,020 \end{aligned}$ | $\begin{aligned} & 225,468 \\ & 142,992 \end{aligned}$ | 85 88 |
| 3496 | $\text { Collapsible tubes...................... } 1963 . .$ | $\begin{aligned} & 51,027 \\ & 44,700 \end{aligned}$ | $\begin{aligned} & 44,216 \\ & 37,172 \end{aligned}$ | $\begin{aligned} & 5,920 \\ & 3,675 \end{aligned}$ | $\begin{array}{r} 891 \\ 3,853 \end{array}$ | 88 91 | $\begin{aligned} & 44,216 \\ & 37,172 \end{aligned}$ | $\begin{aligned} & 44,216 \\ & 37,172 \end{aligned}$ | - | 100 100 |
| 3497 | Metal foil and leaf. ................. 1963. 1958. | $\begin{array}{r} 180,567 \\ 96,438 \end{array}$ | $\begin{array}{r} 147,352 \\ 76,419 \end{array}$ | $\begin{aligned} & 28,555 \\ & 15,516 \end{aligned}$ | $\begin{aligned} & 4,660 \\ & 4,503 \end{aligned}$ | 84 83 | $\begin{aligned} & 329,930 \\ & 145,484 \end{aligned}$ | $\begin{array}{r} 147,352 \\ 76,419 \end{array}$ | $\begin{array}{r} 182,578 \\ 69,065 \end{array}$ | 45 52 |
| 3498 | Fabricated pipe and fittings..... $\begin{array}{r}\text { 1963.. } \\ 1958 . .\end{array}$ | $\begin{aligned} & 305,640 \\ & 329,979 \end{aligned}$ | $\begin{aligned} & 259,647 \\ & 246,957 \end{aligned}$ | $\begin{aligned} & 21,129 \\ & 29,540 \end{aligned}$ | $\begin{aligned} & 24,864 \\ & 53,482 \end{aligned}$ | 92 89 | $\begin{aligned} & 286,525 \\ & 265,378 \end{aligned}$ | $\begin{aligned} & 259,647 \\ & 246,957 \end{aligned}$ | $\begin{aligned} & 26,889 \\ & 18,421 \end{aligned}$ | 91 93 |
| 3499 | Fabricated metal products, n.e.c. $\begin{array}{r}1963 . . \\ \\ 1958 . \text {. }\end{array}$ | $\begin{aligned} & 573,185 \\ & 340,096 \end{aligned}$ | $\begin{aligned} & 469,193 \\ & 273,386 \end{aligned}$ | $\begin{aligned} & 60,295 \\ & 38,303 \end{aligned}$ | $\begin{array}{r} 43,697 \\ 28,407 \end{array}$ | $\begin{aligned} & 89 \\ & 88 \end{aligned}$ | $\begin{aligned} & 753,371 \\ & 443,638 \end{aligned}$ | $\begin{aligned} & 469,193 \\ & 273,386 \end{aligned}$ | $\begin{aligned} & 284,178 \\ & 170,252 \end{aligned}$ | 62 62 |

NOTE: See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable n.e.c. Not elsewhere classified
${ }_{1}$ Included in this industry are selected fabricated wire products (see footnotes $3,7,10$, and 12 in table 5 ) which are also primary to industry 3315 , Steel Wire Drawing, Etc. A coverage ratio computed on the basis of including both industries to which these products are primary would total 79 percent; 65 percent by industry 3481 and 14 percent by industry 3315. The remaining 21 percent was shipped by establishments in other industries, including industry 3312, Blast Furnaces and Steel Mills, and industry 3357, Nonferrous Wire Drawing, Etc.

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


[^141]TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


- Represents zero. plicable
n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Includes values for those industries for which separate data could not be published without revealing the operations of individual companies.
${ }^{2}$ Includes total for product class 33151, Noninsulated ferrous wire rope, cable, and strand, produced from wire draw in the same establishment, which is primary to industry 3315.
${ }^{3}$ Includes shipments totaling over $\$ 2$ million for industry 3352, Aluminum Rolling and Drawing, which is withheld to avoid disclosing individual company figures.
${ }^{4}$ Includes shipments totaling over $\$ 2$ million which is withheld to avoid disclosing individual company figures for industry 3315 , Steel Wire Drawing, Ftc., and industry 3316, Cold Finishing of Steel Shapes.
${ }^{5}$ Includes shipments totaling over $\$ 2$ million which is withheld to avoid disclosing individual company figures for industry 3315 , Steel Wire Drawing, etc., and industry 3429, Hardware, N.E.C.
${ }_{7}{ }^{6}$ Includes total for product class 33157 , Wire cloth and other woven wire products, made in wire drawing plants which is primary to industry 3315.
${ }^{7}$ Includes shipments totaling over $\$ 2$ million which is withheld to avoid disclosing individual company figures for industry 3357 , Nonferrous Wire Drawing, Etc., and industry 3548, Metal Working Machinery, N.E.C.
${ }^{8}$ Includes total for product class 33575 , Nonferrous wire cloth and other woven wire products, made in nonferrous wire drawing plants which is primary to industry 3357.

Includes $\$ 2$ million shipped by industry 3442 , Metal Doors, Sash, and Trim.
${ }^{10}$ Includes total for product class 33156 , Fencing and fence gates, made in wire drawing plants which is primary to industry 3315.
${ }^{11}$ Includes total for product class 33159 , Other fabricated ferrous wire products, except springs made in wire drawing plants which is primary to industry 3315
${ }^{12}$ Includes $\$ 2$ million shipped by industry 3/44, Fabricated Structural Steel; $\$ 6$ million shipped by industry 3/49, Miscellaneous Metal Work, N.E.C.; and $\$ 3$ million shipped by industry 3461, Metal Stampings. In addition shipments of over $\$ 2$ million were reported by industry 2541 , Metal Household Furniture, and industry 3554, Paper Industries Machinery, which are withheld to avoid disclosing individual company figures.
${ }^{13}$ Includes $\$ 11.7$ million shipped by industry 34ll, Metal Cans and $\$ 7.3$ million shipped by industry 3461 , Metal Stampings.
${ }^{14}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies:
3461, Metal Stampings, and 3639, Household Appliances, N.E.C.
${ }^{13}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3461. Metal Stanqings and 3729, Aircraft Equipment, N.E.C.
${ }^{16}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 26551 , Paperboard and other fiber drums, and 34412, Fabricated structural iron and steel for bridges.
${ }^{17}$ Includes $\$ 15.8$ million shipped by industry 3481, Fabricated Wire Products, N.E.C. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3391, Iron and Steel Forgings, and 3717, Motor Vehicles and Parts.

# TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: <br> <br> 1963-Continued 

 <br> <br> 1963-Continued}


#### Abstract

Footnotes for Table 5B-34E--Continued ${ }^{18}$ Includes $\$ 3.2$ million shipped by industry 3432, Plumbing Fittings, Brass Goods. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3392, Nonferrous Forgings; 3433, Heating Equipment, Except Electric; 3443, Boiler Shop Products; 3511, Steam Engines and Turbines; 3599, Miscellaneous Machinery; and 3717, Motor Vehicles and Parts. ${ }^{19}$ Includes $\$ 3.2$ million shipped by industry 3432, Plumbing Fittings, Brass Goods, and $\$ 4.0$ million shipped by industry 3433, Heating Equipment, Except Electric; and industry 3561, Pumps and Compressors had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies. ${ }^{2}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 33911 , Drop, upset and press steel forgings (closed die) forgings; 33919, Open die or smith forgings (open frame hanmer or press); 33920, Nonferrous forgings; 34443, Other sheet metal work; 35227, Lawn mowers and parts; 35323, All other mining machinery (complete units); 35332, Other oil and gas-field drilling machinery and equipment; 35483, Acetylene welding and cutting apparatus; 35612, Hydraulic fluid power pumps and motors; 35641, Industrial fans and blowers; 35851, Heat transfer equipment; 35860, Measuring and dispensing pumps; 36220, General industry power circuit devices and controls; 36441 , Pole line and transmission hardware; 36795, other electronic components and accessories, n.e.c., including parts for electronic tubes (except glass blanks); and 37175 , Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers. ${ }^{21}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 2643, Bags, Except Textile Bags; and 3356, Rolling and Drawing, N.E.C. ${ }^{23}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 264l6, Other coated and processed paper, except wrappers; 26432, Specialty bags and liners; 26510, Folding paperboard boxes and cartons, except ice cream, butter, margarine, frozen food, etc.; and 34141, Sheet, metal roofing and siding, and roof drainage equipment. ${ }^{23}$ In addition, the following industries had shipment which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 2911, Petroleun Refining; 3533, Oil Field Machinery; and 3597, Miscellaneous Machinery. ${ }^{2} 4$ Includes the following produrt classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 34944 , Other metal valves and fittings, except plumbers' brass goods and fittings; and 35690, General industrial machinery, n.e.c. ${ }^{25}$ Includes $\$ 4.1$ million shipped by industry 2499, Wood Products, N.E.C.; \$+.l million shipped by industry 2514, Metal Household Furniture; $\$ 3.7$ million shipped by industry 2542, Metal Partitions and Fixtures; $\$ 2.1$ million shipped by industry 3423, Hand and Edge Tools; \$2.2 million shipped by industry 3442, Metal Doors, Sash, and Trim; $\$ 2.9$ million shipped by industry 3443, Boiler Shop Products; \$6.0 million shipped by industry 3494, Valves and Pipe Fittings; $\$ 3.8$ million shipped by industry 3559, Special Industry Machines, N.E.C.; $\$ 4.8$ million shipped by industry 3585 , Refrigeration Machinery; $\$ 4.4$ million shipped by industry 3644, Noncurrent Carrying Devices; $\$ 3.2$ million shipped by industry 3717 , Motor Vehicles and Parts; and $\$ 6.6$ million shipped by industry 3729, Aircraft Equipment, N.E.C. In addition the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 2515, Mattresses and Bedsprings; 264l, Paper Coating and Glazing; 332l, Gray Iron Foundries; 3323, Steel Foundries; 3425, Hand Saws and Saw Blades; 3522, Farm Machinery and Equipment; 3531, Construction Machinery; 3552, Textile Machinery; 3562, Bell and Roller Bearings; 3631, Household Cooking Equipment; 3639, Household Appliances, N.E.C.; 3642, Lighting Fixtures; 3643, Current Carrying Devices; 3742, Railroad and Street Cars; and 3843, Dantal Equipment and Supplies. ${ }^{2}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual cormany figures: 25144 , Other metal household furniture; 35451, Small cutting tools for mashine tools and metal working machinery; 35690, General industrial machinery, n.e.c.; and 39142, Flatware.


table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


[^142]TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All
Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



[^143]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | Value $(\$ 1,000)$ |
|  | Leaf springs-Continued |  |  |  |  |  |
| 3493063 | Leaf springs for tractors, farm equipment, locomotive and railroad cars and other heavy equipment. | Short tons.... | 6,678 | 2,126 | 9,910 | 3,326 |
| 3493071 | Flat springs made of sheet and strip.............................. |  | (X) | 19,804 | (X) | 19,502 |
| 3493098 | Other steel springs, including torsion bar springs, except wire springs. |  | (X) | 6,954 | (X) | 3,123 |
| 3493000 | Steel springs, except wire, n.s.k..................................... |  | (X) | 7,343 | (x) | 8,291 |
| 3494- -- | VALVES AND PIPE FITTINGS (EXCEPT PLUMBERS' BRASS GOODS AND FITTINGS), TOTAL. ........................................................... . . |  | (X) | 1,525,399 | (X) | 1,193,012 |
| 34941 -- | Metal valves for piping systems (except plumbing and heating valves) $\qquad$ |  | (X) | 686,096 | (X) | 559,840 |
| 3494111 | Gates, globes, angles, checks, butterflies, lubricated plugs, cocks, stop and checks, cross, etc. (except automatic regulating valves): Iron (all pressures) (includes fire hydrants). | Short tons.... | 146,217 | 160,197 | 150,272 | 137,406 |
| 3494113 | Steel (carbon and alloy) (all pressures)........................ | ...do......... | 65,760 | 182,430 | 60,808 | 175,727 |
| 3494115 | Brass and bronze ( 125 lb . W.S.P. and over) | ...do. | 33,269 | 99,097 | 21,629 | 75,032 |
| 3494117 | Aluminum. | . . .do. | 588 | 3,666 | (NA) | (NA) |
| 3494131 |  | ...do.......... | 2,917 | 6,922 | 1,046 | 2,422 |
| 3494133 | Steel (carbon and alloy) | do | 6,054 | 24,701 | 3,632 | 11,404 |
| 3494135 | Brass and bronze. | ...do......... | 3,162 | 12,684 | 1,730 | 6,174 |
|  | Automatic regulating valves: |  |  |  |  |  |
| 3494151 | Diaphragm-actuated.. |  | (NA) | 55,911 | (NA) | 71,311 |
| 3494153 3494154 34 | Float-actuated (include float cages) |  | (NA) | 5,165 | (NA) | 5,414 |
| $\begin{aligned} & 3494154 \\ & 3494155 \end{aligned}$ | Solenoid-actuated......... | 1,000 units... | 1,477 (NA) | 25,640 83,280 | (NA) | 51,988 |
| 3494157 | Compressed gas cylinder valves. |  | (NA) | 13,105 | (NA) | 8,864 |
| 3494100 | Metal valves for piping systems, n.s.k |  | (X) | 13,298 | (X) | 14,098 |
| 34942 -- | Metal fittings and unions for piping systems: Fittings, flanges, and unions.................. |  | (X) | 421,664 | (X) | 374,233 |
| 3494211 | Gray iron............ | Short tons. | 77,198 | 34,910 | 79,399 | 31,621 |
| 3494213 | Malleable iron: |  |  |  |  |  |
| 3494215 | Fittings and flanges.... | ..do.......... | 85,382 | 56,865 | 70,354 | 50,033 |
|  |  |  |  |  |  |  |
| 3494221 | Cast carbon and alloy steel....................................... | ...do......... | 7,143 | 10,453 |  |  |
|  | Forged carbon and alloy steel: |  |  |  |  |  |
| $\begin{aligned} & 3494223 \\ & 3494225 \end{aligned}$ |  | ...do......... | 45,030 39,954 | 62,665 33,376 | 103,778 | 111,143 |
| 3494227 | Fittings, welding type..................................................... | .do | 42,830 | 34,158 |  |  |
| 3494218 | Cast and wrought copper and copper-brass alloy. | ...do......... | 50,283 | 88,227 | 40,201 | 68,555 |
| 3494219 | Aluminum. | ...do.......... | 510 | 1,298 | (NA) | (NA) |
| 3494251 | Steam traps (over 15 lb . W.S.P.): <br> Thermostatic; and combination float and thermostatic........... | 1,000 units... | (NA) | 7,464 | 697 | 6,355 |
| 3494255 | Mechanical... | ...do......... | 368 | 5,002 | 330 | 4,241 |
| 3494298 | Other metal piping specialties for piping systems (except plumbing and heating valves). |  | (X) | 57,036 | (x) | 88,211 |
| 3494200 | Metal fittings and unions for piping systems, n.s.k.............. |  | (X) | 6,042 | (x) | - |
| 34943 -- | Plumbing and heating valves and specialties (except plumbers' brass goods). |  | (X) | 87,860 | (X) | 87,110 |
| 3494311 | Gates, globes, angles, checks, butterflies, lubricated plugs, cocks, stop and checks, cross, etc.; brass and bronze valves (under 125 W.S.P.). | Short tons.... | 11,383 | 24,267 | 17,540 | 38,250 |
| 3494351 | Steam traps ( 15 lb . W.S.P. and under)........................... |  | (X) | 3,578 | (X) | 4,087 |
| 3494398 | Other metal plumbing and heating valves and specialties, including pop safety valves and relief valves -15 lb . W.S.P. and under. |  | (X) | 55,401 | (X) | 41,649 |
| 3494300 | Plumbing and heating valves and specialties, except plumbers' brass goods and fittings, n.s.k........................................... |  | (X) | 4,614 | (X) | 3,124 |
| 34944 -- | Other metal valves and fittings, except plumbers' brass goods and fittings. $\qquad$ |  | (X) | 303,319 | (X) | 151,564 |

See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3499- -- | FABRICATED METAL PRODJCTS, N.E.C., TOTAL. ........................ |  | (X) | 753,371 | (X) | 443,638 |
| 3499051 | Metal ladders, step and rung types (portable): Aluminum. | No. of units.. |  |  | ) |  |
| 3499052 | 0ther metais......................................................... |  | (NA) | 1,831 |  |  |
| 3499054 | Metal ironing boards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | No. of units.. | 2,213,588 |  |  |  |
| 3499055 3499056 34995 | Permanent magnets................................................... Fabricated assemblies of railroad frogs, switches, and crossings. | Short to....... | (X) 173,907 | 36,749 53,776 |  |  |
| 3499057 | Metal strapping, flat................................................ . . | ...do......... | 297,647 | 82,243 | $\} \quad(x)$ | 443,638 |
| 3499059 | other fabricated metal products, n.e.c. (including metal ammunition boxes and chests) |  | (X) | 465,155 |  |  |
| 3499000 | Fabricated metal products, n.e.c., n.s.k.............................. |  | (X) | 86,732 |  |  |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. plicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ This quantity was valued at $\$ 61,700$ thousand. The remaining $\$ 14,844$ thousand was reported without quantity.
${ }^{2}$ This quantity was valued at $\$ 10,428$ thousand. The remaining $\$ 3,254$ thousand was reported without quantity.
${ }^{3}$ This quantity was valued at $\$ 2,916$ thousand. The remaining $\$ 473$ thousand was reported without quantity.
4 For 1958, data for product code 3481519 , Nonferrous metal insect wire screening, other than copper and copper-base alloy, and aluminum, are included with product code 3481498 , Other wire cloth and woven wire products.

5 For 1958 , data for product code 3481400 , Wire cloth and woven wire products, not specified by kind, include data for product code 3481500 , Nonferrous wire cloth and other woven nonferrous wire products, not specified by kind.
${ }^{6}$ This quantity was valued at $\$ 5,599$ thousand. The remaining $\$ 1,435$ thousand was reported without quantity.
${ }^{7}$ Steel shipping packages, kegs, and pails are defined as single-walled shipping containers with a range of capacity from 1 to 12 gallons inclusive, constructed of steel sheet of 29 gauge and heavier. This definition does not include tin cans (packers' cans, general line cans, and beer cans), terneplate oil containers, fluid milk shipping containers, ice cream cans, gas cylinders, beer barrels, reconditioned barrels and drums, or containers not commercially usuable in the transportation of commodities.
${ }^{8}$ Steel shipping barrels and drums are defined as single-walled cylindrical or bilged shipping containers, with a range of capacity from 12 to 132 gallons, constructed of steel. This definition does not include tin cans (packers cans, general line cans, and beer cans), terneplate oil containers, high and low pressure gas steel cylinders, fluid milk shipping containers, ice cream cans, or containers not commercially usuable in the transportation of commodities.
${ }^{\text {Safes }}$ and chests are shown as fire-resistive or burglary-resistive, depending on the primary purpose for which they are built.
${ }^{10}$ More detailed data are available in Current Industrial Reports Series M26F, "Converted Flexible Packaging Products". There are inconsistencies in classification in these two surveys. These differences will be resolved in the 1964 report in the M26F series.
${ }^{11}$ In 1958 these data are limited to laminated foil made from purchased aluminum foil.
${ }^{12}$ More detailed data on converted aluminum foil are available in Current Industrial Reports Series M34P, "Aluminum Foil Converted". That report contains data on poundages of aluminum foil converted by end use. However, it is not possible to precisely compare the data in this industry with data in the annual Current Industrial Report. Some of the products for which aluminum foil consumption is reported in the annual survey are produced for use by the same company to package a conmodity. In such cases, the converted aluminum foil product is not included in this industry but is included as a portion of the value of the packaged conmodity.
${ }^{13}$ Data for product code 349703 included with product code 3497036 .

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes ( 1954 = 100) |  | Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |  |  | Production | Unit value |
| 348-- | Fabricated wire products, n.e.c. ${ }^{1}$................................ 1963. . | 122 106 | $\begin{aligned} & 118 \\ & 112 \end{aligned}$ | 3491- | Fabricated metal products, n.e.c.-Con. Metal barrels, drums, and pails....... 1963. | 110 | 132 121 |
| 3481- | Fabricated wire products, n.e.c. ${ }^{1} . .$. 1963.. | 122 106 | 118 112 | 34911 | Steel shipping pails (12 gallon capacity and under)..................... $1963 .$. | 127 | 125 |
|  |  |  |  | 34912 | Steel shipping barrels and drums (over 12 gallon capacity)............1963.. | 98 | 136 |
| 34811 | Noninsulated ferrous wire rope, cable, and strand...................... 1963.. | 136 | 110 |  | Steel springs. . . . . . . . . . . . . . . . . . . . . . . 19663.19 | 95 124 | 119 |
| 34812 | Precision mechanical springs....... 1958.. | 110 100 | 106 152 | 3493- | Steel springs. . . . . . . . . . . . . . . . . . . . . . 1963.. | 124 89 | 125 116 |
|  | Precision mechanical springs.......196.. | 85 | 131 | 3494- | Valves and pipe fittings (except |  |  |
| 34813 | Other wire springs.................. 1963.. | 117 98 | 106 100 |  | plumbers'brass goods and fittings) ${ }^{3}$... ${ }^{\text {1963.. }}$ 1958. | 129 104 | 127 125 |
| 34814 | Ferrous wire cloth and other woven ferrous wire products................1963.. 1958. | 90 113 | 104 | 34941 | Metal valves for piping systems (except plumbing and heating |  |  |
| 34815 | Nonferrous wire cloth and other woven nonferrous wire products....1963.. | 189 | 102 |  | valves). . . . . . . . . . . . . . . . . . . . . . . . . . . 1963.. $1958 .$. | 113 98 | 140 136 |
|  | 1958.. | 113 | 107 | 34942 | Metal fittings and unions for piping systems............................ . 1963. | 118 | 111 |
| 34816 | Fencing and fence gates............... 1963.. | 115 108 | 106 107 |  | piping systems...................... 1963.. | 105 | 111 |
|  |  |  |  | 3496- | Collapsible tubes........................... $1963 .$. | 115 98 | 112 |
| 349-- | Fabricated metal products, $\text { n.e.c..................................... . } 1963 . .$ | $\left(\begin{array}{l}2 \\ (2) \\ \\ \end{array}\right.$ | $\left(\begin{array}{l}2 \\ (2) \\ \\ \\ \end{array}\right.$ | 3497- | Metal foil and leaf (except plain aluminum foil).............................. $1963 .$. | 177 84 | 131 |

[^144]${ }^{1}$ Adjusted to include other fabricated wire products (product class 34819) and products not specified by kind.
${ }^{2}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.
${ }^{3}$ Adjusted to include plumbing and heating valves and specialties (product class 34943) and other metal valves and fittings (product class 34944 ).

# table 6c. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963 

| Code | Product class | 1963 | $1962{ }^{2}$ | $1961{ }^{\text {² }}$ | $1960{ }^{\text { }}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3481- | Fabricated wire products, n.e.c............... | 1,399,261 | (NA) | (NA) | (NA) | (NA) | 1,164,232 | 982,720 | (NA) |
| 34811 | Noninsulated ferrous wire rope, cable and strand, not produced by wire drawers ${ }^{2}$........ | 189,934 | 190,563 | 178,689 | 185,228 | 190,913 | 163,386 | 142,875 | 128,338 |
| 34812 | Precision mechanical springs................. | 149,985 | 166,583 | 144,212 | 139,868 | 150,324 | 108,984 | 98,049 | (NA) |
| 34813 | Other wire springs.............. | 239,498 | 224,318 | 203,606 | 228,308 | 216,326 | 187,772 | 191,071 | (NA) |
| 34814 | Ferrous wire cloth, and other woven ferrous wire products, not produced by wire drawers? | 72,328 |  |  |  |  |  |  |  |
| 34815 | Nonferrous wire cloth and other woven nonferrous wire products, not made by wire drawers ${ }^{4}$. $\qquad$ | 70,487 | \} (NA) | (NA) | (NA) | (NA) | 156,995 | 131,175 | 90,792 |
| 34816 | Fencing and fence gates, not produced by wire drawers ${ }^{5}$....................................... | 115,480 | 111,200 | 113,065 | 103,530 | 111,355 | 103,309 | 92,909 | 63,297 |
| 34819 | Other fabricated wire products, not produced by wire drawers ${ }^{6}$. | 501,529 | 467,407 | 453,458 | 431,233 | 445,835 | 405,656 | 313,382 | 214,690 |
| 34810 | Fabricated wire products, n.s.k.............. | 60,020 | (NA) | (NA) | (NA) | (NA) | 38,130 | 13,259 | (NA) |
| 3491- | Metal barrels, drums, and pails | 317,873 | 291,786 | 272,341 | 265,136 | 290,496 | 258,953 | 211,255 | 179,556 |
| 34911 | Steel shipping pails ( 1 to 12 gal. capacity) | 87,186 | 86,903 | 85,513 | 86,745 | 95,212 | 80,229 | 54,771 | 35,604 |
| 34912 | Steel shipping barrels and drums (over 12 gallon capacity), except beer barrels. | 191,501 | 186,203 | 168,976 | 162,045 | 177,313 | 162,375 | 143,854 | 107,741 |
| 34913 | All other barrels, including beer barrels and fluid milk shipping containers.......... | 35,887 | 18,455 | 17,426 | 16,058 | 16,437 | 14,723 | 12,630 | 36,211 |
| 34910 | Metal barrels, druss, and pails, n.s.k...... | 3,299 | (NA) | (NA) | (NA) | (NA) | 1,626 | (NA) | (NA) |
| 34920 | Safes and vaults | 59,328 | 48,917 | 51,725 | 50,843 | 48,171 | 45,088 | 33,969 | 28,737 |
| 34930 | Steel springs. | 205,235 | 168,899 | 133,314 | 152,440 | 150,301 | 133,143 | 129,593 | 118,510 |
| 3494- | Valves and pipe fittings. | 1,525,399 | 1,464,495 | 1,322,363 | 1,301,604 | 1,310,027 | 1,193,012 | 911,678 | 557,448 |
| 34941 | Metal valves for piping systems (except plumbing and heating valves)............ | 686,096 | 655,124 | 605,801 | 595,633 | 595,764 | 559,840 | 420,305 |  |
| 34942 | Metal fittings and unions for piping systems. | 421,664 | 412,387 | 378,193 | 387,486 | 397,373 | 374,233 | 304,425 | 441,557 |
| 34943 | Plumbing and heating valves, and specialities, except plumbers' brass goods..... | 87,860 | 116,628 | 107,859 | 95,553 | 97,551 | 87,110 | 94,035 | 63,761 |
| 34944 | Other metal valves and fittings, except plumbers' brass goods and fittings ......... | 303,319 | 234,418 | 196,342 | 193,476 | 193,345 | 151,564 | 788,397 | 743,175 |
| 34940 | Valves and fittings, n.s.k................... | 26,460 | (NA) | (NA) | (NA) | (NA) | 20,265 | 4,516 | 8,955 |
| 34960 | Collapsible tubes. | 44,216 | 41,448 | 41,883 | 40,521 | 40,728 | 37,172 | 34,129 | 23,772 |
| 34970 | Metal foil and leaf. | 329,930 | $(180,907)$ | $(157,193)$ | $(156,193)$ | $(157,122)$ | 145,484 | 128,392 | 66,473 |
| 34980 | Fabricated pipe and fittings.................. | 286,535 | 248,986 | 224,203 | 223,819 | 247,042 | 265,378 | 214,133 | 109,991 |
| 34990 | Fabricated metal products, n.e.c............... | 753,371 | 654,604 | 554,662 | 542,693 | 501,745 | 443,638 | 364,769 | 107,942 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.



 data.
${ }^{2}$ Includes product class 33151 , Noninsulated ferrous wire rope, cable, and strand produced from wire drawn, which is primary to industry 3315.
${ }^{3}$ Includes product class 33157 , Wire cloth and other woven wire products made in wire drawing plants, which is primary to industry 3315 .
${ }^{4}$ Includes product class 33575 , Nonferrous wire cloth and other woven wire products made in nonferrous wire drawing plants, which is primary to industry 3357.

Includes product class 33156 , Fencing and fence gates made in wire drawing plants, which is primary to industry 3315.
${ }^{6}$ Includes product class 33159 , Other fabricated ferrous wire products, except springs made in wire drawing plants, which is primary to industry 3315.
${ }^{7}$ Does not include pipe hangars and pipe supports, for which data is not available.

# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| noninsulated ferrous wire ROPE, CABIE, AND STRAND ( 33151 and 34811 ) United States, total... | 1963 ${ }^{1}$ | 1958 | FERROUS WIRE CLOTH AND OTHER WOVEN FERROUS WIRE PRODUCTS (33157 and 34814) | 19631 |  | OTHER FABRICATED WIRE PRODUCTS (33159 and 34819) -Continued | $1963{ }^{1}$ | 1958 |
|  |  |  |  | 72,328 |  |  |  |  |
|  | 189,934 | 163,386 | United States, total... |  |  | Middle Atlantic.............. | $\begin{gathered} 150,329 \\ 4,907 \end{gathered}$ | 138,115 |
| New England... | 16,818 | 2,694 | New Fngland................Massachusetts........ | 9,1684,917 |  | New Jersey <br> Pennsylvania | $\begin{aligned} & 23,304 \\ & 82,118 \end{aligned}$ | 11,007 |
|  |  |  |  |  |  |  |  |  |
|  | 85,325 | 72,294 | Middle Atlantic............. |  |  | East North Central |  |  |
|  | $\begin{aligned} & 8,130 \\ & 33,445 \\ & 43,750 \end{aligned}$ | $\begin{array}{r} 2,587 \\ 29,037 \\ 40,670 \end{array}$ |  | $\begin{array}{r} 16,539 \\ 6,035 \\ 10,221 \end{array}$ |  |  | 24,015 | $\begin{array}{r} 131,393 \\ 22,819 \end{array}$ |
|  |  |  |  |  |  | Indiana...................... | 27,096 |  |
|  |  |  |  |  |  | Illinois.. | 77,642 | 55,943 |
| East North Central <br> Ohio <br> Michigan | $\begin{array}{r} 30,211 \\ 2,547 \\ 1,9725 \end{array}$ | $\begin{array}{r} 22,430 \\ 4,100 \\ \left({ }^{(2)}\right. \end{array}$ | East North Central..........OhioInlinois............................................. | $\begin{gathered} 24,279 \\ 7,778 \\ 12,393 \end{gathered}$ |  | Michigan. | 29,3715,486 | 22,2864,277 |
|  |  |  |  |  |  |  |  |  |
|  | 10,320 | 9,188 |  |  |  |  | 2,9388,221 | 35,2467,9834,368 |
| South Atlantic..... |  |  | East South Central... |  |  |  |  |  |
|  | $\begin{aligned} & 3,117 \\ & 3,117 \end{aligned}$ | $(2)$$(2)$ |  |  | 4,379 | Iowa...................... | 8,002 | 4,368 |
| West South Texas... |  |  | Pacific. <br> All other divisions........ | -10,656 |  | Missouri | 22,339 | 19,027 ${ }_{(2)}$ |
| Pacific......................... <br> All other divisions. | 17,43426,709 | $\begin{aligned} & 12,217 \\ & 44,563 \end{aligned}$ | NONFERROUS WIRE CLOTH AND OTHER WOUEN NONFERROUS WIRE PRODUCTS ( 33575 and 34815) |  |  | South Atlantic.............. | 24,02612,131 | 14,6397,054 |
|  |  |  |  |  |  | Maryland.. |  |  |
|  |  |  |  |  |  | North Caro | 1,658 |  |
| PRECISION VECHANICALSPRINGS (34812) |  |  |  |  |  | Georgia. | 2,869 | 2,169 |
|  |  |  |  |  |  | Florid | 4,502 | 3,969 |
| United States, | 14 | 108 | United States, total... | 70,4877,575 |  | East South Central......... | 23,754 | 15,220 |
|  |  |  | New England............... |  |  | Tennessee.. | 8,891 | 5,873 |
|  | $\begin{aligned} & 16,477 \\ & 14,750 \end{aligned}$ | $\begin{array}{r} 12,314 \\ 9,469 \end{array}$ |  | 4,572 |  | Alabama.................. | 13,817 | 9,170 |
|  |  |  | Widdle Atlantic............. <br> New Jersey. | 12,022 |  |  | 20,162 | 13,315$(z)$7,312 |
| Widale Atlantic............... <br> New York. <br> New Jersey <br> Pennsylvania | 20,392 | 12,352 |  |  |  | 1,022 |  |  |
|  | 1,513 | 3,593 | East North Central......... | 13,312 |  |  | Texas. <br> Mountain |  | $\begin{aligned} & 11,653 \\ & 15,900 \end{aligned}$ |
|  |  |  |  |  |  | 11,856 |  |  |  |
|  |  |  | South Atlantic............. | 11,6926,504 |  |  |  |  |  |
| East North Central Indiana Illinois Michigan | $\begin{array}{r} 102,192 \\ 12,868 \\ 41,180 \\ 38,992 \end{array}$ | $\begin{aligned} & 74,637 \\ & 3,(2) \\ & 3,855 \\ & 23,981 \end{aligned}$ |  |  |  | Pacific. Washington California | $\begin{array}{r} 33,461 \\ 2,177 \end{array}$31,052 | $\begin{gathered} 23,038 \\ 1,688 \\ 21,055 \end{gathered}$ |  |
|  |  |  |  | $\begin{aligned} & \text { 6,917 } \\ & 1,604 \\ & 3,698 \end{aligned}$ |  |  |  |  |  |
|  |  |  |  |  |  | STEEL SHIPPING PAILS ( 1 to 12 GALION CAPACITY) (34911) |  |  |  |
| Pacific.. <br> All other divisions | 7,4153,509 | 6,2183,463 | All other divisions........ |  |  |  |  |  |  |
|  |  |  | FENCING AND FENCE GATES $(33156$ and 34816$)$ | $1963{ }^{1}$ | 1958 |  |  |  | United States, total... | 87,186 | 80,229 |
| OTHER WIRE SPRINGS (34813) United States, total... | 239,498 | 187,772 | United States, total... | 115,480 | 103,309 |  | $\begin{array}{r} 23,707 \\ 9,411 \end{array}$ | $\begin{gathered} \left({ }^{2}\right) \\ 16,573 \end{gathered}$ |  |
|  | $\begin{aligned} & 8,742 \\ & 6,169 \\ & 2,573 \end{aligned}$ | $\begin{aligned} & 9,911 \\ & 5,060 \\ & 4,851 \end{aligned}$ | New Fngland................ | 3,777 | 4,46312,247 | East North Central..........Inlinois.................. | $\begin{aligned} & 38,026 \\ & 23,277 \end{aligned}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 18,326 \end{array}$ |  |
| New England. <br> Massachusetts <br> Connecticut |  |  |  |  |  |  |  |  |  |
|  |  |  |  | $\begin{aligned} & 5,521 \\ & 1,364 \\ & 3,224 \end{aligned}$ | $\begin{array}{r} 12,247 \\ 3,697 \\ 8,347 \end{array}$ | West North Central. | 1,605 | $(2)$$(2)$$(2)$ |  |
|  |  |  |  |  |  |  |  |  |  |
|  | $\begin{array}{r} 17,615 \\ 2,507 \\ 2,312 \\ 12,796 \end{array}$ | $\begin{array}{r} 24,432 \\ 6,1014 \\ 1,617 \\ 16,601 \end{array}$ |  | $\begin{array}{r} 43,355 \\ 8,029 \\ 5,522 \\ 28,396 \end{array}$ | $\begin{array}{r} 35,761 \\ 2,176 \\ (2) \\ 25,143 . \end{array}$ | South Atlantic | rest10,1042,313 | (2)6,428$(2)$ |  |
|  |  |  |  |  |  | Pacific.................... |  |  |  |
|  |  |  |  |  |  | All other division |  |  |  |
|  |  |  |  |  |  | Al other divisian |  |  |  |
| East North Central Ohio | 142,746 | 102,869 | West North Central.......... South Atlantic................ | 11,58213,413 | 9,803 ${ }_{(2)}$ | STEEL SHIPPING BARRELS AND drims (over 12 gailion CAPACITY), EXCEPT BEER bARRELS (34912) | 191,501 | 162,375 |  |
|  | 31,994 | 26,106 |  |  |  |  |  |  |  |
| Indiana. | 12,618 |  |  |  |  |  |  |  |  |
| Milinois | 54,520 41,008 | 28,549 | West South | 18,572 | ${ }^{2}$ ) | United States, total..... |  |  |  |
| Wisc | 2,606 | (z) | Texas.................... | 15,930 | 12,354 |  |  |  |  |
|  | $\begin{aligned} & 9,776 \\ & 6,749 \end{aligned}$ | $\begin{aligned} & 8,264 \\ & 7,441 \end{aligned}$ |  | $\begin{aligned} & 12,541 \\ & 12,423 \end{aligned}$ |  | Northeast. | 59,980 | ${ }^{2}$ ) |  |
| West North Central Missouri. |  |  |  |  | $\begin{aligned} & \left(^{(2)}\right) \\ & 11,906 \end{aligned}$ | New Jersey | 38,765 | 22,696 |  |
|  |  |  |  |  |  | East North Central......... |  |  |  |
| South Atlantic |  |  | AII other | 6,719 | $\left({ }^{2}\right)$ | Onio... | 24,144 | 18,872 |  |
| th | 9,743 | 7,270 |  |  |  | Illino | 30,917 | 25,452 |  |
| East South Central. | 17,097 | 5,773 | OTHER FABRICATED WIPE |  |  | West North Ce |  |  |  |
|  |  |  | United States, total... | 501,529 | 405,656 | Missouri.................. | 2,386 |  |  |
| Californ | 21,850 | 18,281 | New England. | 27,349 | 22,854 |  |  |  |  |
|  |  |  | Massachusett. | 9,551 | 10,016 | South Atlantic. | 5,634 | ${ }^{2}$ ) |  |
| All other di | 5,833 | 23,428 | Connecti | 16,474 | 11,812 | East South Central | 6,223 | ${ }^{2}$ ) |  |

## table 6D Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued



See footnotes at end of table.

TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FABRICATED METAL PRODUCTS, N.E.C. (34990) - Continued | $1963{ }^{2}$ | 1958 | FABRICATED METAL PRODUCTS, N.E.C. (34990)-Continued | $1963^{1}$ | 1958 | FABRICATED METAL PRODUCTS, N.E.C. (34990) -Continued | $1963{ }^{1}$ | 1958 |
|  | 193,948 | 116,764 |  | 40,478 |  | East South Central........ | 7,526 | 2,875 |
| New York. | 72,532 | 47,601 | West North Central. | 13,283 | 13,714 6,690 | Kentucky. |  | 1,231 |
| New Jersey: | 30,297 | 19,249 | Iowa.. | 6,856 | 1,719 |  |  |  |
| Pennsylvania......... | 91,119 | 49,914 | Missour Kansas. | $\begin{array}{r} 17,523 \\ 2,347 \end{array}$ | $\begin{array}{r} 4,414 \\ (Z) \end{array}$ | West South Central......... <br> Oklahoma $\qquad$ <br> Texas $\qquad$ | $\begin{array}{r} 19,544 \\ 3,143 \\ 9,489 \end{array}$ | $\begin{aligned} & 4,559 \\ & 1,172 \\ & 2.028 \end{aligned}$ |
| East North Central....... | 306,718 | 214,624 | South Atlantic. | 55,443 | 38,107 |  |  |  |
| Onio.... | 50,118 | 35,162 | Maryland | 24,183 | 16,999 | Mountain...................... | 13,141 | 2,729 1,102 |
| Indiana.. | 40,679 | 26,496 | Virginia. | 2,295 | 1,658 |  | 1,249 | 1,102 |
| Illinois. | 152,641 | 119,119 | North Caroli | 2,751 | 3,831 | Pacific.................... | 47,494 | 18,548 |
| Michigan................ | 52,945 | 28,920 | Georgia | 3,412 | 1,302 | Oregon.. | 1,357 | (z) |
| Wisconsin................ | 10,335 | 4,927 | Florid | 4,886 | 6,598 | California | 44,810 | 17,940 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
n.e.c. Not elsewhere classified. applicable. (Z) Less than $\$ 1$ million. n.e.c. Not elsewhere classified.
${ }^{1}$ For the specified product classes shipment of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 33151 and 34811, Massachusetts, Connecticut, Indiana, Illinois, Wisconsin, Missouri, Maryland, Virginia, Georgia, Florida, Colorado, Washington, and California; 34812, Massachusetts, Ohio, Kentucky, and California; 34813, Iowa, Maryland, Kentusky, Mississippi, Texas, and Colorado; 33157 and 34814, Connecticut, Indiana, Michigan, Missouri, Maryland, Kentuaky, Colorado, Oregan, and Califormia; 33575 and 34815, Connecticut, New York, Pennsylvania, Ohio, Wisconsin, Missouri, Alabama, Mississippi, and California; 33156 and 34816. Connecticut, Minnesota, Iowa, Missouri, Maryland, Florida, Alabama, Louisiana, Oklahoma, and Colorado; 33159 and 34819 , Rhode Island, Delaware. Louisiana, Oklahoma, and Colorado; 34911, Massachusetts, New York, New Jersey, Wisconsin, Kansas, South Carolina, Alabama, Louisiana, Texas, and California; 34912, Connecticut, New York, Pennsylvania, Michigan, Kansas, West Virginia, Tennessee, Alabama, and California; 34913 , New Jersey. Pennsylvania, Indiana, Illinois, Wisconsin, Minnesota, Missouri, Nebraska, and South Carolina; 34920, New York, Ohio, and Indiana; 34941, New Hampshire, Rhode Island, Minnesota, Iowa, Nebraska, Kansas, West Virginia, Kentucky, Tennessee, Alabama, Arkansas, Louisiana, Washington, and California; 34942, Michigan, Wisconsin, Missouri, Kansas, Delaware, Georgia, Kentucky, Arkansas, Oklahoma, Colorado, and California; 34943, Rhode Island, Connecticut, New York, New Jersey, Michigan, Wisconsin, Iowa, Oregon, and California; 34944, Vermont, Connecticut, Nebraska, Kansas, Virginia, Oklahoma, Colorado, and Arizona; 34970, Vermont, Massachusetts, Indiana, Wisconsin, Minnesota, Iowa, Missouri, Maryland, Virginia, North Carolina, Kentucky, Tennessee, Arkansas, and California; 34990, West Virginia, South Carolina, Alabama, Arkansas, Louisiana, Colorado, and Washington.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.
$1^{3}$ In 1958 these data are limited to laminated foil made from purchased aluminum foil.

## table 7A. Materials by Kind: 1963 and 1958



[^145]
## TABLE 7A. Materials by Kind: 1963 and 1958-Continued



[^146]table 7A. Materials by Kind: 1963 and 1958-Continued


See footnotes at end of table.

## table 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost <br> $(\$ 1,000)$ | Quantity | Delivered cost <br> $(\$ 1,000)$ |
|  | Mill shapes and forms (except castings) -Continued <br> Aluminum and aluminum-base alloy-Continued <br> Extruded shapes (including extruded rod, bar, pipe, tube, etc.) All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded, tubing, etc.). |  | INDUSTRY 3499.-FABRICATED METAL PRODUCTS, N.E.C.-Continued |  |  |  |
| $\begin{aligned} & 335205 \\ & 335209 \end{aligned}$ |  | 1,000 lbs....... ...do........... | 10,934 3,113 | 5,687 1,445 | (NA) (NA) | (NA) (NA) |
| 332011 | Castings (rough and semifinished): ${ }^{1}$ <br> Iron (gray and malleable). | Short tons...... | 4,782 | 1,866 | (NA) | (NA) |
| 332300 |  | ...do........... | 5,035 | 3,216 | (NA) | (NA) |
| 336100 | Aluminum and aluminum-base alloy................................... | 1,000 lbs....... | 1,489 | 1,253 | (NA) | (NA) |
| 336200 | Copper and copper-base alloy. | . . .do. | 1,815 | 1,054 | (NA) | (NA) |
| 339100 | Iron and steel forgings ${ }^{2}$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Short tons...... | 659 | 362 | (NA) | (NA) |
| 349401 | Valves and pipe fittings (except plumbers' brass goods and fittings). |  | (x) | 224 | (NA) | (NA) |
| 333010 | Nonferrous plating metals (chromium, nickel, zinc, etc.)........... |  | (X) | 2,290 | (NA) | (NA) |
| 970099 | All other materials and components, parts, containers, and supplies consumed. |  | (x) | 81,814 | (NA) | (NA) |
| 976000 | Materials, containers, supplies, n.s.k. ${ }^{2}$. |  | (x) | 50,813 | (NA) | (NA) |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Does not include tonnages of castings or forgings produced and consumed in the same establishment.
${ }^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not reported and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."
${ }^{3}$ In 1963, 258,392 short tons of iron castings, 6,003 short tons of steel castings, and 122,917 thousand pounds of copper and copper-base alloy castings were produced and consumed in the same establishment. 1963 data for aluminum and aluminum-base alloy castings produced and consumed in the same establishment are not available. The comparable figure for copper and copper-base alloy castings in 1958 is 61, 231 thousand pounds. Data for other types of castings produced and consumed in the same establishment are not available for 1958.

43,934 short tons of forgings were produced and consumed in the same establishment in 1958. The comparable data for 1963 are not available.
${ }^{5}$ Data on total consumption of aluminum foil are available, by end use, in Current Industrial Reports Series M34P, Aluminum Foil Converted. The data in the Current Industrial Report include consumption by all establishments such as foil mills, foil converters, and others including food processing and other establishments converting foil for purposes of packaging a product. Data in this report are limited to establishments classified in the metal foil and leaf industry.

## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Fabricated wire products, n.e.c. (SIC 3481) | Metal barrels, drums, and pails (SIC 3491) | Safes and vaults (SIC 3492) | $\begin{aligned} & \text { Steel } \\ & \text { springs } \\ & \text { (SIC 3493) } \end{aligned}$ | Valves and pipe fittings (SIC 3494) | Collapsible tubes (SIC 3496) | Fabricated pipe and fittings (SIC 3498) | Fabricated metal products, n.e.c. (SIC 3499) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energ ........\$1,000.. | 11,578 | 4,096 | 467 | 3,081 | 17,843 | 632 | 3,126 | 5,759 |
| Total cost of purchased fuels................................. ${ }^{\text {do. }}$ | 4,980 | 2,077 | 216 | 1,975 | 8,220 | 194 | 1,352 | 2,121 |
| Bituminous coal, lignite, and anthracite: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons. . | 23 | (S) | (S) | (S) | 115 | - | (S) | 10 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | 203 | (S) | (S) | (S) | 793 | - | (S) | 89 |
| Coke and breeze: <br> Quantity. .1,000 short tons.. | (S) | - | - | - | 39 | - | - | - |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\downarrow \perp, 000$. | (S) | - | - | - | 1,190 | - | - | - |
| Fuel oil (distillate and residual): <br> Quantity........................... 1,000 barrels of 42 gallons.. | 286 | (S) | (S) | 38 | 609 | (S) | 64 |  |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | 1,142 | (S) | (S) | 120 | 2,367 | (S) | 274 | 547 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |  |  |
| Quantity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million cu.ft. . | 4,064 | 1,884 | 170 | 2,931 | 6,669 | 173 | 999 | 1,060 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .\$1,000. . | 2,692 | 1,302 | 121 | 1,795 | 3,458 | 142 | 735 | 768 |
| Other fuels. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 941 | 172 | (S) | 55 | 412 | (S) | 316 | 717 |
| Electric energy: |  |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million kw. -hrs. . |  |  | 18 | 84 |  |  |  | 207 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 6,598 | 2,019 | 251 | 1,106 | 9,623 | 438 | 1,774 | 3,638 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . . . .million kw. -hrs. . | - | - | - | - | (S) | - | - | (S) |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.........1,000 hp.. | 259 | 125 | 17 | 57 | 584 | 9 | 93 | 178 |
| Prime movers, total.......................................... . . . . . . . | 23 | 12 | 1 | 8 | 37 | - | 4 | 15 |
| Driving generators. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 2 | 3 | - | 4 | 11 | - | 1 | 4 |
| Not driving generators. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 21 | 9 | 1 | 4 | 26 | - | 3 | 11 |
| Electric motors, total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 236 | 113 | 16 | 48 | 549 | 9 | 90 | 165 |
| Driven by purchased energy. . . . . . . . . . . . . . . . . . . . . . . . . . do. | 236 | 113 | 16 | 48 | 546 | 9 | 90 | 163 |
| Driven by energy generated at establishment..............do.... | - | - | - | - | 3 | - | - | 1 |
| Aggregate horsepower per 100 production workers. | 535 | 1,637 | 821 | 1,038 | 1,011 | 248 | 1,069 | 975 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power
 fore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard exror associated
 consistency review.

## table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued


[^147]
## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
| INDUSTRY 3481.-FABRICATED WIRE PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |
| Galvanizing and other hot dip coating. . | 40 | 26 | 12 | 2 | 219 | 60 | (D) | (D) |
| Heat treating of metals................ | 115 | 85 | 28 | 2 | 450 | 125 | (D) | (D) |
| Automatic screw machine department. | 14 | 10 | 2 | 2 | 92 | 17 | (D) | (D) |
| Machine shop...... | 192 | 116 | 67 | 9 | 1,065 | 209 | 555 | 301 |
| Tool and die shop. | 168 | 118 | 46 | 4 | 714 | 213 | 405 | 96 |
| Plate or structural fabrication. | 14 | 7 | 5 | 2 | 203 | 14 | (D) | (D) |
| Stamping, blanking, and forming of metals. | 310 | 144 | 102 | 64 | 4.881 | 280 | 986 | 3,615 |
| Painting, lacquering, and enameling on metals. | 213 | 176 | 34 | 3 | 671 | 289 | 288 | 94 |
|  | INDUSTRY 3491. -METAL BARRELS, DRIMS, AND PAILS |  |  |  |  |  |  |  |
| Galvanizing and other hot dip coating... | 6 | - | 6 | - | 56 | - | 56 | - |
| Machine shop............................... | 44 | 16 | 22 | 6 | 411 | 33 | 199 | 179 |
| Tool and die shop.. | 9 | 8 | - | 1 | 58 | (D) | - | (D) |
| Plate or structural fabrication..... | 12 | , | 10 | 2 | 256 | - | (D) | (D) |
| Stamping, blanking, and forming of metals.. | 76 | 18 | 25 | 33 | 2,205 | 42 | 226 | 1,937 |
| Painting, lacquering, and enameling on metals. | 84 | 41 | 34 | 9 | 680 | 87 | 303 | 290 |
|  | INDUSTRY 3492.-SAFES AND VAULTS |  |  |  |  |  |  |  |
| Electroplating and other plating. | 2 | - | 1 | 1 | (D) | - | (D) | (D) |
| Heat treating of metals........ | 2 | 2 | - | - | (D) | (D) | - | - |
| Machine shop........ | 10 | 4 | 3 | 3 | (D) | (D) | (D) | (D) |
| Tool and die shop........... | 4 | 1 | 2 | 1 | (D) | (D) | (D) | (D) |
| Plate or structural fabrication.. | 7 | 3 | 2 | 2 | (D) | (D) | (D) | (D) |
| Stamping, blanking, and forming of metals.. | 9 | 4 | 3 | 3 | 167 | 9 | (D) | (D) |
| Painting, lacquering, and enameling on metals | 10 | 8 | 1 | 1 | 50 | (D) | (D) | (D) |
|  | INDUSTRY 3493.-STEEL SPRINGS |  |  |  |  |  |  |  |
| Ferrous foundry. |  |  |  | 3 |  | - | (D) | (D) |
| Forging-presses, hammers, or upsetters | 17 | 6 | 7 | 4 | 276 | 11 | 64 | 201 |
| Electroplating and other plating....... | 1 | 1 | - | - | (D) | (D) | - | - |
| Heat treating of metals......... | 44 | 24 | 12 | 8 | 575 | 41 | 120 | 414 |
| Machine shop. ..... | 26 | 14 | 10 | 2 | 168 | 30 | (D) | (D) |
| Tool and die shop................ | 15 | 7 | 7 | 1 | 96 | 10 | (D) | (D) |
| Plate or structural fabrication. | 1 | 1 | - | - | (D) | (D) | - | - |
| Stamping, blanking, and forming of metals.. | 30 | 13 | 8 | 9 | 650 | 25 | 77 | 554 |
| Painting, lacquering, and enameling on metals | 31 | 25 | 6 | - | 88 | 45 | 43 | - |
|  | INDUSTRY 3494.-VALVES AND PIPE FITTINGS |  |  |  |  |  |  |  |
| Ferrous foundry...................... | 42 | 4 | 6 | 32 |  | 4 | 53 | 4,671 |
| Nonferrous foundry (except die casting).. | 71 | 13 | 17 | 41 | 3,177 | 10 | 169 | 2,998 |
| Forging-presses, harmmers, or upsetters.. | 28 | 10 | 12 | 6 | 818 | 11 | 142 | 665 |
| Electroplating and other plating....... | 36 | 23 | 9 | 4 | 349 | 34 | 82 | 233 |
| Galvanizing and other hot dip coating.. | 21 | 11 | 6 | 4 | 285 | 24 | 72 | 189 |
| Heat treating of metals.. | 68 | 52 | 13 | 3 | 369 | 86 | 121 | 162 |
| Automatic screw machine department. | 113 | 56 | 34 | 23 | 1,779 | 113 | 285 | 1,381 |
| Machine shop....................... | 364 | 58 | 111 | 195 | 18,851 | 96 | 1,227 | 17,528 |
| Tool and die shop. | 176 | 75 | 72 | 29 | 1,958 | 166 | 653 | 1,139 |
| Foundry pattern shop.... | 81 | 46 | 31 | 4 | 492 | 91 | 289 | 112 |
| Plate or structural fabrication. | 44 | 18 | 12 | 14 | 817 | 36 | 132 | 649 |
| Stamping, blanking, and forming of metals. | 79 | 51 | 17 | 11 | 733 | 97 | 145 | 491 |
| Painting, lacquering, and enameling on metals | 155 | 134 | 17 | 4 | 480 | 222 | 167 | 91 |
|  | INDUSTRY 3496.-COLIAPSIBIE TUBES |  |  |  |  |  |  |  |
| Machine shop.................................. | 16 | 2 | 9 | 5 | 328 | (D) | (D) | 220 |
| Stamping, blanking, and forming of metals..... | 17 | 5 | 5 | 7 1 | 450 873 | 17 | (D) | 396 |
| Painting, lacquering, and enameling on metals. |  | - | 2 | 14 | 813 | - | (D) | (D) |
|  | INDUSTRY 3497. - METAL FOIL AND LEAF |  |  |  |  |  |  |  |
| Machine shop.. | 11 | 5 | 2 | 4 | 222 | (D) | (D) | 186 |
| Stamping, blanking, and forming of metals. | 10 | 2 | 4 | 4 | 401 | (D) | (D) | 351 |
| Painting, lacquering, and enameling on metals. | 5 | 1 | 4 | - | 39 | (D) | (D) |  |

See footnotes at end of table.

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963-Continued


 to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

| Item | Industry |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3481 | 3491 | 3492 | 3493 | 3494 | 3496 | 3497 | 3498 | 3499 |
| Total number of establishments in the industry. | 1,567 | 145 | 32 | 96 | 646 | 24 | 67 | 349 | 1,277 |
| Number of establishments which reported one or more of the specified operations. <br> Percent of industry production workers in these establishments | 487 $60-65$ | 94 $80-85$ | 13 $90-95$ | 52 $85-90$ | 414 $90-95$ |  | 17 $45-50$ | 112 $60-65$ | 435 $50-55$ |
| Number of establishments which reported "none" of the operations apply.. <br> Percent of industry production workers in these establishments | 176 $5-10$ | 9 $0-5$ | - | 7 $0-5$ | 33 $0-5$ | r $\begin{array}{r}1 \\ 0-5\end{array}$ | 17 $15-20$ | 67 $15-20$ | 67 0.5 |
| Percent of industry production workers in establishments which completed metalworking operations inquiry. | 70-75 | 85-90 | 90-95 | 85-90 | 95-100 | 95-100 | 60-65 | 75-80 | 50-55 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable
n.e.c. Not elsewhere classified.
hese size groups are based on the number of production workers in the specified operation. They are not based on total employment of the establishment.

# Machinery, Except Electrical 

35A Engines and turbines and farm machinery and equipment<br>35B Construction, mining, and materials handl ing machinery and equipment<br>35C Metalworking machinery and equipment<br>35D Special industry machinery, except metalworking machinery<br>35E General industrial machinery and equipment<br>35F Office, computing, and accounting machines

35G Service industry machines and machine shops

This major group includes establishments primarily engaged in producing a wide variety of machinery and equipment itemis. The industries included in this major group encompass the whole range of industrial machinery, other than electrical. To a considerable extent, the products fall into the producers' heavy equipment category, are frequently of a complex character, and are produced both to individual order and as standard items. Industries in groups 351 to 358 are defined in terms of end products, and the parts, attachments, and accessories for these items are included in the industry of this end product unless specifically classified elsewhere in the Standard Industrial Classification. The volume of shipments of machinery parts and accessories in some industries constitutes a significant portion of total shipments. These parts producers are generally smaller establishments but there are a large number of them. Group 359, Machine Shops, includes plants producing a broad variety of miscellaneous parts made by job machine shops.

Group 352 includes farm machines and wheeltractors, while group 353 comprises all types of earth-moving equipment, including tracklaying tractors and contractors' off-highway type tractors, mining machinery, and materialshandling equipment. The end products of plants in groups 351 to 356 are usually capital equipment, bought and used, not only by manufacturing companies but also at mines, farms, and in transportation, construction and commerce. Groups 357 and 358 include products for commercial and service use such as measuring and
dispensing pumps, office and store machines, and commercial refrigeration equipment.

Plants primarily engaged in rebuilding machinery or equipment on a factory basis were formerly included in this ma jor group. However, such rebuilding activities are now classified according to the original industry classification of the product being rebuilt. Plants primarily rebuilding automotive parts are included in Major Group 37. Plants primarily rebuilding machine tools, metalworking machinery, and office and store machines are included in the industry of the plants producing the original equipment. Table 6A for each industry will show the industries in which rebuilding activities are included with the volume of such rebuilding.

The individual establishments within Major Group 35 frequently produce products falling into two or more SIC 4 -digit industries. In fact, many of the larger establishments produce a significant amount of products secondary to the industry in which they are classified. These secondary products however, tend to be similar to the primary products of the establishment in the material used in their manufacture, type of labor employed to produce them, and nature of the processes involved in the production line.

Establishments in this group of industries typically maintain machine shops, tool and die rooms, and heat-treating facilities. Frequently the establishment, particularly if it is of some size, will also operate a pattern shop, screwmachine department, and stamping facility. With
greater variation depending upon the particular 4 -digit industry, the physical plant may contain a foundry, forge shop, plate fabrication, electroplating, galvanizing, or other metal processing department. Data on the number of establishments engaged in a selected number of the more important of these operations and the number of employees working in the operations are shown in table 9 for each of the 4 -digit industries in this major group. The metalworking operations shown in that table do not represent, of course, a complete list or, for many metal fabricating industries, even those which are most important. There are a number of significantactivities such as assembly, subassembly, finishing, etc., which were covered only for selected industries.

Although the production processes in this area adhere to a general pattern of specified metalworking and metal fabricating operations, there is a substantial variation in the number and types of processes performed by an individual establishment as well as from industry to industry. Within a single 4 -digit industry, certain establishments may be exclusively engaged in assembling component parts produced by other plants. Another group of plants may purchase rough castings or mill shapes and carry out the entire fabricating of the metal until it emerges as a finished product. In other instances, the casting of the metal will be performed by the establishment itself.

## Machinery, Except Electrical: Major Group 35

Value Added by Manufacture by State: 1963


## TABLE 1. General Statistics: 1963 and Earlier Years



Standard Notes: - Represents zero.
(D) Withheld to avold disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
The figures for 1939 through 1963 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which
data for such employees are included in the figures for 1937 is not known.
For 1954 to 1958 represents adjusted value added. For 1953 and earlier years represents unadjusted value added. See text for more detailed explanation.
The total value of shipments and cost of materials for industry groups (2- and 3same industry classification. For a more complete explanation, see Introductionts in the ${ }^{4}$ The figures for 1958 to 1963 include expenditures for plants under constructio not yet in operation.
${ }^{5}$ Data for number of employees at manufacturers' central administrative offices and annual survey of shown in this table for 1954, 1958, and 1963 and for 1949 to 1953 in 1955 to 1957 and for the years prior to 1949.
${ }^{6}$ These figures represent estimates derived from a representative sample of manufac-
turing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete estimates are published in the annual survey of manufactures volumes for this period

7 The figures for 1939 to 1963 are not entirely corarabie with those for 1937 becuse
1937 figures (a) include data for establishments primarily engaged in the manufacture of thermostats and gauges, heat treating of steel, machine knives, and tackle blocks, and (b) exclude data for establishments primarily engaged in the manufacture of vacuum cleaners, turbo-generators and water-wheel generator sets, hair clippers for animal use, cleaners, turbo-generators and water-wheel generator sets, hair clippers for animal use,
brooders, nonferrous bearings, certain industrial furnaces and ovens, time-stamps and time-recording machines, dictating machines, certain valves and fittings (except plumbers ') and cauiking guns. Value added by manufacture for 1939 on a basis strictly comparable with 1937 was $\$ 1,989.6$ million.
${ }^{8}$ The figures prior to 1937 are not sufficiently comparable to those for later years to be shown in this table principally because they include data for establishments primarily engaged in the manufacture of aircraft engines and in machine shop repairs.

# table 2. General Statistics, by Geographic Areas: 1963 and 1958 

| Code | Industry group and geographic area | 1963 |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Ail employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man hours (1,000) | Wages <br> $(\$ 1,000)$ |  |  |  |  |
| 35 | MACHINERY, EXCEPT ELECTRICAL, TOTAL. | 33703 | 8426 | 1459377 | 9570984 | 1045075 | 2151057 | 6209541 | 17310599 | 783076 | 1350257 | 12414069 |
|  | NORTHEAST | 9680 | 2351 | 452516 | 2965443 | 316745 | 651559 | 1862974 | 5088199 | 243140 | 458893 | 3946449 |
|  | NEW ENGLANO | $\begin{array}{r}3017 \\ \hline 14\end{array}$ | 747 18 | $\begin{array}{rrr}151 & 581 \\ 1815\end{array}$ | $\begin{array}{rrr}956 & 372 \\ 9 & 107\end{array}$ | 109911 1343 | 226909 2746 | 624193 5959 | 1646609 12900 | $\begin{array}{r}72 \quad 549 \\ 477 \\ \hline 3\end{array}$ | $\begin{array}{rrr}150 & 126 \\ 2 & 862\end{array}$ | 1226859 13531 |
|  | MEW HAMPSHIRE: | 120 | 31 | 8002 | 46712 | ${ }_{5}^{1} 791$ | 12754 | 29405 | 78269 | 3927 | 7147 | 13531 59727 |
|  | VERMONT. . . | 64 | 22 | 6398 | 39925 | 4507 | 9141 | 24248 | 68140 | 2821 | 6134 | 41155 |
|  | MASSACHUSETTS. | 1388 | 384 | 67673 | 430873 | 47469 | 97886 | 272875 3728 | 714596 | 31 313 3 561 | 66266 | 558375 |
|  | RHOOE ISLANO CONNECTICUT. | 253 1118 | $\begin{array}{r}44 \\ 248 \\ \hline\end{array}$ | $\begin{array}{r}9 \\ 9 \\ 5888 \\ \hline 88\end{array}$ | 53755 376000 | 6338 44463 | 12640 91742 | 32975 258731 | 88643 584061 | $\begin{array}{r} 3561 \\ 30 \quad 050 \end{array}$ | 8249 59468 | 60989 493082 |
|  | MIODLE ATLANTIC |  | 1604 | 300935 | 2009071 | 206854 | 424650 | 1238781 | 3441590 | 170591 | 308767 | 2719590 |
|  | NEW YORK. | 2861 | 635 | 131599 | 898016 | 88125 | 180828 | 533438 | 1494226 | 74896 | 139103 | 1180700 |
|  | NEW JERSEY ${ }^{\text {PENNSYLVANIA }}$ | 1846 1856 | 399 570 | 56729 112607 | 378203 732852 | 40297 78412 | 84424 159398 | 247135 458208 | 1689700 1257664 | 28151 <br> 674 | 57517 | - 519371 |
|  | PENNSYLVANIA |  | 570 | 112607 | 732852 | 78412 | 159398 | 458208 | 1257664 | 67544 | 112147 | 1019519 |
|  | NORTH CENTRAL | 13184 | 3898 | 730574 | 4908691 | 532831 | 1099589 | 3296071 | 9090081 | 397662 | 667966 | 6396439 |
|  | EAST NORTH CENTRAL. | 10931 | 3238 | 617919 | 4211171 | 452981 | 937623 | 2853294 | 7694893 | 327495 | 575522 | 5553451 |
|  | OHIO ${ }^{\text {a }}$ | 2767 | 829 | 165200 | 11 108 | 120111 | 247557 | 744709 | 1991426 | 83231 | 157461 | 1410508 |
|  | inoiana. | 1012 | 278 | 54501 | 349123 | 40282 | 82173 | 235880 | 678261 | 33988 | 45954 | 439517 |
|  | ILLINOIS | 2730 | 837 | 178573 | 1200568 | 129026 | 265805 | 798826 | 2215971 | 103119 | 164447 | 1723164 |
|  | MICHIGAN. | 3272 | 946 | 134532 | 988791 | 102565 | 217595 | $\begin{array}{ll}703 \\ 370 & 664\end{array}$ | 1804594 | 66378 40 | 126201 | 1213942 |
|  | WISCONSIN. | 1149 | 348 | 85 113 | 563861 | 60997 | 124495 | 370215 | 1004641 | 40779 | 81459 | 766320 |
|  | WEST NORTH CENTRAL. | 2253 | 660 | 112655 | 697520 | 79850 | 161966 | 442777 | 1395188 | 70167 | 92444 | 842988 |
|  | MINNESOTA. . . | 656 | 223 | 37532 354 | 238727 | 24875 | 51095 | 136604 <br> 159 <br> 1593 | 482493 | 31416 | 278888 318 | 252576 |
|  | Iowa . | 415 | 136 | 35496 | 229484 | 26801 | 53105 <br> 37 | 159493 | 476926 | 21421 | 31 <br> 31 <br> 274 <br> 175 | 301412 |
|  | MISSOURI | 637 | 166 | 26449 | 158342 | 18475 | 37360 | 100762 | 275562 4528 | 11939 | 20775 | 185897 |
|  | NORTH DAKOTA | 41 | 4 | 560 | 2688 | 439 | 911 | 1853 | 4528 | 294 | 101 | (0) |
|  | SOUTH DAKOTA | 32 |  | 785 | 4278 | 629 | 1 5 38 | 3006 | 8724 | 246 | 101 | (0) |
|  | NEBRASKA | 157 | 36 87 | 3354 8486 | 16880 | 2550 | 5280 | 11778 29 | 49979 | 1415 | $\begin{array}{ll}3 & 252 \\ 8 & 4\end{array}$ | 27588 |
|  | kansas . | 316 | 87 | 8486 | 47151 | 6087 | 12889 | 29304 | 97032 | 3441 | 8412 | 67823 |
|  | SOUTH | 4804 | 1157 | 154610 | 865252 | 114419 | 235126 | 560289 | 1760162 | 78765 | 123534 | 1100544 |
|  | SOUTH ATLANTIC. | 1947 | 480 | 59126 | 317933 | 44133 | 90966 | 205427 | 623349 | 28711 | 45249 | 363317 |
|  | DELAWARE | 47 | 10 | 1317 | 10919 | 842 | $\begin{array}{ll}1 & 720\end{array}$ | 5262 | 11655 | 1 1 5147 | 2143 | 12201 |
|  | MARYLANO - ${ }^{\circ}$ - | 219 | 60 | 11545 | 72551 | 7996 | 16517 376 | 43861 985 | 142105 2193 | 6147 <br> 141 | 10600 | 105275 1 1 |
|  | DISTRICT OF COLUMBIA VIRGINIA | 16 182 18 | 49384 | 221 5764 | $\begin{array}{r}13 \\ 28 \\ 2895 \\ \hline 85\end{array}$ | 181 4314 | $\begin{array}{r} 376 \\ 8 \quad 862 \end{array}$ | $\begin{array}{r} 985 \\ 19 \quad 424 \end{array}$ | 2193 58896 | 141 $4 \quad 009$ | 1117 3777 | 1 <br> 175 <br> 28649 |
|  | WEST VIRGINIA. | 139 | 31 | 3919 | 21728 | 3019 | 5812 | 15549 | 36974 | 1712 | 3751 | 28852 |
|  | NORTH CAROLINA | 412 | 118 | 12070 | 57575 | 9280 | 19384 | 37174 | 117206 | 3956 | 9121 | 68529 |
|  | SOUTH CAROLINA | 145 | 48 | ${ }^{8} 586$ | 43250 | 6740 6761 | 14407 | 30798 | 74135 <br> 86 <br> 86 <br> 139 | $\begin{array}{lll}4 & 741 \\ 3 & 737\end{array}$ | 3770 7 | 23918 |
|  | GLORIIA. | 303 484 | 79 82 | 8914 6790 | 45696 35926 | 6761 5000 | 13648 10240 | 28943 <br> 23 <br> 431 | 86139 94046 | $\begin{array}{ll}3 & 737 \\ 3 & 140\end{array}$ | 7972 3998 | 66971 2744 |
|  | EAST SOUTH CENTRAL. | 784 | 196 | 35597 | 207816 | 27215 | 54796 | 140806 | 435906 | 23458 | 27173 | 244282 |
|  | KENTUCKY . . | 205 | 60 | 16156 | 107014 |  | 24004 | 71131 | 231352 | 12278 | 12680 | 132629 |
|  | TENNESSEE. | 271 | 66 | 10045 | 55158 | 7581 | 15303 | 37245 | 108487 | 6415 | 8013 | 64987 |
|  | ALABAMA. ${ }^{\text {a }}$. | 212 | 42 | 5163 |  | 4037 | 8261 | 18429 | 51685 | 2345 | 4387 | 28885 |
|  | MISSISSIPPI. - | 96 | 28 | 4233 | 18933 | 3404 | 7228 | 14001 | 44382 | 2420 | 2093 | 17781 |
|  | WEST SOUTH CENTRAL. | 2073 | 481 | 59887 | 339503 | 43071 | 89364 | 214056 | 700907 | 26596 | 51112 | 492945 |
|  | ARKANSAS | 134 | 36 | 3050 | 13478 |  | 4961 | 9624 | 32757 | 1 <br> 1 | $\begin{array}{ll}1 & 279 \\ 3 & 082\end{array}$ | 11172 |
|  | LOUI SIANA. | 200 | 45 | 3856 | 20957 | 2917 | 6224 | 14700 | 37544 | 1794 | 3082 | 25228 |
|  | OKLAHOMA | 387 | 89 | 11032 | 61180 | 8095 | 16364 | 39618 | 120244 | 5570 | 9334 37 | 77190 379 |
|  | texas. | 1352 | 311 | 41949 | 243888 | 29615 | 61815 | 150114 | 510362 | 17854 | 37417 | 379355 |
|  | WEST. | 6032 | 1019 | 121882 | 832251 | 81341 | 165278 | 490313 | 1398365 | 64175 | 99864 | 970637 |
|  | mountain. | 671 | 105 | 15564 | 96118 | 10116 | 20258 | 54611 | 164962 | 7248 |  | 109906 |
|  | MONTANA. | 34 | - | 106 | 546 | 83 | 167 | 448 | 944 | 83 | 108 | 543 |
|  | IDAHO. . | 67 |  | 556 | 3112 | 443 | 921 | 2350 | 5050 | 218 | 845 | 8399 |
|  | WYOMING. | 23 | - | 74 | 332 | 59 | 120 | 269 | 809 | 56 | 127 | 1336 |
|  | COLORAOO. | 222 | 43 | 5172 | 31818 | 3844 | 7797 | 22279 | 65722 | 2386 | 4678 | 50543 |
|  | NEW MEXICO | 76 | 10 | 6 635 | 31746 | 483 | 1 1 | 2609 | 6 6274 | ${ }^{260}$ | 563 | 4823 |
|  | ARIzONA. | 152 | 26 | 5771 | 37775 | 3055 | 5763 | 14404 | 51324 | 3598 | 2998 | 18913 |
|  | UTAH. | 81 | 16 | 3150 | 18218 | 2072 | 4293 | 11835 | 33689 | 596 | 2258 | $25 \quad 341$ |
|  | NEVAOA | 16 | 2 | 100 | 571 | 77 | 144 | 417 | 1150 | 51 | 62 |  |
|  | PACIFIC. . | 5361 | 914 | 106318 | 736133 | 71225 | 145020 | 435702 | 1233403 | 56927 | 88225 | 860751 |
|  | WASHINGTON | 352 | 66 | 7011 | 47049 | 5284 | 10331 | 33231 | 73632 | 3012 | 5265 | 52829 |
|  | OREGON. ${ }^{\text {a }}$ | 311 | 58 | 5575 | 36601 | 3987 | 7861 | 23340 | 69701 | 2105 | 4062 | 38390 |
|  | CALIFORNIA | 4664 | 786 | 93308 | 650086 | 61602 | 126115 | 377251 | 1086421 | 51669 | 78665 | 767748 |
|  | ALASKA |  |  |  |  |  | 41 | 150 | 3328 | 18 | (0) | (0) |
|  | hawail . | 26 | 4 | 400 | 2228 | 332 | 672 | 1730 | 3321 | 123 | (0) | (0) |
| 351 | ENGINES AND TURBINES, total. | 165 | 102 | 86604 | 609319 | 61648 | 123929 | 401743 | 1113503 | 54145 | 97351 | 1089086 |
|  | NORTHEAST | 39 | 25 | 33707 | 252170 | 23177 | 46141 | 161293 | 427288 | 21518 | 41798 | 527042 |
|  | NEW ENGLAND | 14 | 10 | 9858 | 71270 | 6695 | 13126 | 45427 | 119489 | 6202 | 9378 | 112383 |
|  |  | 25 8 | 15 3 | 23849 220 | 180 900 992 | 16482 196 | 33015 389 | $\begin{array}{r} 115866 \\ 817 \end{array}$ | $\begin{array}{rr} 307 & 799 \\ 1 & 003 \end{array}$ | $\left.\begin{array}{ll} 15 & 316 \\ 116 \end{array} \right\rvert\,$ | $32420$ | $\begin{array}{r} 414659 \\ 101 \end{array}$ |

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{Code} \& \multirow[b]{3}{*}{Industry group and geographic area} \& \multicolumn{9}{|c|}{1963} \& \multicolumn{2}{|c|}{1958} \\
\hline \& \& \multicolumn{2}{|l|}{Establishments} \& \multicolumn{2}{|l|}{All employees} \& \multicolumn{3}{|c|}{Production workers} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)} \& \multirow[t]{2}{*}{Capital expenditures, new
\[
(\$ 1,000)
\]} \& \multirow[b]{2}{*}{\begin{tabular}{l}
All employees \\
(number)
\end{tabular}} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)} \\
\hline \& \& \[
\begin{gathered}
\text { Total } \\
\text { (number) }
\end{gathered}
\] \& With 20
employees
or more
(number) \& \[
\begin{gathered}
\text { Total } \\
\text { (number) }
\end{gathered}
\] \& \begin{tabular}{l}
Payroll \\
\((\$ 1,000)\)
\end{tabular} \& \[
\begin{gathered}
\text { Total } \\
\text { (number) }
\end{gathered}
\] \& \begin{tabular}{c} 
Man-hours \\
\((1,000)\) \\
\hline
\end{tabular} \& \[
\begin{gathered}
\text { Wages } \\
(\$ 1,000)
\end{gathered}
\] \& \& \& \& \\
\hline \multirow[t]{24}{*}{354} \& METALWORKING MACHINERY--CONTINUED \& \& \& \& \& \& \& \& \& \& \& \\
\hline \& NORTH CENTRAL \& 4421 \& 1256 \& 151443 \& 1133576 \& 113743 \& 249079 \& 799684 \& 1847382 \& 81050 \& 133595 \& 1228933 \\
\hline \& EAST NORTH CENTRAL. \& \(\begin{array}{r}4083 \\ \hline 945\end{array}\) \& \(\begin{array}{r}1176 \\ \\ \hline 299\end{array}\) \& 144204
45583 \& \begin{tabular}{rr}
1 \& 088 \\
\hline \& 565 \\
\& 566
\end{tabular} \& 108232
32649 \& 237546
70253 \& \begin{tabular}{l}
768981 \\
220 \\
\hline 48
\end{tabular} \& 1772122
553181 \& \(\begin{array}{ll}76 \& 766 \\ 25 \& 727\end{array}\) \& 127382
42748 \& 1173892
376082 \\
\hline \& \({ }_{\text {INDI }}{ }_{\text {INANA }}\). \& 945
370 \& 299
87 \& \(\begin{array}{r}45583 \\ 8023 \\ \hline 0\end{array}\) \& 329
5766
57 \& 32649
6435 \& \begin{tabular}{l}
70253 \\
14228 \\
\hline
\end{tabular} \& 220748
43283 \& \(\begin{array}{r}553381 \\ 87712 \\ \hline\end{array}\) \& 25727
3748 \& 42748
7228 \& 376082
62986 \\
\hline \& ILLINOIS \& 866 \& 216 \& 30443 \& 217357 \& 22637 \& 49476 \& 149888 \& 362595 \& 13285 \& 26998 \& 238267 \\
\hline \& MICHIGAN. \& 1623 \& 505 \& 49673 \& 407808 \& 39186 \& 88469 \& 305660 \& 661570 \& 17747 \& 42599 \& 425458 \\
\hline \& WISCONSIN. \& 279 \& 69 \& 10482 \& 76228 \& 7325 \& 15120 \& 49402 \& 106864 \& 6259 \& 7809 \& 71099 \\
\hline \& WEST NORTH CENTRAL. \& 338 \& 80 \& \& 45011 \& \& \& 30703 \& 75260 \& 4284 \& 6213 \& 55041 \\
\hline \& Iowa ..... \& 50 \& 13 \& 1658 \& 10800 \& 1159 \& 2 424 \& 6593 \& 18012 \& 1147 \& 1254 \& 11022 \\
\hline \& MISSOURI \& 149 \& 33 \& \begin{tabular}{l}
3098 \\
\hline 115
\end{tabular} \& 19 520 \& 2407 \& \(\begin{array}{r}5003 \\ \hline 203\end{array}\) \& 13428 \& 33684
839 \& 1022
53 \& \begin{tabular}{l}
2197 \\
\hline 101
\end{tabular} \& 11
21

(0) <br>
\hline \& South . . . . \& 452 \& 90 \& 11282 \& 62856 \& 8893 \& 18187 \& 45231 \& 123964 \& 5921 \& 140 \& 73880 <br>
\hline \& Virginia \& 12 \& 1 \& \& \& \& \& 544 \& \& \& (0) \& (0) <br>
\hline \& NORTH CAROLINA \& 40 \& 4 \& 553 \& 2898 \& 448 \& 913 \& 2058 \& 5048 \& 281 \& (0) \& (0) <br>
\hline \& GEORGIA. . \& 31 \& 7 \& 449 \& 2804 \& 385 \& 798 \& 2179 \& 4628 \& (0) \& 404 \& 3874 <br>
\hline \& FLorida. \& 80 \& 16 \& 904 \& 5267 \& 734 \& 1592 \& 4062 \& 8391 \& 626 \& 531 \& 4255 <br>
\hline \& KENTUCKY. \& 34 \& 10 \& 757 \& 4440 \& 631 \& 1388 \& 3535
3 \& 7327 \& 520 \& 555 \& 5516 <br>
\hline \&  \& 41
20 \& 12
4 \& 803
338 \& 4223
2020 \& 669
659 \& 1
1
4
531 \& 3307

1463 \& | 6529 |
| :--- |
| 2609 |
| 1809 | \& 381

197 \& (D)
169 \& 101
1267 <br>
\hline \&  \& 20 \& 4
2 \& 338
133 \& $\begin{array}{r}2020 \\ \hline 727\end{array}$ \& 259

110 \& | 531 |
| :--- |
| 251 | \& 1463

524 \& 2609
1266 \& 197
82 \& 169
157 \& $\begin{array}{ll}1 & 267 \\ 1 & 355\end{array}$ <br>
\hline \& TEXAS. \& 84 \& 15 \& 1512 \& 8872 \& 1155 \& 2425 \& 6155 \& 17651 \& 743 \& (D) \& 1 (D) <br>
\hline \& WEST. . . . . \& 875 \& 135 \& 11702 \& 83942 \& 9096 \& 19091 \& 61412 \& 142702 \& 5974 \& 10279 \& 98387 <br>
\hline \& COLORADO \& 14 \& 3 \& 129 \& 790 \& 107 \& 207 \& 618 \& 962 \& 59 \& 112 \& 775 <br>
\hline \& ARIZONA. \& 27 \& 3 \& 240 \& 1
3 \& 197 \& 391 \& $\begin{array}{lll}1 & 148 \\ 2 & 357\end{array}$ \& 2313
5
1 \& 198 \& 366
343 \& 495 <br>
\hline \& WASHINGTON \& 19 \& $\frac{1}{2}$ \& 418 \& 3130 \& 319
123 \& 652 \& 2357
6

622 \& | 5498 |
| :--- |
| 1 |
| 1 | \& 147

62 \& 343 \& 361 <br>
\hline \& CALIFORNIA \& 22
776 \& 122 \& 151
10567 \& 808
76559 \& 123
$8 \quad 193$ \& $\begin{array}{r}17 \quad 225 \\ \hline 299\end{array}$ \& 662
5549 \& $\begin{array}{r}1 \\ 130 \\ \hline 192\end{array}$ \& 62
593 \& - $\begin{array}{r}132 \\ \hline 285\end{array}$ \&  <br>
\hline \multirow[t]{42}{*}{355} \& SPECIAL INDUSTRY MACHINERY, TOTAL. \& 3290 \& 1202 \& 171528 \& 1094823 \& 120027 \& 249517 \& 679122 \& 1917184 \& 71414 \& 162262 \& 1339530 <br>
\hline \& Northeast \& 1279 \& 440 \& 73982 \& 480705 \& 51077 \& 106584 \& 296227 \& 794232 \& 28592 \& 77810 \& 596292 <br>
\hline \& NEW England \& 400 \& 147 \& 31713 \& 199127 \& 21529 \& 45242 \& 119244 \& 324418 \& 13570 \& 33528 \& 241792 <br>
\hline \& MAINE. - . - \& 17 \& 6 \& 566 \& 2815 \& 441 \& 5918 \& ${ }^{2} 0008$ \& 4161 \& ${ }^{86}$ \& (0) \& 32 (1) <br>
\hline \& NEW HAMPSHIRE:
VERMONT. \& 21
15 \& 10
5 \& 3411
360 \& 20805
1486 \& 2428
282 \& 5627
563 \& 13177
1185
18 \& $\begin{array}{r}32057 \\ 2284 \\ \hline\end{array}$ \& 2060
29 \& 3906
(0) \& 32084
101 <br>
\hline \& MASSACHUSETTS. \& 237 \& 94 \& 20233 \& 127362 \& 13574 \& 28145 \& 75322 \& 200 407 \& ${ }^{8} 120$ \& 20879 \& 142700 <br>
\hline \& RHODE ISLAND. \& 43 \& 14 \& 2936 \& 17122 \& 13904
+19 \& 4069 \& 9 985 \& 30
5038
54 \& 1
+177 \& 2222 \& 17902 <br>
\hline \& CONNECTICUT. \& 67 \& 18 \& 4207 \& 29537 \& 2900 \& 5920 \& 17693 \& 54971 \& 1898 \& 4196 \& 39662 <br>
\hline \& middle atlantic \& 879 \& 293 \& 42269 \& 281578 \& 29548 \& 61342 \& 176983 \& 469814 \& 15022 \& 44282 \& 354500 <br>
\hline \& NEW YORK - \& 387 \& 103 \& 15142 \& 103414 \& 10529 \& 21579 \& 66025 \& 187217 \& 3877 \& 17870 \& 150416 <br>
\hline \& NEW JERSEY \& 267 \& 96 \& 11337 \& 78036 \& 7785 \& 16549 \& 47959 \& 129274
153 \& 4219 \& 10336 \& 94900 <br>
\hline \& PENNSYLVANIA \& 225 \& 94 \& 15790 \& 100128 \& 11234 \& 23214 \& 62999 \& 153323 \& 6926 \& 16076 \& 109184 <br>
\hline \& NORTH CENTRAL \& 986 \& 406 \& 56276 \& 379203 \& 39226 \& 81482 \& 237176 \& 693940 \& 26944 \& 51115 \& 470017 <br>
\hline \& EAST NORTH CENTRAL. \& 806 \& 344 \& 49900 \& 340298 \& 39964 \& 72709 \& 214673 \& 624530 \& 22768 \& 45869 \& 424538 <br>
\hline \& OH10. \& 228 \& 101 \& 16256 \& 109140 \& 11196 \& 23422 \& 68340 \& 199238 \& 5788 \& 14250 \& 128817 <br>
\hline \& INDIANA. \& 61 \& 22 \& $\begin{array}{r}2942 \\ 14 \\ \hline 1\end{array}$ \& 18428 \& 2121 \& 4306 \& 11879 \& 35214 \& 1906 \& ${ }^{2} 856$ \& 24766 <br>

\hline \& ILLINOIS \& 266 \& 108 \& 14477 \& 100691 \& | 9812 |
| :--- |
| 4 | \& 20552

10
10
136 \& \& 174156 \& 6297 \& 14257 \& 130422 <br>
\hline \& MICHIGAN. \& 135 \& 61 \& 6978 \& 49595 \& 4775 \& 10136 \& 28284 \& 109641 \& 3473

5 \& | 6 |
| :--- |
| 6 |
| 8 | \& 72072 <br>

\hline \& WISCONSIN. \& 116 \& 52 \& 9247 \& 62444 \& 7060 \& 14293 \& 43856 \& 106281 \& 5304 \& 8195 \& 68461 <br>
\hline \& WEST NORTH CENTRAL. \& 180 \& 62 \& 6376 \& 38905 \& 4262 \& 8773 \& 22503 \& 69410 \& 4176 \& 5246 \& 45479 <br>
\hline \& MinNESOTA. \& 51 \& 19 \& 1892
185 \& 11866 \& \& \& 7930 \& 20224 \& 937 \& 1452 \& 12785 <br>
\hline \& IOWA - \& 37 \& 16 \& 1573 \& 8961 \& 1158 \& 2311 \& 5
5
5 17 \& 14512 \& 461 \&  \& 12777 <br>

\hline \& MISSOURI \& 60 \& 17 \& 1968 \& \& 1092 \& | 2 |
| :--- | \& | 5817 |
| :--- | \& 22267 \& $\begin{array}{r}2389 \\ \hline 336\end{array}$ \& 1820 \& 12798 <br>

\hline \& kANSAS . \& 20 \& 10 \& 877 \& 5298 \& 580 \& 1309 \& 2840 \& 11702 \& 336 \& 648 \& 6963 <br>
\hline \& SOUTH - \& 582 \& 245 \& 29140 \& 156608 \& 21110 \& 44122 \& 95617 \& 291983 \& 11896 \& 23389 \& 177859 <br>
\hline \& SOUTH ATLANTIC. \& 371 \& 171 \& 20815 \& 110620 \& \& 32026 \& 67312 \& 198794 \& 8416 \& 16149 \& 116108 <br>
\hline \& MARYLAND. \& 33 \& 17 \& 2991 \& 19926 \& 2016 \& 4342 \& 12560 \& 34126 \& 1145 \& 2645 \& 24730 <br>
\hline \& virginia . . . . \& 19 \& 97 \& 746 \& 4176 \& 497 \& \& 2390 \& ${ }^{6} 192$ \& 1211 \& 840 \& 5084 <br>
\hline \& NORTH CAROLINA. \& 145 \& 67 \& 7000 \& 33643 \& 5231 \& 11113 \& 20854 \& 72976 \& 2298 \& 5013 \& 37779 <br>
\hline \& SOUTH CAROLINA \& \& \& \& \& 3850
2839 \& \& 15049 \& 38789 \& 1
1
1
1 \& 2817
2
2 \& 17769 <br>
\hline \& GEORGIA. . - \& 69 \& 33 \& 3129 \& 15479 \& 2396 \& 4946 \& - 9710 \& 26628 \& 1123 \& 2750 \& 20811 <br>
\hline \& FLORIDA. \& 38 \& 13 \& 1227 \& 6874 \& 728 \& 1551 \& 3485 \& 12166 \& 499 \& (0) \& (D) <br>
\hline \& EAST SOUTH CENTRAL. alabama..... \& 80
17 \& 32
8

8 \& $$
\begin{array}{ll}
3 & 563 \\
1 & 127
\end{array}
$$ \& \[

$$
\begin{array}{r}
18798 \\
5839
\end{array}
$$
\] \& 2671

869 \& $$
\begin{aligned}
& 5326 \\
& 1 \quad 729
\end{aligned}
$$ \& 12585

3977 \& $$
\begin{array}{ll}
41268 \\
11 & 857
\end{array}
$$ \& 1070

175 \& $$
\begin{array}{ll}
3 & 046 \\
1 & 018
\end{array}
$$ \& 24514

$7 \quad 358$ <br>
\hline \& WEST SOUTH CENTRAL. \& \& 42 \& 4762 \& \& 3244 \& 6770 \& 15720 \& 51921 \& 2410 \& 4194 \& 37237 <br>
\hline \& ARKANSAS . . . . \& 9 \& 4 \& 185 \& 827 \& 163 \& 336 \& 662 \& 1232 \& 58 \& (10) \& (0) <br>
\hline \& LOUISIANA. . . . . \& 13 \& 7 \& 594 \& \& 474 \& 997 \& 2120 \& 6539 \& 327 \& 394 \& 3622 <br>
\hline \& OKLAHOMA . . \& 23 \& 6 \& 466 \& 2581 \& 329 \& 648 \& 1620 \& 5048 \& +152 \& ${ }^{6} 603$ \& 3799 <br>
\hline \& texas. . . . . . . \& 86 \& 25 \& 3517 \& 20787 \& 2278 \& 4789 \& 11318 \& 39102 \& 1873 \& 3149 \& 29169 <br>
\hline \& WEST. . . \& 443 \& 111 \& 12128 \& 78307 \& 8613 \& 17329 \& 50102 \& 139251 \& 3977 \& 9948 \& 95362 <br>
\hline \& mountain. \& 28 \& 5 \& 619 \& 3957 \& 350 \& 689 \& 2967 \& 5913 \& 185 \& 333 \& 2796 <br>
\hline \& PACIFIC. \& 415 \& 106 \& 11509 \& 74350 \& 8263 \& 16640 \& 47135 \& 133338 \& 3792 \& 9615 \& 92566 <br>
\hline \&  \& 51
310 \& 16
72 \& 11587
8182 \& 10867

51772 \& | 1 |
| :--- | \& 1

2
11875 \& 66516
32673 \& 25
91
91 1084 \& 581

2899 \& | 1 |
| :--- | \& 13159

67502 <br>
\hline
\end{tabular}

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{Code} \& \multirow[b]{3}{*}{Industry group and geographic area} \& \multicolumn{9}{|c|}{1963} \& \multicolumn{2}{|c|}{1958} \\
\hline \& \& \multicolumn{2}{|l|}{Establishments} \& \multicolumn{2}{|r|}{All employees} \& \multicolumn{3}{|c|}{Production workers} \& \multirow[t]{2}{*}{Value
added by
manufacture,
adjusted
\((\$ 1,000)\)} \& \multirow[t]{2}{*}{Capital expenditures, new \((\$ 1,000)\)} \& \multirow[b]{2}{*}{\[
\begin{gathered}
\text { All } \\
\text { employees } \\
\text { (number) } \\
\hline
\end{gathered}
\]} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted (\$1,000)} \\
\hline \& \& \[
\begin{gathered}
\text { Total } \\
\text { (number) }
\end{gathered}
\] \& With 20 employees or more (number) \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& \begin{tabular}{l}
Payroll \\
\((\$ 1,000)\)
\end{tabular} \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& Man-hours
\((1,000)\) \& \[
\begin{gathered}
\text { Wages } \\
(\$ 1,000)
\end{gathered}
\] \& \& \& \& \\
\hline \multirow[t]{39}{*}{356} \& general industrial machinery, total. \& 3760 \& 1205 \& 233143 \& 1542032 \& 161869 \& 332054 \& 962422 \& 2812672 \& 124540 \& 211382 \& 1935184 \\
\hline \& NORTHEAST \& 1128 \& 386 \& 94467 \& 609323 \& 66294 \& 135478 \& 387143 \& 1079402 \& 47483 \& 90764 \& 774115 \\
\hline \& NEW ENGLANO \({ }_{\text {NEH HAMPSHIRE. }}\) \& 311
14 \& 116
7 \& \(\begin{array}{rr}33 \& 079 \\ 2025\end{array}\) \& 204530
11573 \& \(\begin{array}{r}24563 \\ 1518 \\ \hline 6518\end{array}\) \& \(\begin{array}{rr}50 \& 096 \\ 3 \& 175\end{array}\) \& \(\begin{array}{rrr}138 \& 561 \\ 7 \& 074 \\ \& 3 \& 503\end{array}\) \& 383838
17823 \& 16918
502 \& \begin{tabular}{rr}
32825 \\
(0) \\
\hline
\end{tabular} \& 279

674
$10)$ <br>
\hline \& MASSACHUSETTS. \& 166 \& 58 \& + 2025 \& 11
56
751 \& + 6 \& 13299 \& 37583 \& +97191 \& 3319 \& 9055 \& 79604 <br>
\hline \& CONNECTICUT. \& 104 \& 42 \& 20834 \& 131192 \& 15882 \& 32401 \& 90907 \& 259483 \& 12820 \& 21345 \& 179258 <br>
\hline \& middle atlantic \& 817 \& 270 \& 61388 \& 404793 \& 41731 \& 85382 \& 248582 \& 695564 \& 30565 \& 57939 \& 494441 <br>
\hline \& NEW YORK. \& 316 \& 98 \& 24566 \& 159313 \& 16112 \& 33171 \& 93172 \& 265326 \& 12755 \& 22934 \& 192158 <br>
\hline \& NEW JERSEY . . . . . . . . \& 215
286 \& 66 \& 14909 \& \& 10794 \& 22185

30 \& | 69473 |
| :--- |
| 8593 | \& 178595 \& 7626 \& 14

278 \& 122260 <br>
\hline \& pennsylvania . . . . . . . \& 286 \& 106 \& 21913 \& 143349 \& 14825 \& 30026 \& 85937 \& 251643 \& 10184 \& 20727 \& 180023 <br>
\hline \& NORTH CENTRAL \& 1643 \& 560 \& 104108 \& 697064 \& 74510 \& 153085 \& 454864 \& 1323208 \& 55245 \& 94474 \& 888251 <br>
\hline \& EAST NORTH CENTRAL. \& 1421 \& 484 \& \& 643561 \& 68271 \& 140
1426
44 \& 420792 \& 1204819
+375388 \& 51970 \& $\begin{array}{llll}88 & 131\end{array}$ \& 828812 <br>

\hline \& $\stackrel{\text { OHIO }}{\text { INOIANA. }}$ : \& | 369 |
| :--- |
| 132 | \& $\begin{array}{r}123 \\ 52 \\ \hline\end{array}$ \& | 31 |
| :--- |
| 1654 |
| 16503 | \& 204886

108196 \& 21976

11891 \& | 44708 |
| :--- |
| 24043 |
| 1 | \& 131231

71396 \& 375388

203658 \& | 15 |
| :--- |
| 15 |
| 11 |
| 1567 | \& 30627

12399 \& 269269
115173 <br>
\hline \& illinois: \& 367 \& 136 \& 16
20 \& 134712 \& 11
14
145
15 \& 24
29497 \& 71396
83 \& 271
27115 \& $\begin{array}{r}115667 \\ 8 \\ 838 \\ \hline\end{array}$ \& 12399
19140 \& 115173
202301 <br>
\hline \& Michigan. \& 370 \& 110 \& 16185 \& 117336 \& 12517 \& 26143 \& 84797 \& 209268 \& 9 413 \& 16157 \& 139657 <br>
\hline \& WISCONSIN. \& 183 \& 63 \& 11024 \& 78431 \& 7732 \& 16035 \& 49420 \& 145390 \& 7230 \& 9808 \& 102412 <br>
\hline \& WEST NORTH CENTRAL. \& 222 \& 76 \& 8871 \& 53503 \& 6239 \& 12659 \& 34072 \& 118389 \& 3275 \& 6343 \& 59439 <br>
\hline \& MINNESOTA. \& 72 \& 29 \& \& \& \& \& \& \& 611 \& 1868 \& 16436 <br>
\hline \& Iowa ${ }^{\text {MISSOURI }}$ \& 32

71 \& 11 \& | 1 |
| :--- | \& 9628

14379 \& 1218
+189 \& 2598
3546
3 \& 6127
9
9
831 \& 20651

26567 \& | 893 |
| :--- |
| 543 | \& $\begin{array}{r}101 \\ \hline\end{array}$ \& $\begin{array}{r}101 \\ \hline 188\end{array}$ <br>

\hline \& MISSOURI \& 71
33 \& 20
9 \& $\begin{array}{ll}2 & 268 \\ 1 & 121\end{array}$ \& 14379
6828 \& 1693
+682 \& 3346

1447 \& | 9831 |
| :--- |
| 3860 | \& 26567

14672 \& 543
484 \& $\begin{array}{r}1818 \\ \hline 897 \\ \\ \hline\end{array}$ \& 16738
$9 \quad 565$ <br>
\hline \& SOUTH - \& 406 \& 115 \& 13949 \& 83329 \& 10187 \& 21170 \& 54131 \& 174049 \& 11677 \& 11587 \& 104895 <br>
\hline \& SOUTH ATLANTIC. \& 146 \& 36 \& 4068 \& 26158 \& 2991 \& 6268 \& 18198 \& 47384 \& 4230 \& 4202 \& 33884 <br>
\hline \& Marylano - \& 20 \& 3 \& 1059 \& 7006 \& 608 \& 1249 \& 3339 \& 9709 \& 524 \& 1722 \& 13480 <br>
\hline \& VIRGINIA . . \& \& 7 \& 636 \& 3230 \& 548 \& 1224 \& 2653 \& 8033 \& 686 \& 215 \& 1278 <br>
\hline \& NORTH CAROLINA. \& 21 \& 5 \& 376

703 \& | 1851 |
| :--- |
| 7 |
| 7 | \& 299 \& 625

+324 \& | 1 |
| :--- |
| 190 |
| 1956 | \& 3994 \& 2155 \& 680 \& 6402 <br>

\hline \& SOUTH CAROLINA \& 10
14 \& 5

4 \& | 703 |
| :--- |
| 634 |
| 3 | \& 7

7
3 131 \& 611
431 \& 1324
1812

812 \& | 16956 |
| :--- |
| 1767 | \& $\begin{array}{r}3994 \\ 11940 \\ 6998 \\ \hline\end{array}$ \& $\begin{array}{r}2161 \\ \hline 163\end{array}$ \& 101

551 \& | 101 |
| :--- |
| 5803 |
| 180 | <br>

\hline \& FLORIDA: \& 51 \& 9 \& 634
534 \& 31363 \& 389 \& 812
835 \& 1767
1770 \& 6998
5616 \& 163
434 \& 551 \& 5803
3838 <br>
\hline \& EAST SOUTH CENTRAL. \& 77 \& 21 \& 3651 \& 21806 \& 2875 \& 5953 \& 15257 \& 48823 \& 3787 \& \& 26505 <br>
\hline \& KENTUCKY, \& 20 \& \& \& 11337 \& 1443 \& 2963 \& 8 674 \& 30858 \& 2326 \& 1248 \& 19937 <br>
\hline \& TENNESSEE. \& 26 \& 8 \& 1227 \& ${ }^{11} 441$ \& 886 \& 1864 \& 3855 \& 11002 \& - 969 \& 555 \& 2896 <br>
\hline \& MISABAMA. ${ }_{\text {M }}$ \& 25 \& \& \& 3299 \& 458 \& 946 \& 2382 \& 6006 \& 412 \& 101 \& (D) <br>
\hline \& MISSISSIPPI. \& \& \& 152 \& 729 \& 88 \& 180 \& 346 \& 957 \& 80 \& (0) \& (0) <br>
\hline \& WEST SOUTH CENTRAL. \& 183 \& 58 \& 6230 \& 35365 \& 4321 \& 8949 \& 20676 \& 77842 \& 3660 \& 5130 \& 44506 <br>
\hline \& ARKANSAS LOUISIANA: \& 10 \& 4 \& 335
168 \& $\begin{array}{r}1543 \\ 1894 \\ \hline 18\end{array}$ \& 242
106 \& 460
209 \& 875
542 \& $\begin{array}{r}3 \\ \hline 159 \\ \hline\end{array}$ \& 37 \& 237 \& 2822 <br>
\hline \& OKLAHOMA : \& 44 \& 19 \& 2237 \& 12894 \& ${ }^{1} 504$ \& 3023 \& 7542
7043 \& 1559
26108 \& 47
$2 \quad 262$ \& $\begin{array}{r}237 \\ 1628 \\ \hline\end{array}$ \& <br>
\hline \& TEXAS. \& 119 \& 32 \& 3490 \& 20133 \& 2469 \& 5257 \& 12216 \& 46576 \& 1321 \& 3028 \& 26436 <br>
\hline \& WEST. \& 583 \& 144 \& 20721 \& 152774 \& 11003 \& 22601 \& 66175 \& 245129 \& 10246 \& 14557 \& 167923 <br>

\hline \& mountain. COLORAOO \& $$
\begin{aligned}
& 46 \\
& 25
\end{aligned}
$$ \& 10

6 \& 1175

541 \& | 7 |
| :--- | 6464 \& 764

369 \& 1689

841 \& $$
\begin{array}{ll}
4 & 754 \\
2383
\end{array}
$$ \& 18743

$9 \quad 182$ \& 511
344 \& 1805
435 \& 12152
5960 <br>
\hline \& PACIFIC WASINĠ̇ON : \& 537
30
400 \& 134
5
124 \& 19546
389 \& 145310
2611
140 \& $\begin{array}{r}10239 \\ \hline 276\end{array}$ \& $\begin{array}{r}20 \\ \hline 912 \\ 541 \\ \hline 1955\end{array}$ \& 61421
1564
58570 \& 226386
4345
219314 \& $\begin{array}{r}9735 \\ \hline 103 \\ \hline 9\end{array}$ \& 13552

603 \& | 155771 |
| ---: |
| 6108 |
| 107 |
| 1084 | <br>

\hline \& CALIFORNIA \& 480 \& 124 \& 18908 \& 140995 \& 9766 \& 19955 \& 58570 \& 219214 \& 9593 \& 12689 \& 147134 <br>
\hline \multirow[t]{15}{*}{357} \& OFFICE MACHINES, NEC, TOTAL. \& 515 \& 265 \& 137138 \& 945221 \& 88266 \& 177271 \& 523704 \& 1633690 \& 119610 \& 121615 \& 970529 <br>
\hline \& NORTHEAST - \& 206 \& 101 \& 60572 \& 413149 \& 38532 \& 78611 \& 221495 \& 606966 \& 51096 \& 65208 \& 441324 <br>
\hline \& NEW ENGLANO - ${ }^{\text {a }}$ \& 58 \& 34 \& 14765 \& 85728 \& 11194 \& 22645 \& \& 175927 \& \& 15610 \& 125120 <br>
\hline \& MASSACHUSETTS:
CONNECTICUT: \& 31
17 \& 19 \& 3652
9746 \& 22779
55473 \& 2510
7666 \& 5651 \& 12789 \& 50382 \& 2983 \& 2323 \& 17925 <br>
\hline \& \& \& \& \& \& \& 14893 \& \& 112108 \& 3362 \& 12183 \& 98650 <br>
\hline \& MIOOLE ATLANTIC \& 148 \& 67 \& 45807 \& 327421 \& 27338 \& 55966 \& 162868 \& 431039 \& 44644 \& 49598 \& 316204 <br>
\hline \& NEW YORK. \& 80 \& 38 \& 36466 \& 267234 \& 21319 \& 43464 \& 128317 \& 324940 \& 31161 \& 42457 \& 264334 <br>
\hline \& NEW JERSEY: \& 34 \& 17 \& 4615 \& 29211 \& 2906 \& 6288 \& 17873 \& 48561 \& 4040 \& 3830 \& 30540 <br>
\hline \& PENNSYLVANIA - \& 34 \& 12 \& 4726 \& 30976 \& 3113 \& 6214 \& 16678 \& 57538 \& 9443 \& 3311 \& 21330 <br>
\hline \& NORTH CENTRAL \& 140 \& 76 \& 50507 \& 345638 \& 35730 \& 70739 \& 224219 \& 699545 \& 43917 \& 41439 \& 403072 <br>
\hline \& EAST NORTH CENTRAL. \& 107 \& 59 \& 37724 \& 257105 \& 28734 \& 56253 \& 184700 \& 490489 \& 23999 \& (0) \& (0) <br>
\hline \& ILLINOIS . . - \& 53 \& 34 \& 7837 \& 46170 \& 4937 \& 9785 \& 26233 \& 106126 \& 4880 \& 6770 \& 73300 <br>
\hline \& WEST NORTH CENTRAL. \& 33 \& 17 \& 12783 \& 88533 \& 6996 \& 14486 \& 39519 \& 209056 \& 19918 \& (0) \& (0) <br>
\hline \& SOUTH ${ }_{\text {NORTH }}$ CAROLINA \& 56
4 \& 33

3 \& $$
\begin{array}{r}
8386 \\
461
\end{array}
$$ \& 55348

2159 \& 5448
300 \& 10959
614 \& 28969

1203 \& $$
\begin{array}{r}
150413 \\
3707
\end{array}
$$ \& 8072

825 \& 4
213
(0) \& 49786
(0) <br>
\hline \& wEST. . \& 113 \& 55 \& 17673 \& 131086 \& 8556 \& 16962 \& 49021 \& 176766 \& 17096 \& 10755 \& 76347 <br>
\hline
\end{tabular}

[^148]TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Code | Industry group and geographic area | 1963 |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | $\begin{gathered} \text { Capital } \\ \text { expendi- } \\ \text { tures, } \\ \text { new } \\ (\$ 1,000) \\ \hline \end{gathered}$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  |  | Total <br> (number) | With 20 <br> employees <br> or more <br> (number) | Total <br> (number) | Payroll $(\$ 1,000)$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 358 | SERVICE INDUSTRY MACHINES, TOTAL | 1520 | 642 | 112569 | 673869 | 77808 | 155962 | 406627 | 1368914 | 47319 | 100059 | 918151 |
|  | NORTHEAST | 433 | 189 | 33938 | 208939 | 22479 | 44768 | 121388 | 428115 | 17240 | 32890 | 299905 |
|  | NEW ENGLAND | 76 | 40 | 6233 | 37699 | 4221 | 8459 | 22105 | 70306 | 2666 | 6656 | 63974 |
|  | MASSACHUSETTS. . - | 41 | 24 | 4204 | 25767 | 2980 | 5988 | $16 \quad 171$ | 48322 | 1626 | 4775 | 50198 |
|  | RHODE ISLAND : ! : . . : : CONNECTICUT. | 29 | 2 | 200 $1 \quad 180$ | $\begin{array}{ll}1 & 102 \\ 6 & 841\end{array}$ | 86 806 | 166 1625 | 381 4025 | 11662 11438 | 168 798 | (1) 1196 | (0) 8707 |
|  | MIDDLE ATLANTIC | 357 | 149 | 27705 | 171240 | 18258 | 36309 | 99283 | 357809 | 14574 | 26234 | 235931 |
|  | INEW YORK. | 166 | 65 | 11602 | 74909 | 7666 | 15429 | 44474 | 169344 | $5 \begin{array}{ll}5 & 133\end{array}$ | 13087 | 139329 |
|  | NEW JERSEY | 82 | 40 | 5381 | 33263 | 3555 | 7080 | 18980 | 57433 | 2338 | 5720 | 41068 |
|  | PENNSYLVANIA | 109 | 44 | 10722 | 63068 | 7037 | 13800 | 35829 | 131032 | 7103 | 7427 | 55534 |
|  | NORTH CENTRAL | 536 | 260 | 53480 | 327113 | 36848 | 74047 | 197433 | 653459 | 20354 | 48454 | 451454 |
|  | EAST NORTH CENTRAL. | 409 | 194 | 39136 | 241999 | 27209 | 54675 | 148532 | 460774 | 15752 | 35038 | 339947 |
|  | OHIO . . - | 82 | 45 | 10021 | 61306 | 7278 | 14758 | $40 \quad 062$ | 120260 | 3806 | 7968 | 66088 |
|  | INDIANA. . . . . | 43 | 18 | 5394 | 30807 | 3977 | 7636 | 20294 | 52154 | 2287 | 4390 | 44251 |
|  | ILLINOIS ••••• | 170 | 84 | 9925 | 61370 | 6444 | 13535 | 34404 | 114811 | 4286 | 8144 | 82684 |
|  | MICHIGAN . - . | 66 | 30 | 8402 | 55455 | 6226 | 12252 | 36302 | 109151 | 3213 | 9461 | 93804 |
|  | WISCONSIN. . | 48 | 17 | 5394 | 33061 | 3284 | 1.494 | 17470 | 64398 | 2160 | 5075 | 53120 |
|  | WEST NORTH CENTRAL. . . . . . . | 127 | 66 | 14344 | 85114 | 9639 | 19372 | 48901 | 192685 | 4602 | 13416 | 111507 |
|  | MINNESOTA. . . . . . . . | 49 | 23 | 4913 | 30892 | 3406 | 7166 | 17841 | $\begin{array}{ll}68 & 137\end{array}$ | 2187 | 4392 | 40407 |
|  | IOWA . . . | 13 | 7 | 1051 | 6514 | 819 | 1763 | 4460 | 31978 | 499 | 618 | 5196 |
|  | MISSOURI | 44 | 28 | 7449 | 42972 | 4733 | 9195 | 23708 | 76227 <br> 15 | 1636 | 6758 | 58549 |
|  | KANSAS . - | 13 | 7 | 858 | 4346 | 628 | 1137 | 2647 | 15283 | 234 | 1447 | 5850 |
|  | SOUTH • . . | 285 | 115 | 17228 | 89467 | 12976 | 26308 | 57315 | 204741 | 7470 | 11385 | 102336 |
|  | SOUTH ATLANTIC. | 108 | 37 | 5172 | 28194 | 3684 | 7510 | 16980 | 58770 | 1961 | 3773 | 32644 |
|  | MARYLAND - | 14 | 8 | 1343 | 8134 | 865 | 1722 | 4073 | 18187 | 354 | 1151 | 13893 |
|  | NORTH CAROLINA | 16 | 7 | 1056 | 5553 | 802 | 1653 | 3978 | 12234 | 154 | 447 | 3369 |
|  | GEORGIA. . . | 16 | 6 | 883 | 4914 | 634 | 1334 | 2799 | 7666 | 545 | 678 | 5052 |
|  | FLORIDA. . . | 45 | 8 | 487 | 2521 | 340 | - 692 | 1491 | 5015 | 216 | 344 | 2341 |
|  | EAST SOUTH CENTRAL. | 40 | 19 | 4656 | 25215 | 3639 | 7396 | 17245 | 66154 | 2521 | 2823 | 27734 |
|  | KENTUCKY . | 8 | 6 | 2082 | 13344 | 1653 | 3345 | 9232 | 38653 | 550 | 1784 | 18120 |
|  | TENNESSEE. | 19 | 7 | 1347 | 6055 | 988 | 1956 | 3777 | 17278 | 1220 | 700 | 7399 |
|  | WEST SOUTH CENTRAL. | 137 | 59 | 7400 | 36058 | 5653 | 11402 | 23090 | 79817 | 2988 | 4789 | 41958 |
|  | ARKANSAS | 10 | 7 | 786 | 3325 | 642 | 1313 | 2398 | 6938 | 160 | 122 | + 682 |
|  | LOUISIANA. . . | 13 | 3 | 252 | 1298 | $179$ | 403 | 815 | 3029 | 83 | 142 | 1239 |
|  | OKLAHOMA ......... | 24 | 8 | 852 | 3799 | 679 | 1345 | 2586 | 6914 | 596 | 4207 | 1703 |
|  | TEXAS.......... | 90 | 41 | 5510 | 27636 | 4153 | 8341 | 17291 | 62936 | 2149 | 4318 | $38 \quad 334$ |
|  | WEST. . . . . . | 266 | 79 | 8195 | 49380 | 5753 | 11316 | 31350 | 88215 | 2257 | 7330 | 64456 |
|  | MOUNTAIN. | 37 | 9 | 2043 | 11286 | 1446 | 2712 | 7539 | 24528 | 608 | 1481 | 10905 |
|  | ARIZONA. | 10 | 4 | 1300 | 7415 | 971 | 1730 | 5256 | 14157 | 469 | 1097 | 7577 |
|  | PACIFIC. | 229 | 70 | 6152 | 38094 | 4307 | 8604 | 23811 | 63687 | 1649 | 5849 | 53551 |
|  | OREGON CALIFORNIA . . . . . . . . | 15 201 | 3 61 | 1202 5478 | 1 1 | 140 3939 | 277 7901 | 1960 21513 | 2212 58434 | 44 1499 | (0) 5 521 | (D) 50485 |
| 359 | MISCELLANEOUS MACHINERY, TOTAL ${ }^{2}$. . . | 12090 | 1402 | 135820 | 793629 | 108445 | 224320 | 593147 | 1366327 | 71729 | 115659 | 959939 |

[^149](x) Not applicable.

## TABLE 3. Detailed Statistics: 1963

| Item | Machinery, except electrical (SIC 35) | Engines and turbines (SIC 351) | Farm machinery and equipment (SIC 352) | Construction and like equipment (SIC 353) | Metal-working machinery (SIC 354) | Special industry machinery (SIC 355) | General industrial machinery (SIC 356) | Office machines, п.e.c. (SIC 357) | Service industry machines (SIC 358) | Miscellaneous machinery (SIC 359) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ESTABLISHMENTS, TOTAL . . . NUMBER. . | 33703 | 165 |  | 2259 | 8536 | 3290 | 3760 | 515 | 520 | 12090 |
| WITH 1 TO 19 EMPLOYEES. . . . DO. . | 25277 | 63 | 1010 | 1272 | 6473 | 2088 | 2555 | 250 | 878 | 10688 |
| WITH 20 tu 99 EMPLOYEES . . . DO. . | 6137 | 32 | 407 | 620 | 1657 | 848 | 766 | 130 | 410 | 1267 |
| With 100 employees or more. . do. | 2289 | 70 | 151 | 367 | 406 | 354 | 439 | 135 | 232 | 135 |
| proprietors and working partners . . . . . . . . . . . Do. | 17956 | 28 | 706 | 694 | 4456 | 1111 | 1690 | 114 | 443 | 8714 |
| all employees (average for the | 1795 |  |  |  | 259 |  |  |  |  |  |
|  | 1459377 | 86604 | 112614 | 210959 | 259002 | 171528 | 233143 | 137138 | 112569 | 135820 |
| for year . . . . . . . . $11,000$. | 9570984 | 609319 | 689122 | 1381298 | 1841671 | 1894823 | 1542032 | 945221 | 673869 | 793629 |
| PRODUCTION WORKERS: |  |  |  |  |  |  |  |  |  |  |
| average for the year. . . number. | 1045075 | 61648 | 84650 | 146753 | 195609 | 120027 | 161869 | 88266 | 77808 | 108445 |
| MARCH . . . . . . . . . . . Do. | 1042144 | 61959 | 88592 | 142281 | 195060 | 119709 | 161158 | 88027 | 77950 | 107408 |
| may . . . . . . . . . . . Do. | 1047143 | 60761 | 86961 | 145760 | 195847 | 119189 | 162728 | 86721 | 80733 | 108443 |
| August. . . . . . . . . . . do. | ${ }_{1}^{1} 043738$ | 62044 | 84720 | 149072 | 193988 | 119601 | 161418 | 87601 | 76220 76366 | 109074 |
| november. . . . . . . . . . do. | 1051273 | 61827 | 82327 | 149807 | 197821 | 120610 | 162259 | 90715 | 76366 | 109450 |
| MAN-HOURS . . . . . . . .1,000. | 2151057 | 123929 | 168911 | 299530 | 419563 | 249517 | 332054 | 177271 | 155962 | 224320 |
| JANUARY-MARCH . . . . . . . DD. | 539111 | 31750 | 44683 | 72599 | 105273 | 62758 64039 | 82882 <br> 84 <br> 842 | 45344 44 4 | 38640 41414 | $\begin{array}{lll}55 & 182 \\ 56 & 267\end{array}$ |
| APRIL-JUNE. . . . . . . . DO. | 549253 <br> 514 | 31114 | 44277 | 75483 | 106949 | 64039 | 84842 | 44868 | 41414 | 56267 |
| JULY-SEPTEMBER. . . . . . . DO. | 514305 | 29377 | 38476 | 73947 | 100335 | 59760 | 79846 | 40 <br> 46888 <br> 814 | 36994 38921 | 55292 <br> 57 <br> 79 |
| october-december. . . . . . DO. | 548960 | 31688 | 41475 | 78028 | 107006 | 62960 | 84489 | 46814 | 38921 | 57579 |
| wages . . . . . . . . . . \$1,000 | 6209341 | 401743 | 476827 | 873169 | 1292580 | 679122 | 962422 | 523704 | 406627 | 593147 |
| COST DF MATERIALS, ETC., <br> TOTAL . . . . . . . . . . . . DD. | 13254179 | 988490 | 1536761 | 2543510 | 1483120 | 1408733 | 1953215 | 1168473 | 1498054 | 673823 |
| materials, parts, containers, |  |  |  |  |  |  |  |  |  |  |
| and supplies consumed. . . . do. | 11536433 | 913216 | 1426108 | 2243396 | 1227774 | 1153687 | 1678079 | 1030522 | 1334990 | 528661 |
| COSt of resales . . . . . . . DO. | 1002705 | 42571 | 72001 | 207162 | 98566 | 176043 | 156517 | 92176 | 113768 | 43901 |
| fuels Consumed. . . . . . . . DO. | 104719 | 10888 | 14380 | 14861 | 15939 | 10973 | 17897 | 5258 | 7315 | 7208 |
| ELECTRIC ENERGY: PURCHASED: |  |  |  |  |  |  |  |  |  |  |
| OUANTITY. . .MILLIDN KW.-HRS. | 11059 | 836 | 735 | 2041 | 1813 | 1009 | 2046 | 804 | 894 | 881 |
| CDST. . . . . . . . . s1,0C0 | 153527 | 9712 | 10387 | 25523 | 28540 | 15867 | 26985 | 10123 | 11344 | 15046 |
| generated less <br> SOLD . . . . .MILLIDN KW.-HRS. | 12185 | 210 | 550 | 4250 | 1140 | 455 | 2087 | 283 | 2207 | 3 |
| CONTRACT WORK . . . . . . ${ }_{1} 1,000$ | 456736 | 12103 | 13885 | 52515 | 112296 | 52123 | 73776 | 30394 | 30637 | 79007 |
| Value of shipments (including |  |  |  |  |  |  |  |  |  |  |
| RESALES), TDTAL ${ }^{1}$. . . . . . . DD. | 30363095 | 2089990 | 2842243 | 5260407 | 4474696 | 3303290 | 4732825 | 2782800 | 2840545 | 036299 |
| value of resales. . . . . . . do. | 1330744 | 58030 | -89619 | 271953 | 126283 | 228760 | 209840 | 139535 | 149616 | 57109 |
| value addeo by manufacture, adjusted . . . . . . . . . . . Do. | 17310599 | 1113503 | 1328381 | 2732269 | 037659 | 1917184 | 2812672 | 1633690 | 1368914 | 1366327 |
| manufacturers inventories: |  |  |  |  |  |  |  |  |  |  |
| beginning of year, total. . . dD. | 6554398 | 445141 | 633879 | 1212801 | 893280 | 792560 | 957291 | 808695 | 579777 | 230974 |
| FINISHED PRODUCTS . . . . . DO. | 2017342 | 81264 | 253194 | - 406853 | 243134 | 254530 | 328593 |  | 204875 | 72642 |
| WORK-IN-PRDCESS . . . . . DO. | 2868816 | 280680 | 197930 | 409303 | 463440 | 331067 | 376306 | 537962 | 180223 | 91905 |
| Materials, Supplies, fuel, | 1668251 | 83197 | 182755 | 396646 | 186706 | 206963 | 252407 | 98476 | 194679 | 66427 |
| END OF YEAR, TOTAL. . . . . . DO. | 6803006 | 455427 | 669266 | 1245960 | 952791 | 817691 | 986121 | 832582 | 609711 | 233457 |
| FINISHED PRDDUCTS . . . . . DO. | 2061684 | 76260 | 267168 | - 404218 | 255806 | 261592 | 333088 |  | 213234 | 74205 <br> 94 |
| WORK-IN-PRDCESS . . . . . DD. | 3027133 | 297687 | 206855 | 427521 | 496768 | 346631 | 404917 | 553749 | 198812 | 94193 |
| MATERIALS. SUPPLIES. FUEL. ${ }_{\text {etc. }}$ | 1714191 | 81480 | 195243 | 414221 | 200218 | 209467 | 248108 | 102730 | 197665 | 65059 |
| EXpenditures for plant and |  |  |  |  |  |  |  |  |  |  |
| EQUIPMENT, TOTAL . . . . . . . DO. | 868168 | 57321 | 68379 | 100122 | 158863 | 79089 | 136918 | 128720 | 51370 | 87386 |
| NEW, TDTAL. . . . . . . . . . DD. | 783076 | 54145 | 64431 | 93175 | 136713 | 71414 | 124540 | 119610 | 47319 | 71729 |
| TIDNS TD PLANT. . . . . . DO. | 170968 | 7939 | 17006 | 19318 | 26411 | 17778 | 26177 | 21555 | 14189 | 20595 |
| NEW MACHINERY AND EQUIP- |  |  |  |  |  |  |  |  |  |  |
| MENT • . . . . . . . . . . Do. | 612118 | 46206 | 47425 | 73866 | 110302 | 53636 | 98363 | 98055 | 33131 | 51134 |
| used plant and eouipment. . . do. | 85110 | 3176 | 3948 | 6947 | 22167 | 7675 | 12378 | 9110 | 4051 | 15658 |
| SELECTED operating ratios: |  |  |  |  |  |  |  |  |  |  |
| PAYROLL/TDTAL EMPLOYMENT. - - - . - | 6558 |  |  |  | 7111 | 6383 | 6614 |  |  | 5843 |
| PRDDUCTION WORKERS/TOTAL EMPLOYMENT | . 72 |  | . 75 | . 70 | . 76 |  | . 69 | . 64 | . 609 | . 80 |
| MAN-HOURS/PRODUCT ION WORKERS. - . | 2058 | 2010 | 1.995 | 2041 | 2145 | 2079 | 2051 | 2008 | 2004 2.61 | 2.069 2.64 |
| PRDDUCTION WORKER WAGES/MAN-HOURS . CDST OF MATERIALS AND PAYROLLS/ | 2.89 | 3.24 | 3.82 | 2.92 | 3.08 | 2.72 | 2.90 | 2.95 | 2.61 | 2.64 |
| total value of Shipments ... . | . 75 | . 76 | . 79 | . 75 | . 74 | . 76 | . 74 | . 76 | . 76 | . 72 |
| COST DF Materials/total value of |  |  |  |  |  |  |  |  |  |  |
| SHIPMENTS. <br> adjusted value adoed/total employ- | . 44 | . 47 | . 55 | . 48 | . 33 | . 43 | . 41 | . 42 | . 53 | . 33 |
|  | 11862 | 12857 | 11796 | 12952 | 11728 | 11177 | 12064 | 11913 | 12161 | 10059 |
| SALARIES AND WAGES/ADJusted value adDed. . . . . . . . . | 55 | . 55 | . 5 | 5 | . 61 | 57 | . 55 | . 58 | . 49 | . 58 |

Standari Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. ( X ) Not applicable.
The value of shipments and cost of materials for industry groups (2-and 3-digit) include ertensive duplication arising from shipments between establishments in the same
industry. For a more complete explanation, see Introduction.

## ENGINES AND TURBINES AND FARM MACHINERY AND EQUIPMENT

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

## SIC Code and Title

3511-Steam Engines; Steam, Gas, and Hydraulic Turbines; and Steam, Gas, and Hydraulic Turbine Generator Set Units
3519-Internal Combustion Engines, Not Elsewhere Classified
3522-Farm Machinery and Equipment
The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

3511 -STEAM ENGINES; STEAM, GAS, AND HYDRAULIC TURBINES; AND STEAM, GAS and HYDRaULlC TURBINE GENERATOR SET UNITS

This industry comprises establishments primarily engaged in manufacturing steam engines; steam turbines; hydraulic turbines; gas turbines, except aircraft; and complete steam, gas, and hydraulic turbine generator set units. Establishments primarily engaged in building or rebuilding locomotives are classified in industry 3741; and those manufacturing nonautomotive generators which are not part of a turbine generator set in industry 3621. For a detailed list of products of industry 3511 , refer to table 6 A, product codes 3511112 to 3511273 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Steam Engines and Turbines Industry totaled $\$ 616$ million. This amount included shipments of steam engines and turbines (primary products) valued at $\$ 485$ million, shipments of other products (secondary products) valued at $\$ 88$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 43$ million.

This industry's shipments of steam engines and turbines represented 85 percent of its total product shipments. The industry specialization ratio in 1958 was 78 percent. Secondary products shipped by this industry in 1963 include heat exchangers and steam condensers, over $\$ 10$ million, and speed changers, industrial high speed drives and gears, over $\$ 5$ million.

Shipments of steam engines and turbines by this industry represented 82 percent of all shipments of these products ( $\$ 589$ million) by all industries. In 1958 the coverage ratio was 94 percent. Other industries shipping steam engines and turbines include industry 3722, Aircraft Engines and Parts, \$43 million; and industry 3561, Pumps and Compressors, over $\$ 10$ million.

A few of the establishments engaged in manufacturing steam engines and turbines also installed the steam engines and turbines they produced. For 1963, establishments in industry 3511 reported receipts for installation totaling $\$ 3$ million. The employment statistics for this industry include only employees attached to the manufacturing establishments and exclude local labor hired in the field for installation and erection work.

The production index for the primary products of the industry increased to 157 in 1963 from the 1958 level of 146 . The unit value index for 1963 was 78 compared to 108 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3519-INTERNAL COMBUSTION ENGINES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing diesel, semidiesel, or other internal combustion engines, n.e.c., for stationary, marine, traction, and other uses. Establishments primarily engaged in manufacturing aircraft engines, including rocket engines, are classified in industry 3722; automotive engines except diesel in industry 3714; and engine generator sets in industry 3621 . For a list of products of industry 3519 , refer to table 6A, product codes 3519100 to 3519715 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Internal Combustion Engines Industry totaled $\$ 1,474$ million. This amount included shipments of internal combustion engines, n.e.c. (primary products) valued at $\$ 1,210$ million, shipments of other products (secondary products) valued at $\$ 197$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 66$ million.

This industry's shipments of internal combustion engines represented 86 percent of its total products shipments. The industry specialization ratio in 1958 was 90 percent. Secondary products shipped by this industry in 1963 include parts and accessories for passenger cars, trucks, and busses shipped to motor vehicle manufactures ( $\$ 40$ million), and prime mover generator sets, except steam or hydraulic turbines ( $\$ 38$ million).

Inasmučh as industry 3519 includes all establishments primarily engaged in manufacturing internal combustion engines (except automotive and aircraft), significantly different types of establishments are included. The most important difference concerns the type of engines produced. One distinct group comprises plants primarily manufacturing gasoline engines and another comprises those primarily manufacturing diesel engines. Within the first group another significant difference concerns the size of gasoline engines produced. Establishments producing small gasoline engines for power lawn mowers, garden tractors, small engine generators, pumps, etc., are included as well as plants principally producing large gasoline engines for industrial uses, large generator sets, tractors, farm equipment, etc. Establishments producing outboard motors are also included. For diesel engines, likewise, a difference exists as to size of engine produced. Certain plants produce only large diesel engines for locomotives, diesel-electric sets, etc.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 48 percent of the total industry shipments are represented by plants specializing in diesel and semidiesel engines; and 18 percent in parts and attachments for internal combustion engines (except aircraft and automotive engines and gas turbines).

The coverage ratio for an individual product class may vary significantly from that for the 4 -digit industry for the following product class of industry 3519 , e.g., gas engines (except gas turbines), 47 percent.

Shipments of internal combustion engines by this industry represented 86 percent of all shipments of these products ( $\$ 1,414$ million) by all industries. In 1958 the coverage ration was 82 percent. Other industries shipping internal combustion engines include industry 3522, Farm Machinery and Equipment, over $\$ 22$ million; and industry 3717, Motor Vehicles and Parts, $\$ 19$ million.

Internal combustion engines are produced captively in significant quantities by establishments classified in other industries, which incorporate the engines into other products (tractors, lawn mowers, etc.) made in the same establishment. The product statistics shown in tables 6A-1 through 6A-6 include data for engines produced and incorporated into the establishments own end products as well as data for engines transferred to plants of the same company. Data on engines sold to other companies also are shown separately. These data were compiled from supplemental reports filed by manufacturers of end products incorporating engines of their own manufacture.

Product data similar to that shown in tables 6A-1 through 6A-6 have been collected and compiled annually since 1950 by the Bureau of the Census and published in Current lndustrial Reports Series M35L, Internal Combustion Engines.

The production index for the primary products of the industry increased to 150 in 1963 from the 1958 level of 108 . The unit value index for 1963 was 102 compared to 114 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3522-FARM MACHINERY AND EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing farm machinery, including equipment and wheel tractors, for use in the preparation and maintenance of the soil; planting and harvesting of the crop; preparing, on the farm, crops for market; or for use in performing other farm operations and processes. This industry includes wheel tractors except contractors' off-highway type which are classified in industry 3531. Establishments primarily engaged in manufacturing industrial trucks, tractors, and trailers used for handling materials in industrial plants, depots, and docks are classified in industry 3537; and farm handtools in group 342. For a detailed list of products of industry 3522, refer to table 6A, product codes 3522281 to 3522898.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Farm Machinery and Equipment Industry totaled $\$ 2,842$ million. This amount included shipments of farm machinery and equipment (primary products) valued at $\$ 2,412$ million, shipments of other products (secondary products) valued at $\$ 308$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 122$ million.

This industry's shipments of farm machinery and equipment represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 90 percent. Secondary products shipped by this industry in 1963 include scrapers, graders, rollers, and off-highway trucks, trailers, and wagons, excluding parts ( $\$ 26$ million), and other transportation equipment ( $\$ 25$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the
different product classes. The extent to this specialization is indicated in table 8. Approximately 32 percent of the total industry shipments are represented by plants specializing in wheel tractors and parts and attachments (except garden and contractors' offhighway); and 20 percent in harvesting machinery.

Shipments of farm machinery and equipment by this industry represented 95 percent of all shipments of these products ( $\$ 2,542$ million) by all industries. In 1958 the coverage ratio was 94 percent. Other industries shipping farm machinery and equipment include industry 3717, Motor Vehicles and Parts, $\$ 25$ million; and industry 3531, Construction Machinery, over $\$ 13$ million.

Industry 3522 includes establishments producing a wide range of farm machinery and equipment including not only wheel tractors and equipment for raising and harvesting crops but also such other equipment as dairy equipment (milking machines, cream separators, etc.), poultry equipment (incubators, brooders, etc.), barn and barnyard equipment (barn cleaners, stock tanks, etc.), and machines for preparing crops for market (corn shellers, feed grinders, etc.).

Inasmuch as industry 3522 covers such a wide range of products, the operations of the plants classified in this industry differ in some respects. Those plants engaged in manufacturing wheel tractors and self-propelled equipment such as combines, corn pickers, hay balers, etc., and to a lesser extent those manufacturing equipment for mounting on tractors or to be drawn by tractors, include large assembly operations in addition to the processes and operations involved in manufacturing the component parts. Also included within this industry are plants whose operations are largely limited to metal fabricating such as those primarily engaged in producing cattle stalls, animal stock tanks, poultry brooders, etc.

ENGINES AND TURBINES: SIC 351
Value Added by Manufacture by State: 1963

U.s. DEPARTMENT OF COMMERCE
table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establistments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3511. - STEAM ENGINES AND TURBINES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 17 | 22 | 21 | 30,917 | 237,519 | 19,894 | 38,933 | 141,738 | 379,875 | 242,730 | 616,416 | 19,394 | 85 | 82 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 33,133 | 245,573 | 21,108 | 41,287 | 145,233 | 408,389 | 252,662 | 657,723 | 16,700 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 33,847 | 238,478 | 21,082 | 41,082 | 138,022 | 419,960 | 251,128 | 695,956 | 18,977 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 36,616 | 244,930 | 23,437 | 44,712 | 142,794 | 505,514 | 260,675 | 758,280 | 16,531 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 40,320 | 260,024 | 25,480 | 50,025 | 155,127 | 497,613 | 287,462 | 813,957 | 18,666 | (NA) | (NA) |
| $1958{ }^{2}$. | 21 | 28 | 25 | 45,347 | 274,589 | 29,319 | 57,791 | 172,091 | 568,643 | 361,126 | 961,769 | 20,492 | 78 | 94 |
|  | INDUSTRY 3519. - INTERNAL COMBUSTION ENGINES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 120 | 143 | 81 | 55,687 | 371,800 | 41,754 | 84,996 | 260,005 | 733,628 | 745,760 | 1,473,574 | 34,751 | 86 | 85 |
| $1962^{1}$ | (NA) | (NA) | (NA) | 53,112 | 335,514 | 41,150 | 78,493 | 231,211 | 623,294 | 708,434 | 1,316,936 | 30,152 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 46,139 | 280,928 | 34,226 | 65,291 | 184,102 | 501,018 | 561,751 | 1,079,955 | 31,993 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 50,003 | 297,477 | 37,211 | 71,157 | 199,009 | 520,411 | 612,159 | 1,158,550 | 24,729 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 55,878 | 336,590 | 42,668 | 84,412 | 228,952 | 656,068 | 682,947 | 1,296,850 | 35,609 | (NA) | (NA) |
| $1958{ }^{2}$ | 97 | 113 | 76 | 52,004 | 286,816 | 42,607 | 72,564 | 190,997 | 520,443 | 552,327 | 1,085, 808 | 50,628 | 90 | 82 |
|  | INDUSTRY 3522.-FARM MACHINERY AND EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 1,481 | 1,568 | 558 | 112,614 | 689,122 | 84,650 | 168,911 | 476,827 | 1,328,381 | 1,536,761 | 2,842,243 | 64,431 | 89 | 95 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 106,222 | 618,178 | 77,139 | 151,709 | 413,012 | 1,205,892 | 1,335,014 | 2,481,979 | 42,999 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 102,538 | 579,271 | 76,371 | 150,710 | 382,040 | 1,057,083 | 1,251,580 | 2,339,537 | 45,946 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 99,115 | 540,245 | 71,110 | 141,666 | 355,533 | 941,021 | 1,162,115 | 2,162,640 | 55,636 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 113,153 | 617,791 | 84,803 | 167,685 | 423,986 | 1,172,210 | 1,450,737 | 2,559,491 | 42,824 | (NA) | (NA) |
| $1958{ }^{2}$ | 1,389 | 1,469 | 509 | 108,586 | 550,998 | 79,922 | 153,962 | 373,240 | 1,087,836 | 1,318,416 | 2,421,873 | 54,655 | 90 | 94 |


 August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production






 rather than shipments.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manu-
 lishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
${ }^{2}$ A revision in the definition of this industry was made in the 1957 Standard Industrial Classification so that data for the industry are not available for earlier years.

## TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> (\$1,000) | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \begin{array}{c} \text { Man- } \\ \text { hours } \end{array} \\ (1,000) \\ \hline \end{gathered}$ | Wages <br> (\$1,000) |  |  |  |  |  |  |
| Total........... | GROUP 351. -ENGINES AND TURBINES |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 165 | 102 | 86,604 | 609,319 | 61,648 | 123,929 | 401,743 | 1,113,503 | 988,490 | 2,089,990 | 54,145 | 97,351 | 1,089,086 |
| New England. | 14 | 10 | 9,858 | 71,270 | 6,695 | 13,126 | 45,427 | 119,489 | 60,584 | 176,599 | 6,202 | 9,378 | 112,383 |
| Middle Atlantic. New Jersey.... | 25 8 | 15 3 | 23,849 220 | 180,900 | 16,482 196 | 33,015 389 | 115,866 817 | 307,799 1,003 | 213,382 2,920 | 515,824 3,883 | 15,317 116 | 32,420 $(2)$ | 414, 659 |
| East North Central. Illinois........ | 67 9 | $\begin{array}{r}52 \\ 8 \\ \hline 8\end{array}$ | 46,798 8,551 | 314,627 59,721 | 34,509 5,760 | 69,614 11,040 | 216,122 37,572 | 618,051 97,348 | 656,506 114,743 | $1,271,262$ 208,094 | 30,392 (D) | 47, 827 | 479,618 |
| Michigan. | 22 | 16 | 12,747 | 90,964 | 9,451 | 19,537 | 63,938 | 182,971 | 239,828 | 431,471 | (D) | 13,088 | 131,314 |
| Wisconsin | 22 | 20 | 17,224 | 107,934 | 13,205 | 26,444 | 77,124 | 200,678 | 194,244 | 391,725 | 6,570 | 18,218 | 183,373 |
| West North Central.. | 17 | 10 | 2,452 | 15,032 | 1,647 | 3,197 | 9,193 | 19,984 | 17,520 | 40,112 | 734 | 3,166 | 26,711 |
| South. | 16 | 5 | 617 | 3,929 | 495 | 1,226 | 2,717 | 11,917 | 14,870 | 24,632 | 238 | 214 | 1,536 |
| West. | 26 | 10 | 3,030 | 23,561 | 1,820 | 3,751 | 12,418 | 36,263 | 25,528 | 61,561 | 1,262 | 4,346 | 54,179 |
| Total............ <br> Connecticut.......... <br> All other states... | INDUSTRY 3511.-STEAM ENGINES AND TURBINES |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 22 | 21 | 30,917 | 237,519 | 19,894 | 38,933 | 141,738 | 379,875 | 242,730 | 616,416 | 19,394 | 45,347 | 568,643 |
|  | 3 19 | 3 18 | $\begin{array}{r} 381 \\ 30,536 \end{array}$ | 2,384 235,135 | $\begin{array}{r} 262 \\ 19,632 \end{array}$ | $\begin{array}{r} 559 \\ 38,374 \end{array}$ | $\begin{array}{r} 1,441 \\ 140,297 \end{array}$ | $\begin{array}{r} 4,928 \\ 374,947 \end{array}$ | $\begin{array}{r} 2,534 \\ 240,196 \end{array}$ | 7,651 608,765 | $\begin{array}{r} 92 \\ 19,302 \end{array}$ | $\begin{aligned} & \left({ }^{2}\right) \\ & \left({ }^{2}\right) \end{aligned}$ | $(2)$ $(2)$ |
|  | INDUSTRY 3519.-INTERNAL COMBUSTION ENGINES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 143 | 81 | 55,687 | 371,800 | 41,754 | 84,996 | 260,005 | 733,628 | 745,760 | 1,473,574 | 34,751 | 52,004 | 520,443 |
| New Jersey. | 8 | 3 | 220 | 992 | 196 | 389 | 817 | 1,003 | 2,920 | 3,883 | 116 | $\left({ }^{2}\right)$ | (2) |
| Illinois. | 9 | 8 | 8,551 | 59,721 | 5,760 | 11,040 | 37,572 | 97,348 | 114,743 | 208,094 | (D) | (2) | (2) |
| Michigan. | 22 | 16 | 12,747 | 90,964 | 9,451 | 19,537 | 63,938 | 182,971 | 239,828 | 431,471 | (D) | (2) | (2) |
| California. | 19 |  | 727 | 5,814 | 456 | 948 | 3,138 | 13,036 | 11,208 | 23,269 | 465 | $\left.{ }^{2}\right)$ | 2) |
| All other states... | 85 | 48 | 33,442 | 214,309 | 25,891 | 53,082 | 154,540 | 439,270 | 377,061 | 806,857 | 21,416 | (2) | ) |
|  | INDUSTRY 3522. -FARM MACHINERY AND EQUIPNENT |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 1,568 | 558 | 112,614 | 689,122 | 84,650 | 168,911 | 476,827 | 1,328,381 | 1,536,761 | 2,842,243 | 64,431 | 108,586 | 1,087,836 |
| New England. | 28 | 2 | 190 | 1,053 | 144 | 300 | 715 | 2,042 | 1,882 | 3,914 | 50 | 287 | 2,638 |
| Middle Atlantic. New Jersey.... | 83 12 | 33 4 4 | 5,090 198 | 31,765 1,078 | 3,174 154 | 6,801 | $\begin{array}{r}16,951 \\ \hline 786\end{array}$ | 70,229 1,800 | 59,132 2,051 | 130,080 3,769 | 4,358 50 | 6,780 | 72, ${ }_{(255}^{(2)}$ |
| New Jersey. | 12 | 4 | 198 | 1,078 |  |  |  | 1,800 | 2,051 | 3,769 | 50 |  | ( ${ }^{2}$ |
| East North Central.. | 407 | 196 | 52,899 | 335,780 | 39,483 | 79,193 | 232,795 | 645,883 | 790,526 | 1,416,215 | 31,441 | 55,944 | 584,379 |
| Ohio.. | 73 | 33 | 6,400 | 36,238 | 5,140 | 10,363 | 27,285 | 64,312 | 101,295 | 163,192 | 2,025 | 5,273 | 45,043 |
| Indiana. | 65 | 36 | 5,222 | 28,717 | 3,783 | 7,264 | 18,201 | 49,001 | 69,065 | 116,032 | 1,303 | 4,850 | 44,014 |
| Illinois | 110 | 62 | 23,567 | 156,967 | 17,972 | 35,366 | 111,895 | 287,674 | 325,843 | 607,160 | 20,754 | 26,730 | 285,018 |
| Michigan. | 67 | 26 | 5,230 | 34,918 | 3,975 | 8,560 | 24,445 | 104,088 | 140,292 | 238,058 | 1,773 | 4,786 | 78,642 |
| Wisconsin | 92 | 39 | 12,480 | 78,940 | 8,613 | 17,640 | 50,969 | 140,808 | 154,031 | 291,773 | 5,586 | 14,305 | 131,662 |
| West North Central. | 414 | 159 | 33,252 | 205,624 | 25,421 | 49,980 |  |  |  |  |  | 29,186 |  |
| Minnesota. | 85 | 39 | 5,476 | 29,446 | 4,207 | 8,142 | 20,720 | 61,794 | 71,741 | 134,071 | 2,160 | 4,404 | 45,082 |
| Iowa.. | 119 | 55 | 21,605 | 146,413 | 16,812 | 32,499 | 106,272 | 286,500 | 281,334 | 559,662 | 14,590 | 18,888 | 190,287 |
| Missouri. | 42 | 11 | 2,080 | 10,797 | 1,421 | 3,048 | 8,061 | 15,160 | 35,389 | 57,303 | 1,003 | 1,922 | 21,630 |
| North Dakota. | 14 | 3 | 350 | 1,587 | 278 | 579 | 1,067 | 2,614 | 4,026 | 7,132 | 159 | $\left({ }^{2}\right)$ | $\left(\begin{array}{l}2 \\ (2)\end{array}\right.$ |
| South Dakota. | 12 | 3 | 192 | 866 | 135 | 264 | 535 | 2,212 | 2,045 | 4,308 | 82 | ${ }^{(2)}$ | (2) |
| Nebraska. | 58 | 20 | 1,582 | 7,182 | 1,191 | 2,433 | 4,654 | 17,308 | 18,480 | 36,295 | 439 | 1,661 | 14,445 |
| Kansas. | 84 | 28 | 1,967 | 9,333 | 1,377 | 3,015 | 5,739 | 18,862 | 20,185 | 38,383 | 985 | 1,953 | 19,215 |
| South Atlantic...... | 121 | 42 | 4,456 | 19,297 | 3,493 | 6,942 | 12,089 | 38,282 | 49,050 | 85,996 | 1,793 | 3,180 | 22,341 |
| Virginia.......... | 12 | 7 | 527 | 2,209 | 450 | 990 | 1,681 | 5,403 | 3,519 | 8,067 | 297 | 282 | 1,985 |
| North Carolina.... | 26 | 11 | 1,299 | 5,287 | 1,109 | 2,219 | 3,230 | 8,669 | 11,506 | 20,504 | 297 | 849 | 5,043 |
| Georgia. | 30 | 13 | 1,653 | 7,322 | 1,210 | 2,348 | 4,265 | 14,119 | 21,523 | 35,643 | 658 | 1,304 | 8,809 |
| Florida. | 41 | 6 | 426 | 1,955 | 300 | 589 | 1,177 | 4,189 | 5,880 | 9,999 | 200 | 260 | 2,113 |
| East South Central.. | 66 | 29 | 9,222 | 55,263 | 7,361 | 14,146 | 40,508 | 92,346 | 118,842 | 211,720 | 4,221 |  |  |
| Tennessee......... | 19 | 6 | 2,738 | 18,988 | 2,000 | 3,873 | 12,881 | 36,244 | 25,591 | 63,554 | (D) | $(2)$ |  |
| Alabama. | 19 | 9 | 898 | 3,881 | 718 | 1,393 | 2,336 | 9,003 | 11,488 | 20,125 | 432 | 587 | 4,009 |
| West South Central.. | 122 | 38 | 2,596 | 11,784 | 1,834 | 3,906 | 7,462 | 22,881 | 28,447 | 50,277 5 |  | 2,087 | $\begin{aligned} & 13,733 \\ & (2) \end{aligned}$ |
| Arkansas. . | 15 | 7 | 284 | 1,224 | 231 | 476 | 862 | 2,580 | 2,609 | 5,129 | (D) | ${ }^{(2)}$ | $\left(^{2}\right)$ |
| Louisiana. | 11 | 4 | 515 | 2,407 | 335 | 799 | 1,557 | 3,986 | 7,731 | 11,313 | 203 | 305 | 2,123 |
| 0klahoma.......... | 16 | 6 | 369 | 1,899 | 290 | 576 | 1,247 | 3,383 | 3,612 | 7,001 | 280 | 263 | 1,644 |
| Texas.. | 80 | 21 | 1,428 | 6,254 | 978 | 2,055 | 3,796 | 12,932 | 14,495 | 26,834 | (D) | 1,473 | 9,712 |

table 2. General Statistics, by Geographic Areas: 1963 and 1958 -Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expend itures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted ( $\$ 1,000$ ) |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> ( $\$ 1,000$ ) |  |  |  |  |  |  |


| Mountain. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 84 | 12 | 1,116 | 6,037 | 901 | 1,873 | 4,324 | 10,347 | 11,821 | 22,441 | 625 | 763 | 6,406 |
| Idaho. | 31 | 3 | 303 | 1,579 | 250 | 534 | 1,233 | 2,428 | 3,445 | 6,025 | 87 | 237 | 1,686 |
| Colorado. | 27 | 5 | 425 | 2,401 | 327 | 673 | 1,525 | 4,838 | 3,621 | 8,501 | 168 | 320 | 3,374 |
| Arizona. . . . . . . . | 11 | 2 | 203 | 1,201 | 164 | 334 | 865 | 1,784 | 3,446 | 5,272 | 287 | (2) | (2) |
| Utah. . | 4 | 2 | 139 | 621 | 124 | 260 | 519 | 951 | 758 | 1,668 | 39 | 112 | 624 |
| Pacific. | 243 | 47 | 3,793 | 22,519 | 2,839 | 5,770 | 14,935 | 41,921 | 43,861 | 84,446 | 1,563 | 3,483 | 30,153 |
| Washington. . . . . . | 29 | 6 | 341 | 1,886 | 269 | 542 | 1,331 | 3,374 | 3,929 | 7,174 | 131 | 322 | 2,430 |
| California....... | 194 | 34 | 3,122 | 18,670 | 2,303 | 4,660 | 12,165 | 34,979 | 36,635 | 70,166 | 1,367 | (2) | $\left({ }^{2}\right)$ |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(x) Not
applicable.
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown
below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 351-, Engines and Turbines, total: New England-New Hampshire, 1 (1-19); Massachusetts, 6 ( 8,198 ); Rhode Island, 1 (1-19); Connecticut, 6 (1,0002,499); Middle Atlantic-New York, 10 (7,551); Pennsylvania, 8 ( 16,078 ); East North Central-Ohio, 8 (2,282); Indiana, 6 (5,994); West North Central-Minnesota, 6 (693); Iowa, 5 (1,000-2,499); Missouri, 6 (250-499); South Atlantic-North Carolina, I (1-19); Georgia, 2 (1-19); Florida, 6 (20-99) ; East South Central-Tennessee, 1 (1-19); West South Central-Louisiana 1 (20-99); Oklahoma, 1 (1-19); Texas, 4 (465); Mountain-Colorado, 1 (100-249); Pacific-Washington, 3 (20-99); Oregon, 1 (20-99); California, 21 (2,500-4,999).
SIC 3511, Stean Engines and Turbines: New England-Massachusetts, 4 (5,000-9,999); Middle Atlantic-New York, 3 (6,246); Pennsylvania, 6 (10,000 and over); East North Central-Ohio, 1 (20-99); Wisconsin, 1 (1,000-2,499); West North Central-Iowa, 1 (100-249); South Atlantic-Florida, 1 (20-99); Pacific-California, 2 ( $1,000-2,499$ );
SIC 3519, Internal Combustion Engines: New England-New Hampshire, 1 (1-19); Massachusetts, 2 (1,000-2,499); Rhode Island, 1 (1-19); Connecticut, 3 (1,000-2,499); Middle Atlantic-New York, 6 (1,305); Pennsylvania, 2 (1,000-2,499); East North Central-Ohio, 7 (1,000-2,499); Indiana, 6 (5,994); Wisconsin, 21 (10,000 and over); West North Central-Minnesota, 6 (693); Iowa, 4 (1,000-2,499); Missouri, 6 (250-499); South Atlantic-North Carolina, 1 (1-19); Georgia, 2 (1-19); Florida, 5 (20-99); East South Central-Tennessee, 1 (1-19); West South Central—Louisiana, l (20-99); Oklahoma, 1 (1-19); Texas, 4 (465); Mountain-Colorado, 1 (100-249); Pacific-Washington, 3 (20-99); Oregon, 1 (20-99).
SIC 3522, Farm Machinery and Equipment: New England-Maine, 8 (20-99); New Hampshire, 1 (1-19); Vermont, 4 (20-99); Massachusetts, 7 (20-99); Rhode Island, 1 (1-19); Connecticut, 7 (20-99); Middle Atlantic-New York, 36 ( 1,940 ); Pennsylvania, 35 (2,952); South Atlantic-Delaware, 2 (20-99); Maryland, 2 (20-99); West Virginia, 1 (250-499); South Carolina, 7 (100); East South Central—Kentucky, 11 (4,090); Mountain—Montana, 8 (20-99); New Mexico, 3 (1-19); Pacific-Oregon, 19 (250-499); Hawaii, 1 (20-99);
${ }^{2}$ This State or region was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report
showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

|  |
| ---: | :--- |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of t:ousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
${ }^{1}$ The proportion of product shipnents (both prinary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

## TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | 5 to 9 employees | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 2,500 \\ \text { employees } \\ \text { and over } \end{gathered}$ |
| Establishments............... number. . All employees: <br> Total. <br> Payroll. <br> Value of shipments....................... <br> Capital expenditures, new...do.... | INDUSTRY 3511.--STEAM ENGINES AND TURBINES |  |  |  |  |  |  |  |  |  |  |
|  | 22 | - | - | 1 | - | 5 | 4 | 1 | 2 | 5 | 4 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | 30,917 | - | - | 2. 408 | - | (D) | 1 $\frac{2,148}{3,298}$ | (D) | (D) | 228,361 |  |
|  | 237,519 | - | - | $\frac{2,420}{3,439}$ | - | (D) | $\frac{13,298}{23,004}$ | (D) | (D) | $\frac{221,801}{353,432}$ | (D) |
|  | 379,875 | - | - | 6,202 | - | (D) | 41,743 | (D) | (D) | 568,471 | (D) |
|  | 616,416 19,394 | - | - | 6,202 | - | (D) | 88 | (D) | (D) | 18,453 | (D) |
|  | INDUSTRY 3519.--INTERNAL COMBUSTION ENGINES |  |  |  |  |  |  |  |  |  |  |
| Establishments...............number. . All employees: | 143 | 35 | 11 | 16 | 18 | 9 | 17 | 10 | 7 | 15 | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do. . . | 55,687 | 62 | 78 | 238 | 555 | 641 | 2,743 | 4,144 | 5,405 | 21,868 | 19,953 |
| Payroll...................\$1,000.. | 371,800 | 465 | 326 | 1,257 | 3,392 | 3,420 | 18,014 | 26,121 | 32,212 | 147,545 | 139,048 |
| Value added, adjusted.......do.... | 733,628 | 822 | 637 | 1,863 | 5,273 | 8,916 | 30,536 | 61,058 | 54,519 | 273,002 | 297,002 |
| Capital expenditures, new...do.... | 1,473,574 | 1,411 | 1,171 | 3,644 | 10,619 | 21,488 | 69,000 | 140,107 | 126,875 | 518,417 | 580,842 |
|  | 34,751 | 25 | 37 | 80 | 235 | 313 | 1,163 | 2,166 | 3,043 | 13,210 | 14,479 |
|  | INDUSTRY 3522.--FARM MACHINERY AND EQUIPMENT |  |  |  |  |  |  |  |  |  |  |
| Establishments. $\qquad$ number. All employees: | 1,568 | 526 | 237 | 247 | 264 | 143 | 80 | 30 | 21 | 12 | 8 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total......................dio.... | 112,614 | 833 | 1,606 | 3,415 | 8,007 | 10,050 50,445 | 12,829 | 10,283 60,266 | 15,987 | 19,509 132,006 |  |
| Payroll...................\$1,000.. | $\begin{array}{r}689,122 \\ \hline\end{array}$ | 4,068 | 7,220 73,754 | 15,966 30,197 | 40,222 84,467 | 50,445 107,077 | 67,024 142,100 | 60,266 112,768 | 102,133 229,639 | 132,006 | 209,772 370,311 |
| Value added, adjusted.......do.... | 1,328,381 | 6,017 20,808 | 13,754 30,248 | 30,197 64,392 | 84,467 175,525 | 107,077 222,654 | 142,100 310,993 | 112,768 | 229,639 473,475 | 232,051 499,359 | 370,311 |
| Value of shipments..........do.... Capital expenditures, new. . ${ }^{\text {do... }}$ | $\begin{array}{r} 2,842,243 \\ 64,431 \end{array}$ | 20,808 14,310 | 30,248 739 | 64,392 1,424 | 175,525 3,661 | 222,654 4,011 | 310,993 5,537 | 271,393 4,216 | 473,475 7,045 | 499,359 7,287 | 773,396 26,201 |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
${ }^{1}$ Includes capital expenditures of approximately $\$ 2-\$ 5 \mathrm{million}$ for plants under construction but not in operation.


# TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958 

An establishment is assigned to an industry based on the shipment values of products representing
the largest amount considered as primary to an industry. Frequently the establishment shipments
comprise mixtures of froducts assigned to an industry (primary products), those considered pri-
mary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products <br> $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio <br> Col. B <br> Col. B+C <br> (percent) | Total, made in all industries ( $\$ 1,000$ ) | Made in this industry $(\$ 1,000)$ | Made in other industries <br> $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3511 | Steam engines and turbines......... $1963 .$. | $\begin{aligned} & 616,416 \\ & 961,769 \end{aligned}$ | $\begin{aligned} & 485,475 \\ & 705,567 \end{aligned}$ | $\begin{array}{r} 87,703 \\ 198,039 \end{array}$ | $\begin{array}{r} 43,238 \\ 58,163 \end{array}$ | $\begin{aligned} & 85 \\ & 78 \end{aligned}$ | $\begin{aligned} & 589,101 \\ & 753,988 \end{aligned}$ | $\begin{aligned} & 485,475 \\ & 705,567 \end{aligned}$ | $\begin{array}{r} 103,626 \\ 48,421 \end{array}$ | 82 94 |
| 3519 | Internal combustion engines........ $1963 .$. | $\begin{aligned} & 1,473,574 \\ & 1,085,808 \end{aligned}$ | $\begin{array}{r} 1,210,332 \\ 937,775 \end{array}$ | $\begin{array}{r} 196,901 \\ 99,924 \end{array}$ | $\begin{aligned} & 66,341 \\ & 48,109 \end{aligned}$ | $\begin{aligned} & 86 \\ & 90 \end{aligned}$ | $\begin{aligned} & 1,423,926 \\ & 1.132 .041 \end{aligned}$ | $\begin{array}{r} 1,210,332 \\ 937,775 \end{array}$ | $\begin{aligned} & 213,594 \\ & 194,266 \end{aligned}$ | 85 82 |
| 3522 | Farm machinery and equipment....... $1963 .$. | $\begin{aligned} & 2,842,243 \\ & 2,421,873 \end{aligned}$ | $\begin{aligned} & 2,412,390 \\ & 2,046,306 \end{aligned}$ | $\begin{aligned} & 307,867 \\ & 220,467 \end{aligned}$ | $\begin{aligned} & 121,986 \\ & 155,100 \end{aligned}$ | $\begin{aligned} & 89 \\ & 90 \end{aligned}$ | $\begin{array}{r} 2,542,109 \\ 2,172,558 \end{array}$ | $\begin{array}{r} 2,412,390 \\ 2,046,306 \end{array}$ | $\begin{aligned} & 129,719 \\ & 1.26,252 \end{aligned}$ | 95 94 |

Note: See Introduction for an explanation of terms used.

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products). (b) products classified in other industries (secondary products), and (c) miscellaneous
eceipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


[^150]
# TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 -Continued 



See footnotes at end of table.

# TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued 

| Prod. class code | Class of products and miscellaneous receipts | All industries | Farm machinery and equipment (SIC 3522) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
|  | FARM MACHINERY AND EQUIPMENT INDUSTRY-Continued |  |  |  |
|  | Secondary products-Continued <br> Integral tractor-shovel loaders (wheel and tracklaying types) including parts...................... Scrapers, graders, rollers, and off-highway trucks, trailers, and wagons, excluding parts. Other construction machinery and equipment, including construction machinery parts, n.e.c..... Other industrial food products machinery, including parts and attachments for all types of industrial food products. |  |  |  |
| 35317 |  | (X) | 18,648 | (X) |
| 35318 |  | (X) | 26,130 | (X) |
| 35319 |  | (X) | 10,862 | (X) |
| 35513 |  | (X) | 3,358 | (X) |
| 37176 | Parts and accessories for passenger cars, trucks, and busses, shipped to other than motor vehicle manufacturers. | (X) |  | (X) |
| 37992 | Other transportation equipment. Other secondary products. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | $24,946$ | (X) |
|  |  | (X) | 165,202 | (X) |
| 25141 | Metal household dining and breakfast furniture. | (X) | (over 2)$(5-10)$ | (X) |
| 33911 | Drop upset and press, steel forgings (closed die)................................................... |  |  | (X) |
| 34611 | Vitreous enameled products................................................................................. | (X) | (over 2) | (X) |
| 34612 | Job stampings, except automotive | (X) | (5-10) | (X) |
| 34613 | Job stampings, automotive...... | (X) | (5-10) | (X) |
| 34990 | Fabricated metal products, n.e.c........................................................................ | (X) | $(2-5)$ | (X) |
| 35192 | Diesel and semidiesel engines. | (X) | (2-5) | (X) |
| 35197 | Parts and accessories for internal combustion engines. | (X) | (2-5) | (X) |
| 35312 | Tracklaying-type tractors, except parts and attachments.......................................... | (X) | (10-20) | (X) |
| 35370 | Industrial trucks and tractors. | (X) | (2-5) | (X) |
| 35441 | Special dies and tools, die sets, jigs and fixtures | (X) | $(2-5)$ | (X) |
| 35484 | Automotive maintenance equipment.. | (X) | (5-10) | (X) |
| 35511 | Dairy and milk products plant machinery and equipment, including dairy bottling machines.... | (X) | (2-5) | (X) |
| 35531 | Woodworking machinery (except machinery designed primarily for home workshops, garages, and service shops), including parts, attachnents and accessories.................................... | (X) | (2-5) | (X) |
| 35611 | Industrial pumps, except hydraulic fluid power......................................................... | (X) | (2-5) | (X) |
| 35690 | General industrial machinery, n.e.c.................................................................... | (X) | (2-5) | (X) |
| 36311 | Electric household ranges and ovens and surface cooking unit equipment and parts (except small appliances). | (X) |  | (X) |
| 37150 | Truck trailers.................................................................................. | (X) | $(2-5)$ | (X) |
| 37175 | Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers | (X) |  | (X) |
| 39430 | Baby carriages and children's vehicles, except bicycles | (X) | (10-20) | (X) |
|  | Miscellaneous receipts.................................................................................... | (X) | 121,986 | (X) |
|  | Contract and commission work | (X) | 11,703 | (X) |
|  | Sales of products bought and resold. | (X) | 89,619 | (X) |
|  | Scrap and salable refuse and miscellaneous repair work............................................... | (X) | $10,708$ | (X) |
|  | Other. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  | (X) |
|  | Listing of other industries with over $\$ 2 \mathrm{million}$ shipments of the primary product classes: | (X) | (X) |  |
| 35222 | 3321 Gray iron foundries..................................................................................... |  |  |  |
|  |  | (X) | (X) | $(10-20)$ 17,729 |
| $\begin{aligned} & 35225 \\ & 35227 \end{aligned}$ | 3949 Sporting and athletic goods | (X) | (X)(X)(X)(X) | (over 2)(over 2)(over 2)(over 2) |
|  | 3494 Valves and pipe fittings. | (X) |  |  |
|  | 3634 Electric housewares and fans | (X) |  |  |
|  | 3751 Motorcyles, bicycles, and parts.. | (X) |  |  |
| 35228 | 3531 Construction machinery. <br> 3561 Pumps and compressors. <br> 3717 Motor vehicles and parts 37. <br> 3732 Boat building and repairing. | $(\mathrm{x})$ | (X) <br> (X) <br> (X) <br> (X) | $\begin{array}{r} 2,861 \\ (2-5) \\ 7,227 \\ \text { (over 2) } \\ \hline \end{array}$ |
|  |  | (X) |  |  |
|  |  | (X) |  |  |
|  |  | $(X)$ |  |  |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.

TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All


See footnotes at end of table.

## table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Total shipments including interplant transfers |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |  |
|  |  | Quantity (number of engines) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity (number of engines) |  | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ |
| 3519- -- | intrrnal combustion engines-Continued | (X) | ${ }^{6} 183,767$ |  |  |  |
| 35195 -- | Outboard motors |  |  |  | (x) | 157,879 |
| 35196 -- | Other internal combustion engines, including dual-fuel engines, tank engines, and all other converted engines, including jet propulsion engines, except aircraft (converted from purchased engines or from engines received from another plant of the same company).................... |  |  | 767 |  | ${ }^{2} 31,025$ |
| 3519715 3519000 | Parts and accessories for internal combustion engines (except aircraft, and automotive engines and gas turbines). <br> Internal combustion engines, n.s.k. |  |  | $\begin{aligned} & 603 \\ & 933 \end{aligned}$ | ( X (x) | $\begin{array}{r} 379,358 \\ 1,342 \end{array}$ |
|  |  | 1963 |  |  | 1958 |  |
|  |  | Tota! production (numberof units) of units) | Total shipments including interplant transfers |  |  |  |
|  |  |  | Quantity (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ |
| 3522- -- | FARM MACHINERY, TOTAL. | (X) | (x) | 2,542,109 | (x) | 2,172,893 |
| 35222 -- | Wheel tractors and parts and attachments. <br> As reported in the census of manufactures ${ }^{4}$ <br> As reported on Census Form MA-35T4. | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | $\begin{aligned} & (X) \\ & (x) \\ & (X) \\ & \text { (X) } \end{aligned}$ | $\begin{aligned} & 808,396 \\ & 743,241 \\ & 770,676 \end{aligned}$ | $\begin{aligned} & \left(\begin{array}{l} (x) \\ (X) \\ (X) \end{array}\right) \end{aligned}$ | $\begin{aligned} & 687,271 \\ & 627,328 \\ & 657,721 \end{aligned}$ |
| 3522281 | Parts sold to other plants producing wheel tractors (except contractors' off-highway type, garden tractors and motor tillers). | (x) | (x) | 65,155 | (x) | 59,943 |
| 35223 -- | Planting, seeding, and fertilizing machinery and parts: <br> As reported in the census of manufactures <br> As reported on Census Annual Form MA-35A | $\begin{aligned} & (X) \\ & (x) \end{aligned}$ | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | $\begin{aligned} & 115,720 \\ & 111,912 \end{aligned}$ | $\begin{gathered} (\mathrm{x}) \\ (\mathrm{x}) \end{gathered}$ | $\begin{gathered} 95,984 \\ 101,197 \end{gathered}$ |
| 35224 -- | Plows, listers, harrows, rollers, pulverizers, stalk cutters and parts, total. . | (x) | (X) | 192,837 | (X) | 160,576 |
|  | Harrows, rollers, puiverizers, stalk cutters, and similar equipment: <br> As reported in the census of marufactures ${ }^{4}$ <br> As reported on Census Annual Form MA-35A | (X) | (X) | $\begin{aligned} & 115,959 \\ & 114,791 \end{aligned}$ | $\begin{gathered} (\mathrm{X}) \\ (\mathrm{X}) \end{gathered}$ | $\begin{aligned} & 83,029 \\ & 92,054 \end{aligned}$ |
|  | Plows and listers: <br> As reported in the census of manufactures ${ }^{4}$ <br> As reported on Census Annual Form MA-35A ${ }^{4}$. | (x) | ( ${ }_{\text {(x) }}$ | $\begin{aligned} & 76,878 \\ & 76,840 \end{aligned}$ | (x) | $\begin{aligned} & 77,547 \\ & 73,908 \end{aligned}$ |
| 35225 -- | Harvesting machinery: <br> As reported in the census of manufactures ${ }^{4}$. <br> As reported on Census Annual Form MA-35A ${ }^{4}$. | ( x (x) | $\begin{aligned} & (X) \\ & (X) \end{aligned}$ | $\begin{aligned} & 395,299 \\ & 386,007 \end{aligned}$ | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | $\begin{aligned} & 321,434 \\ & 311,916 \end{aligned}$ |
| 35226 -- | Haying machinery: <br> As reported in the census of manufactures ${ }^{4}$ <br> As reported on Census Annual Form MA-35A ${ }^{4}$. | (X) | (x) | $\begin{aligned} & 133,804 \\ & 131,769 \end{aligned}$ | (x) | $\begin{aligned} & 182,536 \\ & 175,860 \end{aligned}$ |
| 35228 -- | All other farm machinery and equipment (except lawn mowers and parts)..... | (x) | (X) | 555,934 | (x) | 450,571 |
|  | Products included in the census of manufactures and on Form MA-35A: <br> As reported in the census of manufactures ${ }^{4}$ <br> As reported on Census Annual Form MA-35A | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | 405,944 | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{x}) \end{aligned}$ | $\begin{aligned} & 335,416 \\ & 322,194 \end{aligned}$ |
|  | Windmill heads and towers: <br> As reported in the census of manufactures ${ }^{4}$ <br>  | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | (X) 10,106 | $\begin{aligned} & 2,172 \\ & 2,028 \end{aligned}$ | $\begin{array}{r} (\mathrm{X}) \\ 10,054 \end{array}$ | $\begin{aligned} & 2,563 \\ & 1,473 \end{aligned}$ |
| $\begin{aligned} & 35228 \\ & 35228 \\ & 63 \end{aligned}$ | Windmill heads. <br> Windmill towers. $\qquad$ | $\begin{aligned} & (\mathrm{x}) \\ & (\mathrm{x}) \end{aligned}$ | $\begin{aligned} & 7,562 \\ & 2,544 \end{aligned}$ | 1,597 | $\begin{aligned} & 6,983 \\ & 3,071 \end{aligned}$ | 987 485 |
| 3522887 | Hedge triumers and shears, power: <br> Quantity reported. <br> Quantity not reported. | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | $\begin{array}{r} 113,399 \\ (\mathrm{X}) \end{array}$ | $\begin{aligned} & 1,958 \\ & 718 \end{aligned}$ | $\begin{array}{r} 125,325 \\ (\mathrm{X}) \end{array}$ | 2,478 |
| 3522898 | Other farm machines, equipment and parts including parts sold to other plants producing farm equipment. | (X) | $\begin{gathered} (x) \\ (x) \end{gathered}$ | $\begin{array}{r} 132,164 \\ 12,977 \end{array}$ | (X) | $\begin{aligned} & 80,944 \\ & 28,835 \end{aligned}$ |
| 3522800 | All other farm machines and equipment, including parts and attachments, n.s.k. .................................................................................... |  |  |  |  |  |

See footnotes at end of table.

# TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 

| Product code | Product | 1963 |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total production <br> (number of units) | Total shipments including interplant transfers |  |  |  |
|  |  |  | Quantity (number of units) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ |
| 3522- -- | FARM MACHINERY-Continued |  |  |  |  |  |
| 35227 -- | awn mowers, and | (X) | (X) | 268,661 | (X) | 239,815 |
| 3522711 | Hand (reel-type) | 458,887 | 497,183 | 7,374 | 391,412 | 5,341 |
|  | Power: <br> Reel-type: |  |  |  |  |  |
| 3522723 | Nonriding. | 387,658 | 412,302 | 24,557 | 305,657 | 20,978 |
| 3522725 | Integral riding. | 7,258 | 6,640 | 3,156 | 18,569 | 4,138 |
| 3522741 | Rotary type: Hand traction. | 2,465,581 | 2,396,426 | 98,606 | 2,250,288 | 99,776 |
| 3522753 | Power traction: Nonriding. .. | 585,297 | 571,240 | 32,255 | 1,114,755 | 54,669 |
| 3522755 | Integral riding | 259,492 | 262,232 | 40,364 | 142,739 | 23,505 |
| 3522771 | Parts for lawn mowers. | (X) | (X) | 21,940 | (X) | 15,681 |
| 3522798 | Other (including gang-cutting units, sickle-bar mowers shipped as complete units, lawn edgers, special cutting units, snow blowers and snow throwers). | (X) | (X) | 35,765 | (X) | 9,800 |
| 3522700 | Lawn mowers and parts, n.s.k | (X) | (X) | 4,644 | (X) | 5,927 |
| 3522000 | Farm machinery and equipment, n.s. | ( X ) | (X) | 71,458 | (X) | 34,706 |
| Standard Notes: - Represents zero. <br> (D) Withheld to avoid disclosing figures for individual companies. <br> (NA) Not available. <br> (x) Not <br> applicable. n.s.k. Not specified by kind. <br> ${ }^{1}$ Of this total, 27 had a rated capacity of $24,999 \mathrm{hp}$. or under and 51 had a capacity of $25,000 \mathrm{hp}$. or over. <br> ${ }^{2}$ For 1958, the 456 units shipped had a rated horsepower capacity as follows: $20-199 \mathrm{hp} ., 96 ; 200-499 \mathrm{hp} ., 59$; $500-999 \mathrm{hp}$. , 218 ; and $1,000 \mathrm{hp}$. and over, 83. Comparable data for 1963 are not available. <br> ${ }^{3}$ Includes the value of gears. <br> ${ }^{4}$ For these products, figures were also collected in the Bureau of the Census commodity survey program. In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified groups of products for which separate figures had previously been collected in the conmodity survey. In most cases, the value figures reported in the census of manufactures for each group of products agreed closely with the corresponding figures reported in the commodity survey. However, there were minor differences between the census figures and the comodity survey figures. These variations were due primarily to the following reasons: <br> a. Better coverage in census of manufactures program. Coverage in the annual surveys will be supplemented by adding respondents not currently in the survey but making the specified product according to their census of manufactures report. <br> b. Use of different reporting periods (calendar year vs. fiscal year). <br> c. Use of estimates in reporting figures on the cormodity survey, whereas census of manufactures figures generally represent more exact shipment figures. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| See tables 6A-1 to 6A-7 for more detailed product data. <br> ${ }^{5}$ Dual-fuel engines shipped in 1958 were included with diesel and semidiesel (except automotive). <br> ${ }^{6}$ Includes dual-fuel engines. |  |  |  |  |  |  |

## TABLE 6A-2. Gasoline Engines, by Horsepower Rating and Piston Displacement: 1963 and 1958



See footnotes at end of table.

## table 6A-2. Gasoline Engines, by Horsepower Rating and Piston Displacement: 1963 and 1958-Continued



Note: Includes gas-gasoline engines; excludes outboard, automotive, and aircraft engines.
Source: Current Industrial Reports Series M35L, Internal Combustion Engines.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
${ }^{1}$ Represents total number of engines shipped and produced and incorporated into products of the same company.
${ }^{2}$ Represents engines produced and incorporated (in the same plant) into products such as construction machinery; farm machinery; tractors; enginegenerator sets; and other products.

TABLE 6A-3. Diesel Engines (Except Automotive), by Horsepower Rating and Piston Displacement: 1963 and 1958


See footnotes at end of table.

## TABLE 6A-3. Diesel Engines (Except Automotive), by Horsepower Rating and Piston Displacement: 1963 and 1958-Continued



Source: Current Industrial Reports Series M35L,Internal Combustion Engines.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies
(NA) Not available.
(X) Not
applicable.
${ }^{1}$ Represents total number of engines shipped and produced and incorporated into products of the same company.
${ }^{2}$ See footnote 2 , table 6A-1.
${ }^{3}$ Includes for 1963, 71 dual-fuel engines of which 28 valued at $\$ 3.1$ million were shipped. . In 1958 a total of 61 dual-fuel engines valued at $\$ 10.0$ million were shipped.

## TABLE 6A-4. Gas Engines (Except Automotive), by Horsepower Rating and Piston Displacement: 1963 and 1958



Source: Current Industrial Reports Series M35L, Internal Combustion Engines.
${ }_{2}^{1}$ Represents total number of engines shipped and produced and incorporated into products of the same company.
${ }^{2}$ Shipments to other companies and interplant transfers are combined to avoid disclosing figures for individual companies.
${ }^{3}$ See footnote 2, table 6A-1.

## table 6A-5. Internal Combustion Engines (Except Outboard, Automotive, and Aircraft), by Engine Operating Data and by Type of Engine: 1963 and 1958

| Engine operating data | Number of engines by type ${ }^{1}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1963 |  |  | 1958 |  |  |
|  | Gasoline | Diesel | Gas | Gasoline | Diesel | Gas |
| TOTAI..............Revolutions per minute:750 and under........$751-1,500 . . . . . . .$. | 6,861,538 | 179,344 | 14,492 | 5,755,879 | 131,736 | 14,929 |
|  |  |  |  |  |  |  |
|  | \} 26,106 | $\left\{\begin{array}{r}\text { 214 } \\ 11,622\end{array}\right.$ | 2,471 | \} 233,960 | $\left\{\begin{array}{r}\text { 517 } \\ 36,075\end{array}\right.$ | 2,159 8,208 |
|  |  |  | $\left\{\begin{array}{l}6,419\end{array}\right.$ |  |  | \{ 4,562 |
|  | 5,921,818 | -167,508 | $\{$ - | 4,894,460 | \} 35,144 | \{ - |
|  | 470,394 |  | - | 343,673 | , |  |
| Method of cooling: <br> Air................ |  |  | - |  |  | $\{$ |
| Liquid........... | 266,198 | \} 4179,344 | \{ 14,492 | 340,260 | ) 4131,736 | \{ 14,929 |
| Number of cycles: |  |  |  |  |  |  |
| $\begin{aligned} & 2 \ldots . . \\ & 4 \ldots \end{aligned}$ | $\begin{array}{r} 835,655 \\ 6,025,983 \end{array}$ | ) ${ }^{5} 179,344$ | ${ }^{6} 14,492$ | $\left\{\begin{array}{r}954,972 \\ 4,800,907\end{array}\right.$ | ) ${ }^{5} 131,736$ | $\left\{\begin{array}{r}1,212 \\ 13,717\end{array}\right.$ |

[^151]Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(Na) Not available.
(x) Not
applicable.
${ }^{1}$ Represents total number of engines shipped and produced and incorporated into products of the same company, including interplant transfers.
${ }^{2}$ Over 95 percent of these engines operated at between 751-1,500 r.p.m.
${ }^{3}$ Over 95 percent of these engines operated at between 1,501 and 2,999 r.p.m.
${ }^{4}$ Over 95 percent of these engines were liquid cooled.
${ }^{5}$ Over 80 percent of these engines were 4 -cycle engines.
${ }^{6}$ Over 90 percent of these engines were 4-cycle engines.

## table 6A-6. Internal Combustion Engines (Except Outboard, <br> Automotive, and Aircraft), by Number of Cylinders and by Type of Engine: 1963 and 1958



[^152]
## TABLE 6A-7. Internal Combustion Engines (Except Outboard, Automotive, and Aircraft), by Type of Engine and Service Designed for: 1963



Source: Current Industrial Reports Series M35L, Internal Combustion Engines.
${ }^{1}$ Represents total number of engines shipped or produced and incorporated into products at the same establishment.
${ }^{2}$ These values are limited to engines shipped to other companies and therefore differ from values shown in table 1 which also include the values for engines shipped as interplant transfers.
${ }^{3}$ Includes number of engines transferred to other plants of the same company and the number of engines produced and incorporated (in the same plant) into products such as construction machinery, farm machinery, tractors, engine generator sets, and other products.

It is likely that these figures are understated since shipments of gasoline-driven generator sets totaled 53,296 in 1963 and 51,383 in 1962. (See Current Industrial Reports Series M36H, Motors and Cenerators.) Some gasoline engines for eventual use in generator sets have apparently been reported as utilities, marine, government, or research.
${ }_{6}$ Over 95 percent of these engines produced were reported for use on farm machinery (agricultural tractors, combines, etc.).
${ }^{6}$ Over 90 percent of these engines were reported for general industrial use.
${ }^{7}$ Data for a few engines shipped as interplant transfers have been included with shipments to other companies to avoid disclosing figures for individual companies.

## TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958



TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued


[^153]TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued


[^154]TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued

| 1958 Census product code | Type of farm equipment | 1958 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number of companies | Number produced | Manufacturers' shipments |  |  |  |  |  |
|  |  |  |  | Total |  | Domestic |  | For export |  |
|  |  |  |  | Number | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Number | Value $(\$ 1,000)$ | Number | Value $(\$ 1,000)$ |
| (35224 10) | HARROWS, ROLLERS, PULVERIZERS, AND STALK CUTTERS, TOTAL ${ }^{3}$. | (X) | (X) | (x) | 92,054 | (X) | 85,074 | (x) | 6,980 |
|  | Harrows: <br> Spike-tooth harrow sections.............................. <br> Spring-tooth harrow sections $\qquad$ | 34 22 | $\begin{array}{r} 136,521 \\ 74,211 \end{array}$ | 140,410 75,111 | $\begin{aligned} & 3,616 \\ & 2,828 \end{aligned}$ | $\begin{array}{r} 137,647 \\ 72,882 \end{array}$ | $\begin{aligned} & 3,548 \\ & 2,753 \end{aligned}$ | $\begin{aligned} & 2,763 \\ & 2,229 \end{aligned}$ | 68 75 |
|  | Dise harrows: <br> Single (2 gang): <br> Drawn. $\qquad$ <br> Mounted $\qquad$ | 17 13 | $\begin{aligned} & 2,476 \\ & 3,559 \end{aligned}$ | $\begin{aligned} & 3,148 \\ & 3,733 \end{aligned}$ | $\begin{aligned} & 680 \\ & 618 \end{aligned}$ | 2,731 3,539 | $\begin{aligned} & 501 \\ & 579 \end{aligned}$ | 417 194 | 179 39 |
|  | Tandem (4 gang): <br> Drawn: <br> Wheel type. $\qquad$ <br> Other. $\qquad$ | 24 19 | 57,018 10,669 | 56,897 10,718 | 24,542 2,832 | 55,132 9,400 | 23,533 2,404 | 1,765 1,318 | 1,009 428 |
|  | Mounted. | 21 | 21,938 | 21,465 | 4,004 | 20,650 | 3,816 | 815 | 188 |
|  | Offset: <br> Drawn: <br> Wheel type. $\qquad$ <br> Other type. $\qquad$ | 16 16 | $\begin{aligned} & 5,823 \\ & 6,920 \end{aligned}$ | $\begin{aligned} & 5,789 \\ & 7,001 \end{aligned}$ | 3,169 4,973 | 5,204 4,501 | 2,847 3,266 | $\begin{array}{r} 585 \\ 2,500 \end{array}$ | $\begin{array}{r} 322 \\ 1,707 \end{array}$ |
|  | Mounted... | 17 | 3,186 | 3,485 | 851 | 2,130 | 472 | 1,355 | 379 |
|  | Brush and bog. | 9 | 1,055 | 1,212 | 229 | 1,184 | 224 | 28 | 5 |
|  | Other harrows...................................... | 13 | 3,473 | 3,550 | 591 | 3,550 | 591 | (D) | (D) |
|  | Soil pulverizers, packers, and land rollers........ <br> Stalk cutters (ground driven)............................ <br> Stalk shredders, and stalk cutters, or rotary <br> mowers (power take-off driven) | 35 12 39 | 13,123 874 53,957 | 12,516 951 52,259 | 2,637 285 16,145 | 12,351 951 50,649 | 2,557 285 15,568 | 165 $(D)$ 1,610 | 80 (D) 577 |
|  | Blade terracers or scrapers (farm size): <br> Wheel type <br> Other | 16 19 | 3,698 33,775 | 3,703 33,684 | 2,155 2,892 | 3,576 32,656 | 1,990 2,778 | $\begin{array}{r} 127 \\ 1,028 \end{array}$ | 165 |
|  | Land levelers.......................................... . | 22 |  |  | 2,502 | 4,839 | 2,188 | 617 |  |
|  | Other rollers, pulverizers, and similar equipment.. | 22 | 4,372 | 4,479 | 2,949 | 4,233 | 782 | 246 | 167 |
|  | Attachments......... | 41 | (X) | (X) | 4,737 | (X) | 4,471 | (x) | 266 |
|  |  | 77 | (X) | (X) | 10,819 | (X) | 9,921 | (X) | 898 |
| (35224 20) | PLOWS AND LISTERS, TOTAL ${ }^{3}$. . | (X) | ( X ) | (X) | 73,908 | (X) | 68,607 | (X) | 5,301 |
|  | Moldboard plows: <br> Horse drawn. | 9 | 16,633 | 17,008 | 235 | 1,505 | 27 | 15,503 | 208 |
|  | Tractor drawn, l-way: |  |  |  |  |  |  |  |  |
|  | 1-botton. <br> 2-bottom. | 6 8 | 2,047 5,557 | 2,163 4,894 | 55 1,044 | 2,163 4,746 | 55 1,002 | 148 | 42 |
|  | 3-bottom. ....... | 6 | 20,559 | 20,396 | 6,301 | 19,605 | 6,077 | 791 | 224 |
|  | 4-bottom. | 4 | 14,556 | 14,521 | 6,262 | 14,142 | $6,093$ | 379 | 169 |
|  | 5-botton and larger...................................... . | 4 | 3,567 | 3,449 | 2,136 | 3,309 | 2,058 | 140 | 78 |
|  | Tractor drawn, 2-way: <br> 2-bottom, 1 furrow. <br> 4-bottom, 2 furrow. | 6 | 1,412 | 1,290 | 539 | 1,290 | 539 | (D) | (D) |
|  | ```Mounted, 1-way: i-bottom. 2-bottom.``` | 6 6 | $\begin{array}{r} 2,957 \\ 19,896 \end{array}$ | $\begin{array}{r} 3,047 \\ 22,051 \end{array}$ | $\begin{array}{r} 182 \\ 2,840 \end{array}$ | $\begin{array}{r} 3,047 \\ 20,987 \end{array}$ | $\begin{array}{r} 182 \\ 2,686 \end{array}$ | $\begin{array}{r} \text { (D) } \\ 1,064 \end{array}$ | $\begin{aligned} & \text { (D) } \\ & 154 \end{aligned}$ |
|  | 3-bottom......... | 6 | 26,048 | 31,338 | 6,861 | 30,708 | 6,755 | 630 | 106 |

See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued


TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued


See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued

| 1963 Census product code | Type of farm equipment | 1963 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number of companies | Number produced | Manufacturers' shipments |  |  |  |  |  |
|  |  |  |  | Total |  | Domestic |  | For export |  |
|  |  |  |  | Number | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Number | Value $(\$ 1,000)$ | Number | Value $(\$ 1,000)$ |
| (35225 00) | HARVESTING MACHINERY-Continued |  |  |  |  |  |  |  |  |
|  | Corn pickers-Cantinued |  |  |  |  |  |  |  |  |
| $\begin{array}{ll} 35225 & 45 \\ 35225 & 47 \end{array}$ | Drawn. ${ }_{\text {Mounted }}$ | 8 | 16,637 | 16,652 | 28,499 | 16,161 | 27,712 | 491 | 787 |
| $\begin{aligned} & 3522548 \\ & 3522546 \end{aligned}$ | Picker-shellers (drawn, mounted, or self-propelled). | (x) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
|  | Field shelling attachments for corm pickers, including conversion packages............................ | 4 | 2,103 | 2,069 | 1,207 | 2,069 | 1,207 | (D) | (D) |
| 3522551 | Potato diggers............................................... . | (X) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| 3522553 | Potato harvesters......... . . . . . . . . . . . . . . . . . . . . . . . . . | 16 | 674 | 539 | 2,918 | 539 | 2,918 | (D) | (D) |
|  | Beet harvesters: |  |  |  |  |  |  |  |  |
| 3522552 | 1-row. .......................... . . . . . . . . . . . . . . . . . | 5 | 508 | 523 | 1,019 | 423 | 833 | 100 | 186 |
| 3522554 | 2-row. | 8 | 946 | 982 | 3,177 | 947 | 3,064 | 35 | 113 |
| 3522556 | 3-row. | 7 | 324 | 328 | 1,197 | 328 | 1,197 | (D) | (D) |
| $\begin{aligned} & 3522557 \\ & 3522559 \end{aligned}$ | Peanut diggers, shakers, and windrowers............. | 6 | 2,129 | 2,170 | 956 | 2,170 | 956 | (D) | (D) |
|  | Peanut combines. | 5 | 2,043 | 1,970 | 5,908 | 1,919 | 5,826 | 51 | 82 |
|  | Field forage harvesters: <br> Self-propelled type............................................. | 3 | 601 | 558 | 2,607 | 558 | 2,607 | (D) | (D) |
| 3522560 | Shear bar type (rigid knives and shear bar combination): <br> Basic machines: |  |  |  |  |  |  |  |  |
|  | Engine drive..................................... | 5 | 179 | 187 | 493 | 187 | 493 | (D) | (D) |
| 35225623522564 | Power take-off.................................... | 11 | 13,353 | 13,970 | 15,539 | 12,831 | 14,307 | 1,139 | 1,232 |
|  | Attachments for shear bar type forage harvesters: |  |  |  |  |  |  |  |  |
| 3522566 | Pick-up hay unit. | 11 | 6,085 | 6,802 | 2,309 | 6,322 | 2,173 | 480 | 136 |
| 3522567 | Cutter bar hay unit.............................. | 8 | 2,073 | 2,063 | 890 | 1,526 | 659 | 537 | 231 |
|  | Row crop units: |  |  |  |  |  |  |  |  |
| 3522569 | l-row.. | 10 | 11,876 | 10,984 | 4,099 | 10,257 | 3,820 | 727 | 279 |
|  | 2-row. | 8 | 3,572 | 3,731 | 2,300 | 3,620 | 2,236 | 111 | 64 |
| 3522570 | Flail type (horizortal knives or vertical freeswinging knives or hammers), including discharge spouts.. | 12 | 6,488 | 6,474 | 5,598 | 5,732 | 4,961 | 742 | 637 |
|  | Cotton pickers: |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 3522571 \\ & 3522573 \end{aligned}$ |  | 4 | 5,012 | 4,752 | 40,009 | 4,693 | 39,439 | 59 | 570 |
| 35225753522581 | Cotton strippers........................................ | 16 | 4,380 | 3,737 | 4,535 | 3,737 | 4,535 | (D) | (D) |
|  | Other harvesting machinery............................. | 36 | (X) | ( X ) | 10,577 | (x) | 9,672 | (X) | 905 |
| 3522583 | Attachments.............................................. . | 43 | (x) | (X) | 29,013 | (X) | 25,773 | (X) | 3,240 |
| 3522585 | Parts...................................................... | 53 | (X) | (X) | 50,648 | (X) | 47,587 | (X) | 3,061 |
| (35226 00) | HAYING MACHINERY, TOTAL. . . . . . . . . . . . . . . . . . . . . . | 62 | (X) | (X) | 131,769 | (X) | 114,558 | (X) | 17,211 |
|  | Mowers, cutter-bar type: |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 3522611 \\ & 3522612 \end{aligned}$ | Drawn.................................................. | 8 | 14,716 | 13,920 | 4,515 | 10,003 | 3,294 | 3,917 | 1,221 |
|  | Semimounted. | 6 | 11,475 | 11,542 | 3,425 | 11,161 | 3,338 | 381 | 87 |
| $\begin{array}{ll} 35226 & 14 \\ 35226 & 16 \end{array}$ | Mounted: |  |  |  |  |  |  |  |  |
|  | Rear. | 8 | 29,865 | 29,653 | 7,066 | 26,817 | 6,326 | 2,836 | 740 63 |
|  | Side | 8 | 6,332 | 7,374 | 2,053 | 7,142 | 1,990 | 232 | 63 |
| 3522626 | Rakes: <br> Side delivery (including combination side rakes and tedders), cylinder type: Ground driven. | 8 | 26,064 | 26,129 | 10,095 | 21,826 | 8,381 | 4,303 | 1,714 |
| $\begin{aligned} & 3522628 \\ & 3522629 \end{aligned}$ | Power take-off: |  |  |  |  |  |  |  |  |
|  | Mounted Semimounted | 6 | 4,063 | 4,276 | 1,217 | 3,796 | 1,071 | 480 | 146 |
| 3522630 | Side delivery (finger wheel type).................. | 3 | 7,537 | 7,537 | 1,940 | 7,537 | 1,940 | (D) | (D) |
| 3522641 | Hay stacking attachment for loaders. | 6 | 4,964 | 4,685 | 1,366 | 4,685 | 1,366 | (D) | (D) |

See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued

| 1958 <br> Census product code | Type of farm equipment | 1958 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number of companies | Number produced | Manufacturers' shipments |  |  |  |  |  |
|  |  |  |  | Total |  | Domestic |  | For export |  |
|  |  |  |  | Number | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \\ & \hline \end{aligned}$ | Number | Value <br> $(\$ 1,000)$ | Number ${ }^{*}$ | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ |
| (35225 00) | HARVESTING MACHINERY-Continued | 510 | 5,240 | 4,926 | 6,262 | 4,926 | 6,262 | (D) | (D) |
| 3522543 |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 3522545 \\ & 3522547 \end{aligned}$ | $\begin{aligned} & \text { Mounted or semimounted: } \\ & \text { 1-row. . . . . . . . . . . . . } \\ & \text { 2-row. . . . . . . . . . } \end{aligned}$ |  | 24,600 | 25,443 | 32,653 | 25,335 | 32,486 | 108 | 167 |
| 3522548 3522549 | Picker-shellers (drawn, mounted, or selfpropelled). <br> Self-propelled | 4 | 4,767 | 4,621 | 2,017 | 4,621 | 2,017 | (D) | (D) |
| 3522551 352255 | Potato diggers............................................. | 13119 | $\begin{array}{r} 1,176 \\ 568 \end{array}$ | 1,237581 | $\begin{array}{r} 762 \\ 2,304 \end{array}$ | 1,025581 | , 661 | 212 | 101 |
| 3522553 | Potato harvesters......................................... . |  |  |  |  |  | 2,304 | - | - |
| 3522555 | Beet harvesters. |  | 2,277 | 2,277 | 3,563 | 2,066 | 3,199 | 211 | 364 |
| 3522557 | Peanut diggers, shakers, and windrowers............. | 10 | $\begin{aligned} & 1,493 \\ & 1,933 \end{aligned}$ | $\begin{aligned} & 1,431 \\ & 1,769 \end{aligned}$ | $\begin{array}{r} 469 \\ 4,316 \end{array}$ | $\begin{aligned} & 1,431 \\ & 1,769 \end{aligned}$ | $\begin{array}{r} 469 \\ 4,316 \end{array}$ | $\begin{aligned} & \text { (D) } \\ & \text { (D) } \end{aligned}$ | (D) |
| 3522559 | Peanut combines....................................... |  |  |  |  |  |  |  |  |
|  | Field forage harvesters: <br> Shear bar type (rigid knives or vertical combination): <br> Basic machines: | 10 | $\begin{aligned} & 1,830 \\ & 9,327 \end{aligned}$ | $\begin{array}{r} 1,698 \\ 11,539 \end{array}$ | $\begin{array}{r} 2,034 \\ 10,943 \end{array}$ | $\begin{array}{r} 1,632 \\ 11,079 \end{array}$ | $\begin{array}{r} 1,955 \\ 10,549 \end{array}$ | $\begin{array}{r} 66 \\ 460 \end{array}$ | 79394 |
| $\begin{aligned} & 3522562 \\ & 3522564 \end{aligned}$ | Engine drive....................................... |  |  |  |  |  |  |  |  |
|  | Attachments for shear bar type forage harvesters: |  |  |  |  |  |  |  |  |
| 3522566 | Pick-up hay unit............................. | 11 | 3,762 | 3,636 | 812 | 3,446 | 775 | 190 | 37 |
| 3522568 | Cutter bar hay unit........................... | 14 | 4,670 | 5,569 | 2,026 | 5,331 | 1,943 | 238 | 83 |
| 3522569 | Row crop unit................................... | 11 | 9,864 | 9,478 | 3,207 | 9,244 | 3,136 | 234 | 71 |
| 3522570 | Flail type (horizontal knives or vertical freeswinging knives or hammers) including discharge spouts. | 5 | 11,503 | 10,570 | 7,163 | 10,570 | 7,163 | (D) | (D) |
| 3522575 | Cotton strippers....................................... | 4 | 2,149 | $\begin{aligned} & 2,339 \\ & 1,139 \end{aligned}$ | 2,1158,781 | 2,339 | 2,1158,653 | 43 | - |
| 3522571 | Cotton pickers....................................... | 439 | 1,107 |  |  | 1,096 |  |  | 128 |
| 3522581 | Other harvesting machinery........................... |  | 3,819 | 4,323 | 6,790 | 4,099 | 6,181 | 224 | 609 |
| 3522583 | Attachments........................................... . | 56 | ) $(x)$ | (X) | 24,217 | (x) | 22,057 | (X) |  |
| 3522546 | Field shelling attachments for corn pickers, including conversion packages.. | 2 $2 \times$ | $(x)$$(x)$ |  |  |  |  |  | 2,160 |
| 3522585 | Parts................................................ |  |  | (X) | 43,343 | (X) | 40,723 | (X) | 2,620 |
| $(3522600)$ | HAYING MACHINERY, TOTAL. . . . . . . . . . . . . . . . . . . . . | (x) | (X) | (X) | 175,860 | (X) | 165,740 | (x) | 10,120 |
|  | Mowers, cutter-bar type: | 5712 |  |  |  |  |  |  | $\begin{aligned} & \text { (D) } \\ & 431 \\ & 473 \end{aligned}$ |
| 3522611 3522612 | Drawn........ |  | $\begin{aligned} & 12,543 \\ & 34,245 \\ & 40,046 \end{aligned}$ | $\begin{aligned} & 13,133 \\ & 34,789 \\ & 41,500 \end{aligned}$ | $\begin{aligned} & 3,457 \\ & 8,623 \\ & 6,95 \end{aligned}$ | $\begin{aligned} & 13,133 \\ & 33,027 \\ & 38,625 \end{aligned}$ | $\begin{aligned} & 3,457 \\ & 8,192 \\ & 6,481 \end{aligned}$ | $\begin{array}{r} \text { (D) } \\ 1,762 \\ 2,875 \end{array}$ |  |
| 3522614 | Mounted..... |  |  |  |  |  |  |  |  |
| $\begin{array}{ll} 35226 & 21 \\ 35226 & 24 \end{array}$ | ```Rakes: Sulky (dump) Side delivery (revolving wheel-type)``` | 8 | 4,405 | 2,569 | 367 | 2,569 | 367 | (D) | (D) |
|  | Side delivery (including combination side rakes and tedders) cylinder-type: | $\int^{14}$ | $\begin{aligned} & 39,855 \\ & 17,141 \end{aligned}$ | 39,487 | 12,471 | 32,835 | 10,808 | 6,652 | 1,663 |
| $\begin{aligned} & 35226 \\ & 35226 \\ & 27 \end{aligned}$ | Drawn............................................. |  |  | 16,486 | 4,951 | 16,486 | 4,951 | (D) | (D) |
| 3522641 | Hay stackers.. | 11 | 2,724 | 3,030 | 1,938 | 3,030 | 1,938 | (D) | (D) |

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued


See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued


See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued


TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued


[^155]
# TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued 



TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued

| 1958 <br> Census product code | Type of farm equipment | 1958 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number of companies | Number produced | Manufacturers' shipments |  |  |  |  |  |
|  |  |  |  | Total |  | Domestic |  | For export |  |
|  |  |  |  | Number | Value <br> $(\$ 1,000)$ | Number | Value $(\$ 1,000)$ | Number | Value $(\$ 1,000)$ |
| $\begin{aligned} & (35228 \\ & (35228 \\ & (31) \end{aligned}$ | $\}$ FARM ELEVATORS AND BLOWERS-Continued |  |  |  |  |  |  |  |  |
|  | Farm elevators, stationary: <br> Bucket size $12^{\prime \prime}$ and smaller............................... | 7 | 547 | 547 | 225 | 547 | 225 | (D) | (D) |
|  | Bucket size $13^{\prime \prime}$ and wider | 5 | 725 | 720 | 647 | 720 | 647 | - |  |
|  | Grain blowers (farm size)........................... | 7 | 454 | 651 | 134 | 651 | 134 | (D) | (D) |
|  | Forage blowers, including combination grain and forage blowers. $\qquad$ | 14 | 8,206 | 7,976 | 3,684 | 7,649 | 3,553 | 327 | 131 |
|  |  | 22 | 1,424 | 1,575 | 584 | 1,565 | 575 | 10 | 9 |
|  | Attachments for farm elevators........................ | 20 | (X) | (x) | 1,897 | (X) | 1,855 | (x) | 42 |
|  | Attachments for farm blowers.......................... | 6 | (X) | (X) | 421 | (X) | -385 | (X) | 36 |
|  | Parts for farm elevators............................ | 31 | (X) | (X) | 2,506 | (X) | 2,461 | (X) | 45 |
|  | Parts for grain and forage blowers.................. | 11 | (X) | (X) | 520 | (X) | 507 | (X) | 13 |
| $(35228$ 81) | GARDEN TRACTORS, MOTOR TILLERS, ATTACHNENTS, AND PARTS, TOTA ${ }^{3}$ | (X) | (X) | (x) | 39,266 | (X) | 37,633 | (X) | 1,633 |
|  | Garden tractors (including motor tillers), total... | (X) | 224,266 | 227,073 | 26,492 | 215,386 | 25,314 | 11,687 | 1,178 |
|  | Garden tractors (except motor tillers), total... | (X) | 50,918 | 52,583 | 10,830 | 50,915 | 10,522 | 1,668 | 308 |
|  | Riding-type, total................................ | (X) | 13,661 | 12,643 | 3,724 | 12,643 | 3,724 | (D) | (D) |
|  | Under 6 engine hp .. | 13 | 6,395 | 6,426 | 1,504 | 6,426 | 1,504 | (D) | (D) |
|  | 6 and under 8 engine hp............................. <br> 8 engine hp. and over. $\qquad$ | 6 9 | 5,377 1,889 | 4,304 | 1,588 | 4,304 | 1,588 632 | (D) | (D) |
|  | Walking-type, total............................. | (X) | 37,257 | 39,940 | 7,106 | 38,272 | 6,798 | 1,668 | 308 |
|  | 2 engine hp. and under | 5 | 2,807 | 2,664 | 249 | 2,664 | 249 | (D) | (D) |
|  | Over 2 engine hp. but not over 6 engine hp... Over 6 engine hp........................................ | 14 | $\begin{array}{r} 27,632 \\ 6,818 \end{array}$ | 30,768 6,508 | $\begin{aligned} & 5,484 \\ & 1,373 \end{aligned}$ | 29,100 6,508 | 5,176 1,373 | $\begin{array}{r} 1,668 \\ \text { (D) } \end{array}$ | 308 |
|  | Motor tillers, total. | (X) | 173,348 | 174,490 | 15,662 | 164,471 | 14,792 | 10,019 | 870 |
|  | 2 engine hp. and under $\qquad$ Over 2 engine hp........................................... | $\begin{array}{r}8 \\ 23 \\ \hline\end{array}$ | $\begin{gathered} 21,904 \\ 151,444 \end{gathered}$ | $\begin{array}{r} 22,444 \\ 152,046 \end{array}$ | $\begin{array}{r} 1,964 \\ 13,698 \end{array}$ | $\begin{array}{r} 22,444 \\ 142,027 \end{array}$ | $\begin{array}{r} 1,964 \\ 12,828 \end{array}$ | $\begin{array}{r} \text { (D) } \\ 10,019 \end{array}$ | (D) |
| (35228 85) | Attachments and parts, total. | (X) | (X) | (x) | 12,774 | (X) | 12,319 | (X) | 455 |
|  | Attachments for garden type, total............... | (X) | (X) | (X) | 9,162 | (X) | 8,809 | (X) | 353 |
|  | Except riding attachments for walking type..... Riding attachments for walking type............. | 31 11 | (X) | (X) | 8,978 184 | (X) | 8,625 184 | (X) | 353 (D) |
|  | Parts for garden type (replacement and repair). | 21 | (X) | (X) | 3,612 | (X) | 3,510 | (X) | 102 |
| (35228 15) | CULTIVATORS AND WEEDERS, TOTAL ${ }^{3}$. $\ldots . . . . . . . . .$. | (x) | (X) | (X) | 48,552 | (X) | 46,624 | (X) | 1,928 |
|  | Corn and cotton type cultivators: |  |  |  |  |  |  |  |  |
| 3522935229 | Horse-drawn. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 8 | 5,441 | 6,000 | 74 | 3,176 | 30 | 2,824 | 44 |
|  | Tractor-drawn | 6 | 1,951 | 1,626 | 289 | 1,626 | 289 | (D) | (D) |
| 3522903 | Mounted: |  |  |  |  |  |  |  |  |
|  | l-row. | 12 | 7,966 | 8,081 | 572 | 8,081 | 572 | (D) | (D) |
| 3522904 | 2-row............................... . . . . . . . . . . . . | 17 | 21,417 | 26,224 | 3,689 | 25,323 | 3,537 | 901 | 152 |
| $\begin{aligned} & 3522994 \\ & 3522995 \end{aligned}$ | 4-row. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 13 | 35,373 | 32,938 | 12,420 | 32,370 | 12,223 | 568 | 197 |
| 3522906 | Beet, bean, and vegetable cultivators, drawn or mounted. | 11 | 2,584 | 2,593 | 296 | 2,593 | 296 | (D) | (D) |
| 3522907 <br> 3522908 | Rotary hoe cultivator sections, drawn or mounted... | 32 | 83,284 | 76,268 | 5,735 | 75,758 | 5,699 | 510 | 36 |
|  | Stubble mulchers or tillers, chisel or sweep type.. | 6 | 1,150 | 1,132 | 329 | 1,132 | -329 | (D) | (D) |
| 3522909 | Field cultivators and field tillers, drawn or mounted. $\qquad$ | 14 | 8,349 | 8,649 | 2,052 | 7,914 | 1,909 | 735 | 143 |
|  | Tool bar carriers: |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 3522910 \\ & 3522989 \end{aligned}$ | Drawn.. | 7 | 6,509 | 6,373 | 2,273 | 6,373 | 2,273 | (D) | (D) |
|  | Mounted | 11 | 13,191 | 11,597 | 871 | 10,415 | 768 | 1,182 | 103 |
| $\begin{aligned} & 3522912 \\ & 3522913 \end{aligned}$ | Weeders, drawn or mounted: | \} 6 |  |  |  |  |  |  |  |
|  | Rod. <br> Toothed |  | 5,184 | 3,731 | 694 | 3,731 | 694 | (D) | (D) |
| 3522914 | Other cultivators and weeders....................... | 30 | (X) | (X) | 2,714 | (X) | 2,623 | (X) | 91 |
| 3522915 | Attachments. | 34 | (X) | (X) | 8,117 | (X) | 7,544 | (X) | 573 |
| 3522916 | Parts.... | 39 | (x) 1 | (X) | 8,427 | (X) | 7,838 | (X) | 589 |

## TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued



See footnotes at end of table.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued


[^156]
## TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued

| 1963 <br> Census product code | Type of farm equipment | 1963 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number of companies | Number produced | Manufacturers' shipments |  |  |  |  |  |
|  |  |  |  | Total |  | Domestic |  | For export |  |
|  |  |  |  | Number | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Number | Value $(\$ 1,000)$ | Number | Value $(\$ 1,000)$ |
| $(35228$ 31) | FARM POULTRY EQUIPMENT-Continued | $\begin{gathered} (X) \\ (X) \\ (X) \end{gathered}$ | (D) <br> (D) <br> (D) | $\begin{aligned} & \text { (D) } \\ & \text { (D) } \\ & \text { (D) } \end{aligned}$ | (D) | $\begin{aligned} & \text { (D) } \\ & \text { (D) } \\ & \text { (D) } \end{aligned}$ | $\begin{aligned} & \text { (D) } \\ & \text { (D) } \\ & \text { (D) } \end{aligned}$ | - | - |
| 3522963 | Poultry house cleaners. |  |  |  |  |  |  |  |  |
| 3522964 | Room egg coolers ( 2 hp . and under)................. |  |  |  |  |  |  |  |  |
| 3522965 | Egg cooler cabincts................................... |  |  |  |  |  |  |  |  |
| 3522966 | Egg washers (farm type - 12 cases and under per hour) |  | $\begin{array}{r} 1,559 \\ (\mathrm{X}) \end{array}$ | 1,584 | 541 | 1,584 | 541 |  | (D) |
| 3522967 | Other farm poultry equipment. . . . . . . . . . . . . . . . . . . . . | $\begin{aligned} & 39 \\ & 12 \end{aligned}$ |  |  | 8,347 | (X) | 8,059 |  |  |
| 3522968 | Attachments........... |  | (X) | (X) | 840 |  | 840 | (X) | (D) |
| 3522969 | Parts.. | 2362 | (X) | (x) | 1,857 | (X) | 1,505 | (X) | 352 |
| (35228 41) | BARN EQUIPMENT, TOTAL. |  | (X) | (X) | 17,986 | (X) | 17,399 | (X) | 587 |
| 3522971 | Feed and litter carriers (overhead). | 12 | 1,977 | 1,816 | 99 | 1,816 | 99 | (D) | (D) |
| 3522972 | Feed trucks...... | 15 | 2,290 | 2,320 | 154 | 2,320 | 154 | - |  |
| 3522973 | Dairy cattle stalls for use with stanchions. | 2119 | 48,052 | 48,640 | 799 | 48,640 | 799 | (D) (D) |  |
| 3522974 | Chair tie stalls (all types). |  | 50,670 | 50,506 | 795 | 50,506 | 795 |  |  |  |
| 3522975 | Milking parlor stalls.. | 9 | 7,167 | 7,270 | 735 | 7,270 | 735 | (D) | (D) |
| 3522976 | Panel type milking or feeding stalls |  | 22,492 | 22,529 | 281 | 22,529 | 281 |  | (D) |
| 2522977 | Stanchions, swing type.............................. | 18 | 103,565 | 100,555 | 681 | 98,671 | 670 | 1,884 | 11 |
| 3522978 | Livestock pens (dairy and hog) (quantity in number of feet). | 21 | 60,196 | 59,804 | 780 | 59,804 | 780 | (D) | (D) |
| 3522979 | Livestock water bowls, inside......................... | 19 | 258,127 | 257,213 | 1,295 | 257,213 | 1,295 | (D) |  |
| 3522981 | Barn cleaners..... | 20 | 8,737$(X)$ | 9,003 | 8,234 | 8,448 | 7,809 | (X) | 425 |
| 3522982 | Other barn equipment | 20 |  | (X) | 620 | (X) | 620 |  |  |
| 3522983 | Attachments....... | 11 | (X) | (X) | 1,074 | (X) | 1,074 | (X) | (D) |
| 3522984 | Parts. | 18 | (X) | (X) | 2,439 | (X) | 2,439 | (X) | (D) |
| (35228 41) | BARNYARD EQUIPNENT, TOTAL. | 140 | (X) | (X) | 48,599 | (X) | 47,146 | (X) | 1,453 |
|  | Silo unloaders: |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 3522985 \\ & 3522986 \end{aligned}$ | For tower silos..... | 24 | 15,091 | 15,682 | 14,509 | 14,793 | 13,642 |  | 867 |
| 3522987 | Electric powered bunk feeders. | 23 | 8,339 | 8,499 | 3,822 | 8,187 | 3,619 | 312 | 203 |
| 3522988 | Animal stock tanks. | 30 | $\begin{aligned} & 178,957 \\ & 131,062 \end{aligned}$ | 175,558 129,348 | 4,834 | 175,558129,348 | 4,834 | (D) ${ }^{-}$ |  |
| 3522989 | Hog troughs.................. | 22 |  | 129,348 | 3,041 |  | 236 |  | (D) |
| 3522991 | Livestock outside watering bowls | 18 | $\begin{array}{r} 82,389 \\ 167,919 \end{array}$ | 80,229 |  | 80,229 | 3,041 | (D) |  |
| 3522992 | Hog waterers....... | 31 |  | 180,914 | 3,296 | 180,914 | 3,296 | (D) | (D) |
| 3522993 | Livestock water heaters. | 20 | 98,727 | 85,217 | 1,787 | 85,217 | 1,787 | (D) | (D) |
|  | Hog feeders: | $\begin{array}{r} 39 \\ 9 \end{array}$ | $\begin{array}{r} 219,717 \\ 16,775 \end{array}$ |  |  |  | $\begin{array}{r} 8,072 \\ 899 \end{array}$ | 936- | 31 |
| $\begin{aligned} & 3522994 \\ & 3522995 \end{aligned}$ | Metal |  |  | $\begin{array}{r} 211,422 \\ 16,289 \end{array}$ | $\begin{array}{r} 8,103 \\ 899 \end{array}$ | $\begin{array}{r} 210,486 \\ 16,289 \end{array}$ |  |  |  |
|  | Wood |  |  |  |  |  |  |  |  |
| 3522996 | Other barnyare equipment | 47 | (X)(X)(X) | $\begin{aligned} & (X) \\ & (X) \\ & (X) \end{aligned}$ | $\begin{array}{r} 6,206 \\ 472 \\ 1,394 \end{array}$ | $\begin{aligned} & \text { (X) } \\ & \text { (X) } \\ & \text { (X) } \end{aligned}$ | $\begin{array}{r} 6,071 \\ 472 \end{array}$ | (X) | 135 <br> (D) <br> (D) |
| 3522997 | Attachments | 14 |  |  |  |  |  |  |  |
| 3522998 | Parts | 17 |  |  |  |  | 1,394 | (X) |  |

Note: The Census product codes shown in parentheses associated with product groups represent those codes used in the 1963 Census of Manufactures and correspond to those Census product codes in table 6A. Other 7-digit product codes represent those used in Current Industrial Reports M35A or M35S for 1963.

Source: Current Industrial Reports Series M35S, Tractors (product codes 3522203-23); and Current Industrial Reports Series M35A, Farm Machinery and Equipment (product codes 3522311-3522998).

Standard Notes: - Represents zero. (NA) Not available. (X) Not applicable.
(D) Withheld to avoid disclosing figures for individual companies. Data for these products for 1963 only are included in the totals. Where applicable both quantity and value of export shipments have been combined with domestic shipments.
(S) Pipeline milker units data suppressed due to incomplete coverage.
${ }^{1}$ The horsepower rating for these tractors are based on the corrected maximun belt or P.T.O. horsepower.
${ }^{2}$ Data are limited to attachments and parts shipped by companies manufacturing complete tractors.
${ }^{3}$ The total export figures for 1958 reflect only the sum of publishable products and, therefore, exclude data withheld to avoid disclosing figures of individual companies. Total domestic figures for 1958 include all domestic shipments and, also, include those export figures withheld to avoid disclosing figures of individual companies.

4Excludes pipeline milker units.
${ }^{5}$ Data for crean separators capacity 500 pounds or less per hour included with parts and attachments.
${ }^{6}$ Effective with 1963 respondents were requested to use the following definition for reporting: "Garden tractors are defined as tractors weighing less than 1,200 pounds (basic machine), typically powered by air-cooled engines with fewer than four cylinders and total piston displacement of under 45 cubic inches. Such tractors are further distinguished from farm tractors in that they usually carry an engine horsepower rating but not a belt horsepower rating." The 1958 reference list for Form MA35A carried no definition of garden tractors.
${ }^{7}$ Data for drawn corn and cotton type cultivators included with other cultivators and weeders.
${ }^{8}$ Excludes value of stanchions shipped with stalls.

TABLE 6A-8. Farm Machines and Equipment: 1963 and 1958-Continued

| 1958 <br> Census product code | Type of farm equipment | 1958 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Numbe! of companies | Number produced | Manufacturers' shipments |  |  |  |  |  |
|  |  |  |  | Total |  | Domestic |  | For export |  |
|  |  |  |  | Number | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Number | Value $(\$ 1,000)$ | Number | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
|  | FARM POULTRY EQUIPMENT-Continued |  |  |  |  |  |  |  |  |
| 3522955 | Other farm poultry equipment. | 35 | (X) | (X) | 2,936 | (X) | 2,849 | (X) | 87 |
| 3522956 | Attachments... | 14 | (X) | (X) |  | (X) | 724 | (X) | 19 |
| 3522957 | Parts....... | 25 |  |  |  | (X) | 1,639 | (X) | 190 |
| (35228 41) | BARN EQUIPMENT, TOTAL ${ }^{3}$. . . . . . . . . . . . . . . . . . . . | (x) | (X) | (X) | 20,393 | (X) | 19,895 | (X) | 498 |
| 3522958 | Feed and litter carriers (overhead).................. | 15 | 1,754 | 1,661 | 116 | 1,661 | 116 | (D) | (D) |
| 3522959 | Feed trucks.......................................... | 19 | 3,592 | 3,793 | 7. 243 | 3,727 | 7. 239 | 66 | ${ }^{4}$ |
| 3522962 | Dairy cattle stalls for use with stanchions........ | 19 | 77,810 | 77,832 | 71,193 | 77,832 | 71,193 | (D) | (D) |
| 3522963 | Chain tie stalls (all types)......................... | 17 | 33,141 | 33,084 | 657 | 33,084 | , 657 | (D) | (D) |
| 3522964 | Milking parlor stalls....... | 13 | 11,769 | 11,825 | 1,111 | 11,825 | 1,111 | (D) | (D) |
| 3522965 | Panel type milking or feeding stalls................ | 7 | 10,113 | 9,991 | 141 | 9,991 | 141 | (D) | (D) |
| 3522966 | Stanchions, swing type.............................. | 22 | 181,444 | 181,610 | 1,096 | 189,610 | 1,096 | (D) | (D) |
| 3522967 3522968 | Livestock pens (quantity in number of feet)........ | 15 | 67,484 | 67,510 | 409 | 67,501 | 409 | (D) | (D) |
| 3522968 3522969 | Livestock water bowls, inside......................... . | 20 | 266,600 | 264,086 | 1,490 | 264,086 | 1,490 | (D) | (D) |
| 3522970 | Barn cleaners........ | 21 | 12, 364 | 12,477 | 11,229 | 11,867 | 10,749 | (x) | 480 |
| 3522971 | Attachments......... | 8 | (X) | (X) | 1,119 | (X) | 1,105 | (X) | (D) |
| 3522972 | Parts.. | 17 | (X) | (X) | 1,218 | (X) | 1,218 | (X) | (D) |
| (35228 41) |  | (X) | (X) | (X) | 28,286 | (X) | 28,159 | (X) | 127 |
| 3522992 | Silo unioaders... | 12 | 5,416 | 5,487 | 5,002 | 5,487 | 5,002 | (D) | (D) |
| 3522993 | Mechanical feeders. | 14 | 4,811 | 4,770 | 612 | 4,770 | 612 | (D) | (D) |
| 3522973 | Animal stock tanks. | 35 | 139,784 | 142,783 | 3,565 | 142,783 | 3,565 | (D) | (D) |
| 3522974 | Hog troughs.......... | 24 | 152,483 | 159,063 | 289 | 152,483 | 289 | (D) | (D) |
| 3522975 | Livestock outside watering bowls | 15 | 33,040 | 33,269 | 1,600 | 33,269 | 1,600 | (D) | (D) |
| 3522976 | Hog waterers...... | 37 | 224,738 | 225,974 | 2,786 | 225,974 | 2,786 | (D) | (D) |
| 3522977 | Livestock water heaters. | 25 | 101,507 | 103,006 | 1,233 | 103,006 | 1,233 | (D) | (D) |
|  | Hog feeders: |  |  |  |  |  |  |  |  |
| 3522978 3522979 | Metal. | 41 | 229,449 | 224,168 | 8,380 | 222,951 | 8,350 | 1,217 | 30 |
| 3522980 | Other barnyard equipment. | 55 | (X) | (x) | 3,372 | (x) | 3,275 | (x) | 97 |
| 3522981 | Attachnents. | 11 | (X) | (X) | 260 | (X) | 260 | (X) | (X) |
| 3522982 | Parts. | 17 | (X) | (X) | 505 | (X) | 505 | (X) | (D) |

## TABLE 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 351-- | Engines and turbines..............................1963.. | 153 | 94 |
|  | 1958.. | 121 | 112 |
| 3511- | Steam engines and turbines ${ }^{1}$.........................1963.. | 157 | 78 |
|  | 1958.. | 146 | 108 |
| 3519- | Internal combustion engines ${ }^{2}$......................... $1963 .$. | 150 | 102 |
|  | 1958.. | 108 | 114 |
| 35191 | Gasoline engines, except outboard, aircraft, automobile, truck, bus and tank ${ }^{2}$....................1963.. | 150 | 96 |
|  | 1958.. | 118 | 101 |
| 35192 | Diesel and semidiesel engines ${ }^{2}$..................1963.. | 157 | 107 |
|  | 1958.. | 90 | 126 |
| 35193 | Gas engines (except gas turbines)²..............1963.. ${ }_{\text {1958.. }}$ | 166 | 72 114 |
| 35195 | Outboard motors........................................ 1963. . | 169 | 117 |
|  | 1958.. | 179 | 116 |
| 352-- | Farm machinery and equipment................... $1963 .$. | $\left({ }^{3}\right)$ | $\left({ }^{3}\right)$ |
|  | 1958.. | (3) | (3) |

[^157] Marine steam turbines have been excluded from the computation of unit value but their shipments are reflected in the production index.
${ }^{2}$ These indexes are based on piston size (displacement) quantities rather than on number of engines. The 4-digit (industry) level of production for the products of 3519 has been adjusted to include product class 35197 (parts and accessories for internal combustion engines) as well as product class 35196 (other internal combustion engines).
${ }^{3}$ Indexes for this group (primary products of industry 3522) are not shown pending further review of quantity and related shipments data.

TABLE 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962{ }^{1}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | 19591 | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3511- | Steam engines and turbines. | 589,101 | 552,418 | 584,733 | 623,124 | 639,876 | 753,988 | 426,197 | 119,027 |
| 35111 | Steam, gas, and hydraulic turbine generator set units and parts. |  | ( 361,611 | 425,661 | 470,807 | 473,815 | 489,477 | 317,303 | 67,179 |
| 35112 | Steam, gas, and hydraulic turbine and parts; steam engines and parts.............. | $\} 589,101$ | $\left\{\begin{array}{l}\text { 190,807 }\end{array}\right.$ | 159,072 | 152,317 | 166,061 | 264,511 | 108,894 | 51,848 |
| 3519- | Internal combustion engines.................... | 21,421,478 | ${ }^{2} 1,324,202$ | ${ }^{2} 1,121,403$ | ${ }^{2} 1,194,599$ | 21,319,218 | ${ }^{2} 1,133,461$ | (NA) | (NA) |
| 35191 | Gasoline engines, except outboard, aircraft and automotive engines............ | ${ }^{3} 267,430$ | ${ }^{3} 273,468$ | ${ }^{3} 235,887$ | 3237,599 | ${ }^{3} 286,022$ | ${ }^{3} 230,069$ | 192,541 | 165,663 |
| 35192 | Diesel and semidiesel engines. | 464,428 | 424,198 | 345,765 | 363,552 | 407,239 | 314.480 | 247,134 | (NA) |
| 35193 | Gas engines (except gas turbines). | ${ }^{3} 22,318$ | ${ }^{2} 25,245$ | ${ }^{3} 18,581$ | ${ }^{3} 14,509$ | ${ }^{3} 20,403$ | 319,308 | 25,993 | 18,092 |
| 35195 | Outboard motors.............................. |  |  |  |  |  | $\left\{\begin{array}{l}157,879\end{array}\right.$ | 76,039 | 50,038 |
| 35196 | Other internal combustion engines (including converted engines and tank engines)... | \} 183,767 | 181,139 | 147,631 | 190,834 | 215,767 | $\left\{\begin{array}{l}31,025\end{array}\right.$ | (NA) | (NA) |
| 35197 | Parts and accessories for internal combustion engines. | 480,602 | 420,152 | 373,539 | 386,688 | 388,401 | 379,358 | 289,858 | 194,797 |
| 35190 | Internal combustion engines, n.s.k......... | 2,933 |  |  | $(1,417)$ | $(1,386)$ | 1,342 | (NA) | (NA) |
| 3522- | Farm machinery and equipment | 22,525,768 | 22,266,130 | 22,057,343 | ${ }^{2} 1,978,990$ | 22,331,682 | 22,202,108 | 1,693,778 | 1,285,996 |
| 35222 | Wheel tractors and parts and attachments... (except garden and contractors' offhighway) | 808,396 | 4684,590 | 4601,773 | 4511,247 | 4737,712 | 687,271 | 562,579 | 480,942 |
| 35223 | Planting, seeding and fertilizing machinery and parts. | ${ }^{3} 111,912$ | ${ }^{3} 104,538$ | 395,725 | 398,075 | ${ }^{3} 110,662$ | ${ }^{3} 101,197$ | 93,593 | 73,990 |
| 35224 | Plows, listers, harrows, rollers, pulverizers, and stalk cutters, and parts.......... | ${ }^{3} 191,631$ | ${ }^{3} 163,150$ | ${ }^{3} 145,699$ | ${ }^{3} 146,392$ | ${ }^{3} 183,098$ | ${ }^{3} 165,962$ | 137,111 | 140,952 |
| 35225 | Harvesting machinery and parts............. | 3386,007 | 3318,905 | 3 308,942 | 323,862 | 3343,808 | 3311,916 | 252,566 | 191,570 |
| 35226 | Haying machinery and parts.... | ${ }^{3} 131,769$ | ${ }^{3} 126,496$ | ${ }^{3} 123,998$ | 140,351 | 3163,654 | ${ }^{3} 175,860$ | 147,883 | 94,903 |
| 35227 | Lawn mowers and parts..... | 268,661 | 244,705 | 222,406 | 237,647 | 249,355 | 239,815 | 138,420 | 71,053 |
| 35228 | All other farm machinery and equipment | 555,934 | 623,746 | 555,461 | 518,960 | 541,383 | 485,381 | 361,626 | 232,586 |
| 35220 | Farm machinery and equipment, n.s.k.. | 71,458 | 623 | $(3,339)$ | $(2,456)$ | $(2,010)$ | 34,706 | , | 232, |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ These figures represent the sum of 5 -digit product class data obtained from Current Industrial Reports and from the census of manufactures or the annual survey of manufactures.
${ }^{3}$ Source for these data are as listed below:
35191 ( 35193 Current Industrial Reports Series M35L
35223,7
4, 5, $\}$ Current Industrial Reports Series M35A
${ }^{4}$ Excludes value of parts sold to other plants producing wheel tractors.

# table 6D. Product Classes-Value Shipped by All Manufaciuring Establishments, by Geographic Areas: 1963 and 1953 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote $l$.

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | $\begin{aligned} & \text { Valu } \\ & \text { shipr } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GASOLINE ENGINES, EXCEPT OUTBOARD, AIRCRAFT AND aUTOMOTIVE ENG [NES (35191) | $1963{ }^{1}$ |  | PLANTING, SEEDING, AND FERTILIZING MACHINERY, AND PARTS (35223)-Con. | $1963{ }^{1}$ | 1958 |  | $1963{ }^{1}$ | 1958 |
|  | 270,108 |  | West North Central.......... Minnesota | 26,879 | 14,963 | United States, total. | 268,661 | 239,815 |
| East North Central. | 241,242 |  | Iowa. | 8,128 |  | Northeast | 6,540 | 25,733 |
| Illinois...... |  | 5,476 | Nebraska. . . . . . . . . . . . . . . . . . . . . | 12,621 | $\begin{aligned} & 7,588 \\ & 1,438 \end{aligned}$ | East North Central | 139,732 | (2) |
| Michigan. | 64,780165,646 |  | South. <br> West. | $\begin{array}{r} 10,852 \\ 1,556 \end{array}$ | $\begin{aligned} & 4,072 \\ & 1,160 \end{aligned}$ | Ohio. | 61,463 | 43,117 |
| Wisconsin. |  |  | Indiana |  |  | 25,342 | 25,229 |
| All other divisions......... | 28,866 |  |  |  |  | PLOWS, LISTERS, HARROWS, ROLLERS, PULVERIZERS, AND STALK CUTTERS, AND PARTS (35224) | Illino | 23,058 | 30,980 |
|  |  |  |  |  | West North Central. |  | 71,400 | ${ }^{(2)}$ |
| DIESEL AND SEMDDIESEL ENGINES $(35192)$ | $1963{ }^{1}$ | 1958 |  |  | Minnesota. Iowa...... |  | 22,107 9,009 | $(2)$ 16,733 |
| United States, total. | 464,428 | 314,450 |  |  |  | Missour | 27,777 | 20,922 |
| East North Central.......... | 403,246 |  | United States, total... | 192,837 | 160,576 | South Atlantic. | 11,950 | 10,000 |
| Illinois.................. | $\begin{array}{r} 107,720 \\ 12,308 \end{array}$ |  | Northeast. . . . . . . . . . . . . . . . | 1,766 | 1,544 | Florid | 1,895 | 1,326 |
| Wisconsin. |  | ${ }^{(2)}$ | East North Central.......... Illinois.................... . | $\begin{array}{r} 117,497 \\ 93,488 \end{array}$ | $99,148$ | East South Central.......... <br> West South Central. <br> West. | $\begin{array}{r} 31,177 \\ 3,306 \\ 4,556 \end{array}$ | \} 5,897 |
| West North Central. | $\begin{array}{r} 2,196 \\ 58,986 \end{array}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 51,189 \end{array}$ |  |  |  |  |  |  |
| All other divisions. |  |  | West North Central.......... Minnesota. | 17,457 |  | West. . . . . . . . . . . . . . . . . . . . . . . |  | ${ }^{2}$ ) |
| PARTS AND ACCESSORIES FOR |  |  | Minnesota.................... <br> Iowa. |  |  | ALL OTHER FARM MACHINERY AND EQUIPMENT (35228) |  |  |
| INTERNAL COMBUSTION |  |  | Nebrask | 1,417 | 1,603 |  |  |  |
| ENGINES (35197) |  |  | Kansas | 5,396 | 5,361 | United States, total... | 555,934 | 450,236 |
| United States, total. | 480,602 | 379,358 | South Atlan Georgia. . | 9,471 | $\begin{array}{r} 10,727 \\ 6,984 \end{array}$ | Northeast. | 40,210 | 33,890 |
| Northeast. | 66,626 | 49,191 |  |  |  | New York | 17,852 | 15,229 |
| New Jersey. | 2,748 | (z) | East South Central. Tennessee....... | 15,759 6,369 | 8,696 4,547 | New Jersey. | 2,651 | 3,271 |
| Pennsylvania. | 11,487 | 10,099 |  | 6,369 | 4,547 | Pennsylvania | 19,187 | 14,069 |
| East North Central. | 363,136 | 298,919 | West South Central | 14,641 | 9,736 |  |  |  |
| Ohio..... | 18,730 | 19,650 | Texas. | 10,811 | 8,959 | East North Central. Ohio. $\qquad$ | 272,400 29,895 | 238,332 28,764 |
| Illinois. | 87,571 | 91,946 | Mountain. | 2,779 | 2,032 | Indiana..... | 35,014 | 26,773 |
| Wisconsin | 81,051 | 60,287 | Mountain | 13,467 | 2,032 | Illinois | 91,888 | 95,583 |
| West North Central........... Iowa. Missouri. | $\begin{array}{r} 21,713 \\ 7,635 \\ 6,428 \end{array}$ | $\begin{array}{r} 11,318 \\ (2) \\ (2) \end{array}$ | California.............. | 13,331 | 12,213 | Mischigan. | 33,625 81,978 | 28,229 58,983 |
|  |  |  |  |  |  | Wisconsin..... |  | 58,983 113,465 |
|  |  |  | harvesting Michinery, <br> AND PARTS (35225) |  |  | West North Cent Minnesota... | $\begin{array}{r} 136,235 \\ 36,229 \end{array}$ | 113,465 26,111 |
| South........................ | $\begin{aligned} & 9,485 \\ & 5,928 \end{aligned}$ | \}19,930 |  | 395 | 321, | Iowa. | 66,787 | 49,137 |
|  |  |  | United States, tcta |  |  | Missouri | 6,899 | 7,236 |
| West. . . . . . . . . . . . . . . . . . . | 19,642 | 19,930 | Northeast and South......... New York. $\qquad$ | $\begin{array}{r} 48,246 \\ 1,906 \end{array}$ | 25,178 ${ }_{(2)}$ | liansas. | 10,3:58 | 15,878 |
| WHEEL TRACTORS AND PARTS AND ATTACHMENTS (EXCEPT GARDEN AND CONTRACTORS' OFF-HIGHWAY) (35222) |  |  |  |  |  |  | 14,2:?5 | 12,766 |
|  |  |  | East North Central. | 206,549 |  | South Atlentic. | 38,934 | 17,300 |
|  |  |  | Tllinois. | 149,896 | $\left(\begin{array}{l}(2) \\ (2)\end{array}\right.$ | Virginia.... | 3,643 | 2,789 |
|  |  |  | Wisconsin | 19,111 | $\left({ }^{2}\right)$ | North Caroli | 9,015 | 2,730 |
| United States, total.. | 808,396 | 687,271 | West North Central.......... Minnesota. $\qquad$ | $\begin{array}{r} 127,067 \\ 8,973 \end{array}$ | $\begin{gathered} 90,294 \\ (2) \end{gathered}$ | Florgia. | 9,596 | 4,034 |
| East North Central......... | 440,9626,536 | 441,549 |  |  |  |  | 4,177 | 2,046 |
| Indiana.................... . |  | $\begin{array}{r} 8,482 \\ \left({ }^{2}\right) \end{array}$ | Iowa. . . . . . . . . . . . . . . . . | 76,437 | 50,409 | East South Central |  | ${ }^{2}$ ) |
| Michigan | 185,406 |  |  | $\begin{aligned} & 5,973 \\ & 2,595 \end{aligned}$ | $\begin{array}{r} (2) \\ 2,207 \end{array}$ | East South Central. <br> Tennessee. $\qquad$ Mississippi. | 23,344 | 2,922 |
| All other divisions........ Nebraska. $\qquad$ <br> PLANTING, SEEDING, AND FERTILIZING MACHINERY, AND PARTS (35223) | $\begin{array}{r} 367,434 \\ 1,511 \end{array}$ | $\begin{array}{r} 245,722 \\ (Z) \end{array}$ | Mountain. . . . . . . . . . . . . . . . . Idaho. . . . . . . . . . . . . . . |  |  |  | 2,745 | 2,029 |
|  |  |  | Pacific. $\qquad$ HAYING MACHINERY AND PARTS (35226) | 7,464 | (2) | West South Central.........Arkansas............. |  |  |
|  |  |  |  | $1963{ }^{1}$ |  |  | 8,470 1,098 | (Z) |
|  |  |  |  |  |  | ${ }_{\text {Oklaho }}$ | 1,603 | 1,611 |
|  |  |  | United States, total. |  | $133,804$ |  | 5,180 | 6,262 |
| United States, total. | 115,720 | $\begin{array}{r} 95,984 \\ 5,408 \end{array}$ | East North Central.......... Illinois..................... <br> West North Central | $\begin{aligned} & 37,423 \\ & 24,483 \end{aligned}$ |  | Mountain. <br> Idaho. Colorado. | 5,546 | 4,130 |
| Northeast. |  |  |  |  |  | 1,332 | (Z) |  |
| East North Central | 70,078 | $\begin{aligned} & 70,381 \\ & 11.411 \end{aligned}$ |  | 4,803 |  |  | 3,740 | 2,542 |
| Ohio..... | 7,003 |  | West North Central........ <br> Minnesota............ |  |  | Pacific..................... | 30,254 | 26,491 |
| Indiana. | 5,647 | 11,411 ${ }^{(2)}$ | Minnesota | $\begin{array}{r} 27,864 \\ 1,093 \end{array}$ |  |  | Washing ton. <br> Oregon. <br> California. | 3,913 | 2,989 |
| Illinois | 40,470 | $\begin{aligned} & \left({ }^{2}\right) \\ & \left({ }^{2}\right) \end{aligned}$ | Kans |  |  | 2,379 |  | 1,386 |
| Wisconsin | 16,115 |  | All other divisions........ | 59,088 |  | 23,962 |  | 22,116 |

[^158](D) Withheld to avoid disclosing figures for individual companies
(NA) Not available.
(X) Not
${ }^{1} 1_{\text {For }}$ the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 35191, Ohio, Indiana, Minnesota, Iowa, and Kentucky; 35192, New York, Pennsylvania, Ohio, Indiana, Michigan, Iowa, Texas, and California; 35197, Massachusetts, Connecticut, New York, Indiana, Michigan, Minnesota, Kentucky, Colorado, and California; 35222, Ohio, Illinois, Wisconsin, Minnesota, Iowa, Georgia, Kentucky, Louisiana, Texas, and Oregon; 35223, Pennsylvania, Missouri, North Carolina, and Alabama; 35224, Pennsylvania, Indiana, Wisconsin, North Dakota, Alabama, Mississippi, Louisiana, and Colorado; 35225, Pennsylvania, Ohio, Indiana,
Missouri, North Dakota, Nebraska, Kansas, North Carolina, Georgia, Tennessee, Arkansas, Louisiana, Arizona, Utah, and California; 35226 , Pennsylvania, Ohio, Indiana, South Dakota, North Carolina, Tennessee, and Oregon; 35227, Connecticut, Pennsylvania, Michigan, Wisconsin, Nebraska, Kansas, Georgia, Alabama, Mississippi, Oklahoma, Texas, and California; 35228, Maryland, West Virginia, South Carolina, and Kentucky.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

# TABLE 7A. Materials by Kind: 1963 and 1958 



[^159]
## TABLE 7A. Materials by Kind: 1963 and 1958-Continued



## TABLE 7A. Materials by Kind: 1963 and 1958-Continued

Footnotes for Table 7A-35A


[^160]
## table 7b. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962


[^161] equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry special ization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3511- | Steam engines and turbines |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry | 22 | 30,917 | 237,519 | 19,894 | 38,933 | 141,738 | 379,875 | 242,730 | 616,416 | 19,394 |
|  | 75\% and over. | 13 | 22,627 | 174,587 | 14,754 | 28,418 | 106,496 | 296,616 | 185,246 | 475,146 | 14,623 |
| 3519- | InTERNAL COMBUSTION ENGINES |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................... <br> Establishments with-- | 143 | 55,687 | 371,800 | 41,754 | 84,996 | 260,005 | 733,628 | 745,760 | 1,473,574 | 34,751 |
|  | $90 \%$ or more specialization... <br> 75-89\% specialization......... | 104 11 | 33,600 2,441 | 226,418 15,911 | 25,162 1,895 | 50,728 3,779 | 156,239 11,462 | 512,480 21,849 | 509,296 34,781 | $1,022,221$ 53,166 | $\begin{array}{r} 21,971 \\ (D) \end{array}$ |
| 35191 | Gasoline engines, except outboard, aircraft and automotive engines (primary product class of estab.). Establishments with-$90 \%$ or more specialization..... | 20 7 | 11,246 5,468 | 70,465 34,101 | 8,952 4,746 | 17,399 9,158 | 51,993 27,190 | 127,386 69,734 | 155,555 73,464 | 279,464 141,544 | 4,772 1,928 |
| 35192 | Diesel and semidiesel engines (primary product class of estab.). | 15 | 22,911 | 162,303 | 16,787 | 35,129 | 110,897 | 339,672 | 366,516 | 702,098 | 21,695 |
| 35193 | Gas engines (except gas turbines) (primary product class of estab.). | 3 | 742 | 4,250 | 549 | 1,104 | 2,934 | 9,660 | 6,725 | 15,734 | 273 |
| 35197 | Parts and attachments for internal combustion engines (primary product class of estab.)............ Establishments with-- | 47 | 13,471 | 85,841 | 10,310 | 21,052 | 61,207 | 166,479 | 104,685 | 264, 842 | 6,525 |
|  | $90 \%$ or more specialization..... <br> 75-89\% specialization. .......... | 27 8 | $\begin{aligned} & 3,790 \\ & 1,636 \end{aligned}$ | $\begin{array}{r} 26,506 \\ 9,412 \end{array}$ | $\begin{aligned} & 2,809 \\ & 1,383 \end{aligned}$ | $\begin{aligned} & 5,984 \\ & 2,677 \end{aligned}$ | $\begin{array}{r} 18,107 \\ 7,365 \end{array}$ | $\begin{aligned} & 67,882 \\ & 19,131 \end{aligned}$ | $\begin{aligned} & 30,574 \\ & 22,696 \end{aligned}$ | $\begin{array}{r} 98,097 \\ 39,619 \end{array}$ | $\begin{aligned} & 2,977 \\ & 1,193 \end{aligned}$ |
| 3522- | FARM MACHINERY AND EQUIPMENT |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry $\qquad$ <br> Establishments with-- | 1,568 | 112,614 | 689,122 | 84,650 | 168,911 | 476,827 | 1, 328, 381 | 1,536,761 | 2,842,243 | 64,431 |
|  | $90 \%$ or more specialization... 75-89\% specialization........ | $\begin{array}{r} 1,374 \\ 69 \end{array}$ | $\begin{aligned} & 76,144 \\ & 14,456 \end{aligned}$ | $\begin{array}{r} 464,723 \\ 88,842 \end{array}$ | $\begin{aligned} & 57,228 \\ & 10,588 \end{aligned}$ | $\begin{gathered} 114,142 \\ 21,391 \end{gathered}$ | $\begin{array}{r} 318,741 \\ 60,953 \end{array}$ | $\begin{aligned} & 955,340 \\ & 143,368 \end{aligned}$ | $\begin{array}{r} 1,063,603 \\ 174,640 \end{array}$ | $\begin{array}{r} 2,001,836 \\ 316,290 \end{array}$ | $\begin{array}{r} 41,785 \\ 6,021 \end{array}$ |
| 35222 | Wheel tractors and parts and attachments (except garden and |  |  |  |  |  |  |  |  |  |  |
|  | contractors ' off-highway) (primary product class of estab.)........... | 38 | 32,399 | 220,154 | 25,053 | 48,876 | 162,884 | 412,911 | 501,859 | 910,365 | 25,956 |
|  | Establishments with-- <br> $90 \%$ or more specialization..... | 19 | 18,022 | 124,749 | 13,870 | 26,712 | 91,256 | 236,115 | 250,702 | 484,031 | 16,780 |
| 35223 | Planting, seeding and fertilizing machinery and parts (primary product class of estab.) |  |  |  |  |  |  |  |  |  |  |
|  | product class of estab.)............ <br> Establishments with-$90 \%$ or more specialization..... | 62 33 | 5,880 1,091 | 35,255 4,849 | 4,450 875 | 8,911 1,861 | 23,465 3,420 | 69,148 9,068 | 61,230 11,266 | 130,196 20,142 | 1,789 442 |
| 35224 | Plows, listers, harrows, rollers, pulverizers, and stalk cutters |  |  |  |  |  |  |  |  |  |  |
|  | of estab.). Establishments with-- | 84 | 10,445 | 63,130 | 7,691 | 15,113 | 42,233 | 122,858 | 122,929 | 238,928 | 4,843 |
|  | 90\% or more specialization... | 44 | 2,780 | 16,010 | 2,061 | 4,113 | 10,294 | 36,586 | 34,552 | 68,602 | 796 |
|  | 75-89\% specialization. | 13 | 1,538 | 9,522 | 1,150 | 2,268 | 6,640 | 17,042 | 19,340 | 35,311 | $334$ |
| 35225 | Harvesting machinery and parts (primary product class of estab.). Establishments with-- | 82 | 23,697 | 151,775 | 17,819 | 35,032 | 106,735 | 277,355 | 282,930 | 557,757 | 10,402 |
|  | $90 \%$ or more specialization..... | 42 | 4,116 | 24,144 | 2,893 | 6,404 | 16,991 | 45,799 | 57,652 | 103,913 | 2,169 |
| 35226 | Haying machinery and parts (primary product class of estab.). Establishments with-75\% and over.. | 25 17 | 3,850 3,187 | 26,867 22,960 | 2,576 2,046 | 5,506 4,321 | 15,844 12,954 | 50,512 40,767 | 48,684 39,008 | 98,334 79,558 | 1,340 842 |

[^162]TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture adjusted $(\$ 1,000)$ | Cost of materials <br> $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3522- | FARM MACHINERY AND EQUIPMENT.-Continued |  |  |  |  |  |  |  |  |  |  |
| 35227 | Lawn mowers and parts (primary product class of estab.).......... Establishments with-- | 126 | 10,168 | 53,281 | 7,885 | 15,792 | 37.148 | 103,979 | 205,451 | 308,249 | 4,283 |
|  | $90 \%$ or more specialization.... 75-89\% specialization. | $\begin{aligned} & 93 \\ & 11 \end{aligned}$ | $\begin{aligned} & 3,925 \\ & 1,619 \end{aligned}$ | $\begin{array}{r} 18,307 \\ 9,058 \end{array}$ | $\begin{aligned} & 3,050 \\ & 1,067 \end{aligned}$ | $\begin{aligned} & 5,897 \\ & 2,020 \end{aligned}$ | $\begin{array}{r} 12,321 \\ 5,051 \end{array}$ | $\begin{aligned} & 45,921 \\ & 13,504 \end{aligned}$ | $\begin{aligned} & 90,992 \\ & 17,335 \end{aligned}$ | $\begin{array}{r} 141,893 \\ 28,953 \end{array}$ | $\begin{array}{r} 1,475 \\ 833 \end{array}$ |
| 35228 | All other farm machinery and equipment (primary product class of estab.).............................. Establishments with-- | 427 | 21,680 | 119,238 | 15,617 | 32,431 | 74,210 | 251,878 | 273,889 | 519,129 | 9,964 |
|  | $90 \%$ or more specialization.... $75-89 \%$ | $\begin{gathered} 305 \\ 43 \end{gathered}$ | 10,971 2,580 | 57,974 15,495 | 8,170 | 17,121 3,778 | 36,202 8,683 | 136,292 32,896 | 136,831 38,346 | 260,525 | 5,357 |
| dotes: - Represents zero. <br> (D) Withheld to avoid disclosing figures for individual companies. |  |  |  |  |  |  |  |  | (NA) Not available |  | ( Not |

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworkırig operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  | Man-hours worked by production workers in the specified operation $(1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{2}$ |  |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{gathered} 20 \text { or } \\ \text { more } \end{gathered}$ |  | 1 to 4 | 5 to 19 | 20 or more |  |
|  | INDUSTRY 3511. -STEAM ENGINES AND TURBINES |  |  |  |  |  |  |  |  |
| TOTAL, ALL OPERATIONS. . . . . . . . . . . . . . . . . . . . . . | 20 | (NA) | (NA) | (NA) | 18,869 | (NA) | (NA) | (NA.) | 33,669 |
| Ferrous foundry........................................... | 1 | - | 1 | , | $\begin{aligned} & \text { (D) } \\ & \text { (D) } \end{aligned}$ | (D) |  | (D) ${ }^{-}$ |  |
| Nonferrous foundry (except die casting)............... | 2 | - |  | 1 |  |  |  |  |  |
| Nonferrous die casting................................ | - |  | - | - | - | - | - | - | - |
| Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.)........................... | 3 | - | - | 3 |  | (D) ${ }^{-}$ | - | 150 | 2832 |
| Electroplating and other plating......................... | 1 | 1 | - | - |  |  | 49 |  |  |
| Heat treating of metals................................. | 11 | 3 | 5 | 3 | $\begin{aligned} & \text { (D) } \\ & 127 \end{aligned}$ | (D) |  | 71 | 2 205 |
| Automatic screw machine department...................... | 4 |  |  | 4 | 342 | - | (D) | 342 | 1415 |
| Machine shop............. | 20 | - | $\overline{2}$ | 18 | 8,366 | - |  | (D) | 14,1711,474 |
| Tool and die shop. | 14 | 23 | 3 | 9 | 775 | (D) | (D) | 740 |  |
| Foundry pattern shop.. | 5 |  | 1 | 1 | 63 |  | (D) | (D) | $\begin{array}{r}1,474 \\ \hline 114\end{array}$ |
| Plate or structural fabrication. | 10 | - |  | 8 | 2,138 | (D) | (D) | (D) | 3,471 425 |
| Stamping, blanking and forming of metals. | 4 | $\overline{8}$ | 1 | 3 | 207 | - | (D) | (D) |  |
| Painting, lacquering and enameling of metals.......... | 14 |  | 4 | 2 | 99 | 13 | (D) | (D) | 425 164 |
| Assembly of product..................................... | 16 | 15 | 27 | 13 | 2,605 | (D) | (D) | 2,586211 | 4,994 |
| Shipping department, including packing and crating.... | 16 |  |  | 4 | 297 | 11 | 75 |  |  |
| All other operations such as maintenance, warehousing, etc. | 16 |  | 2 | 12 | 3,560 | (D) | (D) | 3,529 | 7,026 |
|  | INDUSTRY 3519.-INTERNAL COMBUSTION ENGINES |  |  |  |  |  |  |  |  |
| TOTAL, ALI OPERATIONS. . ............................... . | 95 | (NA) | (NA) | (NA) | 38,107 | (NA) | (NA) | (NA) | 78,255 |
| Ferrous foundry........................................... | 10 | $\overline{2}$ | $\overline{1}$ | 10 | $\begin{aligned} & 834 \\ & 121 \end{aligned}$ | (D) | $\begin{aligned} & (\mathrm{D})^{-} \\ & (\mathrm{D}) \end{aligned}$ | 834 <br> (D) <br> (D) | $\begin{aligned} & 1,933 \\ & \text { (D) } \\ & 1,326 \end{aligned}$ |
| Nonferrous foundry (except die casting)............... |  |  |  | 2 |  |  |  |  |  |
| Nonferrous die casting.................................. |  | 1 | 1 | 3 | 638 | (D) |  |  |  |
| Forging-presses, hanmers, or upsetters (excluding manufacture of nuts, bolts, etc.). | 1 | 1 | - | - | (D) | (D) | - -1. |  |  |
| Electroplating and other plating......................... | 15 |  | 7 | 3 | 1724084 | 12 | 66 | 94259 | 326 |
| Heat treating of metals........ | 28 | 9 | 12 | 7 |  |  | 132 |  | 705 |
| Automatic screw machine department | 21 | 7 | 3 | 11 | $\begin{array}{r} 768 \\ 13,376 \end{array}$ | 9 | $\begin{array}{r}24 \\ 157 \\ \hline\end{array}$ | 735 | 1,49428,775 |
| Machine shop....... | 74 | 11 | 13 | 50 |  | 21 |  | 13,198 |  |
| Tool and die shop....... | 43 | 105 | 16 | 17 | 1,237 | 23 | (D) | 1,077 | 2,381 |
| Foundry pattern shop.......... | 9 |  | 3 | 1 |  | 810 |  | (D) |  |
| Plate or structural fabrication.. | 16 | 5 | 3 | 8 | 665 |  | 26 | 629 | $\begin{array}{r} 166 \\ 1,382 \end{array}$ |
| Stamping, blanking and forming of metals.............. | 28 | 7 | $\begin{array}{r}8 \\ 21 \\ \hline 18\end{array}$ | 13 | $\begin{array}{r} 1,061 \\ 438 \end{array}$ | 11 | 105 | 945 | 2,132 |
| Painting, lacquering and enameling on metals.......... | 53 |  |  | 6 |  | 36 | 188 | 2146,882 | 95314,2263,615 |
| Assembly of product...................................... | 66 | $\begin{aligned} & 12 \\ & 25 \end{aligned}$ | $\begin{aligned} & 12 \\ & 20 \end{aligned}$ | 42 | $\begin{aligned} & 7,065 \\ & 1,973 \end{aligned}$ | 19 | 164 |  |  |
| Shipping department, including packing and crating.... | 65 |  |  | 20 |  | 42 | 185 | 1,746 |  |
| All other operations such as maintenance, warehousing, etc. | 45 | 8 | 4 | 33 | 9,275 | 14 | 52 | 9,209 | 18,601 |
|  |  | Number of es | ishments |  |  | Employme | in the spe | ifled operat |  |
|  |  | Number | production w |  |  |  | Number of | roduction w | rkers ${ }^{1}$ |
|  | Total | 1 to 4 | 5 to 19 | $\begin{gathered} 20 \text { or } \\ \text { more } \end{gathered}$ | Total |  |  | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
|  |  |  | NDUSTRY 3 | - FARM M | Chinery | ND EQUIP |  |  |  |
| Ferrous foundry.......................................... | 42 | 10 | 13 | 23 |  |  | 8 | 152 | 4,985 |
| Nonferrous foundry (except die casting).................... |  | 10 | 11 | 2 |  |  | 24 | (D) |  |
| manufacture of nuts, bolts, etc.)........................... | 80 | 37 | 24 | 19 | 1,30 |  | 73 | 239 | 1,079 |
| Heat treating of metals.................................. | 136 | 96 | 25 | 15 | 1,0 |  | 162 | 250 | 686 |
| Automatic screw machine department...................... | 66 | 43 | 16 | 6 |  |  | 71 | 165 | 390 |
| Machine shop. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 487 | 246 | 154 | 87 | 12,83 |  | 462 | 1,547 | 10,827 |
| Tool and die shop........................................... | 216 | 122 | 61 | 33 | 2,6 |  | 218 | - 556 | 1,857 |
| Foundry pattern shop. | 47 | 32 | 10 | 5 |  |  | 45 | 119 | 167 |

See footnotes at end of table.

## TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963-Continued

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $20 \text { or }$ more |  | 1 to 4 | 5 to 19 | 20 or more |
|  | INDUSTRY 3522.-FARM MACHINERY AND EQUIPMENT-Continued |  |  |  |  |  |  |  |
| Plate or structural fabrication........................ | 263 | 113 | 110 | 40 | 2,741 | 225 | 1,049 | 1,467 |
| Stamping, blanking and forming of metals............. | 437 | 204 | 158 | 75 | 6,484 | 375 | 1,545 | 4,564 |
| Painting, lacquering and enameling on metals......... | 546 | 437 | 81 | 28 | 2,472 | 685 | 762 | 1,025 |
| Assembly of product................................... | 545 | 216 | 184 | 145 | 15,696 | 394 | 1,707 | 13,595 |
| Shipping department, including packing and crating... | 538 | 388 | 112 | 38 | 3,822 | 695 | 968 | 2,159 |

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

| Item | Industry |  |  |
| :---: | :---: | :---: | :---: |
|  | 3511 | 3519 | 3522 |
| Total number of establishments in the industry. | 22 | 143 | 1,568 |
| Number of establishments which reported one or more of the specified operations. | 20 | 95 | 711 |
| Percent of industry production workers in these establishments....... | 90-95 | 90-95 | 85-90 |
| Number of establishments which reported "none" of the operations apply........................ | 1 | 2 | 23 |
| Percent of industry production workers in these establishments................................ | 0-5 | 0-5 | 0-5 |
| Percent of industry production workers in establishments which completed the metalworking operations inquiry. | 95-100 | 95-100 | 90-95 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## CONSTRUCTION, MINING AND MATERIALS HANDLING MACHINERY AND EQUIPMENT

This report shows 1963 Census of Manufactures statistics for establishments classified n each of the following industries:

SIC Code and Title<br>3531 -Construction Machinery and Equipment<br>3532-Mining Machinery and Equipment, Except Oil Field Machinery and Equipment<br>3533-Oil Field Machinery and Equipment<br>3534-Elevators and Moving Stairways<br>3535--Conveyors and Conveying Equipment<br>3536-Hoists, Industrial Cranes, and Monorail Systems<br>3537-Industrial Trucks, Tractors, Trailers, and Stackers

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4 ) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3531 -CONSTRUCTION MACHINERY AND EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing heavy machinery and equipment used by the construction industries, such as bulldozers; concrete mixers; cranes, except industrial plant; dredging machinery; pavers, and power shovels. Establishments primarily engaged in manufacturing mining equipment are classified in industry 3532, and well drilling machinery in industry 3533. For a detailed list of products of industry 3531, refer to table 6A, product codes 3531103 to 3531998.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Construction Machinery Industry totaled $\$ 2,696$ million. This amount included shipments of construction machinery (primary products) valued at $\$ 2,332$ million, shipments of other products (secondary products) valued at $\$ 229$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 134$ million.

This industry's shipments of construction machinery represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 89 percent. Secondary products shipped by this industry in 1963 include farm machinery and equipment ( $\$ 20$ million) and motor vehicles and parts ( $\$ 15$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 21 percent of the total industry shipments are represented by plants specializing in scrapers, graders, rollers, and off-highway trucks, trailers, and wagons, excluding parts; and 20 percent in power cranes, draglines, shovels, and parts.

Shipments of construction machinery by this industry represented 89 percent of all shipments of these products ( $\$ 2,624$ million) by all industries. ln 1958 the coverage ratio was 90 percent.

The plants included in industry 3531 are, for the most part, typical of the heavy equipment industries. Their primary operations involve the fabricating of heavy materials (steel bars, plates and structural shapes) and the assembly of the complete machinery and equipment. Because of the wide range of construction equipment included within this industry, significantly different types of plants are involved. Those plants with a product line limited to the production of equipment for mounting on tractors or to the manufacture of draglines, buckets, and repair parts for construction machinery, etc., differ in at least one important respect from those plants producing complete machines, such as power cranes and shovels, motor graders, concrete mixers, pavers, and asphalt plants. In the first instance the operations are confined mostly to fabricating with only limited assembly operations being involved. The plants producing complete machines, however. involve extensive assembly operations in addition to such primary production activities as foundry, forging, and plate and structural fabricating operations.

An indication of the types of metalworking operations performed by all establishments classified in industry 3531 is shown in table 9 . This table presents data on the number of plants performing selected metalworking operations and the approximate size of these operations based on employment.

## 3532-MINING MACHINERY AND EQUIPMENT, EXCEPT OlL F1ELD MACHINERY AND EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing heavy machinery and equipment used by the mining industries, such as coal breakers, mine cars, mineral cleaning machinery, concentration machinery, core drills, coal cutters, portable rock drills, and rock crushing machinery. Establishments primarily engaged in manufacturing construction machinery are classified in industry 3531, well drilling machinery in industry 3533 , and coal and ore conveyors in industry 3535 . For a detailed list of products of industry 3532 , refer to table 6 A , product codes 3532113 to 3532475 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Mining Machinery and Equipment Industry totaled $\$ 418$ million. This amount included shipments of mining machinery (primary products) valued at $\$ 274$ million, shipments of other products (secondary products) valued at $\$ 92$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 51$ million.

This industry's shipments of mining machinery represented 75 percent of its total product shipments. The industry specialization ratio in 1958 was 72 percent. Secondary products shipped by this industry in 1963 include conveyors and conveying equipment ( $\$ 6$ million). and hoists ( $\$ 3$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8 . Approximately 43 percent of total industry shipments are represented by plants specializing in parts and attachments for mining machinery, and 29 percent in underground mining machinery.

Shipments of mining machinery and equipment by this industry represented 82 percent of all shipments of these products ( $\$ 336$ million) by all industries. $\ln 1958$ the coverage ratio was 78 percent. Industry 3545 , Machine Tool Accessories, shipped $\$ 8$ million of mining machinery and equipment.

## 3533-OIL FIELD MACHINERY AND EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing machinery and equipment for use in oil and gas fields, or for drilling water wells. For a detailed list of products of industry 3533, refer to table 6A, product codes 3533111 to 3533431.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Oil Field Machinery Industry totaled $\$ 667$ million. This amount included shipments of oil field machinery (primary products) valued at $\$ 519$ million, shipments of other products (secondary products) valued at $\$ 59$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 88$ million.

This industry's shipments of oil field machinery represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent. Secondary products shipped by this industry in 1963 include pumps and compressors ( $\$ 11$ million) and construction machinery ( $\$ 5$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 48 percent of the total industry shipments are represented by plants specializing in oil and gas field production machinery, and 37 percent in rotary oil and gas field drilling machines.

Shipments of oil field machinery by this industry represented 91 percent of all shipments of these products ( $\$ 573$ million) by all industries. In 1958 the coverage ratio was 94 percent.

It should be noted that industry 3533 includes only manufacturing plants engaged in the production of oil field machinery and equipment. Establishments primarily engaged in exploration, drilling, and well operation and maintenance are covered in the 1963 Census of Mineral Industries. In those instances where manufacturing plants were operated by companies primarily engaged in such nonmanufacturing activities as servicing and supplying the petroleum industry, separate establishment reports were obtained covering their manufacturing activities and such activities are included in industry 3533.

As shown in table 2, the plants classified in this industry are concentrated in or near the petroleum producing areas. Of the 408 plants classified in this industry, 315 plants are located in Texas, California, and Oklahoma.

## 3534-ELEVATORS AND MOVING STAIR WAYS

This industry comprises establishments primarily engaged in manufacturing passenger or freight elevators, automobile lifts, dumb waiters, and moving stairways. Establishments primarily engaged in manufacturing commercial conveyors systems and equipment are classified in industry 3535 , and farm elevators in industry 3522 . For a detailed list of products of industry 3534, refer to table 6A, product codes 3534011 to 3534097.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Some establishments classified in industry 3534 installed elevators and escalators which they produced in 1963. When the product was installed or erected by the regular labor force operating out of the manufacturing plant, the employment and payroll as well as the receipts for installation services are included in the statistics. However, if this equipment was installed or erected by a labor force separate from the regular force attached to the manufacturing plant, the installation costs and the income from installation were excluded from the report. The data in such instances include the engineering and supervising personnel on the regular plant payroll who were engaged in installing or testing the products. Where the installation was performed by a separate company, even though the services of that separate company may have been contracted for by the manufacturing plant, the installation costs and the receipts for installation were excluded from the report of the manufacturing plant.

Value of shipments and other receipts of the Elevators and Moving Stairways Industry totaled $\$ 319$ million. This amount included shipments of elevators and moving stairways (primary products) valued at $\$ 235$ million, shipments of other products (secondary products) valued at $\$ 8$ million, and miscellaneous receipts (mainly receipts for installation) at $\$ 75$ million.

This industry's shipments of elevators and moving stairways represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was also 97 percent.

Shipments of elevators and moving stairways by this industry represented 95 percent of all shipments of these products ( $\$ 248$ million) by all industries. In 1958 the coverage ratio was 80 percent.

The production index for the primary products of the industry increased to 173 in 1963 from the 1958 level of 109 . The unit value index for 1963 was 111 compared to 118 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3535-CONVEYORS AND CONVEY1NG EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing conveyors and conveying equipment for installation in factories, warehouses, mines, and other industrial and commercial establishments. Establishments primarily engaged in manufacturing passenger or freight elevators, dumb waiters, and moving stairways are classified in industry 3534 , and overhead traveling cranes and monorail systems in industry 3536. For a detailed list of products of industry 3535 , refer to table 6 A , product codes 3535111 to 3535211 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Some establishments classified in industry 3535, installed conveyors and conveying equipment they produced in 1963. The procedure described above for industry 3534
concerning the reporting of installation employees and receipts was also followed for establishments producing conveyors and conveying equipment.

Value of shipments and other receipts of the Conveyors lndustry totaled $\$ 495$ million. This amount included shipments of conveyors (primary products) valued at $\$ 342$ million, shipments of other products (secondary products) valued at $\$ 78$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 74$ million.

This industry's shipments of conveyors represented 82 percent of its total product shipments. The industry specialization ratio in 1958 was 81 percent. Secondary products shipped by this industry in 1963 include general industry machinery, n.e.c. ( $\$ 6$ million), and special industry machinery ( $\$ 5$ million).

Shipments of conveyors by this industry represented 83 percent of all shipments of these products ( $\$ 415$ million) by all industries. In 1958 the coverage ratio was 78 percent. Other industries shipping conveyors include industry 3566, Power Transmission Equipment, $\$ 17$ million, and industry 3531 , Construction Machinery, $\$ 8$ million.

## 3536-HOISTS, INDUSTRIAL CRANES, AND MONORAIL SYSTEMS

This industry comprises establishments primarily engaged in manufacturing overhead traveling cranes, hoists, and monorail systems for installation in factories, warehouses, and other industrial and commercial establishments. For a detailed list of products of industry 3536, refer to table 6A, product codes 3536112 to 3536255.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Some establishments classified in industry 3536 installed hoists, cranes, and monorail systems they produced in 1963. The procedure described above for industry 3534 concerning the reporting of installation employees and receipts was also followed for establishments producing hoists, cranes, and monorail systems.

Value of shipments and other receipts of the Hoists, Cranes, and Monorails Industry totaled $\$ 220$ million. This amount included shipments of hoists, cranes, and monorail systems (primary products) valued at $\$ 157$ million, shipments of other products (secondary products) valued at $\$ 40$ million, and miscellaneous receipts (mainly receipts for repair work) at $\$ 23$ million.

This industry's shipments of hoists, cranes, and monorail systems represented 80 percent of its total product shipments. The industry specialization ratio in 1958 was 79 percent. Secondary products shipped by this industry in 1963 include construction machinery ( $\$ 7$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8 . Approximately 64 percent of the total industry shipments are represented by plants specializing in overhead traveling cranes and monorail systems, and 35 percent in hoists.

Shipments of hoists, cranes, and monorail systems by this industry represented 70 percent of all shipments of these products ( $\$ 224$ million) by all industries. In 1958 the coverage ratio was 78 percent. Industry 3531 , Construction Machinery, accounted for $\$ 12$ million of shipments of hoists.

The production index for the primary products of the industry increased to 142 in 1963 from the 1958 level of 84 . The unit value index for 1963 was 97 compared to 124 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3537--INDUSTRIAL TRUCKS, TRACTORS, TRAILERS, AND STACKERS

This industry comprises establishments primarily engaged in manufacturing industrial trucks, tractors, trailers, stackers (truck type), and related equipment, used for handling materials on floors and paved surfaces in and around industrial and commercial plants, depots, docks, and terminals. Establishments primarily engaged in manufacturing motor vehicles and motor vehicle type trailers are classified in Group 371; farm type wheel tractors in industry 3522; wheel tractor shovel loaders, tracklaying tractors in industry 3531; and wood pallets and skids in industry 2499. For a detailed list of products of industry 3537 , refer to table 6A, product codes 3537011 to 3537081.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Industrial Trucks and Tractors Industry totaled $\$ 447$ million. This amount included shipments of industrial trucks and tractors (primary products) valued at $\$ 370$ million, shipments of other products (secondary products) valued at $\$ 43$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 33$ million.

This industry's shipments of industrial trucks and tractors represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 include "other hardware" ( $\$ 6$ million).

Shipments of industrial trucks and tractors by this industry represented 81 percent of all shipments of these products ( $\$ 459$ million) by all industries. In 1958 the coverage ratio was 84 percent. Other industries shipping industrial trucks and tractors include industry 3717, Motor Vehicles and Parts, $\$ 26$ million, and industry 3531, Construction Machinery, $\$ 8$ million.

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | $\begin{gathered} \text { Value } \\ \text { added by } \\ \text { manufacture, } \\ \text { adjusted } \\ (\$ 1,000) \\ \hline \end{gathered}$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3531.-CONSTRUCTION MACHINERY |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 561 | 617 | 305 | 104,520 | 683,728 | 76,526 | 155,267 | 462,411 | 1,301,266 | 1,403,162 | 2,696,039 | 56,227 | 91 | 89 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 98,996 | 631,091 | 71,317 | 142,334 | 416,760 | 1,142,868 | 1,284,264 | 2,369,864 | 49,835 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 94,954 | 570,135 | 67,169 | 131,360 | 366,198 | 972,120 | 1,153,990 | 2,150,450 | 41,384 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 111,713 | 636,645 | 78,067 | 152,464 | 412,615 | 930,715 | 1,287,214 | 2,254,164 | 71,317 | (NA) | (NA) |
| 19591 | (NA) | (NA) | (NA) | 112,809 | 654,886 | 81,240 | 166,059 | 435,200 | 1,179,894 | 1,395,952 | 2,517,379 | 66,108 | (NA) | (NA) |
| $1958{ }^{2}$ | 532 | 579 | 295 | 95,304 | 496,751 | 66,510 | 124,622 | 310,252 | 1,022,801 | 1,033,605 | 2,107,352 | 45,377 | 88 | 90 |
|  | INDUSTRY 3532.-MINING MACHINERY AND EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 198 | 204 | 93 | 16,910 | 109,531 | 11,814 | 23,289, | 67,669 | 215,406 | 203,786 | 417,616 | 6,847 | 75 | 82 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 19,087 | 120,847 | 11,853 | 24,015 | 66,989 | 205,689 | 194,840 | 402,425 | 6,515 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 19,818 | 122,015 | 12,328 | 25,116 | 65,774 | 220,305 | 202,580 | 427,479 | 7,411 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 19,584 | 115,494 | 12,846 | 25,294 | 65,927 | 209,660 | 193,835 | 406,946 | $(6,286)$ | (NA) | (NA) |
| 19591 | (NA) | (NA) | (NA) | 18,103 | 104,298 | 12,025 | 23,720 | 61,322 | 204,572 | 189,668 | 399,549 | 6,017 | (NA) | (NA) |
| $1958{ }^{2}$ | 167 | 173 | 90 | 17,808 | 96,966 | 11,661 | 22,578 | 56,423 | 165,831 | 167,142 | 342,035 | 6,507 | 72 | 77 |
|  | INDUSTRY 3533. -OIL FIELD MACHINERY |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 373 | 408 | 176 | 29,203 | 184,288 | 20,114 | 41,409 | 113,526 | 398,152 | 264,350 | 666,532 |  | 90 | 91 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 28,454 | 179,287 | 18,591 | 41,034 | 106,351 | 381,660 | 242,222 | 625,265 | $(17,556)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 27,237 | 169,223 | 17,708 | 38,526 | 98,023 | 352,644 | 224,246 | 587,450 | $(12,849)$ | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 31,157 | 187,416 | 20,147 | 43,086 | 108,295 | 369,962 | 249,102 | 615,108 | 16,071 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 33,042 | 194,534 | 21,934 | 45,875 | 114,307 | 400,068 | 271,706 | 654,086 | 20,203 | (NA) | (NA) |
| 1958. | 351 | 389 | 168 | 31,878 | 174,692 | 20,724 | 41,215 | 101,916 | 336,788 | 241,854 | 585,268 | 18,341 | 92 | 94 |
| 19571. | (NA) | (NA) | (NA) | 42,019 | 225,817 | 29,912 | 60,718 | 140,129 | 433,828 | 364,033 | 759,708 | (S) | 90 | 95 |
| 19561 | (NA) | (NA) | (NA) | 42,854 | 224,544 | 31,269 | 65,600 | 143,237 | 464,941 | 379,115 | 801,114 | (S) | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 39,145 | 196,149 | 28,438 | 60,518 | 125,503 | 420,052 | 326,809 | 700,678 | (S) | (NA) | (NA) |
| 1954. | 319 | 345 | 158 | 33,687 | 161,802 | 24,143 | 49,577 | 102,320 | 327,509 | 217,378 | 542,500 | 18,188 | 89 | 93 |
| 19531. | (NA) | (NA) | (NA) | 34,721 | 161,872 | 24,962 | 52,989 | 105,414 | 306,079 | 202,690 | 508,769 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 35,847 | 162,191 | 26,162 | 57,247 | 108,200 | 314,190 | 220,857 | 535,047 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 32,525 | 138,408 | 23,449 | 52,905 | 91,913 | 286,665 | 190,934 | 477,599 | (NA) | (NA) | (NA) |
| 29501 | (NA) | (NA) | (NA) | 26,677 | 101,737 | 19,510 | 41,201 | 67,023 | 204, 827 | 135,446 | 340,273 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 25,580 | 93,559 | 19,364 | 38,745 | 61,046 | 168,934 | 121,121 | 290,055 | (NA) | (NA) | (NA) |
| $\begin{aligned} & 1947 \text {. } \\ & 1939^{2} \end{aligned}$ | 204 | 230 | 133 | 29,177 | 91,532 | 22,709 | 47,510 | 65,083 | 171,265 | 117,588 | 288,853 | 11,295 | 88 | 91 |
|  | (NA.) | 239 | (NA) | (NA) | (NA) | 12,642 | (NA) | 18,940 | 58,101 | 31,451 | 89,552 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3534.-ELEVATORS AND MOVING STAIRWAYS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 126 | 142 | 74 | 12,393 | 88,389 | 7,427 | 15,458 | 49,634 | 201,527 | 114,684 | 318,616 | 3,315 | 97 | 95 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | $(9,491)$ | $(72,165)$ | $(5,486)$ | $(11,550)$ | $(38,798)$ | $(195,872)$ | $(111,499)$ | (312,550) | $(1,568)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | $(9,784)$ | $(67,019)$ | $(5,477)$ | $(11,451)$ | $(35,997)$ | $(179,523)$ | $(88,634)$ | $(265,056)$ | $(2,782)$ | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 8,909 | 59,745 | 5,311 | 10,469 | 31,751 | 149,732 | 83,580 | 235,405 | 1,319 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 9,323 | 55,893 | 5,542 | 11,723 | 31,579 | 135,225 | 80,510 | 216,778 | $(1,137)$ | (NA) | (NA) |
| 1958. | 135 | 144 | 76 | 9,626 | 55,657 | 5,868 | 11,764 | 31,156 | 126,270 | 71,106 | 192,806 | 2,321 | 97 | 80 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 12,020 | 65,479 | 7,368 | 14,991 | 37,182 | 143,018 | 79,797 | 229,871 | 8,442 | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 11,176 | 61,862 | 7,262 | 15,500 | 36,231 | 131,907 | 75,330 | 185,002 | 4,644 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 9,537 | 46,389, | 6,393 | 13,067 | 29,376 | 102,895 | 53,051 | 157,398 | 1,639 | (NA) | (NA) |
| 1954. | 127 | 131 | 66 | 10,257 | 49,518 | 7,017 | 14,164 | 31,766 | 99,763 | 64,603 | 167,494 | 1,429 | 87 | 89 |
| $1953{ }^{1}$. | (NA) | (NA) | (NA) | 10,198 | 47,828 | 6,664 | 14,018 | 30,683 | 82,940 | 60,965 | 143,905 | (NA) | (NA) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (NA) | 11,985 | 53,179 | 8,015 | 16,762 | 33,976 | 79,876 | 71,546 | 151,422 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 11,141 | 47,252 | 7,671 | 16,298 | 30,559 | 70,390 | 62,409 | 132,799 | (NA) | (NA) | (NA) |
| 1947. | 108 | 111 | 62 | 10,227 | 33,998 | 7,317 | 15,331 | 22,890 | 68,614 | 33,201 | 101,815 | 1,855 | 92 | 91 |
| $1939{ }^{2}$. | (NA) | 101 | (NA) | (NA) | (NA) | 3,591 | (NA) | 5,111 | 16,945 | 9,871 | 26,816 | (NA) | (NA) | (NA) |

INDUSTRY 3535.—CONVEYORS

| 1963. | 428 | 454 | 175 | 20,778 | 140,617 | .12,642 | 26,312 | 74,020 | 270,475 | 231,080 | 494,632 | 6,125 | 82 | 83 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1962^{1}$ | (NA) | (NA) | (NA) | 21,227 | 137,017 | 12,704 | 25,208 | 70,939 | 249,154 | 215,808 | 460,279 | 9,060 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 19,851 | 121,393 | 11,498 | 23,688 | 61,427 | 215,282 | 181,905 | 399,789 | $(6,116)$ | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 21,490 | 132,507 | 12,568 | 26,501 | 69,237 | 239,983 | 203,949 | 439,728 | 5,981 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 21,436 | 129,558 | 13,043 | 26,138 | 67,658 | 229,379 | 198,528 | 425,397 | 4,524 | (NA) | (NA) |
| $1958{ }^{2}$. | 401 | 420 | 150 | 20,789 | 119,431 | 12,698 | 25,584 | 62,578 | 192,892 | 186,979 | 385,714 | 7,197 | 81 | 78 |

See footnotes at end of table.
table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | $\begin{gathered} \begin{array}{c} \text { Value } \\ \text { added by } \\ \text { manufacture, } \\ \text { adjusted } \end{array} \\ (\$ 1,000) \end{gathered}$ | Cost of materials <br> $(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Cov- <br> erage <br> ratio <br> (per- <br> cent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | $\begin{array}{\|l\|} \text { With } 20 \\ \text { employ- } \\ \text { ees } \\ \text { or more } \\ \text { (number) } \\ \hline \end{array}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Man-hours } \\ & (1,000) \end{aligned}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | industry 3536.-hotsts, cranes, and monorails |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 i | 120 | 120 | 56 | 9,585 | 64,301 | 6,776 | 13,980 | 41,433 | 112,327 | 110,949 | 220,015 | 2,644 | 80 | 70 |
| 1962 | (NA) | (NA) | (NA) | 8,467 | 53,993 | 5,769 | 11,713 | 32,565 | 88,445 | 77,241 | 166,030 | 3,325 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 8,473 | 50,690 | 5,657 | 11,543 | 30,068 | 82,244 | 77,567 | 162,650 | 3,317 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 9,611 | 57,718 | 6,835 | 13,527 | 35,314 | 93,133 | 91,566 | 188,151 | 4,521 | (NA) | (NA) |
| 19588...... | ( NA ) | ( NA ) | ( NA ) | 8,784 | 50,868 | 6,214 | 12,261 | 30,689 | 85,877 | 82,136 | 164,305 | 2,582 | (NA) | (NA) |
|  | 78 | 81 | 54 | 9,520 | 53,566 | 6,555 | 12,988 | 32,840 | 92,759 | 85,484 | 184,722 | 5,056 | 79 | 78 |
|  | INDUSTRY 3537.-INDUSTRIAL TRUCKS AND TRACTORS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 304 | 314 | 108 | 17,570 | 110,444 | 11,454 | 23,815 | 64,476 | 233,116 | 215,499 | 446,957 | 6,696 | 90 | 81 |
| $1962^{1}$ | (NA) | (NA) | (NA) | 16,473 | 100,374 | 10,837 | 22,223 | 58,113 | 175,410 | 190,664 | 360,562 |  | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 15,670 | 90,827 | 9,873 | 20,320 | 49,874 | 144,832 | 167,494 | 319,449 |  | (NA) | (NA) |
| $1960^{1}$ | (NA) | (NA) | (NA) | 17,473 | 100,683 | 11,569 | 24,147 | 59,514 | 169,279 | 194,802 | 366,043 | 5,981 | (NA) | (NA) |
| 19591. | (nA) | (NA) | (NA) | 15,274 | 88,369 | 10,012 | 21,095 | 52,056 | 170,410 | 176,650 | 333,196 | 4,299 | (NA) | (NA) |
| 1958. |  |  |  | 14,786 | 76,200 | 9,545 | 18,121 | 42,982 | 117,500 | 140,421 | 269,328 | 3,344 | 93 |  |
| 19571 | (NA) | (NA) | (NA) | 17,979 | 96,817 | 12,088 | 23,826 | 58,098 | 156,796 | 172,395 | 328,319 | (s) | 89 | 87 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 18,593 | 97,422 | 13,026 | 27,009 | 60,629 | 188,794 | 177,425 | 344,455 | (s) | (NA) | (NA) |
| 19551. | (na) | (NA) | (NA) | 17,039 | 85,527 | 12,251 | 25,205 | 55,162 | 147,320 | 161,310 | 302,423 | (s) | (NA) | (NA) |
| 1954. | 234 | 245 | 96 | 15,797 | 71,824 | 11,061 | 22,123 | 44,813 | 124,455 | 132,206 | 260,063 | 7,088 | 88 | 83 |
| 19531. | (NA) | (NA) | (NA) | 19,679 | 88,844 | 13,909 | 29,119 | 58,738 | 182,541 | 144,166 | 326,707 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 15,781 | 73,781 | 11,453 | 24,292 | 48,067 | 159,478 | 129,941 | 289,419 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 15,676 | 67,995 | 11,781 | 25,878 | 47,512 | 128,407 | 143,856 | 272,263 | (NA) | (NA) | (NA) |
| 19501 | (NA) | (NA) | (na) | 12,372 | 45,807 | 8,990 | 19,247 | 29,716 | 87,222 | 79,229 | 166,451 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 11,444 | 43,481 | 8,118 | 16,964 | 24,736 | 75,654 | 64,507 | 140,161 | (NA) | (NA) | (NA) |
| 1947. | 191 | 196 70 | ( 78 | $\begin{array}{r} 13,926 \\ \text { (NA) } \end{array}$ | 41,908 | 10,603 3 | 22,460 | 29,530 4,576 | 81,517 | 80,634 | 162,151 | (NA) | 84 | 84 |
| $1939{ }^{2}$ | (NA) | 70 | (NA) | (NA) | (NA) | 3,652 | (NA) | 4,576 | 13,181 | 17,174 | 30,355 | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unad justed value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
$(S)$ Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
$l_{\text {These }}$ figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ No comparable figures are available for earlier years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll $(\$ 1,000)$ | Total (number) | Manhours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total........... | INDUSTRY 3531.-CONSTRUCTION MACHINEFY |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 617 | 305 | 104,520 | 683,728 | 76,526 | 155,267 | $\begin{array}{r} 462,411 \\ 2,742 \\ 1,008 \end{array}$ | 1,301,266 | 1,403,162 | 2,696,039 | 56,227 | 95,304 | 1,022,801 |
| New England......... Massachusetts.... | $\begin{aligned} & 22 \\ & 12 \end{aligned}$ | $\begin{aligned} & 8 \\ & 4 \end{aligned}$ | 747 268 | 4,279 1,710 | 545 183 | $\begin{array}{r} 1,134 \\ 399 \end{array}$ |  | 5,909 1,843 | 5,387 2,362 | 11,818 4,142 | 263 52 | 963 313 | $\begin{aligned} & 7,588 \\ & 3,140 \end{aligned}$ |
| Middle Atlantic. | $\begin{aligned} & 72 \\ & 24 \\ & 24 \\ & 24 \end{aligned}$ | $\begin{array}{r} 36 \\ 13 \\ 9 \\ 14 \end{array}$ | 4,740 | 29,515 | 3,251 | 6,622 | 18,544 | 54,793 | 58,409 | 113,594 | 3,280 | 5,790 | 74,855 |
| New York. |  |  | 1,163 | 6,579 | 836 | 1,716 | 4,366 | 12,026 | 18,282 | 29,661 | -289 | , 663 | 8,068 |
| New Jersey. |  |  | 942 | 6,010 | 591 | 1,231 | 3,367 | 8,351 | 9,189 | 19,373 | 150 | 1,291 | 11,726 |
| Pennsylvania. |  |  | 2,635 | 16,926 | 1,824 | 3,675 | 10,811 | 34,416 | 30,938 | 64,560 | 2,551 | 3,836 | 55,061 |
| East North Central. | $\begin{array}{r} 209 \\ 64 \\ 15 \\ 61 \\ 31 \\ 38 \end{array}$ |  | 75,950 | 508,008 | 56,086 | 113,095 | 349,283 | 967,368 | 1,034,962 | 1,997,652 | 39,589 | 70,285 | 7771,670 |
| Ohio.. |  | 129 | 12,371 | 81,491 | 8,662 | 17,672 | 51,725 | 153,546 | 188,313 | 344,038 | 4,822 | 12,082 | 99,894 |
| Indiana. |  | 10 | 3,658 | 21,918 | 2,662 | 5,133 | 14,909 | 45,183 | 36,952 | 87,708 | 655 | 4,050 | 35,061 |
| Illinois. |  |  | 44,715 | 304,441 | 34,066 | 68,746 | 217,095 | 576,436 | 606,136 | 1,163,578 | 28,920 | 36,749 | 477,030 |
| Michigan |  | 36 16 | 4,500 | 27,683 | 3,013 | 5,528 | 16,410 | 51,597 | 74,751 | 130,156 | 1,713 | 4,624 | 49,821 |
| Wisconsin. |  | 16 27 | 10,706 | 72,475 | 7,683 | 16,016 | 49,144 | 140,606 | 128,810 | 272,172 | 3,479 | 12,780 | 109,864 |
| West North Central. | 8230 | 45 | 10,579 | 65,208 | 7,512 | 15,665 | 41,756 | 131,011 | 147,322 | 275,520 | 7,701 | 8,687 | 74,988 |
| Minnesota........ |  | 14 | 4,038 | 24,608 | 2,825 | 5,989 | 16,023 | 42,555 | 42,260 | 83,984 | 2,843 | 3,134 | 24,831 |
| Iowa.. | 23 | 13 | 4,719 | 29,645 | 3,341 | 6,991 | 18,958 | 72,313 | 75,520 | 147,243 | 2,654 | 4,532 | 43,919 |
| Missouri | $\begin{array}{r} 12 \\ 6 \end{array}$ | 13 9 | 1,134 | 7,106 | 789 | 1,504 | 4,111 | 11,030 | 19,588 | 29,127 | 1,988 | 448 | 2,781 |
| Nebraska |  | 4 | - 213 | 1,098 | 181 | 377 | 814 | 2,018 | 1,861 | 4,069 | 56 | 178 | 871 |
| Kansas. | 11 | 5 | 475 | 2,751 | 376 | 804 | 1,850 | 3,095 | 8,093 | 11,097 | 160 | 395 | 2,586 |
| South Atlantic. | 28 | 6 | 1,178 | 7,627 | 858 | 1,728 | 4,506 | 20,427 | 25,220 | 43,018 | 1,284 | 1,175 | 15,918 |
| East South Central. | 15 | 5 | 665 | 3,923 | 520 | 1,158 | 2,833 | 7,786 | 7,482 | 14,731 | 493 | 928 | 7,353 |
| West South Central. | $\begin{aligned} & 53 \\ & 34 \end{aligned}$ | $\begin{aligned} & 29 \\ & 17 \end{aligned}$ | 4,045 | 22,176 | 3,096 | 6,680 | 14,667 | 37,496 | 49,297 | 87,943 | 1,248 | 2,761 | 24,689 |
| Texas.. |  |  | 2,374 | 13,042 | 1,788 | 3,922 | 8,348 | 20,882 | 26,148 | 48,064 | 645 | 1,520 | 13,201 |
| Mountain. | 20 | 6 | 1,161 | 7,004 | 731 | 1,497 | 4,677 | 6,109 | 8,859 | 16,150 | 206 | 1,144 | 15,806 |
| Pacific. | $\begin{array}{r} 116 \\ 14 \\ 13 \\ 89 \end{array}$ | $\begin{array}{r} 41 \\ 6 \\ 4 \\ 31 \end{array}$ | 5,455 | 35,988 | 3,927 | 7,688 | 23,403 | 70,367 | 66,224 | 135,613 | 2,163 | 3,571 | 29,934 |
| Washingto |  |  | 1,141 | 8,237 | 947 | 1,871 | 6,447 | 11,794 | 11,401 | 23,303 | 644 | 727 | 6,657 |
| Oregon. |  |  | 268 | 1,668 | 178 | 362 | 1,030 | 3,917 | 4,188 | 7,875 | 151 | 237 | 2,820 |
| California....... |  |  | 4,046 | 26,083 | 2,802 | 5,455 | 15,926 | 54,656 | 50,635 | 104,435 | 1,368 | 2,607 | 20,457 |
|  | INDUSTRY 3532. -MINING MACHINERY AND EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 204 | 93 | 16,910 | 109,531 | 11,814 | 23,289 | 67,669 | 215,406 | 203,786 | 417,616 | 6,847 | 17,808 | 165,831 |
| Northeast... | $\begin{aligned} & 44 \\ & 34 \end{aligned}$ | $\begin{aligned} & 28 \\ & 22 \end{aligned}$ | 4,993 | 31,257 | 3,380 | 6,835 | 19,738 | 53,369 | 73,203 | 129,635 | 2,045 | 5,279 | 47,032 |
| Pennsylvania..... |  |  | 3,137 | 20,506 | 2,035 | 4,085 | 12,394 | 32,362 | 51,583 | 84,402 | 909 | 3,286 | 30,747 |
| East North Central. | $\begin{aligned} & 48 \\ & 18 \end{aligned}$ | 27 | 7,030 | 47,807 | 4,880 | 9,297 | 28,432 | 93,965 | 84,061 | 174,091 | 2,732 | 7,021 | 59,434 |
| Ohio...... |  | 12 | 1,978 | 12,053 | 1,579 | 2,760 | 9,009 | 26,783 | 21,711 | 49,493 | 499 | 4,043 | 31,372 |
| Illinois.. | 11 | 6 | 1,170 | 7,917 | 801 | 1,434 | 4,389 | 13,397 | 11,802 | 24,838 | 412 | 1,464 | 12,161 |
| Wisconsin. | 9 | 4 | 3,415 | 24,641 | 2,128 | 4,323 | 12,755 | 47,863 | 46,597 | 90,131 | 1,647 | $\left(^{2}\right)$ | ${ }^{(2)}$ |
| West North Central. Missouri | 17 7 | $\begin{array}{r}10 \\ 4 \\ \hline\end{array}$ | 1,079 221 | 6,997 1,614 | 769 143 | 1,574 298 | 4,390 | 14,624 3,690 | 12,293 2,187 | 27,203 5,822 | $\begin{array}{r} 213 \\ 79 \end{array}$ | 1,323 ${ }^{(2)}$ | $11,903$ |
| South Atlantic..... | $\begin{aligned} & 38 \\ & 27 \end{aligned}$ | $\begin{array}{r} 12 \\ 9 \end{array}$ | 1,360 | 7,468 | 985 | 1,962 | 4,606 | 14,284 | 12,714 | 27,313 | 628 | 1,105 | 9,810 |
| West Virginia.... |  |  | 1,184 | 6,484 | 854 | 1,682 | 4,030 | 11,007 | 10,222 | 21,557 | 521 | -,936 | 7,324 |
| East South Central. | 7 | 31 | 258 | 1,341 | 176 | 355 | 783 | 3,091 | 1,764 | 5,018 | 17 | 246 | 1,650 |
| West South Central. | 12 |  | 82 | 418 | 64 | 126 | 299 | 1,002 | 900 | 1,790 | 154 | 307 | 3,285 |
| Mountain.. | $\begin{aligned} & 16 \\ & 10 \end{aligned}$ | 1 | 1,692 | 11,290 | 1,263 | 2,563 | 7,497 | 28,539 | 13,087 | 40,716 | 859 | 2,113 | 24,919 |
| Colorado |  | 7 | 1,632 | 10,818 | 1,224 | 2,476 | 7,206 | 27,468 | 12,569 | 39,134 | 813 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| ```Pacific............ California.......``` | $\begin{aligned} & 22 \\ & 13 \end{aligned}$ | 5 <br> 2 | 416 | 2,953 | 297 | 577 | 1,924 | 6,532 | 5,764 | 11,850 | 199 | 414 | 7,798 |
|  |  |  | 248 | 1,933 | 175 | 354 | 1,197 | 4,996 | 3,753 | 8,389 | 101 | 358 | 7,240 |
|  | INDUSTRY 3533.-OIL FIELD MACHINERY |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 408 | 176 | 29,203 | 184,288 | 20,114 | 41,409 | 113,526 | 398,152 | 264,350 | 666,532 | 11,321 | 31,878 | 336,788 |
| Northeast.......... | 13 | 64 | 902 | 5,618 | 653 | 1,311 | 3,698 | 12,233 | 7,680 | 20,054 | 232 | 1,496 | 12,458 |
| Pennsylvania..... |  |  | 743 | 4,731 | 547 | 1,098 | 3,157 | 9,917 | 5,702 | 15,748 | 145 | 1,431 | 11,801 |
| East North Central. | 23 | $\begin{aligned} & 9 \\ & 4 \end{aligned}$ | 807 | 4,450 | 530 | 1,079 | 2,764 | 9,661 | 6,221 | 16,647 | 288 | 877 | 7,609 |
| Ohio. |  |  | 493 | 2,616 | 308 | 627 | 1,625 | 4,536 | 4,067 | 9,462 | 78 | 524 | 4,905 |
| West North Central. | 12 | 3 | 487 | 3,026 | 333 | 677 | 1,650 | 5,072 | 7,434 | 12,554 | 156 | 812 | 7,237 |
| South.. | 28216 | 126 | 23,233 | 144,233 | 15,895 | 32,720 | 87,693 | 306,674 | 206,336 | 516,731 | 9,066 | 23,473 | 257,787 |
| Louisiana |  |  | 708 | 4,193 | 565 | 1,191 | 2,974 | 7,583 | 9,080 | 16,400 | 435 | 515 | 5,071 |
| 0klahoma. |  | 24 | 4,228 | 25,240 | 3,035 | 6,130 | 16,425 | 51,427 | 43,977 | 97,160 | 925 | 4,265 | 35,955 |
| Texas. | 67 184 | 90 | 17,703 | 111,515 | 11,827 | 24,419 | 65,922 | 244,221 | 150,306 | 396,587 | 7,478 | 18,257 | 214,409 |
| Mountain. . | 13 | $\begin{array}{r} 3 \\ 29 \end{array}$ | 488 | 3,180 | 261 | 534 | 1,320 | 5,977 | 6,832 | 12,591 | 32 | 569 | 5,751 |
| Pacific. | 65 |  | 3,286 | 23,781 | 2,442 | 5,088 | 16,401 | 58,535 | 29,847 | 87,955 | 1,547 | 4,651 | 45,946 |

See footnotes at end of table.
table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by тапиғасture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3534.-ELEVATORS AND MOVING STAIRWAYS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 14 | 74 | $\begin{array}{r} 12,393 \\ 424 \end{array}$ | $\begin{array}{r} 88,389 \\ 3,154 \end{array}$ |  | $\begin{array}{r} 15,458 \\ 610 \end{array}$ | $\begin{array}{r} 49,634 \\ 1,836 \end{array}$ | $\begin{array}{r} 201,527 \\ 4,344 \end{array}$ | $\begin{array}{r} 114,684 \\ 3,097 \end{array}$ | $\begin{array}{r} 318,616 \\ 7,256 \end{array}$ | $\begin{array}{r} 3,315 \\ 94 \end{array}$ | $\begin{array}{r} 9,626 \\ 293 \end{array}$ | $\begin{array}{r} 126,270 \\ 2,225 \end{array}$ |
| New England... |  | 6 |  |  | $298$ |  |  |  |  |  |  |  |  |
| Middle Atlantic.... Pennsylvania..... | 30 9 | 18 6 | 7,035 496 | 52,863 3,324 | 4,389 328 | 9,293 685 | 31,908 2,045 | 137,497 6,715 | 63,065 5,459 | $\begin{array}{r} 205,244 \\ 12,073 \end{array}$ | 1,667 87 | 4,913 ${ }^{2}$ ) | 85, 000 |
| East North Central. Ohio........... | 47157 | 74 | 2,467 1,182 | 15,757 7,397 | 1,520 702 | 3,019 1,386 | 8,745 3,920 | 29,385 12,332 | 23,406 11,415 | 52,058 23,617 | 758 513 | 2,250 1,260 | 20,199 10,519 |
| Indiana. . . . . . . . . |  |  | 262 | 1,435 | 188 | 381 | 1,039 | 3,775 | 4,032 | 7,724 | 112 | 128 | 2,440 |
| West North Central. Minnesota........ | 13 6 | 3 | 181 | 1,143 | 91 43 | 179 87 | 606 | 2,259 1,147 | 1,873 | 4,074 2,440 | 69 32 | 341 | 2,506 604 |
| South. . | 18 | 13 | 1,410 | 8,924 | 685 | 1,448 | 3,672 | 14,487 | 11,788 | 25,684 | 448 | 1,050 | 7,753 |
| West. California....... | $\begin{aligned} & 26 \\ & 19 \end{aligned}$ | 11 | 876 | 6,548 | 444 | 909 | 2,867 | 13,555 | 11,455 | 24,300 | 279 | 779 | 8,587 |
|  |  | , | 790 | 5,741 | 397 | 820 | 2,500 | 12,076 | 9,595 | 21,202 | 245 | 622 | 7,108 |
|  |  |  | INDUSTRY 3535.-CONVEYORS |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 454 | 175 | 20,778 | 140,617 | 12,642 | 26,312 | 74,020 | 270,475 | 231,080 | 494,632 | 6,125 | 20,789 | 192,892 |
| New England........ . Massachusetts.... |  | 5 5 | 296 | 1,957 | 207 | 441 383 | 1,153 | 3,844 3,380 | 2,644 | 6,436 | 63 | 282 | 2,018 |
|  |  | 5 | 258 | 1,660 | 182 | 383 | 977 | 3,380 | 2,414 | 5,742 | 43 | 222 | 1,510 |
| Middle Atlantic.... | 92 | 35 | 5,812 | 38,008 | 3,271 | 6,739 | 19,089 | 75,680 | 70,453 | 144,238 | 1,715 | 5,694 | 56,689 |
| New York. | 29 | 12 | 1,157 | 7,494 | 693 | 1,406 | 4,027 | 14,528 | 10,828 | 25,092 | 423 | 1,254 | 13,292 |
| New Jersey. | 29 | 10 | 1,241 | 8,311 | 744 | 1,564 | 4,172 | 14,666 | 23,544 | 37,336 | 549 | 1,686 | 13,922 |
| Pennsylvania.... | 34 | 13 | 3,414 | 22,203 | 1,834 | 3,769 | 10,890 | 46,486 | 36,081 | 81,810 | 743 | 2,754 | 29,475 |
| East North Central. | 179 | 75 | 8,553 | 62,324 | 5,309 | 11,007 | 33,459 | 117,432 | 96,862 | 211,097 | 2,510 | 8,822 | 84,133 |
| Ohio.... | 38 | 18 | 1,793 | 11,187 | 1,072 | 2,293 | 5,693 | 19,340 | 19,252 | 38,172 | 587 | 1,527 | 12,670 |
| Indiana.. | 13 | 3 | 163 | 913 | 117 | 225 | 602 | 972 | 933 | 1,948 | 104 | ${ }^{2}$ ) | ${ }^{(2)}$ |
| Illinois.. | 53 | 17 | 2,205 | 15,297 | 1,372 | 2,912 | 8,866 | 27,632 | 21,908 | 49,458 | 574 | 3,103 | 33,104 |
| Michigan......... | 58 | 29 | 3,771 | 30,860 | 2,297 | 4,654 | 15,821 | 61,903 | 49,178 | 107,894 | 1,168 | 3,394 | 30,572 |
| Wisconsin........ | 17 | 8 | 621 | 4,067 | 451 | 923 | 2,477 | 7,585 | 5,591 | 13,625 | 77 | 704 | 7,072 |
| West North Central. | 45 | 17 | 1,745 | 11,919 | 1,004 | 2,154 | 5,650 | 21,309 | 16,117 | 36,958 | 507 | 1,510 | 14,765 |
| Minnesota........ | 13 | 4 | 560 | 3,252 | 320 | 604 | 1,664 | 5,889 | 5,550 | 11,471 | 54 | 487 | 4,359 |
| Iowa.... | 9 | 3 | 124 | 659 | 89 | 206 | 415 | 2,307 | 1,280 | 3,594 | 66 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Missouri. | 12 | 4 | 520 | 3,787 | 309 | 677 | 1,779 | 6,596 | 4,572 | 11,121 | 143 | 478 | 4,373 |
| South Atlantic..... | 19 | 6 | 741 | 4,516 | 452 | 901 | 2,092 | 10,978 | 9,871 | 20,821 | 329 | 724 | 6,594 |
| East South Central. | 18 | 9 | 1,619 | 8,820 | 1,180 | 2,543 | 5,650 | 19,852 | 14,755 | 33,880 | 515 | 1,989 | 11,908 |
| Kentucky......... | 8 | 4 | 873 | 5,399 | 629 | 1,294 | 3,382 | 10,155 | 5,967 | 15,834 | 178 | 672 | 5,631 |
| West South Central. | 24 | 10 | 762 | 4,373 | 495 | 1,029 | 2,339 | 6,987 | 6,338 | 13,196 | 199 | 521 | 4,101 |
| Louisiana........ | 3 | 2 | 115 | 760 | 77 | 138 | 442 | 1,093 | 648 | 1,730 | (D) | (2) | ${ }^{(2)}$ |
| Texas............ | 11 | 6 | 536 | 3,010 | 337 | 719 | 1,525 | 4,957 | 4,649 | 9,480 | 129 | 400 | 2,978 |
| Mountain.. | 10 | 3 | 128 | 865 | 72 | 162 | 471 | 1,652 | 1,199 | 2,764 | 41 | 124 | 995 |
| Pacific............. Washington. California. $\qquad$ | $\begin{array}{r} 49 \\ 6 \\ 38 \end{array}$ | 15 | 1,122 | 7,835 | 652 | 1,336 | 4,117 | 12,741 | 12,841 | 25,242 | 246 | 1,121 | 11,689 |
|  |  | $\begin{array}{r}1 \\ 13 \\ \hline\end{array}$ | 111 | 690 | 71 | 136 | 403 | 1,167 | 957 | 2,100 | 7 | ${ }^{(2)}$ | ${ }^{(2)}$ |
|  |  |  | 942 | 6,652 | 528 | 1,090 | 3,375 | 10,913 | 11,167 | 21,831 | 232 | 1,022 | 10,787 |
|  | INDUSTRY 3536.-HOISTS, CRANES, AND MONORAILS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 120 | 56 | 9,585 | 64,301 | 6,776 | 13,980 | 41,433 | 112,327 | 110,949 | 220,015 | 2,644 | 9,520 | 92,759 |
| Northeast............ <br> New York. <br> ......... <br> Pennsylvania..... | $\begin{array}{r} 24 \\ 7 \\ 9 \end{array}$ | $\begin{array}{r} 11 \\ 3 \\ 6 \end{array}$ | 1,414 | 8,796 | 923 | 1,840 | 5,132 | 18,910 | 10,533 | 28,236 | 377 | 1,346 |  |
|  |  |  | 806 | 5,015 | 523 | 1,064 | 2,901 | 11,029 | 4,960 | 15,427 | 164 | $\left(\begin{array}{l}(2) \\ (2)\end{array}\right.$ | ${ }^{2}$ ) |
|  |  |  | 450 | 2,635 | 300 | 577 | 1,530 | 6,310 | 3,676 | 9,345 | 185 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| East North Central. Ohio. Illinois. $\qquad$ Michigan. $\qquad$ | $\begin{array}{r} 40 \\ 15 \\ 8 \\ 9 \end{array}$ | $\begin{aligned} & 22 \\ & 12 \end{aligned}$ | 5,455 | 37,943 | 3,905 | 8,225 | 24,959 | 59,722 | 70,990 | 129,743 | 1,048 | 6,093 | 58,309 |
|  |  |  | 2,739 | 18,703 | 1,915 | 3,805 | 11,632 | 26,542 | 38,551 | 65,016 | 467 | 2,705 | 29,009 |
|  |  | 4 | 1,193 | 9,432 | 855 | 1,937 | 6,148 | 17,026 | 17,019 | 33,264 | 177 | 1,490 | 12, 042 |
|  |  |  | 1,134 | 7,373 | 846 | 1,880 | 5,614 | 13,610 | 11,384 | 24,497 | 360 | 1,205 | 12,369 |
| West North Central. | 7 | 4 | 459 | 3,060 | 273 | 560 | 1,451 | 5,973 | 5,432 | 11,454 | 34 | 545 | 5,822 |
| South. <br> Texas. $\qquad$ | 135 | 72 | 857 | 4,974 | 645 | 1,312 | 3,113 | 11,196 | 8,515 | 18,774 | 586 | (2) | 4,467 |
|  |  |  | 127 | 938 | 99 | 218 | 599 | 1,924 | 1,519 | 2,782 | 30 | ${ }^{2}$ ) | ${ }^{(2)}$ |
| West. $\qquad$ Washington. $\qquad$ | $\begin{array}{r} 36 \\ 7 \end{array}$ | $\begin{array}{r} 12 \\ 4 \end{array}$ | 1,400 | 9,528 | 1,030 | 2,043 | 6,778 | 16,526 | 15,479 | 31,808 | 599 | 998 | 11,129 |
|  |  |  | 843 | 5,795 | 615 | 1,203 | 4,128 | 9,812 | 9,270 | 18,860 | 412 | 295 | 3,362 |

See footnotes at end of table.
table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Manhours $(1,000)$ | Wages <br> ( $\$ 1,000$ ) |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3537.-INDUSTRIAL TRUCKS AND TRACTORS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 314 | 108 | 17,570 | 110,444 | 11,454 | 23,815 | 64,476 | 233,116 | 215,499 | 446,957 | 6,696 | 14,786 | 117,500 |
| New England..... | 10 | 4 | 890 | 4,663 | 658 | 1,297 | 3,330 | 10,408 | 5,810 | 16,199 | 374 | 936 | 8,174 |
| Middle Atlantic. | 59 | 20 | 3,857 | 25,574 | 2,277 | 4,872 | 13,713 | 51,109 | 37,524 | 85,494 | 1,314 | 3,621 | 33,020 |
| New York. | 26 | 10 | 767 | 4,633 | 499 | 1,035 | 2,472 | 13,380 | 8,975 | 22,100 | 367 | 481 | 5,127 |
| New Jersey. | 9 | 2 | 121 | 650 | 92 | 189 | 457 | 1,133 | 926 | 2,047 | 16 | $\left({ }^{2}\right)$ | $\left(^{2}\right)$ |
| Pennsylvania. | 24 | 8 | 2,969 | 20,291 | 1,686 | 3,648 | 10,784 | 36,596 | 27,623 | 61,347 | 931 | 3,050 | 27.013 |
| East North Central. | 98 | 41 | 8,113 | 53,325 | 5,251 | 10,848 | 31,842 | 119,299 | 119,710 | 240,694 | 3,296 | 6,254 | 48,201 |
| Ohio.... | 34 | 15 | 3,145 | 21,421 | 1,983 | 4,164 | 12,457 | 34,957 | 41,377 | 79,118 | 959 | 2,159 | 17,861 |
| Indiana. | 5 | 3 | 112 | 584 | 87 | 185 | 444 | 1,561 | 812 | 2,374 | 122 | 216 | 1,202 |
| Illinois | 23 | 9 | 2,406 | 15,410 | 1,550 | 3,261 | 8,984 | 42,201 | 31,366 | 73,157 | 1,133 | 1,774 | 11,286 |
| Michigan. | 23 | 11 | 2,183 | 14,346 | 1,436 | 2,848 | 9,047 | 36,927 | 42,189 | 78,525 | 940 | 1,927 | 16,488 |
| Wisconsin. | 13 | 3 | 267 | 1,564 | 195 | 390 | 910 | 3,653 | 3,966 | 7,520 | 142 | 178 | 1,364 |
| West North Central. | 24 | 7 | 616 | 2,927 | 426 | 839 | 1,717 | 5,032 | 4,799 | 9,802 | 165 | 600 | 4,230 |
| Minnesota. | 5 | 3 | 255 | 1,334 | 157 | 320 | 697 | 2,200 | 2,067 | 4,256 | 84 | 351 | 2,451 |
| Icma. | 5 | 2 | 166 | 785 | 119 | 217 | 497 | 1,326 | 1,216 | 2,528 | 26 | $\left({ }^{2}\right)$ | ${ }^{2}$ ) |
| South Atlantic. | 21 | 7 | 497 | 2,224 | 406 | 858 | 1,555 | 5,049 | 4,887 | 9,900 | 338 | 587 | 2,960 |
| Georgia. | 6 | 2 | 214 | 865 | 179 | 362 | 645 | 2,309 | 1,601 | 3,880 | 182 | 451 | 2,099 |
| East South Central. | 12 | 6 | 740 | 3,314 | 560 | 1,188 | 2,115 | 7,371 | 8,794 | 15,718 | 133 |  | 2,677 |
| Tennessee. | 3 | 3 | 336 | 1,387 | 302 | 625 | 1,052 | 1,890 | 2,382 | 4,236 | 26 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ |
| West South Central. | 16 | 4 | 461 | 2,418 | 337 | 792 | 1,532 | 5,186 | 3,374 | 8,623 | 233 |  | 1,644 |
| Texas. | 11 | 4 | 412 | 2,204 | 296 | 705 | 1,359 | 4,800 | 2,692 | 7,555 | 213 | $\left(^{2}\right)$ | ${ }^{2}$ ) |
| West. | 74 | 19 | 2,396 | 15,999 | 1,539 | 3,121 | 8,672 | 29,662 | 30,601 | 60,527 | 843 | 2,177 | 16,594 |
| Oregon........... | 11 | 5 | 1,300 | 8,908 | 786 | 1,530 | 4,468 | 14,656 | 17,512 | 32,852 | 311 | 940 | 5,592 |
| California. | 57 | 13 | 1,044 | 6,754 | 713 | 1,509 | 3,940 | 14,396 | 12,746 | 26,724 | 500 | 1,028 | 9,518 |

[^163]
## TABLE 3. Detailed Statistics: 1963


Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than
Nondard
applicable.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
${ }_{2}^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
turing establishments.
table 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 250 \text { to } \\ & 499 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 500 \text { to } \\ & \text { 999 } \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 1,000 \text { to } \\ & 2,499 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3531.-CONSTRUCTION MACHINERY |  |  |  |  |  |  |  |  |  |  |
| Establishments............. .number.. | 617 | 148 | 76 | 88 | 94 | 66 | 64 | 30 | 28 | 11 | 7 |
| Total...................... ${ }^{\text {do.... }}$ | 104,520 | 219 | 501 | 1,216 | 3,004 | 4,717 | 11,682 | 10,365 | 21,082 | 15,935 | 35,799 |
| Pay roll. . . . . . . . . . . . . . $\$ 1,000$. . | 683,728 | 1,611 | 2,993 | 7,391 | 18,259 | 29,151 | 73,914 | 63,528 | 136,178 | 107,996 | 242,707 |
| Value added, adjusted.......do.... | 1,301,266 | 2,811 | 4,801 | 14,202 | 33,741 | 54,598 | 134,415 | 116,206 | 302,784 | 138,207 | 499,501 |
| Value of shipments..........do.... | 2,696,039 | 7,053 | 10,442 | 27,600 | 74,119 | 112,081 | 283,059 | 268,724 | 613,153 | 359,392 | 940,416 |
| Capital expenditures, new...do.... | 56,227 | 134 | 189 | 490 | 1,778 | 2.375 | 5,678 | 5,750 | 8,998 | 7,749 | 23,086 |
|  | INDUSTRY 3532. - MINING MACHINERY AND EQUIPMENT |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 204 | 57 | 23 | 31 | 40 | 20 | 18 | 7 | 7 | 1 |  |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do... | 16,910 | 95 | 158 | 440 | 1,325 | 1,385 | 2,979 | 2,577 | 7.951 | (D) |  |
| Payroll. .................. $\$ 1,000$. . | 109,531 | 692 | 996 | 2,800 | 8,223 | 8,548 | 18,884 | 16,307 | 53,081 | (D) |  |
| Value added, adjusted.......do.... | 215,406 | 1,260 | 1,838 | 5,585 | 15,904 | 21,436 | 38,852 | 26,538 | $\frac{103,993}{205,688}$ | (D) |  |
| Value of shipments..........do.... Capital expenditures, new...do... | 417,616 6,847 | $\begin{array}{r}2,589 \\ \hline 39\end{array}$ | 2,998 | 10,755 148 | 30,510 532 | 35,285 682 | 72,656 1,537 | 57,135 514 | $\frac{205,688}{3,342}$ | (D) |  |
|  | INDUSTRY 3533. -OIL FIELD MACHINERY |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 408 | 122 | 50 | 60 | 68 | 42 | 36 | 22 | 5 | 2 | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.................... . . . do... | 29,203 | 164 | 345 | 803 | 2,056 | 2,902 | 5,890 | 8,304 | 3,595 | 5,144 | (D) |
| Pay roll. . . . . . . . . . . . . . . $\$ 1,000$. . | 184,288 | 1,010 | 1,970 | 4,682 | 13,314 | 17,621 | 37,087 | 51,694 | 22,002 | 34,908 | (D) |
| Value added, adjusted.......do.... | 398,152 | 2,295 | 4,241 | 12,474 | 27,138 | 38,113 | 75,062 | 114,348 | 44, 175 | 80,306 | (D) |
| Value of shipments...........do. | 666,532 | 3,916 | 7,864 | 18,450 | 49,895 | 63,899 | 144,571 | 189,547 | 76,319 | 112,071 | (D) |
| Capital expenditures, new...do.. | 11,321 | 152 | 152 | 316 | 973 | 1,324 | 2,666 | 3,064 | 1,440 | $\underline{1.234}$ | (D) |
|  | INDUSTRY 3534.- ELEVATORS AND MOVING STAIRWAYS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 142 | 28 | 23 | 17 | 33 | 17 | 13 | 7 | 1 | 3 |  |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do. . | 12,393 | 41 | 160 | 247 | 1,007 | 1,146 | 2,016 | 7.776 | (D) | (D) |  |
| Pay roll. . . . . . . . . . . . . . . $\$ 1,000$. . | 88,389 | 323 | 1,076 | 1,734 | 7,101 | 7,823 | 13,064 | 57,268 | (D) | (D) |  |
| Value added, adjusted.......do.... | 201,527 | 705 | 1,977 | 3,201 | 14,318 | 15,756 | 23,754 | 141,816 | (D) | (D) |  |
| Value of shipments...........do..... Capital expenditures, new...do.... | 318,616 | 1,360 | 3,556 | 5,239 | 25,737 | 25,094 | 43,489 | 214, 141 | (D) | (D) |  |
|  | 3,315 | ${ }^{1} 103$ | 58 | 58 | 256 | 424 | 382 | 2,034 | (D) | (D) |  |
|  | INDUSTRY 3535. - CONVEYORS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 454 | ${ }^{2} 143$ | 65 | 71 | 88 | 34 | 33 | 13 | 7 | - |  |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 20,778 | 279 | 470 | 988 | 2,742 | 2,227 | 4,866 | 4,796 | 4,410 | - |  |
| Payroll................. \$1,000.. | 140,617 | 1,581 | 2,712 | 5,970 | 17,470 | 14,492 | 31,382 | 36,945 | 30,065 | - |  |
| Value added, adjusted.......do.... | 270,475 | 2,984 | 5,650 | 10,555 | 29,518 | 26,066 | 65,778 | 69,388 | 60,536 | - |  |
| Value of shipments............do.... Capital expenditures, new...do.... | 494,632 | 5,616 | 10,599 | 19,084 | 56,715 | 51,469 | 128,254 | 115,877 | 107,018 | - |  |
|  | 6,125 | 149 | 178 | 413 | 997 | 834 | 1,721 | 1,079 | 754 | - |  |
|  | INDUSTRY 3536.-HOISTS, CRANES, AND MONORAILE |  |  |  |  |  |  |  |  |  |  |
| Establishments............ .number. . | 120 | 25 | 19 | 20 | 23 | 13 | 9 | 6 | 4 | 1 |  |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 9,585 | 30 | 129 | 295 | 783 | 852 | 1,657 | 2,114 | 3,725 | (D) |  |
| Pay roll. ................ \$1,000.. | 64,301 | 204 | 819 | 2,103 | 4,907 | 5,702 | 11,380 | 12,349 | 26,837 | (D) |  |
| Value added, adjusted.......do.... | 112,327 | 278 | 1,639 | 3,273 | 9,664 | 9,557 | 20,219 | 25,594 | 42,103 | (D) |  |
| Value of shipments............do.... Capital expenditures, new...do.... | 220,015 | 607 | 2,805 | 6,496 | 18,005 | 18,485 | 41,930 | 43,102 | 88,585 | (D) |  |
|  | 2,644 | 11 | 48 | 62 | 160 | 318 | 451 | 811 | $\underline{783}$ | (D) |  |
|  | INDUSTRY 3537.-INDUSTRTAL TRUCKS AND THACTOHS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 314 | 95 | $51^{\circ}$ | 60 | 54 | 28 | 12 | 6 | 5 | 3 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 17,570 | 163 | 348 | 814 | 1,794 | 1,896 | 1,975 | 1,866 | 3,621 | 5,093 | - |
| Pay roll. ................ \$1,000.. | 110,444 | 792 | 1,495 | 4,680 | 9,515 | 10,449 | 12,025 | 10,636 | 23,626 | 37,226 |  |
| Value added, adjusted.......do.... | 233,116 | 1,574 | 3,604 | 7,801 | 18,722 | 20,592 | 22,683 | 28,619 | 52,270 | 77,251 |  |
| Value of shipments..........do... | 446,957 | 3,777 | 6,904 | 16,441 | 36,575 | 40,963 | 49,456 | 46,034 | 95,808 | 150,999 |  |
| Capital expenditures, new...do.... | 6,696 | 143 | 184 | 349 | 644 | 905 | 411 | 702 | 1,225 | 2,133 | - |

[^164]TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primany to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio <br> Col. B <br> Col. B+C <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3531 | Construction machinery........... $1963 .$. | $2,696,039$ $2,107,352$ | $\begin{aligned} & 2,332,119 \\ & 1,802,123 \end{aligned}$ | $\begin{aligned} & 229,425 \\ & 226,247 \end{aligned}$ | $\begin{array}{r} 134,495 \\ 78,982 \end{array}$ | $\begin{aligned} & 91 \\ & 89 \end{aligned}$ | $\begin{aligned} & 2,624,171 \\ & 1,996,322 \end{aligned}$ | $\begin{aligned} & 2,332,119 \\ & 1,802,123 \end{aligned}$ | $\begin{aligned} & 292,052 \\ & 194,199 \end{aligned}$ | 89 90 |
| 3532 | Mining machinery and equipment. $\begin{array}{r}\text {. } 1963 . . \\ 1958 . .\end{array}$ | $\begin{aligned} & 417,616 \\ & 342,035 \end{aligned}$ | $\begin{aligned} & 274,380 \\ & 215,050 \end{aligned}$ | $\begin{aligned} & 91,841 \\ & 83,780 \end{aligned}$ | $\begin{aligned} & 51,395 \\ & 43,205 \end{aligned}$ | $\begin{aligned} & 75 \\ & 72 \end{aligned}$ | $\begin{aligned} & 336,213 \\ & 275,289 \end{aligned}$ | $\begin{aligned} & 274,380 \\ & 215,050 \end{aligned}$ | $\begin{array}{r} 61,833 \\ 60,239 \end{array}$ | 82 78 |
| 3533 | Oil field machinery.............. ${ }^{\text {1963. }}$ 1958. | $\begin{aligned} & 666,532 \\ & 585,268 \end{aligned}$ | $\begin{aligned} & 518,739 \\ & 467,886 \end{aligned}$ | $\begin{aligned} & 59,489 \\ & 41,427 \end{aligned}$ | $\begin{aligned} & 88,304 \\ & 75,955 \end{aligned}$ | 90 92 | $\begin{aligned} & 572,726 \\ & 496,149 \end{aligned}$ | $\begin{aligned} & 518,739 \\ & 467,886 \end{aligned}$ | $\begin{aligned} & 53,987 \\ & 28,263 \end{aligned}$ | 91 |
| 3534 | Elevators and moving stairways...1963.. ${ }^{1958 . .}$ | $\begin{aligned} & 318,616 \\ & 192,806 \end{aligned}$ | $\begin{aligned} & 235,080 \\ & 132,362 \end{aligned}$ | $\begin{aligned} & 8,485 \\ & 4,658 \end{aligned}$ | $\begin{aligned} & 75,051 \\ & 55,786 \end{aligned}$ | 97 97 | $\begin{aligned} & 248,209 \\ & 165,277 \end{aligned}$ | $\begin{aligned} & 235,080 \\ & 132,362 \end{aligned}$ | $\begin{aligned} & 13,129 \\ & 32,915 \end{aligned}$ | 95 80 |
| 3535 | $\begin{array}{r} \text { Conveyors . . . . . . . . . . . . . . . . . . . . . . . } 1963 . . ~ \\ 1958 . . \end{array}$ | $\begin{aligned} & 494,632 \\ & 385,714 \end{aligned}$ | $\begin{aligned} & 342,496 \\ & 260,700 \end{aligned}$ | $\begin{aligned} & 77,854 \\ & 59,597 \end{aligned}$ | $\begin{aligned} & 74,282 \\ & 65,417 \end{aligned}$ | 82 81 | $\begin{aligned} & 414,854 \\ & 333,877 \end{aligned}$ | $\begin{aligned} & 342,496 \\ & 260,700 \end{aligned}$ | $\begin{aligned} & 72,358 \\ & 73,177 \end{aligned}$ | 83 78 |
| 3536 | Hoists, cranes, and monorails.... $\begin{array}{r}\text { 1963.. } \\ 1958 . .\end{array}$ | $\begin{aligned} & 220,015 \\ & 184,722 \end{aligned}$ | $\begin{aligned} & 157,229 \\ & 128,355 \end{aligned}$ | $\begin{aligned} & 40,142 \\ & 35,143 \end{aligned}$ | $\begin{aligned} & 22,644 \\ & 21,224 \end{aligned}$ | 80 79 | $\begin{aligned} & 224,183 \\ & 165,544 \end{aligned}$ | $\begin{aligned} & 157,229 \\ & 128,355 \end{aligned}$ | $\begin{aligned} & 66,954 \\ & 37,189 \end{aligned}$ | 70 78 |
| 3537 | Industrial trucks and tractors... $\begin{array}{r}\text { 1963.. } \\ 1958 . .\end{array}$ | $\begin{aligned} & 446,957 \\ & 269,328 \end{aligned}$ | $\begin{aligned} & 370,265 \\ & 231,445 \end{aligned}$ | $\begin{aligned} & 43,260 \\ & 18,176 \\ & \hline \end{aligned}$ | $\begin{aligned} & 33,432 \\ & 19,707 \end{aligned}$ | 90 <br> 93 | $\begin{array}{r} 458,741 \\ 276,674 \\ \hline \end{array}$ | $\begin{aligned} & 370,265 \\ & 231,445 \end{aligned}$ | $\begin{array}{r} 88,476 \\ 45,229 \end{array}$ | 81 <br> 84 |

NOTE: See Introduction for an explanation of terms used.

# TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.
table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


See footnotes at end of table.

# TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued 

| $\begin{aligned} & \text { Prod. } \\ & \text { class } \\ & \text { code } \end{aligned}$ | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | $\begin{aligned} & \text { Industrial } \\ & \text { trucks and } \\ & \text { tractors } \\ & \text { (SIC 3537) } \end{aligned}$ | $\begin{aligned} & \text { Other } \\ & \text { industries } \end{aligned}$ | $\begin{aligned} & \text { Prod. } \\ & \text { class } \\ & \text { code } \end{aligned}$ | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Industrial trucks and tractors (SIC 3537) | $\begin{aligned} & \text { Other } \\ & \text { industries } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | industrial trucks and tractors INDUSTRY |  |  |  |  | INDUSTRIAL TRUCKS AND TRACTORS INDUSTRY-Continued |  |  |  |
|  | Total shipments and receipts of the industry. | (X) | 446,957 | ( x ) |  | Miscellaneous receipts, total. | (x) | 33,432 | (X) |
| 35370 | Industrial trucks and tractors. | 458,741 | 370,265 | ${ }^{2188,476}$ |  | Contract work.. | (x) | 1,941 | (x) |
|  | Secondary products.. | (X) | 43,260 | (x) |  | Sales of products bought and resold. |  |  |  |
| 34295 | Other hardware. <br> other secondary products.......... | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | $\begin{array}{r} 5,841 \\ 2237,419 \end{array}$ |  |  | Receipts for repair work.... Other miscellaneous receipts | $\begin{aligned} & (x) \\ & (x) \\ & (x) \\ & (x) \end{aligned}$ | $\begin{array}{r} 4,9,91 \\ 4,732 \\ 4,138 \end{array}$ | (X) |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Industry 3522, Farm Machinery and Equipment, had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies.
${ }^{2}$ Includes $\$ 11.1$ million shipped by industry 3522, Farm Machinery and Equipment, and $\$ 5.7$ million by industry 3537, Industrial Trucks and Tractors. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3321, Gray Iron Foundries; 3519, Internal Combustion Engines; and 3717, Motor Vehicles and Parts.
${ }^{3}$ Includes $\$ 8.2$ million shipped by industry 3731, Ship Building and Repairing. In addition, the following industry had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies: 3717, Motor Vehicles and Parts.
${ }^{4}$ Industry 3561, Pumps and Compressors, had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies.
${ }^{5}$ Includes $\$ 26.1$ million shipped by industry 3522, Farm Machinery and Equipment, and $\$ 13.5$ million by industry 3717, Motor Vehicles and Parts. In addition, the following industry had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies: 3537, Industrial Trucks and Tractors.

Includes $\$ 10.9$ million shipped by industry 3522, Farm Machinery and Equipment; $\$ 31.4$ million by industry 3532, Mining Machinery and Equipment; $\$ 4$ million by industry 3533, Oil Field Machinery; $\$ 5.1$ million by industry 3536 , Hoists, Cranes, and Monorails; $\$ 2.9$ million by industry 3561 , Pumps and Cormpessors; and, $\$ 5.3$ million by industry 3717, Motor Vehicles and Parts. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3537, Industrial Trucks and Tractors, and 3742, Railroad and Street Cars.
${ }^{7}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 33911 , Drop, upset and press steel forgings (closed die); 34336, Other heating equipment (except electric) and parts for nonelectric heating equipment; 34493, Miscellaneous metal building materials and curtain wall; 35192, Diesel and semidiesel engines; 35197, Parts and accessories for internal combustion engines; 35333, Oil and gas field production machinery and equipment (except pumps); 35334, Other oil and gas field machinery and tools (except pumps), including water wells; 35419, Parts for metal cutting type machine tools sold separately, and rebuilt machine tools; 35522, Parts and attachments for textile machinery; 35531, Woodworking machinery (except machinery designed primarily for home workshops, garages, and service shops), including parts, attachments, and accessories; and 37150, Truck trailers.
${ }^{8}$ Includes $\$ 8$ million shipped by industry 3545, Machine Tool Accessories. In addition, the following industry has shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies: 3533, Oil Field Machinery.
${ }^{9}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 34814 , Ferrous wire cloth and other woven ferrous wire products not produced by wire drainers; 35197, Parts and accessories for internal combustion engines; 35362, Overhead traveling cranes and monorail systems; 35513, Other industrial food products machinery, including parts and attachments for all types of industrial food products machinery; 35595, Other special industry machinery and equipment; 35663, Other mechanical power transmission equipment; 35690, General industrial machinery, noe.c.; 36214, Prime mover generator sets, except steam or hydraulic turbine.
${ }^{10}$ Includes shipments of $\$ 2$ million by industry 3561, Pumps and Compressors. In addition, industry 3494, Valves and Pipe Fittings had shipments of $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies.
${ }^{11}$ Includes $\$ 7.2$ million shipped by industry 3561, Purmp and Compressors. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3312, Blast Furnaces and Steel Mills; 3392, Nonferrous Forgings; 3531, Construction Machinery; and 3586, Measuring and Dispensing Pumps.
${ }^{12}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 19110, Guns, howitzers, and mortars and related equipment over 30 mm (or over 1.18 inches); 35324, Parts and attachments for mining machinery; 35662 , Speed changers, industrial high speed drives and gears; and 37292, Guided missile components and subassemblies, n.e.c.
${ }^{13}$ Includes shipments of over $\$ 2$ million but is withheld to avoid disclosing figures for individual companies by industry 3442 , Metal Doors, Sash, and Trim.
ncludes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 35690, General industrial machinery, n.e.c.; and 39492, Other sporting and athletic goods.
${ }^{15}$ Includes $\$ 2.5$ million shipped by industry 2542, Metal Partitions and Fixtures; $\$ 8.2$ million by industry 3531, Construction Machinery; $\$ 5.7$ million by industry 3532, Mining Machinery and Equipment; and $\$ 2.1$ million by industry 3551, Food Products Machinery. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3562 , Ball and Roller Bearings; 3566, Power Transmission Equipment; and 3713, Truck and Bus Bodies.
${ }^{16}$ Includes $\$ 16.6$ million shipped by industry 3566 , Power Transmission and Equipment.
${ }^{17}$ Includes $\$ 2$ million or more of the following product classes but are withheld to avoid disclosing figures of individual companies: 34295 , other hardware; 3441l, Fabricated structural iron and steel for buildings; and 34460, Architectural and ornamental metal work (except curtain wall and other exterior panels).
${ }^{18}$ Includes $\$ 12.1$ million shipped by industry 3531, Construction Machinery; $\$ 3.2$ million by industry 3532, Mining Machinery and Equipment. In addition, the following industries shipped \$2 million or more but are withheld to avoid disclosing figures for individual companies: 3423, Hand and Edge Tools; 3441, Fabricated Structural Steel; 3548, Metalworking Machinery, N.E.C.; and 3621, Motors and Cenerators.
${ }^{19}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3531, Construction Machinery, and 3532, Mining Machinery and Equipment.
${ }^{20}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 35370 , Industrial trucks and tractors; 35591, Chemical manufacturing industries machinery and equipment; and 37292, Guided missile components and subassemblies, n.e.c.
${ }_{21}$ Includes $\$ 7.8$ million shipped by industry 3531, Construction Machinery, and $\$ 25.8$ million shipped by industry 3717 , Motor Vehicles and Parts. In addition, the following industries shipped $\$ 2$ million or more but are withheld to avoid disclosing figures of individual companies: 348l, Fabricated Wire Products, N.E.C.; 3519, Internal Combustion Engines; 3522, Farm Machinery and Equipment; 3536, Hoists, Cranes, and Monorails; 3566, Power Transmission Equipment; and 3599, Miscellaneous Machinery.
${ }^{22}$ Includes the following product classes with shipments of $\$ 2$ million or more but are withheld to avoid disclosing figures of individual companies: 34313, Parts and attachments for tracklaying and contractors ${ }^{1}$ off-highway wheel tractors; 35318, Scrapers, graders, rollers, and off-highway trucks, trailers, and wagons, excluding parts; 35319, Other construction machinery and equipment, including construction machinery parts, n.e.c.; 37130, Truck and bus bodies for sale separately (including those made on purchased chassis); and 37175, Parts and accessories for passenger cars, trucks, and buses shipped to motor vehicle manufacturers.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


See footnotes at end of table.

# table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 

| Product | Product | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \\ \hline \end{gathered}$ | Quantity <br> (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ |
| 3531- - | CONSTRUCTION MACHINERY AND EQUIPNENT-Continued |  |  |  |  |
| 35314 -- | Power cranes (including locomotive, full circle, revolving with booms) dragline, shovels and parts-Continued |  |  |  |  |
| 3531421 | Power cranes, draglines and shovels, including mine shovels, but not including equipment for mounting on tractors: <br> As reported in the census of manufactures ${ }^{1}$.. | (x) | 307,273 | (X) | (NA) |
|  |  Crawler mounted, rated shovel capacity: | (X) | 289,281 | (x) | 216,458 |
| $\begin{aligned} & 3531411, \\ & 13,15 \\ & 3531417 \end{aligned}$ | \} Under $3 / 4$ cubic yard....................................... | 412 | 7,155 | \} 2,273 | 41,830 |
|  |  | 714 | 18,794 18,203 | ) 708 | 22,456 |
| 3531419 | 1-1/4 cubic yards. | 171 | 7,183 | 70 | 22,456 2,532 |
| 3531420 | 1-1/2 cubic yards. | 230 | 12,282 | 309 | 13,922 |
| 3531422 | 1-3/4 cubic yards. | 22 | 1,559 | 45 67 | 2,078 |
| 3531425 | $2-1 / 2$ cubic yards. | 180 | 13,918 | 269 | 18,914 |
| 3531427 | Over $2-1 / 2$ cubic yards up to and including $5-1 / 2$ cubic yards. | 309 | 40,328 |  |  |
| 3531429 |  | 50 18 | 15,492 18,580 | 307 | 41,231 |
|  | Rubber tired cranes (truck or wheel mounted), maximum working load: |  |  |  |  |
| 3531432 | Up to and including 10 tons. | 1,577 | 14,316 | 1,224 | 10,220 |
| 3531434 | Over 10 up to and including 15 tons. | 1,050 | 21,552 | 313 | 7,333 |
| 3531436 | Over 15 up to and including 20 tons. | 156 | 4,325 | 516 | 18,622 |
| 35314 35314 40 | Over 20 up to and including 25 tons. | 255 | 8,484 | 200 | 7,062 |
| 3531440 3531442 |  | 256 | 10,531 | 78 | 3,502 |
| 353144 | Over 30 up to and including 35 tons.. | 178 182 18 | 8,870 11,090 | 154 52 | 8,176 2,890 |
| 3531446 | Over 45 up to and including 60 tons. | 167 | 11,835 | ) 5 |  |
| $\begin{aligned} & 3531448 \\ & 50 \end{aligned}$ | er 60 tons | 156 | 16,240 | 18 | 1,487 |
| 3531451 | Walking draglines and walking cranes. | 20 | 28,544 | 22 | 10,752 |
| 3531481 | Front end attachments, buckets, grapples, slings, etc., for power cranes, draglines, and shovels (sold separately). | (X) | 15,129 | (X) | 18,486 |
| 3531485 | Parts for power cranes, draglines, and shove1s.................... | (X) | 116,801 | (x) | 95,391 |
| 3531400 | Power cranes, draglines, and shovels and parts, n.s.k. | (x) | 4,626 | (x) |  |
| 35316 -- | Mixers, pavers, and related equipment, excluding parts, total............ | (x) | 132,020 | (X) | 101,908 |
| 3531612 | Concrete: <br> Mixers, portable under $3-1 / 2$ cubic feet capacity (except plaster and mortar), hand or power operated. | 23,569 | 1,347 | 18,680 | 1,403 |
| 3531622 | Mixers, portable, $3-1 / 2$ cubic feet and over (except plaster and mortar): <br> As reported in the census of manufactures ${ }^{1}$................................. | (x) | 32,477 | (X) | (X) |
|  | As reported on Census Form MB5D or MA-35D ${ }^{1}$. | (x) | 33,053 | (x) | 32,552 |
| 3531631 | Truck mixer or agitator........ | 4,944 | 24,951 | 5,740 | 24,071 |
| 3531635 | Oth | 11,299 | 8,102 | 11,638 | 8,481 |
| 3531631 | Mixers, plaster and mortar..... | 10,183 | 4,666 | 7,364 | 3,234 |
| 3531634 | Pavers, finishers and spreaders | 10,162 | 19,913 | 1,510 | 8,451 |
|  | Batching plants, bin and batch (for concrete aggregate only and bulk cement: |  |  |  |  |
| 3531637 | As reported in the census of manufactures ${ }^{1} \ldots \ldots \ldots \ldots \ldots \ldots \ldots . . . . . . .$. | (X) | 17,594 | $\begin{aligned} & (\mathrm{X}) \\ & 1.086 \end{aligned}$ | (NA) |
|  | As reported on Census Form MB5D or MA-35D¹.............................. | 940 | $16,041$ | $1,086$ | 15,025 |
| 3531639 | Concrete vibrators. | 22,287 | 4,595 | (NA) | 2,858 |
|  |  |  |  |  |  |
| 3531640 | As reported in the census of manufactures ${ }^{1}$.............................. <br> As reported on Census Form MB5D or MA-35D ${ }^{1}$ | ( X ( ${ }^{\text {( }}$ | $\begin{aligned} & 39,030 \\ & 38,683 \end{aligned}$ | $(x)$ $(x)$ ( | $43,{ }_{4}^{(\mathrm{NA})}$ |
| 3531641 | Distributors................................................................. | 942 | 5,757 | 785 | 3,403 |
| 3531642 | Bituminous asphalt plants: Travel mix-type. | 32 | 517 | (NA) | (NA) |
|  | Central mixing plants (batch-type and continuous-type)(t.p.h. = tons per hour), total. | 282 | 23,688 |  |  |
| 3531643 | Less than 2,000 pound batch (less than 60 t.p.h.)............. | 88 | 1,498 |  |  |
| 35316 | 2,000 pound-3,500 pound bateh (60-119 t.p.h.)................... | 42 | 2,773 | 431 | 35,778 |
| 3531646 3531648 | 4,000 pound-5,500 pound batch ( $120-179$ t.p.h.) ................... | 82 | 9,300 |  |  |
| 3531648 | 6,000 pound batch and over (180 t.p.h. and over)............... | 70 | 10,117 |  |  |
| 3531649 | Other (including portable mixers, heating kettles, heaters and circulators)..................................................................... | 3,185 | 8,721 | 3,305 | 4,313 |
| 3531652 | Other materials-aggregate spreaders and soil stabilization pavers...... | 5,327 | 7,807 | 5,793 | 4,364 |
| 3531600 | Mixers, pavers and related equipment, n.s.k.......................... | (X) | 4,591 | (x) | 3,767 |

[^165]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All
Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity <br> (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity <br> (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \\ \hline \end{gathered}$ |
| 3532- -- | MINING MACHINERY AND EQUIPNENT-Continued | ( ${ }_{(x)}$ | $\begin{aligned} & 58,012 \\ & 54,578 \end{aligned}$ | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | $\begin{gathered} 67,818 \\ (x) \end{gathered}$ |
| 35322 -- | Crushing, pulverizing, and screening machinery (stationary): <br> As reported in the census of manufactures ${ }^{1}$... <br> As reported on Census Form MA-35F, total ${ }^{1}$. |  |  |  |  |
|  | Crushers (including crushers on skids): |  |  |  |  |
| 3532211 <br> 3532213 <br> 15 | Gyratory. ................................................................... | 471 | 12,750 4,740 | 112,114 | 134,504 |
| 3532217 | Jaw. | 264 | 3,046 | ${ }^{112,114}$ | 34,504 |
| 3532219 | Roll. | 245 | 3,579 |  |  |
| $\begin{aligned} & 3532233 \\ & 3532237 \end{aligned}$ |  | 249 17 | 12,466 1,278 | 12585 | ${ }^{12} 10,727$ |
| $\begin{aligned} & 3532255 \\ & 3532200 \end{aligned}$ | Screens-vibrating, trommell, mine type. . Crushing, pulverizing, and screening plants, n.s.k........................ | 3,662 | 16,719 | (NA) | $\begin{array}{r} 1321,464 \\ 1,123 \end{array}$ |
| 35323 -- | All other mining machinery and equipment: <br> As reported in the census of manufactures ${ }^{1}$ <br> As reported on Census Form MA-35F, total ${ }^{1}$ $\qquad$ | $(x)$ $(x)$ | 39,331 38,446 | $\begin{aligned} & (x) \\ & (x) \end{aligned}$ | $\begin{array}{r} 22,287 \\ (\mathrm{X}) \end{array}$ |
| $\begin{array}{lll} 35323 & 23 \\ 35323 & 13 \end{array}$ | Drills: <br> Rock drills (percussion type) | 10,359 | 11,776 3,569 | 6,654 | 3,874 |
|  | Rotary drills: |  |  |  |  |
| $\begin{aligned} & 35323 \\ & 35323 \\ & 45 \end{aligned}$ | Underground (coal and roof)............................................................................ | 137 133 | 2,014 5,453 |  |  |
| 3532398 | Other mining machinery and equipment (complete units).. |  | 15,634 |  | 16,904 |
| 3532300 | All other mining machinery and equipment, n.s.k....................... | (X) |  | (X) | 525 |
| 35324 -- | Parts and attachments for mining machinery and equipment, total........ | (x) | 158,014 | (x) | 120,517 |
| 3532425 | Construction rock drills, portable, hand held or mounted............. | 4,794 | 4,868 | 12,786 | 9,669 |
| 3532431 | Percussion rock drill bits: Containing tungsten carbide. $\qquad$ | (X) | 12,982 | (X) | 12,155 |
| 3532435 | Made entirely of steel................................................. | (x) | 2,355 | (x) | 2,225 |
| 3532441 | Other drills, tools and supplies for drills (sold separately)........ | (X) | 16,167 | (x) | 22,743 |
| 3532475 | Other parts and attachments for mining machinery and equipment (sold separately)............................................................................ | (X) | 121,069 | (x) | 71,749 |
| 3532400 | Parts and attachments for mining machinery and equipment, n.s.k...... | (X) | 573 | (X) | 1,976 |
| 3532000 | Mining machinery and equipment, n.s.k. | (x) | 7,283 | (x) |  |
| 3533- -- | Ofl FIELD Machinery and equipuent, total. | (X) | 572,726 | (x) | 496,149 |
| 35331 -- | Rotary oil and gas field drilling machinery and equipment, total....... | (X) | 217,238 | (x) | 222,014 |
| 3533111 | Rotary drilling surface equipment: Blocks, crown and traveling...... | 355 | 1,801 | (NA) | 1,616 |
| 3533112 | Draw works and accessories........ | 92 | 8,367 | 165 | 14,904 |
| 3533114 | Rotary tables....... | 145 | 962 | 208 | 1,430 |
| 3533115 | Elevators, spiders, slips, hooks, links, and connector | (x) | 6,870 | (x) | 4,385 |
| 3533116 | Swivels and accessories... | (x) | 1,566 | (x) | 1,447 |
| 3533117 | Well control equipment (blow-out preventers, etc.) | (X) | 10,565 | (X) | 10,852 |
| 3533119 | Other rotary drilling surface machinery and equipment. | (X) | 23,490 | (X) | 11,768 |
|  | Rotary drilling subsurface equipment: |  |  |  |  |
| 3533141 | Bits........... | 651,969 | 110,564 | (NA) | 123,482 |
| 3533142 3533143 | Reamers........ | (X) | 5,953 | (X) | 6,456 |
| 3533143 | Coring equipment.. | (x) | 1,153 | (X) | 4,658 |
| 353314 | Tool joints, subs, and connectors |  | 17,925 | (X) | 17,913 |
| 3533145 | Drill collars.. | 11,707 | 8,136 | 10,325 | 9,169 |
| 3533147 | Fishing and cutting tools............................................ | (x) | 6,374 | (x) | 7,025 |
| 3533149 | Other subsurface rotary driving equipment, including Kelly joints... | (x) | 12,348 | (X) | 5,804 |
| 3533100 | Rotary oil and gas field drilling machinery and equipment, n.s.k...... | (x) | 1,164 | (x) | 1,105 |
| 35332 -- | Other oil and gas field drilling machinery and equipment, total........ | (x) | 38,849 | (x) | 43,365 |
| 3533231 | Cable tool drilling machinery and equipment (including both surface and subsurface equipment). | (X) | 2,855 | (X) | 4,972 |

[^166]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product |  |  | Value of shipments including interplant transfers $(\$ 1,000)$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1963 | 1958 |
| 3535- -- | CONVEYORS AND CONVEYTNG EQUIPMENT, TOTAL..................................................... |  |  | 414, 854 | 333,877 |
| 35351 -- | Conveyors and conveying equipment (except hoists and farm elevators).......................... |  |  | 306,236 | 247,994 |
| $\begin{array}{lll} 35351 & 11 \\ 35351 \end{array}$ | Gravity conveyors (skate, wheel, and roller). <br> Overhead trolley conveyor systems. |  |  | 29,916 38,131 | 20,129 19,486 |
| 3535141 |  |  |  | 13,530 | 12,720 |
| 3535151 |  |  |  | 13,073 | 8,633 |
| 3535161 |  |  |  | 11,649 | 11,066 |
| 3535171 | Other conveyors and conveying systems (includes specially engineered conveyor installations): Bulk material conveyors. |  |  | 113,808 | 117,720 |
| 3535173 | Package (unit) conveyors.............................................................................................. |  |  | 81,245 | 47,730 |
| 3535100 | Conveyors and conveying equipment (except hoists), n.s.k.................................... |  |  | 4,884 | 10,510 |
| 3535211 | Parts, attachments, and accessories for conveyors and conveying systems (sold separately).......... Conveyors and conveying equipment (including parts), n.s.k................................................ |  |  | 87,963 | 72,021 |
| 3535000 |  |  |  | 20,655 |  |
| Product code | Product | Total shipments including interplant transfers |  |  |  |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity <br> (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \\ \hline \end{gathered}$ | Quantity (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \\ \hline \end{gathered}$ |
| 3536--- | hoists, industrial cranes, and monorail systens, total. Hoists, total. | (x) | 224,183 | (x) | 165,544 |
| 35361 -- |  | (x) | 104,978 | ( X ) | 59,401 |
| 3536112 3536114 | Hand and electric chain hoists. <br> Mine shaft and slope electric wire-rope hoists. <br> Other electric wire-rope hoists. <br> Air hoists. <br> Other hoists. <br> Parts and attachments for hoists (sold separately) <br> Hoists, n.s.k.. | 168,368 14220 | 22,795 143,015 | 134,877 | 17,589 |
| 3536114 3536116 |  | - 22,711 | 12,015 20,287 | 17,645 | 14,557 |
| 3536137 |  | 11,390 | 10,120 | 5,015 | 5,590 |
| 3536138 |  | 111,975 | 31,986 | 59,184 | 20,340 |
| 3536145 |  |  | 16,133 | (x) | (NA) |
| 3536100 |  | (X) | 642 | (x) |  |
| 35362 -- | Overhead traveling cranes and monorail systems, total.......................... <br> Cranes (except construction power cranes): <br> Electric overhead traveling: Bridge type. | (x) | 115,701 | (x) | 106,143 |
|  |  |  |  |  |  |
| 3536212 |  | 3,0861,611 | $\begin{array}{r} 78,983 \\ 990 \end{array}$ | \} 3,020 | 83,996 |
| 3536213 | Jib type <br> Other. |  |  |  |  |
| 3536215 | Hand power overhead traveling....................................... | 1,985 | 2,317 | 805 | 1,027 |
| 3536253 | Monorail systems. <br> Parts and attachments for overhead traveling cranes and monorail systems (sold separately). <br> Overhead traveling cranes and monorail systems, n.s.k. | 2,778 | 13,174 | 4,140 | ${ }^{15} 20,385$ |
| 3536255 |  | $(\mathrm{X})$$(\mathrm{x})$(x) | 13,049458 | ( ${ }_{(x)}^{\text {(x) }}$ |  |
| 3536200 |  |  |  |  | ( NA ( 735 |
| 3536000 | Hoists, industrial cranes, and monorail systems, n.s.k.................... industrial trucks, tractors, trailers, and stackers, total............ | (x) | 3,504 | (x) | - |
| 3537- -- |  | (x) | 458,741 | (x) | 276,674 |
| 3537011 | Powered trucks and tractors: <br> Trucks (operator walking) | 10,865 | 21,276 | 10,595 | 15,702 |
|  | Trucks (operator riding) and tractors: Electric (storage battery): | $8,004$ | $\begin{array}{r} 45,523 \\ 7,034 \end{array}$ | $\stackrel{3,321}{(\mathrm{X})}$ |  |
| $\begin{aligned} & 3537021 \\ & 3537029 \end{aligned}$ | Fork trucks...................................................... |  |  |  | $\begin{gathered} 19,524 \\ 3,393 \end{gathered}$ |
|  | Gasoline: | 28,0804771,659 | $\begin{array}{r} 178,235 \\ 3,728 \\ 6,625 \end{array}$ | 16,3863,221 | $\begin{gathered} 95,312 \\ 3,358 \\ 12,810 \end{gathered}$ |
| 35370 3537 3530 | Fork trucks................................................ |  |  |  |  |
| 3537033 3537035 | Trucks (except fork).............................................. |  |  |  |  |
| 3537035 |  |  |  |  |  |

[^167]
# table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 

| Product code | Product | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity <br> (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \\ \hline \end{gathered}$ | Quantity <br> (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ |
| 3537- -- | INDUSTRIAL TRUCKS, TRACTORS, TRAILERS, AND STACKERS-Continued Powered trucks and tractors-Continued <br> Trucks (operator riding) and tractors-Continued |  |  |  |  |
| 3537041 | All other trucks (operator riding) and tractors, including diesel, compressed-air powered, etc. | (X) | 14,433 | (X) | 5,901 |
| 3537051 | Portable elevators (stackers) excluding farm type. $\qquad$ Hand trucks and trailers, including dollies and platform trucks: | 3,769 | 4,313 | 2,870 | 3,771 |
| 3537061 | Hand lift. | (X) | 10,000 | (X) | 11,366 |
| 3537065 | Other hand trucks and trailers, including two wheel, four wheel, dollies, and platform trucks. | (X) | 32,177 | (X) | $30,395$ |
| 3537071 | Metal pallets and skids (excluding wood and metal combination)... | (X) | 12,098 | (X) | 6,786 |
| 3537081 | Parts and attachments and miscellaneous equipment (sold separately). | (X) | 91,737 | (X) | 44,752 |
| 3537000 | Industrial trucks and trailers, n.s.k. | (X) | 31,562 | (X) | 23,604 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
(S) Suppressed because the data did not meet publication standards.
${ }^{1}$ For these products, data were also collected in the census annual conmodity survey program. In lieu of asking for detailed statistics on these products in the censuses of manufactures, respondents were asked to report only value of shipments for specified products or classes of products for which separate figures had previously been collected in the commodity survey. In most cases, the value figures reported in the censuses of manufactures for each product or class of products agreed closely with the corresponding figures reported in the commodity survey. However, there were some differences between the census figures and the commodity survey figures. These variations were due primarily to the following reasons:
a. Use of different reporting periods (calendar year vs. fiscal year).
b. Use of different base for reporting value (company sales vs. factory production).
c. Use of estimates in reporting data on the commodity survey whereas census of manufactures figures generally represent more exact shipments figures.
${ }^{2}$ Represents wheeled tractors designed primarily to be used as towing units for scrapers, trailers, wagons, and similar types of towed equipment for use on natural terrain but restricted by State laws or regulations from operating on public highways.
${ }^{3}$ Machines shipped primarily as independent dozing or pushing units characterized with approximate equal weight fore and aft with all wheel drive as differentiated from machines designed for integral hook-up towing.
${ }^{4}$ Data exclude those crawler tractors produced as components of complete tractor-shovel-loaders. The 1958 horsepower ratings for these tractors are based on maximum corrected drawbar horsepower.
${ }^{5}$ For 1958, selected types of construction machinery for which figures were collected on Census Annual Form MA-35D or Quarterly Form M35D but which could not be published are included with cranes except construction power cranes. These products include scrapers, 2 - and 4 -wheel, under 7 cubic yard standard struck capacity; winches (towing, logging and oil field types) for mounting on tractors; cranes for mounting on tractors; wheel tractors (truck type), off-highway type, 2 and 3 axle models; and portable drills, churn drill type, water well and blast hole.
${ }^{6}$ parts and attachments for tracklaying type and wheel type tractor shovel loaders are included with parts and attachments for construction machinery and equipment (sold separately) (except parts and attachments for power cranes, draglines and shovels) (codes 3531985), for 1958.
${ }^{7}$ Tandem units are reported as two separate unitc.
${ }^{8}$ Represents vehicles normally operated off the public highway and specially designed to transport materials, property, or equipment on mining, construction, logging, petroleum development, and similar projects. These vehicles are of such size or weight as to be normally restricted by State laws or regulations from operating on public highways.
${ }^{9}$ Excludes front-end loaders shipped to producers of complete tractor-shovel loaders (integral units).
${ }^{10}$ Includes figures for dense medium vessels (3532153), centrifuges (3532158), concentrating spirals (3532163), thickeners (3531264) and filters (3532165).
${ }^{12}$ Represents crushers and crushing plants.
${ }^{12}$ Represents pulverizers and grinders.
${ }^{13}$ Represents screening plants, washing plants and combination washing and screening plants.
${ }^{14}$ Comparable data were also collected on Census Annual Form MA-35F, "Mining Machinery and Equipment." Data collected in the census of manufactures indicate a degree of undercoverage in the MA-35F Annual Commodity Survey.
${ }^{15}$ For 1958 , this value includes parts and attachments for monorail systems.

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 353 | Construction, mining, and materials handling machinery and equipment construction and like equipment... $\begin{array}{r}\text { 1963.. } \\ \text { 1958. }\end{array}$ | $\left(\begin{array}{l}1 \\ (1) \\ (1)\end{array}\right.$ | (1) |
| 3534 | Elevators and moving stairways. $\qquad$ | 173 109 | 1118 |
| 3536 | Hoists, cranes, and monorail systems. $\qquad$ 1958. . | 142 84 | $\begin{array}{r} 97 \\ 124 \end{array}$ |
| 35361 | $\text { Hoists. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1963. . } 1958 . \text {. }$ | 207 88 | $\begin{aligned} & 115 \\ & 125 \end{aligned}$ |

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# TABLE 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963 

| Code | Product class | 1963 | $1962{ }^{\text { }}$ | $1961{ }^{\text { }}$ | $1960{ }^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3531- | Construction machinery......................... | 2,624,171 | 2,159,351 | 1,989,468 | 2,052,010 | 2,374,707 | 1,996,322 | 1,410,685 | (NA) |
| 35311 | Contractors' off-highway wheel tractors, except parts and attachments................ | 102,660 | 78,880 | 74,466 | 64,965 | 91,944 | 89,956 | 46,355 | (NA) |
| 335312 | Tracklaying type tractors, except parts and attachments. | 317,352 | 256,671 | 237,622 | 269,831 | 322,952 | 287,300 | 266,828 | 133,706 |
| 35313 | Parts and attachments for tracklaying and contractors' off-highway wheel tractors... | 302,732 | 242,049 | 237,089 | 265,739 | 392,340 | 272,072 | 169,639 | ( NA ) |
| 35314 | Power cranes(including locomotive full circle, revolving with booms), draglines, shovels, and parts.............. | 464, 757 | 400,074 | 356,071 | 359,020 | 394,967 | 361,068 | 268,691 | 247,985 |
| 35316 | Mixers, pavers, and related equipment, excluding parts. | 132,020 | 109,110 | 110,347 | 107,468 | 133,025 | 101,908 | 70,967 | 56,751 |
| 35317 | Integral tractor-shovel loaders (wheel and tracklaying types), excluding parts... | 387,988 | 2289,626 | ${ }^{2} 287,184$ | ${ }^{2} 285,630$ | 2228,903 | ${ }^{2} 157,889$ | (NA) | (NA) |
| 35318 | Scrapers, graders, rollers, and off-highway trucks, trailers, and wagons, excluding parts. $\qquad$ | 479,986 | 362,036 | 301,586 | 313,677 | 365,800 | 326,002 | (NA) | (NA) |
| 35319 | Other construction machinery and equipment, including construction machinery parts, n.e.c. | 403,511 | ${ }^{3} 361,609$ | 3328,116 | ${ }^{3} 337,286$ | ${ }^{3} 401,548$ | ${ }^{3} 368,091$ | (NA) | (NA) |
| 35310 | Construction machinery, n.s.k................ | 33,165 | $(59,296)$ | $(56,987)$ | $(48,394)$ | $(43,228)$ | 32,036 | (NA) | (NA) |
| 3532 - | Mining machinery and equipment. | 336,213 | 267,508 | 298,724 | 333,118 | 332,552 | 275,289 | 144, 745 | (NA) |
| 35321 | Underground mining machinery and related mining equipment. | 73,573 | 59,546 | 55,198 | 64,618 | 66,550 | 64,667 | 61,515 | (NA) |
| 35322 | Crushing, pulverizing, and screening plants, stationary. | 58,012 | 45,938 | 55,524 | 75,106 | 77,138 | 67,818 | 46,644 | (NA) |
| $\begin{aligned} & 35323 \\ & 35324 \end{aligned}$ | All other mining machinery (complete units) Parts and attachments for mining machinery and equipment......................... | 39,331 158,014 | $\} 162,024$ | 188,002 | 193,394 | 188,864 | 142,804 | 36,586 | (NA) |
| 35320 | Mining machinery, n.s.k...................... | 7,283 |  |  |  |  |  |  |  |
| 3533- | Oil field machinery. | 572,726 | 550,371 | 507,785 | 511, 048 | 569,720 | 496,149 | 468,716 | 262,939 |
| 35331 | Rotary oil and gas field drilling machinery and equipment. | 217,238 | 208, 042 | 207,408 | 215, 082 | 236,006 | 222,014 | 223,524 |  |
| 35332 | Other oil and gas field drilling machinery and equipment. | 38,849 | 48,004 | 46,376 | 45,885 | 50,981 | 43, 365 | 56,873 | 147,489 |
| 35333 | $0 i l$ and gas field production machinery and equipment (except pumps).................. | 261,453 | 217,009 | 194,459 | 185, 120 | 210,681 | 175,453 | 147,812 |  |
| 35334 | Other oil and gas field machinery and tools (except pumps), including water wells..... | 43,290 | 48,022 | 38,327 | 44,934 | 51, 823 | 40,715 | 40,507 | 115,450 |
| 35330 | Oil field machinery and equipment, n.s.k... | 11,896 | $(29,294)$ | $(21,215)$ | $(20,027)$ | $(20,229)$ | 14,602 |  |  |
| 35340 | Elevators and moving stairways. | 248,209 | 232,248 | 196,497 | 204,741 | 187,493 | 165,277 | 128,102 | 96,409 |
| 3535- | Conveyors | 414, 854 | 373,959 | 349,478 | 366,657 | 341,914 | 333,877 | 294,643 | 180,691 |
| 35351 | Conveyors and conveying equipment (except hoists and farm elevators) $\qquad$ | 306,236 | 284,965 | 272,121 | 284,047 | 264,286 | 247,994 | 233,389 | 145,937 |
| 35352 | Parts, attachments, and accessories for conveyors and systems (sold separately)... | 87,963 | 73,944 | 66,048 | 72,747 | 67,652 | 72,021 | 61,254 | 34,754 |
| 35350 | Conveyors and conveying equipment (except hoists), n.s.k.................................... | 20,655 | $(15,050)$ | $(11,309)$ | $(9,863)$ | $(9,976)$ | 13,862 | - | - |
| 3536- | Hoists, cranes, and monorails | 224,183 | 187,788 | 172,064 | 200,785 | 167,634 | 165,544 | 159,056 | 93,267 |
| 35361 | Hoists. | 104,978 | 98,379 | 86,429 | 87,060 | $(82,519)$ | 59,401 | 55,068 | 56,025 |
| 35362 | Overhead traveling cranes and monorails systems. | 115, 701 | 89,409 | 85,635 | 113,725 | 85,115 | 106,143 | 103,988 | 37,242 |
| 35360 | Hoists, industrial cranes, and monorail systems, n.s.k.................................... | 3,504 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 35370 | Industrial trucks and tractors.... | 458,741 | 394,408 | 345,510 | 389,480 | 375,275 | 276,674 | 254, 822 | 154,824 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishnents. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this pericd. The figures shown
in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ Source: Current Industrial Reports Series M35D, Construction Machinery, and M35S, Tractors (Except Garden Tractors). These data exclude the value of parts and attachments for wheel type shovel loaders. In addition data for 1958 and 1959 exclude parts and attachnents for tracklaying type shovel loaders.
${ }^{3}$ Includes the value of parts and attachments for wheel type shovel loaders. In addition data for 1958 and 1959 include parts and attachments for tracklaying type shovel loaders.

# TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1 .


# TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued 



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than $\$ 1$ million reported.










 Texas, Washington, and Califormia.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

## table 7A. Materials by Kind: 1963 and 1958



See footnotes at end of table.

## table 7A. Materials by Kind: 1963 and 1958-Continued



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## table 7A. Materials by Kind: 1963 and 1958-Continued



## table 7A. Materials by Kind: 1963 and 1958-Continued



See footnotes at end of table.

## TABLE 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost <br> $(\$ 1,000)$ | Quantity | Delivered cost <br> ( $\$ 1,000$ ) |
|  | ```Mill shapes and forms (except castings):-Continued Copper and copper-base alloy: Bare wire (for electrical conduction)............ Insulated wire and cable............................``` | $\begin{aligned} & \text { 1,000 pounds.... } \\ & \text { 1,000 pounds } \\ & \text { (copper } \\ & \text { content)....... } \end{aligned}$ | INDUSTRY 3537. - INDUSTRTAL TRUCKS AND TRACTORS-Con. |  |  |  |
|  |  |  | 44 | 42 | \} 223 | 155 |
| 335728 |  |  |  |  |  |  |
| 335790 |  |  |  | 368 |  |  |
| 335102 | Rod, bar, and mechanical wire, including extruded and/or drawn shapes. | 1,000 pounds... | $\begin{array}{r} 28 \\ 24 \\ 227 \end{array}$ | $\begin{array}{r} 29 \\ 19 \\ 191 \end{array}$ | 128 | 95 |
| 335123 | Plate, sheet, and strip, including military cups and discs...... | 1,.do......... |  |  |  |  |
| 335127 | Pipe and tube.......................................................... | .do. |  |  |  |  |
| 335202 | Aluminum and aluminum-base alloy: <br> Sheet, plate, and foil. | ...do. | 1,402 | 725 |  | 475 |
| 335205 | Extruded shapes, including extruded rod, bar, pipe, tube, etc... | . do | 1,473 | 273 | 451 | 431 |
| 335209 | All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.). | .do | 45 | 42 | \} 536 |  |
|  | Castings (rough and semifinished): |  |  |  |  |  |
| 332011 | Iron (gray and malleable) ${ }^{1}$............................................ | Short tons..... | 33,716 | 8,392 | 24,060 | 5,578 |
| 332300 | Stee1 ${ }^{1}$.... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | ...do......... | 5,765 | 4,087 | 5,855 | 3,422 |
| 336100 | Aluminum and aluminum-base alloy ${ }^{1}$................................... | 1,000 pounds.. . | 926 | 664 | (NA) | (NA) |
| 336200 | Copper and copper-base alloy ${ }^{1}$......................................... . . | 1, | 146 | 126 | 359 | 348 |
| 339100 | Iron and steel forgings ${ }^{1}$. | Short tons. |  | 2,799 | (NA) | 22,000 |
| 351901 | Gasoline and other carburetor engines ${ }^{1}$................................. | Number........... | 29,485 | 11,195 | 18,422 | 6,469 |
| 362115 | Electric motors and generators: |  |  |  |  |  |
| 362115 | Fractional horsepower electric motors (under l hp.) (excluding $\qquad$ | ..do | 9,394 | 614 | 8,790 | 313 |
| 362120 | Integral horsepower motors and generators ( 1 hp . and over) ${ }^{1} \ldots . .$. | d | 21,748 | 2,317 | 7,542 | 911 |
|  | Bearings: |  |  |  |  |  |
| 356218 | Ball.. |  | (X) |  | $\} \quad(x)$ | 23,000 |
| 356228 | Roller.................................................................... |  | (X) | 1,776 |  | 3,000 |
| 369101 | Storage batteries......................................................... . | Number. | 33,617 | 2,796 | 18,857 | 2,235 |
| 970099 | All other materials and components, parts, containers and supplies consumed. |  | (x) | 110,029 | (X) | 67,501 |
| 976000 | Materials, parts, containers, and supplies, n.s.k. ${ }^{3}$.................... |  | (X) | 14,360 | (X) | 11,679 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies
(NA) Not available.
(X) Not applicable. n.s.k. Not specified by kind.
${ }^{1}$ In addition the quantities listed below were produced and incorporated into products at the same establishment:

| Code | Item | Unit of measure for quantities | Industry |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 3531 |  | 3532 |  | 3533 |  | 3534 | 3535 | 3536 |  | 3537 |  |
|  |  |  | 1963 | 1958 | 1963 | 1958 | 1963 | 1958 | 1963 | 1963 | 1963 | 1958 | 1963 | 1958 |
| 332011 | Castings (rough and semifinished): Iron (gray and malleable)........ | Short tons | (NA) | 3,862 | 12,187 | 3,628 | 3,883 | 4,031 | (D) | 9,769 | - | 297 | (D) | 1,805 |
| 332300 | Steel............................... | Short tons | (NA) | 3,000 | 1,341 | (NA) | 1,636 | 1,273 | (D) | (D) | - | 350 | (D) | (NA) |
| 336100 | Aluminum and aluminum-base alloy | 1,000 lbs. | (D) | (D) | (D) | (NA) |  | (NA) | (D) | (D) | - | (D) | - | (NA) |
| 336200 | Copper and copper-base alloy.... | ...do..... | (D) | (D) | 1,651 | (NA) | (D) | (NA) | (D) | (D) | - | (D) | - | (NA) |
| 339100 | Iron and steel forgings. | Short tons | 34,026 | 3,955 | (D) | (NA) | (D) | (D) | - | - | (D) | (D) | - | (NA) |
| 351920 | Engines: <br> Diesel and semidiesel. | Number.... | (D) | 16,330 | - | (NA) | - | (NA) | (x) | (x) | - | (NA) | (X) | (NA) |
| 351901 | Gasoline and other carburetor... | Number.... | 9,415 | 8,326 | (D) | (NA) | - | (D) | (x) | (x) | - | (NA) | (x) | (NA) |
| 362115 | Electric motors and generators: Fractional horsepower electric motors (under l hp.) (excluding timing motors). | ...do.. | 739 | (D) | (D) | (NA) | (X) | (NA) | (D) | 275 | (D) | (D) | (D) | (NA) |
| 362120 | Integral horsepower motors and generators (l hp. and over).... | ...do..... | 9,134 | 4,590 | (D) | (NA) | (x) | (NA) | (D) | (D) | (D) | (D) | 6,822 | (NA) |

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## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Construction machinery (SIC 3531) | Mining machinery and equipment (SIC 3532) | Oil field machinery (SIC 3533) | Elevators and moving stairways (SIC 3534) | Conveyors (SIC 3535) | Hoists, cranes, and monorails (SIC 3536) | Industrial trucks and tractors (SIC 3537) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. | 22,940 | 5,068 | 5,748 | 1,754 | 3,054 | 1,375 | 2,307 |
| Total cost of purchased fuels................................do.. | 9,213 | 1,662 | 2,063 | 669 | 1,238 | 543 | 835 |
| Bituminous coal, lignite, and anthracite: <br> Quantity............................................. 1,000 short tons.. <br> cost. $\qquad$ | $\begin{array}{r} 425 \\ 2,969 \end{array}$ | 41 394 | (S) | (S) | 22 215 | 17 148 | 23 185 |
| Coke and breeze: |  |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons. . | 10 | 4 | - | (S) | (S) | - | (S) |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 311 | 147 | - | (S) | (S) | - | (S) |
| Fuel oil (distillate and residual): <br> Quantity............................ 1,000 barrels of 42 gallons.. | 476 | (S) | (S) | 86 | 61 | 29 |  |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 1,911 | (S) | (S) | 230 | 243 | 111 | 154 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million cu.ft.. | 5,516 | 1,196 | 5,618 | (S) | 757 | 316 | 552 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | 3,067 | 634 | 1,733 | (S) | 496 | 232 | 340 |
| Other fuels. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 955 | 114 | (s) | 71 | (S) | 52 | (S) |
| Electric energy: Purchased: |  |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million kw.-hrs. . | 1,132 | (s) | 320 | 60 | 103 | 55 | 106 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 13,727 | (S) | 3,685 | 1,085 | 1,816 | 832 | 1,472 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . . . million kw. -hrs. . | 7 | 6 | - | (s) | - | - | - |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.........1,000 hp.. | 933 | 221 | 298 | 57 | 114 | 92 | 73 |
| Prime movers, total............................................do.... | 89 | 20 | 30 | 6 | 12 | 19 | 15 |
| Driving generators............................................do. . . . | 23 | 8 | 3 | 4 | 1 | 1 | (Z) |
| Not driving generators......................................do.... | 66 | 12 | 27 | 2 | 11 | 18 | 15 |
| Electric motors, total.........................................do.... | 850 | 211 | 268 | 54 | 102 | 73 | 58 |
| Driven by purchased energy...............................do.... | 844 | 202 | 268 | 51 | 102 | 73 | 58 |
| Driven by energy generated at establishment..............do.... | 6 | 9 | - | 3 | - | - | - |
| Aggregate horsepower per 100 production workers. | 1,308 | 1,865 | 1,603 | 1,039 | 897 | 1,595 | 674 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(x) Not

## applicable. (Z) Less than 500 horsepower.

( $S$ ) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

# TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


See footnotes at end of table.
table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | ```Value added by manufacture, adjusted ($1,000)``` | Cost of materials <br> $(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3532- | MINING MACHINERY AND EQUIPMENT-Continued |  |  |  |  |  |  |  |  |  |  |
| 35323 | All other mining machinery (complete units), (primary product class of estab.)..................... Establishments with-- | 22 | 680 | 3,870 | 546 | 1,061 | 2,590 | 9,260 | 6,701 | 16,075 | 157 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | 10 4 | $\begin{aligned} & 193 \\ & 146 \end{aligned}$ | 1,099 867 | $\begin{aligned} & 151 \\ & 132 \end{aligned}$ | $\begin{aligned} & 315 \\ & 208 \end{aligned}$ |  | $\begin{aligned} & 3,319 \\ & 2,849 \end{aligned}$ | $\begin{aligned} & 2,335 \\ & 1,375 \end{aligned}$ | $\begin{aligned} & 5,603 \\ & 4,217 \end{aligned}$ | 67 (D) |
| 35324 | Parts and attachments for mining machinery and equipment (primary product class of estab.).......... Establishments with-$90 \%$ or more specialization.... | 67 44 | 7,745 1,528 | 49,162 9,867 | 5,420 1,123 | 10,965 2,228 | 30,837 6,326 | 100,644 21,874 | 85,114 16,177 | 181,480 37,617 | 3,836 844 |
| 3533- | OII FIELD MACHINERY |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................... <br> Establishments with-- | 408 | 29,203 | 184,288 | 20,114 | 41,409 | 113,526 | 398,152 | 264,350 | 666,532 | 11,321 |
|  | 90\% or more specialization.. 75-89\% specialization. ...... | $\begin{array}{r} 349 \\ 21 \end{array}$ | $\begin{array}{r} 19,066 \\ 4,238 \end{array}$ | $\begin{array}{r} 121,933 \\ 25,828 \end{array}$ | 13,046 3,105 | $\begin{array}{r} 26,708 \\ 6,449 \end{array}$ | $\begin{aligned} & 75,840 \\ & 16,888 \end{aligned}$ | $\begin{array}{r} 279,433 \\ 51,600 \end{array}$ | $\begin{array}{r} 164,595 \\ 42,181 \end{array}$ | $\begin{array}{r} 449,292 \\ 92,984 \end{array}$ | $\begin{aligned} & 7,900 \\ & 1,656 \end{aligned}$ |
| 35331 | Rotary oil and gas field drilling machinery and equipment (primary product class of estab.)........... Establishments with-- | 77 | 10,744 | 69,868 | 7,079 | 14,527 | 41,204 | 163,110 | 77,923 | 245,473 | 3,880 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | $\begin{aligned} & 54 \\ & 11 \end{aligned}$ | 8,152 1,318 | $\begin{array}{r} 53,624 \\ 7,940 \end{array}$ | 5,376 904 | 10,921 1,864 | 31,673 4,942 | 133,459 17,747 | 51,689 13,323 | 189,575 30,430 | 2,941 |
| 35332 | Other oil and gas field drilling machinery and equipment (primary product class of estab.).......... Establishments with-90\% or more specialization.... | 22 15 | 1,474 473 | 10,138 3,052 | 968 370 | 1,954 762 | 5,739 2,239 | 18,934 6,021 | 10,923 2,844 | 29,339 8,821 | 680 259 |
| 35333 | Dil and gas field production machinery and equipment (except purps) (primary product class of estab.). Establishments with-- | 180 | 13,396 | 83,195 | 9,509 | 19,323 | 52,930 | 177,575 | 140,080 | 317,925 | 5,388 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization. ......... | $\begin{array}{r} 140 \\ 13 \end{array}$ | $\begin{aligned} & 4,211 \\ & 2,908 \end{aligned}$ | $\begin{aligned} & 26,051 \\ & 17,871 \end{aligned}$ | $\begin{aligned} & 2,731 \\ & 2,344 \end{aligned}$ | $\begin{aligned} & 5,753 \\ & 4,534 \end{aligned}$ | $\begin{aligned} & 15,281 \\ & 13,222 \end{aligned}$ | $\begin{aligned} & 59,089 \\ & 35,679 \end{aligned}$ | $\begin{aligned} & 47,121 \\ & 31,998 \end{aligned}$ | $\begin{array}{r} 106,448 \\ 67,572 \end{array}$ | $\begin{array}{r} 2,220 \\ 688 \end{array}$ |
| 35334 | Other oil and gas field machinery and tools (except pumps), including water wells (primary product class of estab.).......... Establishments with-90\% or more specialization.... 75-89\% specialization. ......... | 36 14 8 | $\begin{array}{r} 2,989 \\ 338 \\ 898 \end{array}$ | 17,627 1,855 5,133 | 2,113 267 649 | 4,667 513 1,446 | 11,278 1,253 3,328 | 31,552 2,949 4,617 | 30,936 2,297 6,343 | $\begin{array}{r} 62,247 \\ 5,395 \\ 11,561 \end{array}$ | 1,029 107 214 |
| 3535- | CONVEYORS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. Establishments with-- | 454 | 20,778 | 140,617 | 12,642 | 26,312 | 74,020 | 270,475 | 231,080 | 494,632 | 6,125 |
|  | $90 \%$ or more specialization.. <br> 75-89\% specialization....... | $\begin{array}{r} 362 \\ 29 \end{array}$ | $\begin{array}{r} 11,031 \\ 3,708 \end{array}$ | $\begin{aligned} & 73,501 \\ & 28,012 \end{aligned}$ | $\begin{aligned} & 7,062 \\ & 2,002 \end{aligned}$ | $\begin{array}{r} 14,725 \\ 4,260 \end{array}$ | $\begin{aligned} & 41,851 \\ & 12,193 \end{aligned}$ | $\begin{array}{r} 135,457 \\ 58,119 \end{array}$ | $\begin{array}{r} 113,105 \\ 44,140 \end{array}$ | $\begin{array}{r} 246,786 \\ 99,300 \end{array}$ | $\begin{aligned} & 3,423 \\ & 1,291 \end{aligned}$ |
| 35351 | Conveyors and conveying equipment (except hoists and farm elevators) (primary product class of estab.) Establishments with-$90 \%$ or more specialization.... 75-89\% specialization. | $\begin{array}{r} 229 \\ 130 \\ 33 \end{array}$ | $\begin{array}{r} 17,645 \\ 5,598 \\ 1,949 \end{array}$ | $\begin{array}{r} 121,903 \\ 38,477 \\ 11,781 \end{array}$ | 10,564 3,507 1,205 | 22,195 7,474 2,539 | 63,094 21,799 6,278 | 233,092 70,510 21,774 | $\begin{array}{r} 202,082 \\ 58,407 \\ 20,836 \end{array}$ | 429,362 128,342 41,940 | 4,791 1,834 515 |
| 35352 | Parts, attachments and accessories for conveyors and systems (sold separately) (primary product class of estab.)..................... Establishments with-$90 \%$ or more specialization.... | $\left.\begin{aligned} & 37 \\ & 26 \end{aligned} \right\rvert\,$ | $\begin{array}{r} 2,032 \\ 839 \end{array}$ | $\begin{array}{r} 12,896 \\ 4,711 \end{array}$ | $\begin{array}{r} 1,320 \\ 616 \end{array}$ | $\begin{aligned} & 2,652 \\ & 1,237 \end{aligned}$ | $\begin{aligned} & 7,211 \\ & 2,949 \end{aligned}$ | $\begin{array}{r} 26,333 \\ 9,709 \end{array}$ | $\begin{array}{r} 19,841 \\ 7,859 \end{array}$ | $\begin{aligned} & 45,156 \\ & 17,553 \end{aligned}$ | 838 424 |

See footnotes at end of table.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | $\begin{gathered} \text { Value } \\ \text { added by } \\ \text { manufacture, } \\ \text { adjusted } \\ (\$ 1,000) \end{gathered}$ | Cost of materials $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3536- | HOISTS, CRANES, AND MONORAILS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. $\qquad$ <br> Establishments with-- | 120 | 9,585 | 64,301 | 6,776 | 13,980 | 41,433 | 112,327 | 110,949 | 220,015 | 2,644 |
|  | $90 \%$ or more specialization.. <br> 75-89\% specialization........ | 98 8 | $\begin{aligned} & 5,462 \\ & 1,857 \end{aligned}$ | $\begin{aligned} & 35,826 \\ & 11,948 \end{aligned}$ | $\begin{aligned} & 3,733 \\ & 1,418 \end{aligned}$ | $\begin{aligned} & 7,678 \\ & 2,774 \end{aligned}$ | $\begin{array}{r} 22,283 \\ 8,093 \end{array}$ | $\begin{aligned} & 64,463 \\ & 18,737 \end{aligned}$ | $\begin{aligned} & 58,024 \\ & 25,857 \end{aligned}$ | $\begin{array}{r} 119,272 \\ 45,408 \end{array}$ | 1,466 |
| 35361 | Hoists (primary product class of estab.). <br> Establishments with-- | 54 | 3,319 | 20,363 | 2,379 | 4,782 | 13,477 | 41,963 | 35,470 | 76,672 | 1,309 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization. ......... | 37 8 | 1,223 975 | $\begin{aligned} & 7,890 \\ & 5,307 \end{aligned}$ |  | $\begin{aligned} & 1,771 \\ & 1,375 \end{aligned}$ | $\begin{aligned} & 5,114 \\ & 3,400 \end{aligned}$ | $\begin{aligned} & 16,509 \\ & 13,000 \end{aligned}$ | $\begin{array}{r} 9,971 \\ 14,010 \end{array}$ | $\begin{aligned} & 25,847 \\ & 26,983 \end{aligned}$ | 484 574 |
| 35362 | Overhead traveling cranes and monorail systems (primary product class of estab.).. Establishments with-- | 41 | 6,136 | 43,048 | 4,312 | 9,024 | 27,463 | 69,156 | 74,219 | 140,837 | 1,289 |
|  | 90\% or more specialization.... | 29 | 2,239 | 15,553 | 1,454 | 2,967 | 8,822 | 23,694 | 30,249 | 52,748 | 383 |

Standard Notes: - Represents zero. applicable.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $20 \text { or }$ more |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
|  | INDUSTRY 3531.-CONSTRUCTION MACHINERY |  |  |  |  |  |  |  |
| Ferrous foundry.. | 16 | 1 | 3 | 12 | 2,987 | (D) | (D) | 2,954 |
| Nonferrous foundry (except die casting). | 4 | 2 | 2 | - | 16 | (D) | (D) |  |
| Forging--presses, hammers, or upsetters. | 32 | 19 | 10 | 3 | 319 | 30 | 95 | 194 |
| Heat treating of metals.......... | 83 | 59 | 13 | 11 | 1,050 | 110 | 131 | 809 |
| Automatic screw machine department. | 29 | 18 | 5 | 6 | 542 | 29 | 44 | 469 |
| Machine shop.. | 289 | 81 | 89 | 119 | 17,531 | 138 | 902 | 16,491 |
| Tool and die shop.. | 99 | 50 | 30 | 19 | 1,931 | 87 | 288 | 1,556 |
| Foundry pattern shop. | 31 | 16 | 12 | 3 | 313 | 21 | 96 | 196 |
| Plate or structural fabrication. | 213 | 55 | 61 | 97 | 10,793 | 116 | 619 | 10,058 |
| Stamping, blanking and forming of metals. | 114 | 59 | 33 | 22 | 2,570 | 102 | 287 | 2,181 |
| Painting, lacquering and enameling on metals. | 255 | 188 | 43 | 24 | 1,617 | 333 | 356 | 928 |
| Assembly of product................... | 256 | 74 | 82 | 100 | 8,688 | 128 | 780 | 7,780 |
|  | INDUSTRY 3532.-MINING MACHINERY AND EQUIPMENT |  |  |  |  |  |  |  |
| Ferrous foundry. <br> Nonferrous foundry (except die casting)....... <br> Forging--presses, hammers, or upsetters <br> Heat treating of metals <br> Automatic screw machine department. <br> Machine shop. <br> Tool and die shop. <br> Foundry pattern shop. <br> Plate or structural fabrication... <br> Stamping, blanking and forming of metals. Painting, lacquering and enameling on metals. Assembly of product.. | 13 | 2 | 1 | 10 | 749 | (D) | (D) | 730 |
|  | 2 | - | 2 | - | (D) | - | (D) |  |
|  | 22 | 16 | 5 | 1 | 81 | 27 | (D) | (D) |
|  | 36 | 27 | 7 | 2 | 156 | 47 | (D) | (D) |
|  | 8 | 3 | 4 | 1 | 117 | 5 | (D) | (D) |
|  | 91 | 27 | 34 | 30 | 3,080 | 46 | 397 | 2,637 |
|  | 16 | 11 | 1 | 4 | 152 | (D) | (D) | 113 |
|  | 18 | 12 | 4 | 2 | 116 | 21 | (D) | (D) |
|  | 56 | 21 | 17 | 18 | 1,236 | 27 | 165 | 1,044 |
|  | 25 | 19 | 2 | 4 | 224 | (D) | (D) | 172 |
|  | 63 | 54 | 6 | 3 | 178 | 76 | 33 | 69 |
|  | 65 | 30 | 20 | 15 | 1,066 | 54 | 175 | 837 |
|  | INDUSTRY 3533.-OIL FIELD MACHINERY |  |  |  |  |  |  |  |
| Ferrous foundry.. | 8 | 3 | 3 | 2 | 120 | 6 | (D) | (D) |
| Forging--presses, hammers, or upsetters. | 22 | 8 | 8 | 6 | 298 | 22 | 61 | 215 |
| Heat treating of metals................ | 60 | 43 | 15 | 2 | 337 | 76 | (D) | (D) |
| Automatic screw machine department. | 20 | 12 | 6 | 2 | 138 | 22 | (D) | (D) |
| Machine shop..... | 172 | 36 | 63 | 73 | 7,304 | 71 | 635 | 6,598 |
| Tool and die shop. | 41 | 12 | 22 | 7 | 613 | 29 | 208 | 376 |
| Plate or structural fabrication. | 70 | 30 | 23 | 17 | 1,130 | 50 | 241 | 839 |
| Stamping, blanking and forming of metals.. | 38 | 25 | 11 | 2 | 158 | 34 | (D) | (D) |
| Painting, lacquering and enameling on metals. | 102 | 87 | 15 | - | - 264 | 135 | 129 | - |
|  | INDUSTRY 3534.-ELEVATORS AND MOVING STAIRWAYS |  |  |  |  |  |  |  |
| Ferrous foundry. |  | 1 | 1 | 1 | (D) | (D) | (D) | (D) |
| Nonferrous foundry (except die casting). | 2 | 2 | - | - | (D) | (D) | - | - |
| Heat treating of metals................. | 2 | 1 | 1 | - | (D) | (D) | (D) | - |
| Automatic screw machine department. | 5 | 2 | 3 | - | 36 | (D) | (D) | - |
| Machine shop................. | 57 | 23 | 17 | 17 | 1,189 | 45 | 152 | 992 |
| Tool and die shop. | 19 | 12 | 4 | 3 | 159 | 23 | 34 | 102 |
| Foundry pattern shop.. | 2 | 1 | 1 | - | (D) | (D) | (D) | - |
| Plate or structural fabrication. | 46 | 19 | 17 | 10 | 631 | 42 | 160 | 429 |
| Stamping, blanking and forming of metals..... | 34 | 19 | 12 | 3 | 390 | 31 | (D) | (D) |
| Painting, lacquering and enameling on metals. | 48 | 40 | 6 | 2 | 209 | 52 | (D) | (D) |
|  | INDUSTRY 3535.-CONVEYORS |  |  |  |  |  |  |  |
| Ferrous foundry. | 4 | - | 1 | 3 | 284 | - | (D) | (D) |
| Nonferrous foundry (except die casting) | 3 | 2 | 1 | - | 12 | (D) | (D) | - |
| Forging--presses, hammers, or upsetters. | 5 | 4 | 1 | - | 16 | (D) | (D) | - |
| Heat treating of metals.......... | 12 | 10 | 2 | - | 28 | (D) | (D) | - |
| Automatic screw machine department. | 15 | 11 | 4 | - | 54 | 25 | 29 | - |
| Machine shop......... | 168 | 87 | 60 | 21 | 1,777 | 153 | 568 | 1,056 |
| Tool and die shop.... | 35 | 23 | 11 | 1 | 177 | 47 | (D) | (D) |
| Foundry pattern shop.. | 6 | 4 | 2 | - | 21 | (D) | (D) | - |
| Plate or structural fabrication.. | 161 | 52 | 59 | 50 | 3,549 | 102 | 556 | 2,891 |
| Stamping, blanking and forming of metals.. | 99 | 55 | 25 | 19 | 867 | 106 | 235 | 526 |
| Painting, lacquering and enameling on metals. | 153 | 139 | 14 | -1 | 320 | 212 | 108 | - |

See footnotes at end of table.

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963-Continued

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $20 \text { or }$ inore |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
| Forging--presses, hammers, or upsetters. <br> Heat treating of metals. <br> Automatic screw machine department <br> Machine shop.. <br> Tool and die shop. <br> Foundry pattern shop. <br> Plate or structural fabrication. <br> Stamping, blanking and forming of metals. <br> Painting, lacquering and enameling on metals. <br> Assembly of product. | INDUSTRY 3536.-HOISTS, CRANES, AND MONORAILS |  |  |  |  |  |  |  |
|  | 2 | - | 2 | - | (D) | - | (D) |  |
|  | 8 | 6 | 2 | - | 27 | (D) | (D) |  |
|  | 8 | 7 | 1 | - | 21 | (D) | (D) |  |
|  | 56 | 20 | 13 | 23 | 1,736 | 38 | 148 | 1,550 |
|  | 14 | 5 | 6 | 3 | 156 | 8 | 81 | 67 |
|  | 9 | 6 | 2 | 1 | 50 | 9 | (D) | (D) |
|  | 52 | 19 | 17 | 16 | 1,257 | 41 | 195 | 1,021 |
|  | 20 | 12 | 5 | 3 | 151 | 17 | 42 | 92 |
|  | 55 | 45 | 10 | 7 | 162 | 68 | 94 |  |
|  | 56 | 23 | 16 | 17 | 1,408 | 55 | 170 | 1,183 |
|  | INDUSTRY 3537.-TNDUSTRIAL TRUCKS AND TRACTORS |  |  |  |  |  |  |  |
| Ferrous foundry......................................... | 4 | 1 | 2 | 1 | 79 | (D) | (D) | (D) |
| Nonferrous foundry (except die casting)............... | 1 | 1 | - | - | (D) | (D) | - |  |
| Forging--presses, hammers, or upsetters............... | 5 | 4 | 1 | - | 24 | (D) | (D) | - ${ }^{-}$ |
| Heat treating of metals................................ | 13 | 9 | 3 | 1 | 70 | 15 | (D) |  |
| Autonatic screw machine department..................... | 15 | 9 | 5 | 1 | 72 | 11 | (D) | (D) |
| Machine shop......................................... . . . . . | 83 | 33 | 31 | 19 | 2,093 | 67 | 258 | 1,768 |
| Tool and die shop........................................ | 27 | 13 | 10 | 4 | 252 | 28 | 108 | 116 |
| Foundry pattern shop.................................... | 3 | 3 |  | - | 3 | 3 | - | 0 |
| Plate or structural fabrication........................ | 84 | 28 | 28 | 28 | 1,945 | 70 | 326 | 1,549 |
| Stamping, blanking and forming of metals............. | 71 | 38 | 26 | 7 | 685 | 65 | 239 | 381 |
| Painting, lacquering and enameling on metals........ | 106 | 87 | 17 | 2 | 336 | 135 | (D) | (D) |

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

| Item | INDUSTRY |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3531 | 3532 | 3533 | 3534 | 3535 | 3536 | 3537 |
| Total number of establishments in the industry. | 617 | 204 | 408 | 142 | 454 | 120 | 314 |
| Number of establishments which reported one or more of the specified operations. | 353 | 114 | 217 | 84 | 242 | 74 | 142 |
| Percent of industry production workers in these establishments. | 90-95 | 85-90 | 80-85 | 80-85 | 85-90 | 95-100 | 85-90 |
| Number of establishments which reported "none" of the operations apply. | 14 | 7 | 14 | 6 | 13 | 4 | 12 |
| Percent of industry production workers in these establishments.. | 0-5 | 0-5 | 0-5 | 0-5 | 0-5 | 0-5 | 0-5 |
| Percent of industry production workers in establishments which completed metalworking operations inquiry. | 90-95 | 85-90 | 80-85 | 80-85 | 90-95 | 95-100 | 90-95 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishments.

## METALWORKING MACHINERY AND EQUIPMENT

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3541-Machine Tools, Metal-Cutting Types<br>3542-Machine Tools, Metal-Forming Types<br>3544-Special Dies and Tools, Die Sets, Jigs, and Fixtures<br>3545-Machine Tool Accessories and Measuring Devices<br>3548-Metalworking Machinery, Except Machine Tools

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

These five industries include plants primarily engaged in the production of machines, tools, and equipment for use principally in fabricating metal products. The machinery and equipment included in these industries encompass the entire range of metalworking processes utilizing cutting and forming operations. Plants in industries 3541,3542 , and 3548 produce complete machines such as lathes, drilling machines, grinding and polishing machines, presses, die-casting machines, and rolling-mill equipment; plants in industries 3544 and 3545 manufacture equipment and tools for use with those machines, such as dies, jigs, fixtures, cutting tools, work holding devices, industrial molds, and precision measuring instruments.

As a means of providing for consistent reporting of machinery produced on a subcontract basis, machine tool and metalworking machinery manufacturers were instructed to include in their report all machines produced for them by others on a subcontract basis. Conversely, the plants producing such machines were instructed to exclude such products from their shipments reports and to show all receipts for subcontract work as "receipts for work done for others on their own materials."

## 3541-MACHINE TOOLS, METAL-CUTTING TYPES

This industry comprises establishments primarily engaged in manufacturing power-driven machines, not supported in the hands of an operator when in use, that shape metal by cutting or use of electrical techniques; the rebuilding of such machine tools, and the manufacture of replacement parts for them. Metalworking, or primarily metalworking machine tools designed primarily for home workshops are also included. Establishments primarily engaged in the manufacture of electric welding equipment are classified in industry 3623 ; and portable power-driven hand tools, machinery and gas welding and cutting equipment,
and automotive maintenance equipment in industry 3548. For a detailed list of products of industry 3541 , refer to table 6A, product codes 3541111 to 3541941 .
The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal-Cutting Machine Tools lndustry totaled $\$ 1,061$ million. This amount included shipments of machine tools, metal-cutting types (primary products), valued at $\$ 805$ million, shipments of other products (secondary products) valued at $\$ 188$ million, and miscellaneous receipts (largely products bought and resold) at $\$ 68$ million.

This industry's shipments of metal-cutting machine tools represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 include small cutting tools for machine tools and metalworking machinery ( $\$ 30$ million), and other attachments and accessories for machine tools and metalworking machinery ( $\$ 28$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 26 percent of the total industry shipments are represented by plants specializing in lathes; and 16 percent in milling machines.

Shipments of machine tools, metal-cutting types, by this industry represented 87 percent of all shipments of these products ( $\$ 925$ million) by all industries. In 1958 the coverage ratio was 89 percent. Other industries shipping machine tools, metal-cutting type, include industry 3545, Machine Tool Accessories, $\$ 29$ million; and industry 3542, Metal-Forming Machine Tools, $\$ 5$ million.

While machine tools are usually built for industrial purposes, some types of small size, light construction, and low price are designed primarily for the home workshop, the laboratory, the service shop, or the like. Light machine tools, usually of more precise construction than the home workshop type, are also used in industrial plants, either in batteries to accomplish the same purpose as one or two heavier machine tools, as accessory equipment in the company's machine shop, as "standby machines," or for special types of work. In some industries where a light machine tool more adequately serves the purpose at hand, this type of tool is part of the main production line. Home workshop tools may be used incidentally in industrial establishments, but this is the exception rather than the rule. Home workshop machine tools (other than power-driven hand tools) which were designed primarily for metalworking or for use on metal and wood are classified in industry 3541 . However, those that are designed primarily for woodworking are classified in industry 3553, Woodworking Machinery.

The product detail shown in table 6A is essentially the same as that published in Current Industrial Report Series M35W, Machine Tools. The Current lndustrial Report does not include data on machines designed primarily for home workshops, garages, service shops, etc., nor does it include figures for rebuilt machine tools.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3541, e.g., lathes, 96 percent; other machine tools (including those designated primarily for home workshops, laboratories, etc.), 77 percent; boring machines, 94 percent; parts for metal-cutting type machine tools sold separately and rebuilt machine tools, 82 percent.

The production index for the primary products of the industry increased to 82 in 1963 from the 1958 level of 52 . The unit value index for 1963 was 112 compared to 113 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3542--MACHINE TOOLS, METAL-FORMING TYPES

This industry comprises establishments primarily engaged in manufacturing power-driven machines, not supported in the hands of an operator while in use, for pressing, forging, hammering, extruding, shearing, bending, or die casting metal into shape. This industry also includes rebuilding such machine tools and manufacturing repair parts for them. Establishments primarily engaged in the manufacture of electric welding equipment are classified in industry 3623; portable power-driven hand tools, machinery and gas welding and cutting equipment, and automotive maintenance equipment in industry 3548. For a detailed list of products of industry 3842, refer to table 6A, product codes 3542411 to 3542475.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metal-Forming Machine Tools Industry totaled $\$ 441$ million. This amount included shipments of machine tools, metal-forming types (primary products) valued at $\$ 351$ million, shipments of other products (secondary products) valued at $\$ 58$ million, and miscellaneous receipts at $\$ 33$ million.

This industry's shipments of metal-forming machine tools represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 82 percent. Secondary products shipped by this industry in 1963 include special dies and tools, die sets, jigs, and fixtures ( $\$ 20$ million), and parts for metal-cutting type machine tools, sold separately, and rebuilt machine tools ( $\$ 3$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 39 percent of the total industry shipments are represented by plants specializing in presses, including forging presses; and 20 percent in punching, shearing, bending, and forming machines.

Shipments of machine tools, metal-forming types, by this industry in 1963 represented 79 percent of all shipments of these products ( $\$ 445$ million) by all industries. In 1958 the coverage ratio was 80 percent. Other industries shipping machine tools, metal-forming types, include industry 3541 , Metal-Cutting Machine Tools, $\$ 17$ million; and industry 3548, Metalworking Machinery, N.E.C., over $\$ 12$ million.

The product detail shown in table 6A is essentially the same as that collected by the Bureau of the Census each year since 1950 and published in the Current Industrial Report Series M35W, Metalworking Machinery. The Current Industrial Report does not include data on rebuilt machines.

## 3544--SPECIAL DIES AND TOOLS, DIE SETS, JIGS, AND FIXTURES

This industry comprises establishments primarily engaged in manufacturing, on a job or order basis, special tools and fixtures for use with machine tools, hammers, die casting machines, and presses. The products of establishments classified in this industry include a wide variety of special toolings, such as dies; punches; die sets and components, and subpresses; jigs and fixtures; and special checking devices. Establishments primarily engaged in manufacturing metal molds for use with foundry plaster working, rubber working, plastic working, glass working, and similar machinery are also included. For a detailed list of products of industry 3544 , refer to table 6A, product codes 3544112 to 3544263.

This industry comprises establishments commonly known as contract tool and die shops; also included are captive tool and die shops of metal-products producers, where such shops were separately operated and separate reports were filed. However, the total value of shipments excludes the captive production of tool and die departments making these products for the exclusive use of the producing establishment.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Special Dies and Tools Industry totaled $\$ 1,389$ million. This amount included shipments of special dies and tools, die sets, jigs, and fixtures (primary products) valued at $\$ 1,164$ million, shipments of other products (secondary products) valued at $\$ 85$ million, and miscellaneous receipts (mainly contract work on materials owned by others) at $\$ 139$ million.

This industry's shipments of special dies and tools represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was also 93 percent. Secondary products shipped by this industry in 1963 include carburetors, pistons, and other machine shop products ( $\$ 12$ million), and job stampings, except automotive ( $\$ 11$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 66 percent of the total industry shipments are represented by plants specializing in special dies and tools, die sets, jigs, and fixtures; and 15 percent in industrial molds.

Shipments of special dies and tools, die sets, jigs, and fixtures by this industry represented 72 percent of all shipments of these products ( $\$ 1,608$ million) by all industries. In 1958 the coverage ratio was 69 percent. Other industries shipping special dies and tools, die sets, jigs, and fixtures include industry 3461, Metal Stampings, $\$ 66$ million; and industry 3545, Machine Tool Accessories, $\$ 22$ million.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3544, e.g., industrial molds, 83 percent; and special dies and tools, die sets, jigs, and fixtures, 67 percent.

## 3545-MACHINE TOOL ACCESSORIES AND MEASURING DEVICES

This industry comprises establishments primarily engaged in manufacturing cutting tools, machinists' precision measuring tools, and attachments and accessories for machine tools and for other metalworking machinery, n.e.c. For a detailed list of products of industry 3545 , refer to table 6A, product codes 3545113 to 3545351 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Machine Tool Accessories Industry totaled $\$ 787$ million. This amount included shipments of machine tool accessories and measuring devices (primary products) valued at $\$ 616$ million, shipments of other products (secondary products) valued at $\$ 122$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 50$ million.

This industry's shipments of machine tool accessories represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 include special dies and tools, die sets, jigs, and fixtures ( $\$ 22$ million), and other machine tools (including those designed primarily for home workshops, laboratories, etc.) ( $\$ 10$ million).

While the primary products of the industry represent more than once class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 71 percent of the total industry shipments are represented by plants specializing in small cutting tools for machine tools and metalworking machinery.

Shipments of machine tool accessories and measuring devices by this industry represented 84 percent of all shipments of these products ( $\$ 732$ million) by all industries. In 1958 the coverage ratio was 85 percent. Another industry shipping machine tool accessories and measuring devices was industry 3541, Metal-Cutting Machine Tools, $\$ 69$ million.

## 3548-METALWORKING MACHINERY, EXCEPT MACHINE TOOLS

This industry comprises establishments primarily engaged in manufacturing metalworking machinery such as rolling mill machinery and equipment, power-driven hand tools, welding equipment, wire fabricating machinery and equipment, and automotive maintenance machinery and equipment. Establishments primarily engaged in manufacturing machine tools, metal-cutting types, are classified in industry 3541, and those primarily engaged in manufacturing machine tools, metal-forming types, in industry 3542. For a detailed list of products of industry 3548, refer to table 6A, product codes 3548115 to 3548598.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Metalworking Machinery, N.E.C., Industry totaled $\$ 796$ million. This amount included shipments of metalworking machinery, except machine tools, and power-driven hand tools (primary products) valued at $\$ 616$ million, shipments of other products (secondary products) valued at $\$ 109$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 72$ million.

This industry's shipments of metalworking machinery, n.e.c., represented 85 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 include hoists ( $\$ 7$ million), and fractional horsepower motors ( $\$ 7$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 46 percent of the total industry shipments are represented by plants specializing in power-driven hand tools; and 35 percent in rolling mill machinery and equipment.

Shipments of metalworking machinery, except machine tools, and power-driven hand tools by this industry in 1963 represented 88 percent of all shipments of these products ( $\$ 702$ million) by all industries. ln 1958 the coverage ratio was 85 percent.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3548, e.g., automobile maintenance equipment, 73 percent; acetylene welding and cutting apparatus, 78 percent; and other metalworking machinery, 75 percent.


# table 1. General Statistics: 1963 and Earlier Years 

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employ ees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours $(1,000)$ | Wages (\$1,000) |  |  |  |  |  |  |
| INDUSTRY 3541.--METAL-CUTTING MACHINE TOOLS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 1963 \\ & 1962^{1} \\ & 1961^{1} \\ & 1960^{1} \\ & 1959^{1} \end{aligned}$ | $\begin{aligned} & 784 \\ & (\mathrm{NA}) \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | $\begin{aligned} & 801 \\ & (\mathrm{NA}) \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | $\begin{gathered} 269 \\ (\mathrm{NA}) \\ (\mathrm{NA}) \\ (\mathrm{NA}) \\ (\mathrm{NA}) \end{gathered}$ | 8 | 438,222 | 41,008 | $\begin{aligned} & 86,486 \\ & 81,217 \end{aligned}$ | 272,243235,035 | 699,341 | 381,566 | 1,060,818 | 28,837 | $81$ | 87 |
|  |  |  |  | 58,855 | 401,810 | 39,253 |  |  | 670,989 | 332,974 | 1,982,118 | 26,643 |  | (NA) |
|  |  |  |  | 54,901 | 352,976 | 36,373 | 72,714 | 201,457 | 550,119 | 281,459 | 828,413 | 18,668 | (NA) | (NA) |
|  |  |  |  | 58,777 | 370,894 | 39,487 | 80,918 | 223,825 | 578,210 | 311,832 | 881,676 | 24,770 | (NA) | (NA) |
|  |  |  |  | 52,797 | 329,497 | 35,436 | 72,165 | 201,991 | 505,433 | 262,198 | 753,784 | 22,152 | (NA) | (NA) |
| 1958. | 611 | $\begin{array}{r} 627 \\ (\mathrm{NA}) \end{array}$ | $\begin{array}{r} 231 \\ (\mathrm{NA}) \end{array}$ | $\begin{aligned} & 52,864 \\ & 79,895 \end{aligned}$ | $\begin{aligned} & 300,344 \\ & 470,886 \end{aligned}$ | 36,154 | 69,619 | 182,171 | 420,961 | 217,738 | 679,836 | 18,840 | 85 | 89 |
| $1957{ }^{1}$ |  |  |  |  |  | 59,611 | 125,419 | 319,313 | 797,541 | 403,473 |  | $\begin{aligned} & 39,653 \\ & 49.178 \end{aligned}$ | $\begin{array}{r} 84 \\ (\mathrm{NA}) \end{array}$ | 90( A ) |
| $1956{ }^{1}$ | (NA) | (NA) | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | 85,469 | $\begin{aligned} & 470,886 \\ & 511,928 \end{aligned}$ | $\begin{aligned} & 65,208 \\ & 58,598 \end{aligned}$ | $\begin{aligned} & 147,464 \\ & 128,099 \end{aligned}$ | $\begin{aligned} & 360,577 \\ & 297,216 \end{aligned}$ | $\begin{aligned} & 882,188 \\ & 690,980 \end{aligned}$ | $\begin{aligned} & 441,524 \\ & 345,447 \end{aligned}$ | $1,209,071$ $1,270,470$ |  |  |  |
| $1955{ }^{1}$ | (NA) |  |  | 77,063 | 426,565 |  |  |  |  |  | $1,007,752$ | $\begin{aligned} & 49,178 \\ & 44,031 \end{aligned}$ | (NA) | (NA) |
| 1954. | 627(NA) | 639 | 266 | 80,959 | 432,290 | 62,106 | 133,247 | 302,682 | 743,569 | 377,535 | 1,171,543 | $\begin{array}{r} 37,683 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \end{array}$ | $\begin{array}{r} 84 \\ (\mathrm{NA}) \\ (\mathrm{NA}) \\ (\mathrm{NA}) \end{array}$ | $\begin{array}{r} 93 \\ (N A) \\ (N A) \\ \text { (NA) } \end{array}$ |
| $1953{ }^{1}$ |  | ( NA ) | (NA) | 99,494 | 537,623 | 76,840 | 175,280 | 392,647 | 1,000,049 | 541,325 | 1,541,374 |  |  |  |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 102,735 | 524,516 | 79,471 | 194,611 | 385,315 | 1,003,344 | 562,680 | 1,566,024 |  |  |  |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 83,855 | 396,368 | 64,029 | 155,667 | 280,955 | 588,863 | 364,261 | 953,124 |  |  |  |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 54,747 | 226,772 | 41,555 | 88,644 | 150,585 | 316,740 | 169,922 | 486,662 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | ( NA ) | (NA) | (NA) | 52,384 | 190,369 | 38,584 | 74,537 | 120,009 | 272,732 | 122,304 | 395,035 | (NA) | (NA) | (NA) |
| 1947. | 312 | 315 | 209 | 70,001 | 233,997 | 54,435 | 113,432 | 165,003 | 343,198 | 150,655 | 493,853 | (NA) | 77 | 86 |
| 193 | (NA) | 224 | (NA) | (NA) | (NA) | 36,997 | (NA) | 62,867 | 155,941 | 65,326 | 221,267 | (NA) | ( NA ) | (NA) |
| 193 | (NA) | 205 | (NA) | (NA) | (NA) | 37,477 | ( NA ) | 62,610 | 143,224 | 59,515 | 202,739 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3542.--METAL-FORMING MACHINE TOOLS |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 362(NA) | 366(NA) | ( 146 | $\begin{aligned} & 22,078 \\ & 23,396 \end{aligned}$ | 161,669171,980 | $\begin{aligned} & 15,782 \\ & 18,409 \end{aligned}$ | $\begin{aligned} & 34,633 \\ & 37,041 \end{aligned}$ | $\begin{aligned} & 107,381 \\ & 109,504 \end{aligned}$ | $\begin{aligned} & 281,287 \\ & 265,841 \end{aligned}$ | $\begin{aligned} & 165,376 \\ & 180,740 \end{aligned}$ | $\begin{aligned} & 441,419 \\ & 448,210 \end{aligned}$ | 10,792$(12,653)$ | 86$(N A)$ | 79 |
| $1962^{1}$ |  |  |  |  |  |  |  |  |  |  |  |  |  | ( NA ) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 23,207 | 158,226152,140 | 18,260 | 34,790 | 101, 127 | 221,666 | 174,939 | 413,492 | 7,747 | (NA) | (NA) |
| 1960 | (NA) |  | (NA) | 22,423 |  | 17,952 | 35,833 | 100,930 | 237,602 | 156,865 | 384,044 | 12,599 | (NA) | (NA) |
| 1959 | $\begin{array}{r}\text { (NA) } \\ 279 \\ \hline\end{array}$ | (NA) |  | 22,294 | 146,592 | 17,896 | 35,027 | 94,691 | 232,018 | 141,093 | 357,712 | 9,667 | (NA) | (NA) |
| 1958 |  | 291 | 147 | 22,502 | 132,368 | 15,572 | 30,905 | 82,192 | 176,021 | 130,143 | 317,657 | 11,723 | 82 | 80 |
|  | INDUSTRY 3544.--SPECIAL DIES AND TOOLS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 5,850 | 5,896 | 1,133 | 90,860101,176 | 682,739706,560 | $\begin{aligned} & 76,002 \\ & 84,163 \end{aligned}$ | $\begin{aligned} & 169,313 \\ & 184,908 \end{aligned}$ | 543,033 | 1,029,338 | 373,320 | 1,388,794 | $\begin{gathered} 53,343 \\ (49,241) \end{gathered}$ | 93(NA) | 72$(\mathrm{NA})$ |
| $1962{ }^{1}$ | (NA) |  |  |  |  |  |  | 552,953 | 1,106,596 | 393,767 | 1,488, 331 |  |  |  |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 90,386 | 605,328 | 74,253 | 156,312 | 460,027 | 901,537 | 312,271 | 1,201,883 | $(36,832)$ | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 93,246 | 638,151 | 76,819 | 163,268 | 491,783 | 966,547 | 342,883 | 1,314,972 | $(38,289)$ | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 89,445 | 597,853 | 74,241 | 158,205 | 465,009 | 932,025 | 311,407 | 1,235,014 | $(29,075)$ | (NA) | ( NA ) |
| $1958{ }^{3}$ | 5,715 | 5,745 | 994 | 83,308 | 536,588 |  | 139,877 | 415,241 | 780,090 | 275,030 | 1,060,566 | 43,242 | 93 | 69 |
|  | INDUSTRY 3545.--MACHINE TOOL ACCESSORIES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 983 | 1,038 | 347 | 46,994 | 312,799 | 34,560 | 72,037 | 208,086 | 559,258 | 234,501 | 787,338 | 22,784 | 83 | 84(NA)(NA)(NA)(NA) |
| $1962{ }^{1}$ | ( NA ) | (NA) | (NA) | 48,730 | 316,102 | 35,694 | 75,126 | 205,410 | 570,061 | 244,610 | 809,326 | 22,247 | (NA) |  |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 44,980 | 273,865 | 32,277 | 66,344 | 172,426 | 474,053 | 195,474 | 667,122 | 17,666 | (NA) |  |
| 19601 | (NA) | (NA) | (NA) | 46,732 | 283,647 | 33,972 | 71,541 | 182,709 | 495,551 | 179,158 | 682,139 | 17,992 | (NA) |  |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 45,108 | 266,928 | 33,291 | 68,275 | 174,789 | 458,275 | 182,404 | 634,514 | 15,428 | (NA) |  |
| 1958. | $\begin{array}{r} 865 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 1,007 \end{array}$ | $\begin{array}{r} 905 \\ (\mathrm{NA}) \\ (\mathrm{NA}) \\ (\mathrm{NA}) \\ 1,022 \end{array}$ | $\begin{gathered} 297 \\ (\mathrm{NA}) \\ \text { (NA) } \\ \text { (NA) } \\ 307 \end{gathered}$ | $\begin{aligned} & 41,521 \\ & 52,203 \\ & 48,344 \\ & 45,202 \\ & 44,877 \end{aligned}$ | 226,949 | 29,304 | 56,299 | 143,663 | 348,580 | 143,142 | 511,456 | 15,277 | 85 | 85 |
| 1957 |  |  |  |  | 293,874 | 39,369 | 81,691 | 199,832 | 472,602 | 199,651 | 650,032 | 25,185 | 87 | 74 |
| $1956{ }^{1}$ |  |  |  |  | 265,326 | 37,181 | 79,194 | 183,429 | 472,352 | 175,101 | 630,558 | 20,354 | ( NA ) | (NA) |
| $1955{ }^{1}$ |  |  |  |  | 230,769 | 34,837 | 72,429 | 158,733 | 403,554 | 150,220 | 544,410 | 17,121 | (NA) | (NA) |
| $1954{ }^{2}$ |  |  |  |  | 212,665 | 34,467 | 69,871 | 146,854 | 341,399 | 133,154 | 486,764 | 16,598 | 87 | 74 |
|  | INDUSTRY 3548.--METALWORKING MACHINERY, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 420(NA) | 435(NA) | 168(NA) | $\begin{aligned} & 38,012 \\ & 36,040 \end{aligned}$ | $\begin{aligned} & 246,242 \\ & 223,655 \end{aligned}$ | 28,257 | 57,094 | 161,837 | 468,435 | 328,359 | 796,327 | 20,957 | 85 | 88 |
| $1962{ }^{1}$ |  |  |  |  |  | 26,324 | 52,502 | 145,816 | 429,296 | 270,977 | 680, 747 | 11,085 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 34,870 | 209,781 | 24,984 | 49,004 | 134,766 | 368,399 | 267,557 | 661, 746 | 14,157 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 36,199 | 215,827 | 26,092 | 52,441 | 141,494 | 409,682 | 267,187 | 656,553 | 18,366 | (NA) | (NA) |
| $1959{ }^{1}$ | ( NA) | (NA) | ( NA ) | 34,819 | 197,710 | 25,010 | 49,566 | 127,107 | 362,136 | 239,341 | 610,922 | 11,095 | ( NA ) | (NA) |
| $1958{ }^{3}$ | 349 | 362 | 143 | 33,328 | 183,307 | 24,384 | 46,915 | 120,444 | 332,397 | 241,230 | 602,015 | 16,634 | 91 | 85 |

NOIE: See Introcuction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipnents: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
${ }^{2}$ Comparable data are not available for earlier years.
${ }^{3}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification; therefore, the data for $1958-1963$ are not comparable with those for earlier years.
table 2. General Statistics, by Geographic Areas: 1963 and 1958


TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted ( $\$ 1,000$ ) |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3544.-SPECIAL DIES AND TOOLS--Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 240 | 43 | 3,139 | 20,510 | 2,582 | 5,519 | 16,271 | 30,306 | 11,062 | 41,418 | 1,777 | 2,216 | 20,545 |
|  | 66 | 12 | 759 | 4,841 | 631 | 1,352 | 4,059 | 7,256 | 2,932 | 10,170 | 498296 | 680$(2)$ | $\begin{array}{r} 6,344 \\ \left(^{2}\right) \end{array}$ |
| Minnesota | 35 | 8 | 551 | 3,925 | 466 | 1,077 | 3,240 | 5,708 | 1,867 |  |  |  |  |
| Mowa............... | 110 | 19 | 1,594 | 10,673 | 1,291 | 2,694 | 8,089 | 15,657 | 5,706 | 21,417 | 897 | 999 | $\left({ }^{2}\right)$ 9,493 |
| Kansas........... | 20 | 3 | 159 | 717 | 133 | 264 | 593 | 1,115 | 351 | 1,472 | 43 | 205 | 1,464 |
| South Atlantic. | 169 | 24 | 1,704 | 10,381 | 1,424124 | 3,020 | 8,093 | 15,980 | 6,622482 | $\begin{array}{r} 22,586 \\ 2,182 \end{array}$ | $\begin{array}{r} 1,084 \\ 79 \end{array}$ | 1,521 | 12,604 |
| Maryland..... | 29 | 1 | 149 | 993 |  | 267 | 780 | 1,675 |  |  |  | ${ }^{2}$ ) |  |
| North Carolina... | 28 | 2 | 242 | 1,356 | 201 | 403 | 1,044 | 1,514 | 787 | 2,308 | 176166 | 149 | $1,194$ |
| Georgia.......... | 26 | 6 | 416 | 2,637 | 356 | 731 | 2,033 | 4,169 | 1,830 | 6,000 |  | 373 | 3,738 |
| Florida.......... | 61 | 13 | 663 | 4,037 | 550 | 1,228 | 3,190 | 6,420 | 2,904 | 9,293 | 450 | 443 | 3,303 |
| East South Central. Kentucky. $\qquad$ Tennessee. $\qquad$ | 72 | 16 | 1,000 | 6,024 | 822 | 1,761 | 4,826 | 8,220 | $\begin{array}{r}3,303 \\ \hline 909 \\ \hline\end{array}$ | $\begin{array}{r} 11,495 \\ 3,506 \\ 6,018 \end{array}$ | $\begin{aligned} & 693 \\ & 279 \\ & 253 \end{aligned}$ | $\begin{aligned} & 661 \\ & \left.\mathbf{( 2}^{2}\right) \end{aligned}$ | $\begin{array}{r} 5,509 \\ \left(\begin{array}{c} 2 \end{array}\right) \end{array}$ |
|  | 26 | 6 | 301 | 1,920 | 401 | 539863 | 1,533 | 2,573 |  |  |  |  |  |
|  | 33 | 7 | 494 | 2,870 |  |  | 2,261 | 4,147 | 1,909 |  |  |  |  |
| Hest South C |  | 12 | 813149 | 4,557 | $\begin{aligned} & 661 \\ & 130 \end{aligned}$ | 1,369 | 3,480 | 7,271 | 2,920 | 10,105 | 698 | 679 | 5,259 |
| Ariansas. |  | 4 |  | 754 |  | 273 | 614 | 1,661 | 2,631 | 2,274 | $\begin{aligned} & 268 \\ & 388 \end{aligned}$ | 111 | $\begin{array}{r} 688 \\ 3,596 \end{array}$ |
| Texas. |  | 7 | 561 | 3,232 |  | 899 | 2,410 | 4,684 | 1,894 | 6,518 |  | 450 |  |
| $\begin{aligned} & \text { Mountain. . . . . . . . . } \\ & \text { Arizona. . . . . . . } \end{aligned}$ | 4019 | 93 | $\begin{aligned} & 446 \\ & 189 \end{aligned}$ | 2,875 | $\begin{aligned} & 367 \\ & 153 \end{aligned}$ | 737 | 2,277961 | 4,790 | 1,924533 | $\begin{aligned} & 6,690 \\ & 2,386 \end{aligned}$ | 337189 | $\begin{aligned} & 479 \\ & \left({ }^{2}\right) \end{aligned}$ | $\begin{array}{r} 4,407 \\ \left({ }^{2}\right) \end{array}$ |
|  |  |  |  | 1,235 |  | 315 |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Pacific.............. } \\ & \text { Callfornia....... } \end{aligned}$ | 536511 | $\begin{aligned} & 70 \\ & 70 \\ & \hline \end{aligned}$ | $\begin{aligned} & 5,753 \\ & 5,667 \end{aligned}$ | 43,393 | $\begin{aligned} & 4,744 \\ & 4,669 \end{aligned}$ | 10,226 | $\begin{aligned} & 33,619 \\ & 33,135 \end{aligned}$ | $\begin{aligned} & 71,755 \\ & 70,762 \end{aligned}$ | $\begin{aligned} & 26,186 \\ & 25,834 \end{aligned}$ | $\begin{aligned} & 97,013 \\ & 95,662 \end{aligned}$ | $\begin{aligned} & 3,483 \\ & 3,413 \end{aligned}$ | $\begin{aligned} & 5,670 \\ & 5,566 \end{aligned}$ | $\begin{aligned} & 54,258 \\ & 53,364 \end{aligned}$ |
|  |  |  |  | 42,832 |  | 10,083 |  |  |  |  |  |  |  |
|  | INDUSTRY 3545.-MACHINE TOOL ACCESSORIES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 1,038 | 347 | 46,994 | 312,799 | 34,560 | 72,037 | 208,086 | 559,258 | 234,501 | 787,338 | 22,784 | 41,521 | 348,580 |
| New England......... <br> Vermont. $\qquad$ <br> Massachusetts.... <br> Connecticut...... | $\begin{array}{r} 159 \\ 4 \\ 61 \\ 70 \end{array}$ | $\begin{array}{r} 59 \\ 4 \\ 25 \end{array}$ | $\begin{array}{r} 12,857 \\ 670 \end{array}$ | 80,128 | $\begin{array}{r} 9,308 \\ 556 \end{array}$ | $\begin{array}{r} 18,992 \\ 1,132 \end{array}$ | $\begin{array}{r} 51,597 \\ 2,782 \end{array}$ | $\begin{array}{r} 135,620 \\ 9,020 \end{array}$ | $\begin{array}{r} 51,262 \\ 5,157 \end{array}$ | $\begin{array}{r} 183,435 \\ 13,714 \end{array}$ | $\begin{array}{r} 6,190 \\ 635 \end{array}$ | 14,050$\left({ }^{2}\right)$ |  |
|  |  |  |  | 4,188 |  |  |  |  |  |  |  |  | ${ }^{(2)}$ |
|  |  |  | 6,302 | 37,584 | 4,767 | 9,657 | 26,525 | 63,133 | 22,977 | 86,432 | 2,595 | 5,841 | 45,153 |
|  |  | 22 | 4,614 | 30,666 | 3,085 | 6,408 | 17,865 | 49,839 | 19,231 | 65,835 | 2,560 | 4,364 | 31,403 |
| Middle Atlantic.. | 164 | 43 | 5,691 | 33,646 | 4,256 | 8,662 | 22,919 | 57,429 | 32,805 | 89,483 | 2,546 | 4,798 | 35,359 |
| New York.. | 88 | 22 | 1,749 | 10,132 | 1,380 | 2,743 | 7,121 | 15,859 | 8,599 | 23,959 | 973 | 1,150 | 8,012 |
| New Jersey. | 42 | 8 | 621 | 3,724 | 480 | 978 | 2,697 | 6,253 | 2,596 | 8,948 | 233 | 526 | 3,786 |
| Pennsylvania..... | 34 | 13 | 3,321 | 19,790 | 2,396 | 4,941 | 13,101 | 35,317 | 21,610 | 56,576 | 1,340 | 3,122 | 23,561 |
| East North Central. | 526 | 211 | 24,797 | 178,512 | 18,241 | 38,726 | 119,574 | 325,533 | 133,371 | 457,401 | 12,144 | 20,124 | 185,013 |
| Ohio..... | 93 | 38 | 6,447 | 44,420 | 4,734 | 9,691 | 28,168 | 82,902 | 26,937 | 111,709 | 2,732 | 5,391 | 50,644 |
| Indiana.. | 30 | 6 | 598 | 3,593 | 433 | 882 | 2,481 | 6,607 | 2,650 | 9,378 | 292 | 460 | 3,347 |
| Illinois. | 89 | 38 | 5,028 | 33,332 | 3,612 | 7,461 | 21,538 | 61,306 | 29,049 | 88,323 | 2,265 | 4,332 | 35,910 |
| Michigan.......... | 287 | 121 | 12,301 | 94,418 | 9,168 | 20,063 | 65,598 | 169,668 | 71,334 | 239,490 | 6,674 | 9,472 | 91,163 |
| Wisconsin........ | 27 | 8 | 423 | 2,749 | 294 | 629 | 1,789 | 5,050 | 3,401 | 8,501 | 181 | 469 | 3,949 |
| West North Central. | 22 | 5 | 1,053 | 6,144 | 740 | 1,514 | 3,652 | 11,422 | 4,907 | 16,264 | 837 | 840 | 6,969 |
| South Atlantic.. | 24. | 4 | 382 | 1,714 | 306 | 649 | 1,227 | 3,622 | 2,279 | 5,467 | 316 |  |  |
| East South Central. | 14 | 6 | 565 | 2,557 | 474 | 1,039 | 2,034 | 4,469 | 2,619 | 7,300 | 202 | 573 | 5,453 |
| West South Central. | -15 | 3 | 274 | 1,138 | 204 | 383 | 803 | 4,366 | 1,171 | 5,307 | 97 |  |  |
| Mountain. | 5 | - | 26 | 101 | 20 | 40 | 75 | 253 | 69 | 322 |  |  |  |
| Pacific............ | 109 | 16 | 1,349 | 8,859 | 1,011 | 2,032 | 6,205 | 16,544 | 6,018 | 22,359 | 452 | 1,136 | 11,662 |
| California. | 105 | 16 | 1,334 | 8,805 | 999 | 2,008 | 6,161 | 16,447 | 5,934 | 22,174 | 443 | 1.111 | 11,535 |
|  |  |  |  |  | INDU | RY 354 | METALWOR | ng MACHINE | Y, N.E.C. |  |  |  |  |
| Total.......... | 435 | 168 | 38,012 | 246,242 | 28,257 | 57,094 | 161,837 | 468,435 | 328,357 | 796,327 | 20,957 | 33,328 | 332,397 |
| New England........ | 45 | 17 | 2,801 | 18,336 | 1,990 | 3,956 | 10,881 | 32,851 | 20,722 | 55,136 | 2,202 | 2,835 | 28,679 |
| Connecticut...... | 20 | 10 | 1,340 | 9,299 | 955 | 1,877 | 5,654 | 17,281 | 9,506 | 25,657 | 1,400 | 1,437 | 12,937 |
| Middle Atlantic.... | 91 | 40 | 11,532 | 77,554 | 8,674 | 17,095 | 53,000 | 141,317 | 103,443 | 245,623 | 4,922 | 12,291 | 117,835 |
| New York. ......... | 41 | 10 | 2,452 | 14,852 | 1,782 | 3,590 | 10,213 | 37,657 | 15,279 | 52,643 | 538 | 2,079 | 24,293 |
| New Jersey....... | 18 | 8 | 1,749 | 12,612 | 1,187 | 2,400 | 6,784 | 17,427 | 11,757 | 29,485 | 836 | 1,851 | 14,439 |
| Pennsylvania..... | 32 | 22 | 7,331 | 50,090 | 5,705 | 11,105 | 36,003 | 86,233 | 76,407 | 163,495 | 3,548 | 8,361 | 79,103 |
| East North Central. | 178 | 70 | 15,129 | 101,477 | 11,275 | 23,674 | 66,686 | 190,053 | 140,561 | 330,252 | 9,825 | 11,500 | 120,680 |
| Ohio..... | 58 | 29 | 7,789 | 56,938 | 5,790 | 12,180 | 38,447 | 96,208 | 78,990 | 173,850 | 6,931 | 5,161 | 56,010 |
| Indiana.. | 12 | 2 | 149 | 1,105 | 114 | 236 | 766 | 2,490 | 946 | 3,498 | 60 | 104 | 1,124 |
| Illinois......... | 50 | 17 | 4,668 | 26,716 | 3,627 | 7,657 | 17,652 | 57,799 | 40,817 | 99,104 | 2,005 | 3,621 | 37,702 |
| Michigan. | 42 | 12 | 1,395 | 8,866 | 989 | 2,089 | 5,571 | 19,032 | 10,650 | 29,502 | 506 | 1,997 | 19,017 |
| Wisconsin | 16 | 10 | 1,128 | 7,852 | 755 | 1,521 | 4,250 | 14,524 | 9,158 | 24,298 | 323 | 617 | 6,827 |

[^171]TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | Atl employees |  | Production workers |  |  | Value added by manufacture, adjusted ( $\$ 1,000$ ) | Cost of materials$(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures. new$(\$ 1,000)$ | All employees (number) | Value added by manufacture. adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> (\$1,000) |  |  |  |  |  |  |
|  | INDUSTRY 3548. -METALWORKING MACHINERY, N.E.C. -Continued |  |  |  |  |  |  |  |  |  |  |  |  |
| West North Central. | 32 | 16 | 1,962 | 11,984 | 1,343 | 2,737 | 6,459 | 22,774 | 17,277 | 39,735 | 1,192 | 1,637 | 15,258 |
| Iowa.............. | 9 | 5 | 1,067 | 6,643 | 663 | 1,291 | 3,204 | 11,947 | 8,390 | 19,927 | 834 | 1,672 | 6,702 |
| Missouri......... | 9 | 4 | 504 | 2,718 | 436 | 945 | 1,886 | 6,600 | 4,917 | 11,821 | 181 | 328 | 3,867 |
| South. ............. | 34 | 13 | 5,476 | 30,151 | 4,146 | 8,088 | 20,142 | 67,451 | 37,890 | 103,161 | 2,327 | 3,942 | 37,100 |
| Texas. | 10 | 4 | 590 | 3,608 | 424 | 894 | 2,231 | 8,080 | 2,454 | 10,304 | 225 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| West.. | 55 | 12 | 1,112 | 6,740 | 829 | 1,544 | 4,669 | 13,989 | 8,464 | 22,420 | 489 | 1,123 | 12,845 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
applicable. n.e.c. Not elsewhere classified.
 with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.

 1 (1-19); North Carolina, 1 (1-19); South Carolina, 1 (1-19); Georgia, 1 (1-19); Florida, 3 (1-19); East South Central--Kentucky, 3 (166);
Tennessee, 3 (20-99); Alabama, 1 (1-19); West South Central--Oklahoma, 1 (1-19); Mountain--Idaho, 1 (1-19); New Mexico, 2 (20-99); Arizona, 3 (20-99); Utah, 1 (1-19); Pacific--Washington, 3 (20-99); Oregon, 3 (20-99); Hawaii, 1 (1-19).

3 (135); North Carolina, 3 (184); South Carolina, 2 (20-99); Georgia, 2 (20-99); Florida, 3 (20-99); East South Central--Kentucky, 1 (20-99);
 2 (250-499); Oregon, 1 (20-99); California, 36 (1408).
SIC 3544, Special Dies and Tools: New England--Maine, 7 (20-99); New Hampshire, 15 (161); Vermont, 4 (1-19); West North Central--North Dakota,

 Colorado, 13 (100-249); New Mexico, 1 (20-99); Utah, 6 (100-249); Pacific--Washington, 11 (20-99); Oregon, 14 (20-99).

 Virginia, 2 (1-19); North Carolina, 6 (121); South Carolina, 1 (20-99); Florida, 10 (20-99); East South Central--Kentucky, 4 (245); Tennessee, 5 (250-499); Alabama, 4 (20-99); Mississippi, 1 (1-19); West South Central--Arkansas, 4 (176); Texas, 11 (20-99); Mountain--Colorado, 1 (1-19); Arizona, 3 (1-19); Utah, 1 (1-19); Pacific--Washington, 1 (1-19); Oregon, 3 (1-19).


 Georgia, 2 (1-19); Florida, 3 (20-99); East South Central--Alabama, 3 (20-99); West South Central--Louisiana, l (1-19); Oklahoma, 2 (1-19);
Mountain--New Mexico, 2 (20-99); Arizona, 1 (1-19); Pacific--Washington, 2 (1-19); Oregon, 1 (1-19); California, 48 (1,061); Hawaii, 1 (1-19).
 port showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

| Item | Metalcutting machine tools (SIC 3541) | Metalforming machine tools (SIC 3542) | Special dies and tools (SIC 3544) | $\begin{aligned} & \text { Machine } \\ & \text { tool } \\ & \text { acces- } \\ & \text { sories } \\ & \text { (SIC } 3545 \text { ) } \end{aligned}$ | Metalworking machinery, n.e.c. (SIC 3548) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio... | . 81 | . 86 | . 93 | . 83 | . 85 |
| Coverage ratio?...................................................... | . 87 | . 79 | . 72 | . 84 | . 88 |
| Establishments, total.................................... number. | 801 | 366 | 5,896 | 1,038 | 435 |
| With 1 to 19 employees...................................do. | 532 | 220 | 4,763 | 691 | 267 |
| With 20 to 99 employees................................. . do. | 174 | 104 | 1,030 | 250 | 99 |
| With 100 employees or more.............................. . ${ }^{\text {do. }}$ | 95 | 42 | 103 | 97 | 69 |
| Proprietors and working partners.......................do. ${ }^{\text {do }}$ | 357 | 125 | 3,407 | 417 | 150 |
| All employees (average for the year).....................do.. | 61,058 | 22,078 | 90,860 | 46,994 | 38,012 |
| Payroll (all employees), total for year............... \$1,000.. | 438,222 | 161,669 | 682,739 | 312,799 | 246,242 |
| Production workers: |  |  |  |  |  |
| Average for the year..................................number.. | 41,008 | 15,782 | 76,002 | 34,560 | 28,257 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 40,076 | 15,817 | 76,642 | 34,521 | 28,004 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . | 40,604 | 15,726 | 76,899 | 34,724 | 27,894 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 41,264 | 15,641 | 74,361 | 34,629 | 28,093 |
| November................................................ .do. . . . | 41,966 | 15,959 | 76,421 | 34,412 | 29,063 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .1,000.. | 86,486 | 34,633 | 169,313 | 72.037 | 57,094 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . | 21,666 | 8,637 | 42,510 | 18,211 | 14,249 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 21,407 | 8,987 | 43,757 | 18,440 | 14,358 |
|  | 20,895 | 8,167 | 40,537 | 16,997 | 13,739 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 22,518 | 8,842 | 42,509 | 18,389 | 14,748 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 272,243 | 107,381 | 543,033 | 208,086 | 161,837 |
| Cost of materials, etc., total..........................do. | 381,566 | 165,376 | 373,320 | 234,501 | 328,357 |
| Materials, parts, containers, and supplies consumed..do.... | 334,002 | 144,149 | 281,516 | 188,599 | 279,508 |
| Cost of resales............................................ do. | 20,832 | 8,625 | 14,049 | 21,677 | 33,383 |
| Fuels consumed.............................................do. | 3,800 | 1,179 | 5,215 | 2,285 | 3,460 |
| Electric energy: |  |  |  |  |  |
| Purchased: | 3,541 | 3,542 | 3,544 | 3,545 | 3,548 |
| Quantity.................................million kw. -hrs.. | 426 | 153 | 543 | 406 | 285 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 6,687 | 2,142 | 9,619 | 6,023 | 4,069 |
| Generated less sold......................million kw.-hrs.. | 8 | (D) | 1 | 1. | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 16,245 | 9,281 | 62,920 | 15,913 | 7,937 |
| Value of shipments (including resales), total..........do. | 1,060,818 | 441,419 | 1,388,794 | 787,338 | 796,327 |
| Value of resales. | 29,113 | 10,596 | 19,577 | 26,878 | 40,119 |
| Value added by manufacture, adjusted....................do.... | 699,341 | 281,287 | 1,029,338 | 559,258 | 468,435 |
| Manufacturers' inventories: |  |  |  |  |  |
| Beginning of year, total..............................do.... | 288,027 | 118,829 | 107,375 | 163,906 | 215,143 |
| Finished products.......................................d. ${ }^{\text {do. }}$ | 75,254 | 32,229 | 13,530 | 64,323 | 57,798 |
| Work-in-process....................................... ${ }^{\text {do.. }}$ | 163,194 | 54,773 | 67,489 | 66,923 | 111,061 |
| Materials, supplies, fuel, etc......................do.... | 49,579 | 31,827 | 26,356 | 32,660 | 46,284 |
| End of year, total....................................... do. | 316,288 | 124,188 | 124,789 | 171,114 | 216,412 |
| Finished products...................................... do.... | 82,334 | 33,900 | 14,702 | 65,952 | 58,918 |
| Work-in-process.......................................do.. | 176,203 | 58,346 | 80,181 | 71,715 | 110,323 |
| Materials, supplies, fuel, etc.......................do.. | 57,751 | 31,942 | 29,906 | 33,448 | 47,171 |
| Expenditures for plant and equipment, total............do. | 32,378 | 13,592 | 64,814 | 26,125 | 21,954 |
| New, total................................................ do. | 28,837 | 10,792 | 53;343 | 22,784 | 20,957 |
| New structures and additions to plant..............do.. | 5,401 | 2,099 | 10,557 | 4,215 | 4,139 |
| New machinery and equipment...........................do. | 23,436 | 8,693 | 42,786 | 18,569 | 16,818 |
| Used plant and equipment............................... ${ }^{\text {do.... }}$ | 3,544 | 2,801 | 11,471 | 3,354 | 997 |
| Selected operating ratios: |  |  |  |  |  |
| Payroll/Total employment.. | 7,177 | 7,323 | 7,513 | 6,656 | 6,478 |
| Production workers/Total employment. | . 67 | . 72 | . 84 | . 74 | . 74 |
| Man-hours/Production workers. . | 2,109 | 2,196 | 2,228 | 2,084 | 2,017 |
| Production worker wages/Man-hours. | 3.15 | 3.10 | 3.21 | 2.89 | 2.83 |
| Cost of materials and payrolls/Total value of shipments.... | . 77 | . 74 | . 76 | . 70 | . 72 |
| Cost of materials/Total value of shipments................. | . 36 | . 37 | . 27 | . 30 | . 41 |
| Adjusted value added/Total employment........................ | 11,454 | 12,740 | 11,329 | 11,901 | 12,323 |
| Salaries and wages/Adjusted value added..................... | . 63 | . 57 | . 66 | . 56 | . 53 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of tiousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ The proportion of product shipments (both prinary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishnents classified in the industry to total shipments of such products by all manufacturing establiskments.
table 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 1,000 \text { to } \\ & 2,499 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTEY 3541.-METAL-CUTTING MACHINE TOOLS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 801 | 276 | 127 | 129 | 118 | 56 | 44 | 22 | 15 | 11 | 3 |
| All employees: | 61,058 | 529 | 840 | 1,803 | 3,607 | 3,727 | 6,912 | 7,713 | 10,664 | 15,534 | 9,729 |
| Payroil. .......................... $\$ 1,000$. . | 438,222 | 3,047 | 4,866 | 11,398 | 24,119 | 26,871 | 49,483 | 59,073 | 77,549 | 114,965 | 66,851 |
| Value added, adjusted.......d. do... | 699,341 | 5,797 | 8,069 | 17,964 | 41,249 | 43,193 | 86,921 | 94,119 | 137,004 | 161,967 | 103,058 |
| Value of shipments..........do.... | 1, 060,818 | 9,508 | 12,382 | 29,092 | 66,044 | 70,342 | 140,576 | 149,473 | 200,593 | 241,544 | 141,264 |
| Capital expenditures, new...do.... | 28,837 | 298 | 283 | 705 | 1,304 | 1,949 | 3,170 | 3,967 | 5,573 | 8,453 | 3,091 |
|  | INDUSTRY 3542.-METAL-FORMING MACHINE TOOLS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 366 | 99 | 64 | 57 | 64 | 40 | 23 | 9 | 7 | 3 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total........................ ${ }^{\text {do.... }}$ | 22,078 161,669 | 1,188 | 2,671 | 4,975 | 2,036 14,577 | 2,728 18,695 | 3,708 25,861 | 27,227 | 4,919 37,457 | 29,018 |  |
|  | 161,669 | 1,188 | 2,671 | 4,975 | 14,517 | 18,695 33,571 | 25,861 | 27,227 <br> 44,731 | 72,948 | 29,018 |  |
| Value added, adjusted.......d.d.... | 441,419 | 3,944 | 7,563 | 13,269 | 37,676 | 52,289 | 85,484 | 65,216 | 104,924 | 71,054 | - |
| Capital expenditures, new...do.... | 10,792 | 169 | 171 | 327 | 758 | 1,361 | 3,328 | 1,471 | 2,055 | 1,152 | - |
|  | INDUSTRY 3544.-SPECIAL TOOLS AND DIES |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 5,896 | 2,300 | 1,238 | 1,225 | 830 | 200 | 79 | 17 | 5 | 2 | - |
| All employees: |  |  |  |  |  |  |  |  |  | (D) | - |
| Total......................d. ${ }^{\text {do... }}$ | 90,860 | 4,241 25,209 | 8,475 54,215 |  |  |  | 94,493 |  |  | (D) | - |
| Payroll................. $\$ 1,000 .$. Value added, adjusted......do.... | 682,739 $1,029,338$ | 25,209 54,804 | 54,215 88,245 | 115,457 | 187,314 | 105,640 156,459 | 94,493 139,011 | 45,884 61,984 | $\frac{54,527}{73,797}$ | (D) | - |
| Value of shipments...........d.do.... | 1,388,794 | 75,717 | 117,304 | 234,716 | 378,749 | 210,012 | 192,350 | 86,274 | 93,672 | (D) | - |
| Capital expenditures, new...do.... | 53,343 | 4,776 | 5,244 | 9,562 | 14,429 | 7,738 | 6,087 | 2,647 | 2,860 | (D) | - |
|  | INDUSTRY 3545.-MACHINE TOOL ACCESSORIES |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 1,038 | 321 | 193 | 177 | 165 | 85 | 59 | 25 | 7 | 6 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do... | 46,994 | 555 | 1,326 | 2,517 | 5,128 | 5,887 | 9,379 | 87,559 | 5,435 | 8,208 | - |
| Payro11. . . . . . . . . . . . . . $\$ 1,000 .$. | 312,799 | 3,018 | 7,626 | 15,893 | 36,785 | 38,158 | 60,751 | 57,608 | 36,195 | 56,765 | - |
| Value added, adjusted.......do.... | 559,258 | 6,949 | 13,897 | 26,641 | 63,679 | 67,321 | 105,315 | 108,321 | 58,084 | 109,051 | - |
| Value of shipments..........do.... | 787,338 | 10,458 | 20,009 | 38,019 | 90,759 | 98,985 | 149,318 | 146,648 | 78,628 | 154,514 | - |
| Capital expenditures, new...do.... | 22,784 | 355 | 457 | 1,040 | 2,923 | 3,033 | 4,227 | 4,188 | 2,167 | 4,394 | - |
|  | INDUSTRY 3548.-METALWORKING MACHINERY, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 435 | 137 | 70 | 60 | 60 | 39 | 31 | 14 | 15 | 9 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total........................ ${ }_{\text {do }}^{\text {do... }}$ | 38,012 246,242 | 290 1,350 | 476 2,498 | 811 4,716 | 1,822 12,160 | 2,634 17,397 | 4,804 30,524 | 5,152 36,591 |  | 12,321 | - |
| Payroil. ................ $\$ 1,000 .$. | 246,242 | 1,350 | 2,498 | 4,716 | 12,160 | 17,397 | 30,524 | 36,591 | 63,720 | 77,286 | - |
| Value added, adjusted.......do.... | 468,435 | 3,154 | 4,259 | 8,956 | 21,458 | 32,366 | 59,873 | 71,379 | 111,190 | 155,800 | - |
| Value of shipments..........do.... | 796,327 | 5,220 | 7,167 | 14,807 | 36,736 | 52,405 | 108,328 | 111,721 | 206,310 | 253,633 | - |
| Capital expenditures, new...do.... | 20,957 | 274 | 216 | 394 | 1,002 | 1,232 | 2,214 | 3,387 | 6,918 | 5,320 | - |

[^172]
## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products <br> $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio <br> Col. B <br> Col. B+C <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3541 | Metal-cutting machine tools...... ${ }^{\text {1963. }}$ 1958. ${ }^{\text {a }}$ | $\begin{array}{r} 1,060,818 \\ 679,836 \end{array}$ | $\begin{aligned} & 805,323 \\ & 529,343 \end{aligned}$ | $\begin{array}{r} 187,903 \\ 92,614 \end{array}$ | $\begin{aligned} & 67,592 \\ & 57,879 \end{aligned}$ | 81 85 | $\begin{aligned} & 925,251 \\ & 592,549 \end{aligned}$ | $\begin{aligned} & 805,323 \\ & 529,343 \end{aligned}$ | $\begin{array}{r} 119,928 \\ 63,206 \end{array}$ | 88 89 |
| 3542 | Metal-forming machine tools...... 1963.. $1958 .$. | $\begin{aligned} & 441,419 \\ & 317,657 \end{aligned}$ | $\begin{aligned} & 350,906 \\ & 230,191 \end{aligned}$ | $\begin{aligned} & 57,649 \\ & 49,498 \end{aligned}$ | $\begin{aligned} & 32,864 \\ & 37,968 \end{aligned}$ | 86 82 | $\begin{aligned} & 444,845 \\ & 289,478 \end{aligned}$ | $\begin{aligned} & 350,906 \\ & 230,191 \end{aligned}$ | $\begin{aligned} & 93,939 \\ & 59,287 \end{aligned}$ | 79 80 |
| 3544 | Special dies and tools........... $1963 .$. | $\begin{aligned} & 1,388,794 \\ & 1,060,566 \end{aligned}$ | $\begin{array}{r} 1,164,341 \\ 905,775 \end{array}$ | $\begin{aligned} & 85,491 \\ & 64,333 \end{aligned}$ | $\begin{array}{r} 138,962 \\ 90,458 \end{array}$ | 93 93 | $\begin{aligned} & 1,608,135 \\ & 1,320,389 \end{aligned}$ | $\begin{array}{r} 1,164,341 \\ 905,775 \end{array}$ | $\begin{aligned} & 443,794 \\ & 414,614 \end{aligned}$ | 72 69 |
| 3545 | Machine tool accessories......... $1963 .$. 1958. | $\begin{aligned} & 787,338 \\ & 511,456 \end{aligned}$ | $\begin{aligned} & 616,022 \\ & 401,680 \end{aligned}$ | $\begin{array}{r} 121,781 \\ 73,371 \end{array}$ | $\begin{aligned} & 49,535 \\ & 36,405 \end{aligned}$ | 83 85 | $\begin{aligned} & 731,716 \\ & 470,197 \end{aligned}$ | $\begin{aligned} & 616,022 \\ & 401,680 \end{aligned}$ | $\begin{array}{r} 115,694 \\ 68,517 \end{array}$ | 84 85 |
| 3548 | Metalworking machinery, n.e.c.... $\begin{array}{r}1963 . . \\ 1958 . .\end{array}$ | $\begin{aligned} & 796,327 \\ & 602,015 \end{aligned}$ | $\begin{aligned} & 615,932 \\ & 494,345 \end{aligned}$ | $\begin{array}{r} 108,647 \\ 48,441 \end{array}$ | $\begin{aligned} & 71,748 \\ & 59,229 \end{aligned}$ | $\begin{aligned} & 85 \\ & 91 \end{aligned}$ | $\begin{aligned} & 701,906 \\ & 580,161 \end{aligned}$ | $\begin{aligned} & 615,932 \\ & 494,345 \end{aligned}$ | $\begin{aligned} & 85,974 \\ & 85,816 \end{aligned}$ | 88 85 |

NOTE: See Introduction for an explanation of terms used.
n.e.c. Not elsewhere classified.

# TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary nroducts). (b) products classified in other industries (secondary products), and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry:
1963-Continued


See footnotes at end of table.
table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


[^173]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



[^174]
## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



[^175]
## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Total shipments, inciuding interplant transfers <br> $(\$ 1,000)$ |  |
| :---: | :---: | :---: | :---: |
|  |  | 1963 | 1958 |
| 3545- -- | MACHINE TOOL ACCESSORIES AND MEASURING DEVICES, TOTAL, | 731,716 | 470,197 |
| 35451 -- | Small cutting tools for machine tools and metalworking machinery, total. | 464,432 | 301,209 |
| $\begin{aligned} & 3545113 \\ & 35451 \quad 15 \end{aligned}$ | Broaches: (including replaceable blades sold separately; but excluding holders and burnishing bars): High speed steel. Carbide, solid and tipped (excluding tips and blanks sold separately). | 19,659 5,026 | \} 13,385 |
| 3545121 | Twist drills (including combined drills and countersinks; excluding gundrills and masonry drills): Carbon steel. | 2,785 | 4,219 |
| $\begin{aligned} & 3545122 \\ & 3545124 \end{aligned}$ | High-speed steel: <br> Taper shank. <br> Straight shank. | 20,500 52,299 | \} 45,515 |
| 3545126 | Carbide, solid and tipped (excluding tips and blanks sold separately). | 6,992 | 5,631 |
| $\begin{array}{ll} 35451 & 27 \\ 35451 & 29 \end{array}$ | Countersinks (excluding combination drills and countersinks and interchangeable pilots)................. Counter bores, including spot facers, etc. (excluding interchangeable pilots).............................. | 2,851 | 6,889 |
| 3545131 | Reamers, all types, including finished replaceable blades sold separately (excluding gunreamers): Carbon steel | 2,926 | 3,712 |
| 3545133 | High-speed steel. | 15,387 | 13,457 |
| 3545136 | Carbide, solid and tipped (excluding tips and blanks sold separately) | 5,570 | 275,042 |
| 3545141 | Hobs (gear, spline, serretion and sprocket): Unground. | 7,374 | 3,758 |
| 3545145 | Ground. | 5,176 | 3,607 |
| $\begin{aligned} & 3545153 \\ & 3545155 \end{aligned}$ | Gear shaper cutters. Gear shaving cutters. | 6,562 4,898 | \} 11,908 |
| 3545158 | Milling cutters: <br> Form relieved cutters, high speed steel and carbide (including multiple thread milling cutters) | 10,274 | 3,235 |
|  | End mills, including solid or tipped, fishtail, die sinking, contour, router, tracer, hollow mill cutters and shell mill, etc. (excluding all inserted blade types): |  |  |
| $\begin{aligned} & 3545161 \\ & 3545162 \end{aligned}$ | High speed steel. Carbide, solid and tipped (excluding tips and blanks sold separately)...................................... | 21,207 4,219 | \} $\quad 2711,924$ |
|  | Replaceable inserted blade milling cutters: |  |  |
| 3545164 | High speed steel......... | 3,402 | 4,330 |
| 3545165 | Carbide, solid and tipped (excluding tips and blanks sold separately) | 4,812 | 18,569 |
| 3545168 | Slitting saws and screw slotting cutters | 5,749 | ) 2712,320 |
|  | Milling cutters, n.e.c. |  | \} ${ }^{27} 12,320$ |
| 3545166 | High-speed steel...... | 8,735 |  |
| 3545169 | Carbide, solid and tipped (excluding tips and blanks sold separately) | 3,785 |  |
|  | Single-point tools (cutting tools with integral or bonded shank and cutting element): Square, rectangular, round or other cross section, single or double end for turning, planing, shaping, forming, facing, cutting, cutting-off, etc. (excluding circular form tools): |  |  |
| 3545171 | High-speed steel. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 11,149 | 4,369 |
| 3545174 3545175 |  | 24,101 | 2715,565 |
| 3545175 | Other materials (including diamond tipped)...................................... | 2,825 | 15,565 |
| 3545177 | Circular form tools, including circular form tool blanks | 5,133 | 273,480 |
|  | Threading tools: <br> Taps (excluding taps in threading sets and screw plates and inserted chaser types): |  |  |
| 3545178 | Ground thread (high-speed steel)................................................. | 35,855 | 23,114 |
| 3545179 | Cut thread (carbon steel and high speed steel) | 6,877 | 5,647 |
| 3545184 | Thread dies, cutting types (excluding inserted chaser-type and dies in threading sets and screw plates). | 10,851 | 7,381 |
| 3545185 | Chasers and blades for taps and dies of inserted blade or chaser-type (excluding die heads and insert or collapsible tap bodies) | 14,274 | 8,279 |
| 3545189 | Other threading tools, including threading sets and screw plates............................ | 4,278 | 5,508 |
| 3545181 | Tips, blanks and inserts (sold separately): <br> Tips and blanks ${ }^{28}$. | 23,047 | ) |
|  | Inserts: ${ }^{28}$ |  | \} 33,526 |
| $\begin{array}{ll} 3545182 \\ 3545183 \end{array}$ | Throw-away type. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | $\begin{array}{r} 29,345 \\ 6,286 \end{array}$ | ) |
|  | Other types of cutting tools for machine tools, n.e.c. including gundrills and gunreamers: |  |  |
| 3545191 | Carbon steel. . | 5,545 | ) |
| 3545193 | High-speed steel. | 20,815 | \} 12,208 |
| 3545197 | Carbide, solid and tipped (excluding tips and blanks sold separately) | 20,134 |  |
| 3545100 | Small cutting tools for machine tools and metalworking machinery, n.s.k. | 17,277 | 24,631 |

See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

# table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 



Note: The nomenclature used to describe products (Industries 3541 and 3542 ) included in Current Industrial Reports Series M35W "Metalworking Machinery" was revised for many products between 1958 and 1963, accordingly, these data may not be strictly comparable.
*Includes some machines with an average value of under $\$ 1,000$.
Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ For these products, data were also collected on Census Quarterly Form M35W. In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified classes of products for which separate figures had previously been collected on the Quarterly Form M35W. In most cases, the value figures reported in the census of manufactures for each class of products agreed closely with the corresponding figures reported in the quarterly survey. However, there were some differences between the census figures and the quarterly survey figures. These variations were due primarily to the following reasons:
a. Census of manufactures reports correctly including all accessories or attachments ordered and shipped with the machine. In some cases the quarterly survey represents only the value of the basic machine. This is the most significant factor for these differences.
b. Use of different bases for reporting value (company sales vs. factory production).
c. Use of estimates in reporting data on the quarterly survey, whereas census of manufactures figures generally represent more exact shipments figures.
d. Better coverage in the census of manufactures program. Quarterly current commodity survey detail for 1963 in most instances have been revised to reflect data from respondents not previously included. For product code 3548545 , coverage in the quarterly survey will be supplemented by adding respondents not currently in the survey but making the specified product according to their census of manuractures report.
${ }^{2}$ Some machines with an average value of under $\$ 1,000$ for codes 3541231,3541253 , and 3541261 are included with code 3541299.
${ }^{3}$ All machines with an average value of under $\$ 1,000$ for codes 3541433,3541451 and 3541467 are included with "All other grinding machines."
${ }^{4}$ Product code 3541439 included with "All other grinding machines."
${ }^{5}$ Some machines with an average value of under $\$ 1,000$ for codes 3541533 and 3541551 are included with code 3541599 .
"All other manufacturing and toolroom lathes" included with "All other lathes." Also "All other lathes" includes brush and floor light duty type turret lathes with turret attachments.
${ }^{7}$ Data are limited to ram type turret lathes,
${ }^{8}$ Some machines with an average value of under $\$ 1,000$ for codes 3541626,3541629 and 3541695 are included with code 3541699.
${ }^{9}$ Includes data for codes 3541711-3541799 and 3541811-3541891.
10 "Vertical and other shapers and slotters" included with "All other metal-cutting machine tools."
${ }^{11}$ All machines with an average value of under $\$ 1,000$ for codes 3541763 and 3541767 are included with code 35417.69. For 1958, code 3541767 included with code 3541769.
${ }^{12}$ All machines with an average value of under $\$ 1,000$ for code 3541772 are included with code 3541779 .
${ }^{13}$ Bolt threading machines and all machines with an average value of under $\$ 1,000$ for code 3541777 are included with 3541778 .
${ }^{14}$ Includes for 1963 reaming machines (including rifling machines); screw and nut slotting machines; electro-erosion machines; ultrasonic machines; and electrolytic machines.
${ }^{15}$ Includes data for product codes 3542411-98 and 3542511-37
${ }^{16}$ Manually operated punching and shearing machines valued at $\$ 1,000$ or over are included with other punching and shearing machines.
${ }^{17}$ Machines with an average value of under $\$ 1,000$ for codes 3542421 and 3542451 are included with product code 3542498 .
${ }^{18}$ For 1963, power type bending and forming machines with an average value of under $\$ 1,000$ are included with manual machines.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

Footnotes for Table 6A-35C-Continued

[^176]
## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 354 | Metalworking machinery............................. $1963 .$. | (1) $(1)$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3541 |  | 82 52 | 112 |
| 35411 | Boring machines....................................... $1963 .$. | 47 38 | 127 120 |
| 35412 | Drilling machines.................................... $1963 .$. | 88 45 | 71 |
| 35413 | Gear cutting machines................................ $1963 .$. | 66 40 | 125 122 |
| 35414 | Grinding and polishing machines (except gear-tooth grinding, lapping, polishing and buffing machines )...................................................... $1963 .$. | 56 50 | 119 |
| 35415 | Lathes..................................................... . $1963 .$. | 58 44 | 125 |
| 35416 | Milling machines...................................... $1963 .$. | 85 54 | 106 |
| 3542 | Metal tools, metal-forming type......................1963.. 1958. . | $(1)$ $(1)$ | $(1)$ $(1)$ |
| 35421 | Punching, shearing, bending and forming machines.1963.. | 83 90 | 173 |
| 35422 | Presses, including forging........................ $1963 .$. | 65 29 | 93 125 |
| 3544 | Special dies and tools, die sets, jigs and fixtures, and industrial molds......................................1963.. | 1 <br> $(1)$ | $(1)$ $(1)$ |
| 3545 | Machine tool accessories and measuring devices..... $1963 .$. | (1) 77 | (1) 124 |
| 3548 | Metalworking machinery, except machine tools....... 1963.. | (1) | $(1)$ $(1)$ |
| 35482 | Power-driven hand tools, including parts and attachnents................................................ . . 1963.. | $\begin{aligned} & 232 \\ & 109 \end{aligned}$ | $\begin{array}{r}81 \\ 114 \\ \hline\end{array}$ |

[^177]TABLE 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| (In thousands of dollars) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Product class | 1963 | $1962{ }^{1}$ | $1961{ }^{1}$ | $1960^{2}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| 3541- | Metal-cutting machine tools. | 2899,752 | 2832,076 | 2719,799 | 2746,795 | ${ }^{2} 649,112$ | ${ }^{2} 587,481$ | 986,430 | 414,746 |
| 35411 | Boring machine | ${ }^{3} 67,930$ | 361,366 | 351,547 | 346,939 | ${ }^{3} 46,248$ | 351,563 | 114,443 | 25,825 |
| 35412 | Drilling machines | 352,018 | 353,228 | 336,824 | ${ }^{3} 38,873$ | ${ }^{3} 33,412$ | 330,023 | 86,066 | 33,517 |
| 35413 | Gear cutting and finishing machines........ | 339,534 | ${ }^{3} 35,851$ | ${ }^{3} 36,403$ | ${ }^{3} 34,309$ | ${ }^{3} 24,682$ | ${ }^{3} 22,661$ | 48,111 | 17,719 |
| 35414 | Grinding and polishing machines (excluding gear tooth grinding, honing, lapping, polishing, and buffing machines............. | ${ }^{3} 137,040$ | ${ }^{3} 127,960$ | ${ }^{3} 121,018$ | ${ }^{3} 116,972$ | ${ }^{3} 93,820$ | ${ }^{3} 89,367$ | 154,288 |  |
| 35415 |  | ${ }^{3} 154,763$ | ${ }^{3} 122,271$ | ${ }^{3} 126,488$ | ${ }^{3} 135,403$ | ${ }^{3} 119,478$ | 398,679 | 206,886 | 56,364 92,908 |
| 35416 | Milling machines. | ${ }^{3} 106,126$ | ${ }^{3} 95,787$ | 373,710 | 379,438 | 373,275 | 389,315 | 122,518 | 35,278 |
| 35418 | Other machine tools (including those designed primarily for home workshops, laboratories, etc.) | 152,442 | 152,480 | 134,298 | 143,345 | 129,767 | 98,270 | 146,708 | 91,626 |
| 35419 | parts for metal-cutting type machine tools, sold separately, and rebuilt machine tools | 165,517 | 132,421 | 117,760 | 131,058 | 108,891 | 88,742 | 101,960 | 57,109 |
| 35410 | Metal-cutting machine tools, n.s.k. | 24,382 | $(20,712)$ | $(21,751)$ | $(20,458)$ | $(19,539)$ | 18,861 | 5,450 | 4,400 |
| 3542- | Metal-forming machine tools. | ${ }^{2} 434,611$ | 2390.879 | 2381,745 | 2379,286 | 2326,224 | ${ }^{2} 282,565$ | 437,804 | 245,514 |
| 35421 | Punching, shearing, bending, and forming machines....................................... | 388,046 | ${ }^{3} 63,460$ | 365,749 | 367,145 | ${ }^{3} 65,560$ | ${ }^{3} 64,094$ | 61,922 | 34,791 |
| 35422 | Presses, including forging presses...... | ${ }^{3} 135,996$ | ${ }^{3} 109,555$ | ${ }^{3} 111,383$ | ${ }^{3} 104,971$ | 384,573 | 376,501 | 217,369 | 97,855 |
| 35423 | Other metal-forming machine tools, including forging machines. | 71,683 | 122,821 | 113,934 | 108,639 | 96,904 | 60,791 | 89,093 | 66,147 |
| 35424 | Parts for metal-forming machine tools and rebuilt metal-forming machinery............ | 118,220 | 90,258 | 86,437 | 94,889 | 75,267 | 78,190 | 66,029 | 39,078 |
| 35420 | Metal-forming machine tools, n.s.k......... | 20,666 | $(4,785)$ | $(4,242)$ | $(3,642)$ | $(3,920)$ | 2,989 | 3,391 | 7,643 |
| 3544- | Special dies and tools. | 1,608,135 | 1,850,487 | 1,509,200 | 1,751,237 | 1,541,745 | 1,320,389 | 1,181,461 | 402,893 |
| 35441 | Special dies and tools, die sets, jigs, and fixtures | 1,251,706 | 41,620,211 | 41,302,996 | $41,542,151$ | $41,361,578$ | '1,157,343 | 1,082,828 | 378,922 |
| 35442 | Industrial molds ${ }^{5}$. | 220,561 | 230,276 | 206,204 | 209,086 | 180,167 | 163,046 | 98,633 | 23,971 |
| 35440 | Special dies and tools, n.s.k | 135,858 |  |  | $\left({ }^{4}\right)$ |  | $\left(^{4}\right)$ | - |  |
| 3545- | Machine tool accessories. | 731,716 | 704,595 | 590,479 | 603,672 | 564,028 | 470,197 | 541,031 | 324,423 |
| 35451 | Small cutting tools for machine tools and metalworking machinery. | 464,432 | 467,163 | 385,243 | 400,641 | 371,209 | 301,209 | 291,042 | 204,778 |
| 35452 | Precision measuring tools................. | 87,998 | 76,789 | 61,836 | 63,238 | 60,430 | 60,871 | 110,033 | 36,421 |
| 35453 | Other attachments and accessories for machine tools and metalworking machinery.. | 152,570 | 129,688 | 109,587 | 116,083 | 103,048 | 96,168 | 139,956 | 83,224 |
| 35450 | Machire tool accessories and measuring devices, n.s.k. | 26,716 | $(30,955)$ | $(33,813)$ | $(23,710)$ | $(29,341)$ | 11,940 | , | - |
| 3548- | Metalworking machinery, n.e.c. | 701,906 | 659,816 | 605,795 | 620,542 | 598,061 | 580,161 | 399,493 | (NA) |
| 35481 | Rolling-mill machinery and equipment....... | 222,211 | 226,347 | 221,538 | 239,920 | 213,324 | 252,164 | 143,512 | 96,074 |
| 35482 | Power-driven hand tools, including parts and attachments. | 319,881 | 286,355 | 261,181 | 253,682 | 249,072 | 210,628 | 170,460 | 112,198 |
| 35483 | Acetylene welding and cutting apparatus. | 54,648 | 49,639 | 41,664 | 42,309 | 39,340 | 38,088 | 26,822 | 26,777 |
| 35484 | Automotive maintenance equipment... | 47,691 | 49,751 | 45,221 | 46,403 | 53,220 | 44,183 | 44,088 | (NA) |
| 35485 | Metalworking machinery, except machine tools, n.e.c. | 36,564 | 29,127 | 19,183 | 21,172 | 23,256 | 17,627 | 14,611 |  |
| 35480 | Metalworking machinery, n.e.c., n.s.k..... | 20,911 | $(18,597)$ | $(17,008)$ | $(17,056)$ | $(19,848)$ | 17,471 | - | (NA) |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

These figures represent estimates derived from a representative sample or manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ These figures represent the sum of 5-digit product class data obtained from Current Industrial Reports Series M35W "Metalworking Machinery" and from the census of manufactures or the annual survey of manufactures.
${ }^{3}$ Source: Current Industrial Reports Series M35W, "Metalworking Machinery.
${ }^{4}$ Product class 35440 included with product class 35441 for 1958-1962.
${ }^{5}$ Excludes industrial molds made and used in the same establishment.

# table 6D Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1 .


See footnotes at end of table.

# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued 


${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

## table 7A. Materials by Kind: 1963 and 1958



See footnotes at end of table.

## table 7a. Materials by Kind: 1963 and 1958-Continued



See footnotes at end of table.

TABLE 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | $\begin{aligned} & \text { Delivered } \\ & \text { cost } \\ & (\$ 1,000) \end{aligned}$ | Quantity | Delivered cost <br> $(\$ 1,000)$ |
|  |  |  | INDUSTRY 3548. - METALWORKING MACHINERY, N.E.C. |  |  |  |
|  | Mill shapes and forms (except castings): <br> Carbon steel: |  |  |  |  |  |
| 331011 | Bars and bar shapes................................................ | Short tons...... | 27,176 | 5,670 | 16,714 | 3,950 |
| 331012 | Sheet and strip. | ...do............ | 20,207 | 3,549 | 8,667 | 1,748 |
| 331013 | Plates.................................................................... | ...do............ | 54,296 | 8,475 | 40,412 | 5,579 |
| 331015 | Structural shapes. | . .do | 11,530 | 2,051 | 10,190 | 1,694 |
| 331017 | Wire and wire products............................................... | do | 2,328 | 901 | 496 | 381 |
| 331019 | All other carbon steel mill shapes and forms.................... | .do........... | 6,540 | 1,224 | 14,701 | 2,111 |
|  | Alloy steel (except stainless) |  |  |  |  |  |
| 331021 | Bars and bar shapes. | ...do............ | 12,266 | 4,554 | 6,677 | 2,981 |
| 331029 | All other alloy steel mill shapes and forms...................... | do | 5,614 | 2,236 | 1,525 | 633 |
| 331031 | Stainless steel........................................................... | ...do........... | 229 | 614 | 113 | 159 |
|  | Copper and copper-base alloy: |  |  |  |  |  |
| $\begin{aligned} & 335728 \\ & 335790 \end{aligned}$ |  | 1,000 lbs....... | 2,183 | 2,900 | 1,858 | 1,624 |
|  | Rod, bar, and mechanical wire, including extruded and or drawn shapes. |  |  |  |  |  |
| 335102 |  |  |  |  |  |  |
| 335123 | Plate, sheet, and strip, including military cups and discs..... | ...do............ | 4,442 107 602 | $\begin{array}{r} , 702 \\ 83 \\ 403 \end{array}$ | ) 4,565 | 2,663 |
| 335127 | Aluminum and aluminum-base alloy: |  |  |  |  | 314 |
| 335202 | Sheet, plate and foil.............................................. | ...do........... | $\begin{aligned} & 726 \\ & 108 \end{aligned}$ | 601 71 | , $\} \quad \begin{aligned} & 360 \\ & 527\end{aligned}$ |  |
| $\begin{aligned} & 335205 \\ & 335209 \end{aligned}$ | Extruded shapes, including extruded rod, bar, pipe, tube, etc.. All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.). | .do........... | 2,172 | 1,109 |  | 387 |
| 331051 | Pig iron, excluding silvery iron....................................... | Short tons...... | $\begin{aligned} & 14,611 \\ & 36,507 \end{aligned}$ |  | 15,33852,171 | 9592,147 |
| 999811 | Iran and steel scrap (excluding home scrap) Castings (rough and semifinished): ${ }^{1}$ | ...do........... |  | $1,542$ |  |  |
| 332011 | Iron (gray and malleable)............................................ | ...do........... | 26,25920,639 | 9,053 | 11,520 | 4,4798,918 |
| 332300 | Steel...................................................................... | ...do............ |  | 12,013 | 17,574 |  |
| 336100 | Aluminum and aluminum-base alloy................................... | 1,000 lbs....... | 12,388 | 11,051 | 9,536 | 8,142 |
| 336200 | Copper and copper-base alloy............................................. | ...do........... | 3,001 | 1,987 | 2,723 | 2,307 |
| 339100 | Iron and steel forgings ${ }^{1}$. <br> Electric notors and generators: ${ }^{1}$ <br> Fractional horsepower electric motors (under 1 hp. ): <br> Timing motors, synchronous and subsynchronous. $\qquad$ <br> Other fractional horsepower electric motors. $\qquad$ | Short tons...... | 6,076 | 4,474 | 6,572 | 4,027 |
|  |  |  |  |  |  |  |
| 362110 |  | Number.......... . | $\begin{aligned} & 188,726 \\ & 363,636 \end{aligned}$ | 1,9684,813 | 948,432 | 6,160 |
| 362715 |  | ...do............ |  |  |  |  |
| 362120 | Integral horsepower motors and generators (l hp. and over)....... | ...do............ | 7,320 | 3,682 | 3,585 | 1,257 |
|  | Bearings: |  |  |  |  |  |
| $\begin{aligned} & 356218 \\ & 356228 \end{aligned}$ |  |  | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | $\begin{aligned} & 6,136 \\ & 4,117 \end{aligned}$ | (X) | 5,576 |
| 970099 | All other materials and components, parts, containers, and supplies consumed. |  | (x) | 151,998 | (X) | 127,070 |
| 976000 | Materials, parts, containers and supplies, n.s.k. ${ }^{2}$................. |  | (X) | 28,087 | (X) | 2,054 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. applicable. n.e.c Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Listed below are quantities of the specified materials produced and consumed into products at the same establishment.

| Code | Material | Unit of measure | Industry |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 3541 |  | 33542 | 3544 | 3545 | 3548 |
|  |  |  | 1963 | 1958 | 1958 | 1963 | 1963 | 1963 |
|  | Castings (rough and semifinished): <br> Iron (gray and malleable) | Short tons...... |  |  |  |  |  | (D) |
| 332300 | Iran (gray and malleable)........................................................................................ | ...do............ | (D) | 14,84) | 10,541 | (NA) | (D) | (D) |
| 336100 | Aluminum and aluminum-base alloy....................................... | 1,000 lbs....... | (NA) | (NA) | (NA) | (D) | (D) | (D) |
| 336200 | Copper and copper-base alloy. | . .do | (NA) | (NA) | (NA) | (NA) | - | (D) |
| 339100 | Iron and steel forgings................................................... | Short tons...... | (NA) | (NA) | (NA) | (D) | (NA) | (D) |
|  | Electric motors and generators: <br> Fractional horsepower electric motors (under 1 hp.$):$ |  |  |  |  |  |  |  |
| 362110 | Timing motors, synchronous and subsynchronous.................... | Number........... | - | (NA) | (NA) | (D) | - | , 007 - |
| 362115 | Fractional horsepower electric motors (excluding timing motors) | ...do........... | - | (NA) | (NA) | (D) | (D) | 2,007,167 |
| 362120 | Integral horsepower motors and generators (1 horsepower and over) |  | - | (NA) | (NA) | (D) | (D) | ( D ) |

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## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Metal-cutting machine tools (SIC 3541) | Metal-forming machine tools (SIC 3542) | Special dies and tools (SIC 3544) | ```Machine tool accessories (SIC 3545)``` | Metalworking machinery, n.e.c. (SIC 3548) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. | 9,706 | 4,046 | 15,412 | 9,005 | 6,571 |
| Total cost of purchased fuels................................do.... | 3,680 | 1,612 | 5,734 | 2,810 | 3,204 |
| Bituminous coal, lignite, and anthracite: <br> Quantity. ........................................... . . 1,000 short tons. <br> Cost. <br> .\$1,000. . | 71 595 | (S) | (S) | 11 128 | 39 317 |
| Coke and breeze: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons. . <br> cost. $\qquad$ | 5 164 | (S) | (S) | - | (S) |
| Fuel oil (distillate and residual): Quantity........................... 1,000 barrels of 42 gallons. Cost. $\qquad$ .......................... . $\$ 1,000$. . | 334 1,190 | 196 835 | (S) | 333 1,180 | (S) |
| Gas (natural, manufactured, still, blast furnace, and coke oven): <br> Quantity....................................................................... <br> Cost. $\qquad$ | 1,378 1,054 | (S) | (S) | 1,492 1,057 | 3,865 2,186 |
| Other fuels.................................................... ${ }^{\text {do. }}$. . | 677 | 225 | (S) | 445 | (S) |
| Electric energy: Purchased: |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . .million kw. -hrs. . | 400 | 164 | 499 | 393 | 251 |
| Cost................................................... . $\$ 1,000$. | 6,026 | 2,434 | 9,678 | 6,195 | 3,367 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . . .million kw.-hrs.. | 8 | - | - | (S) | (S) |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.........l, 000 hp. . | 351 | 177 | 466 | 293 | 203 |
| Prime movers, total...........................................do.... | 15 | 5 | 35 | 11 | 13 |
| Driving generators. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 10 | 1 | 20 15 | 7 | 9 |
| Not driving generators....................................... .do... | 5 | 4 | 15 | 4 |  |
| Electric motors, total........................................ do.... | 340 | 172 | 431 | 285 | 193 |
| Driven by purchased energy. <br> Driven by energy generated at establishment......................... | 337 4 | 172 | 431 | 282 3 | 190 |
| Aggregate horsepower per 100 production workers.................... | 894 | 961 | 554 | 821 | 771 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available
(X) Not applicable. n.e.c. Not elsewhere classified.
$(S)$ Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

# table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


See footnotes at end of table.
table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 35483 | ```Acetylene welding and cutting apparatus (primary product class of estab.). Establishments with-``` | 30 | 2,589 | 17,683 | 1,765 | 3,480 | 9,955 | 31,141 | 17,577 | 48,954 | 1,295 |
| 35484 | ```Automotive maintenance equipment (primary product class of estab.) Establishments with- 90% or more specialization....``` | 35 25 | 1,993 1,251 | $\begin{array}{r} 11,896 \\ 7,500 \end{array}$ | 1,245 774 | 2,556 1,527 | 6,349 3,687 | 24,250 15,691 | 18,580 12,730 | 42,707 28,933 | 975 533 |
| 35485 | Metalworking machinery, exc. machine tools, n.e.c. (primary product class of estab.).......... Establishments with$90 \%$ or more specialization.... 75-89\% specialization.......... | $\begin{array}{r} 51 \\ 35 \\ 6 \\ \hline \end{array}$ | $\begin{array}{r} 1,930 \\ 1,028 \\ 345 \end{array}$ | $\begin{array}{r} 13,798 \\ 7,343 \\ 2,423 \end{array}$ | $\begin{array}{r} 1,343 \\ 700 \\ 264 \end{array}$ | $\begin{array}{r} 2,806 \\ 1,432 \\ 549 \\ \hline \end{array}$ | $\begin{aligned} & 8,297 \\ & 4,268 \\ & 1,672 \end{aligned}$ | $\begin{array}{r} 20,699 \\ 11,476 \\ 4,373 \\ \hline \end{array}$ | 13,739 7,412 1,962 | $\begin{array}{r} 35,152 \\ 19,803 \\ 6,284 \\ \hline \end{array}$ | 762 385 233 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

## TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{gathered} 20 \text { or } \\ \text { more } \end{gathered}$ |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
|  | INDUSTRY 3541.-METAL-CUTTING MACHINE TOOLS |  |  |  |  |  |  |  |
| Ferrous foundry. | 10 | - | - | 10 | 987 | - | - | 987 |
| Nonferrous foundry (except die casting)............... | 3 | 1 | - | 2 | (D) | (D) | - ${ }^{-}$ | (D) |
| Nonferrous die casting................................. | 3 | 2 | 1 | - | 10 | (D) | (D) | - |
| Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.)........................ | 4 | 4 | - | - | 7 | 7 | - | - |
| Electroplating and other plating....................... | 14 | 10 | 4 | - | 63 | 17 | 46 | - |
| Heat treating of metals................................. | 68 | 41 | 20 | 7 | 417 | 72 | 154 | 191 |
| Automatic screw machine department..................... | 51 | 29 | 17 | 5 | 340 | 56 | 154 | 130 |
| Machine shop............................................ | 316 | 74 | 103 | 139 | 22,515 | 114 | 1,067 | 21,334 |
| Tool and die shop.. | 101 | 44 | 33 | 24 | 1,641 | 81 | 333 | 1,227 |
| Foundry patterm shop...... | 36 | 19 | 12 | 5 | 286 | 39 | 122 | 125 |
| Plate or structural fabrication.. | 50 | 31 | 15 | 4 | 429 | 67 | 148 | 214 |
| Stamping, blanking and forming of metals. | 38 | 28 | 8 | 2 | 163 | 39 | (D) | (D) |
| Painting, lacquering and enameling on metals......... | 149 | 101 | 44 | 4 | 663 | 148 | 410 | 105 |
|  | INDUSTRY 3542.-METAL-FORMING MACHINE TOOLS |  |  |  |  |  |  |  |
| Ferrous foundry <br> Nonferrous foundry (except die casting) <br> Nonferrous die casting... <br> Forging-presses, hammers, or upsetters (excluding <br> manufacture of nuts, bolts, etc.) <br> Electroplating and other plating. <br> Heat treating of metals. <br> Automatic screw machine department $\qquad$ <br> Machine shop.. <br> Tool and die shop. $\qquad$ <br> Foundry pattern shop.. <br> Plate or structural fabrication. <br> Stamping, blanking and forming of metals. <br> Painting, lacquering and enameling on metals. | 6 | - | 1 | 5 | 357 | - | (D) | (D) |
|  | 2 | 1 | - | 1 | (D) | (D) |  | (D) |
|  | 1 | - | 1 | - | (D) | - | (D) | - |
|  | 7 | 5 | 2 | - | 27 | (D) | (D) | - |
|  | 3 | 3 | - | - | 6 | 6 | - | - |
|  | 30 | 23 | 6 | 1 | 196 | 38 | (D) | (D) |
|  | 28 | 17 | 9 | 2 | 217 | 26 | (D) | (D) |
|  | 163 | 32 | 58 | 73 | 7,779 | 49 | 641 | 7,089 |
|  | 58 | 26 | 22 | 10 | 578 | 42 | 211 | 325 |
|  | 18 | 13 | 5 | - | 84 | 28 | 56 | - |
|  | 40 | 20 | 11 | 9 | 825 | 38 | 101 | 686 |
|  | 38 | 26 | 11 | 1 | 170 | 31 | (D) | (D) |
|  | 56 | 50 | 6 |  | 125 | 67 | 58 | - |
|  | INDUSTRY 3544.-SPECIAL DIES AND TOOLS |  |  |  |  |  |  |  |
| Ferrous foundry............................................ | 3 | 2 | 1 | - | 10 | (D) | (D) | - |
| Nonferrous foundry (except die casting)............... | 26 | 23 | 2 | 1 | 85 | 43 | (D) | (D) |
| Nonferrous die casting............................... | 38 | 21 | 12 | 5 | 361 | 43 | 139 | 179 |
| Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.)........................ | 13 | 8 | 4 | 1 | 146 | 11 | (D) | (D) |
| Electroplating and other plating........................ | 23 | 19 | 3 | 1 | 81 | 27 | (D) | (D) |
| Heat treating of metals........... | 163 | 150 | 10 | 3 | 370 | 164 | 76 | 130 |
| Automatic screw machine department..................... | 64 | 57 | 7 | - | 174 | 103 | 71 | - |
| Machine shop........ | 1,013 | 359 | 492 | 162 | 13,346 | 559 | 4,772 | 8,015 |
| Tool and die shop....................................... | 1,799 | 529 | 857 | 413 | 31,244 | 834 | 8,632 | 21,778 |
| Foundry pattern shop.................................... | 69 | 40 | 18 | 11 | 831 | 75 | 175 | 581 |
| Plate or structural fabrication....................... | 103 | 78 | 20 | 5 | 460 | 101 | 163 | 196 |
| Stamping, blanking and forming of metals............... Painting, lacquering and enameling on metals......... | 458 | 351 | 91 | 16 | 1,999 | 513 | 764 | 722 |
|  | 76 | 72 | 3 | 1 | 132 | 75 | (D) | (D) |
|  | INDUSTRY 3545.-MACHINE TOOL ACCESSORIES |  |  |  |  |  |  |  |
| Ferrous foundry........................................... . | 4 | 2 | - | 2 | (D) | (D) | - | (D) |
| Nonferrous foundry (except die casting)................. | 4 | 4 | - | - | 9 15 | (D) ${ }^{9}$ | (D) | - |
| Nonferrous die casting......................................... Forging-presses, harmers, or upsetters (excluding | 4 | 3 | 1 | - | 15 | (D) | (D) | - |
| Forging-presses, hanmers, or upsetters (excluding manufacture of nuts, bolts, etc.)........................ | 17 | 10 | 5 | 2 | 109 | 16 | (D) | (D) |
| Electroplating and other plating........................ | 31 | 25 | 5 | 1 | 114 | 40 | (D) | (D) |
| Heat treating of metals................................. | 144 | 92 | 39 | 13 | 917 | 154 | 325 | 438 |
| Automatic screw machine department..................... | 74 | 57 | 12 | 5 | 332 | 113 | 104 | 115 |
| Machine shop........................ | 304 | 78 | 105 | 121 | 11,505 | 112 | 1,131 | 10,262 |
| Tool and die shop........................................ . | 146 | 50 | 62 | 34 | 1,973 | 62 | 610 | 1,301 |
| Foundry pattern shop.. | 7 | 5 | 1 | 1 | 38 | (D) | (D) | (D) |
| Plate or structural fabrication........................ | 13 | 8 | 5 | - | 52 | 14 | 38 | - |
| Stamping, blanking and forming of metals............. | 49 | 33 | 11 | 5 | 484 | 51 | 107 | 326 |
| Painting, lacquering and enameling on metals......... | 53 | 46 | 5 | 2 | 182 | 59 | (D) | (D) |

See footnotes at end of table.

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963-Continued

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | 20 or more |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
| Ferrous foundry <br> Nonferrous found <br> Nonferrous die casting. | INDUSTRY 3548.-METALWORKING MACHINERY, N.E.C. |  |  |  |  |  |  |  |
|  | 568 | -54 | 1 <br> 1 | 413 | 95856112 | (D) ${ }_{\text {(D) }}$ |  | (D) |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | (D) | 100 |
| Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.)......................... | 12 | 7 | 3 | 2 | 109 | 14 | (D) | (D) |
| Electroplating and other plating....................... | 10 | 7 | 3 | - | 34 | 12 | 22 | - |
| Heat treating of metals................................ | 43 | 30 | 9 | 4 | 350 | 49 | 81 | 220 |
| Automatic screw machine department. | 45 | 19 | 19 | 7 | 561 | 40 | 200 | 321 |
| Machine shop......... | 167 | 41 | 45 | 81 | 10,549 | 84 | 452 | 10,013 |
| Tool and die shop......................................... . | 69 | 34 | 24 | 11 | 736 | 64 | 225 | 447 |
| Foundry pattern shop................. . . . . . . . . . . . . . . . . | 11 | 7 | 3 | 1 | 91 | 18 | (D) | (D) |
| Plate or structural fabrication. | 46 | 21 | 10 | 15 | 1,281 | 46 | 95 | 1,140 |
| Stamping, blanking and forming of metals............. | 42 | 34 | 2 | 6 | 344 | (D) | (D) | 278 |
| Painting, lacquering and enameling on metals......... | 84 | 77 | 5 | 2 | 204 | 114 | (D) | (D) |

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

| Item | INDUSTRY |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3541 | 3542 | 3544 | 3545 | 3548 |
| Total number of establishments in the industry. | 801 | 366 | 5,896 | 1,038 | 435 |
| Number of establishments which reported one or more of the specified operations. Percent of industry production workers in these establishments..... | $\begin{array}{r} 390 \\ 90-95 \end{array}$ | $\begin{array}{r} 195 \\ 85-90 \end{array}$ | 2,603 $75-80$ | $\begin{array}{r} 435 \\ 80-85 \end{array}$ | $\begin{array}{r} 212 \\ 85-90 \end{array}$ |
| Number of establishments which reported "none" of the operations apply...................................................................................... Percent of industry production workers in these establishments.... | 26 $0-5$ | 6 $0-5$ | 191 $0-5$ | 79 $5-10$ | 18 $0-5$ |
| Percent of industry production workers in establishments which completed the metalworking operations inquiry................................. | 95-100 | 85-90 | 75-80 | 85-90 | 90-95 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## SPECIAL INDUSTRY MACHINERY, EXCEPT METALWORKING MACHINERY

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

## SlC Code and Title

3551 - Food Products Machinery
3552--Textile Machinery
3553-- Woodworking Machinery
3554-Paper Industries Machinery
3555--Printing Trades Machinery and Equipment
3559--Special Industry Machinery, Not Elsewhere Classified
The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3551-FOOD PRODUCTS MACHINERY

This industry comprises establishments primarily engaged in manufacturing machinery for use by the food products and beverage manufacturing industries in the preparation, canning, or packaging of food products; and parts and attachments for such machinery. Establishments primarily engaged in manufacturing industrial refrigeration machinery are classified in Group 358. For a detailed list of products of industry 3551, refer to table 6A, product codes 3551111 to 3551381 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the food products machinery Industry in 1963 totaled $\$ 641$ million. This amount included shipments of food products machinery (primary products) valued at $\$ 451$ million, shipments of other products (secondary products) valued at $\$ 72$ million, and miscellaneous receipts (including significant sales of products bought and resold), at $\$ 118$ million.

This industry's shipments of food products machinery in 1963 represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 include Special Industry Machinery ( $\$ 20$ million), and General Industrial Machinery, N.E.C. (\$11 million).

Shipments of food products machinery by this industry in 1963 represented 87 percent of all shipments of these products ( $\$ 517$ million) by all industries. In 1958 the coverage ratio was 84 percent. Another industry shipping food products machinery was industry 3559, Special Industry Machinery, $\$ 20$ million.

## 3552-TEXTILE MACHINERY

This industry comprises establishments primarily engaged in manufacturing machinery for the textile industries, and extra parts, attachments, and accessories. Establishments primarily engaged in manufacturing domestic or industrial sewing machines are classified in industry 3636. For a detailed list of products of industry 3552, refer to table 6A, product codes 3552113 to 3552298 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Textile Machinery Industry in 1963 totaléd $\$ 543$ million. This amount included shipments of textile-industries machinery (primary products) valued at $\$ 468$ million, shipments of other products (secondary products) valued at $\$ 38$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 37$ million.

This industry's shipments of textile-industries machinery in 1963 represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 include all other gray iron castings $\$ 4$ million, metal stampings $\$ 2$ million, food products machinery $\$ 3$ million, printing trades machinery $\$ 3$ million and other special industry machinery $\$ 5$ million.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 55 percent of the total industry shipments are represented by plants specializing in textile machinery; and 40 percent in parts and attachments for textile machinery.

Shipments of textile-industries machinery by this industry in 1963 represented 94 percent of all shipments of these products ( $\$ 499$ million) by all industries. In 1958 the coverage ratio was also 94 percent.

## 3553--WOODWORKING MACHINERY

This industry comprises establishments primarily engaged in manufacturing machinery for sawmills, planing mills, cabinet and furniture makers, pattern makers, and veneer workers, establishments primarily engaged in manufacturing hand tools such as planes, axes, drawknives, and hand saws are classified in Group 342; and portable power driven hand tools in industry 3548. For a detailed list of products of industry 3553, refer to table 6A, product codes 3553112 to 3553298 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Woodworking Machinery Industry in 1963 totaled $\$ 253$ million. This amount included shipments of woodworking machinery (pri-
mary products), valued at $\$ 179$ million, shipments of other products (secondary products) valued at $\$ 52$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 22$ million.

This industry's shipments of woodworking machinery in 1963 represented 77 percent of its total product shipments. The industry specialization ratio in 1958 was 78 percent. Secondary products shipped by this industry in 1963 include farm machinery and equipment $\$ 3$ million, and grinding and polishing machines $\$ 2$ million.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 85 percent of the total industry shipments are represented by plants specializing in woodworking machines, except home workshops.

Shipments of woodworking machinery of this industry in 1963 represented 81 percent of all shipments of these products ( $\$ 221$ million) by all industries. In 1958 the coverage ratio was 86 percent. Another industry shipping woodworking machinery (primary products) was industry 3541, Metal-Cutting Machine Tools, $\$ 9$ million.

The production index for the primary products of the industry increased to 111 in 1963 from the 1958 level of 99 . The unit value index for 1963 was 119 compared to 108 in 1958. Both indexes were computed on a basis of 1954-100.

## 3554--P APER INDUSTRIES MACHINERY

This industry comprises establishments primarily engaged in manufacturing machinery for the paper-pulp, paper, and paper-product industries. Establishments primarily engaged in manufacturing printing trades machinery are classified in industry 3555. For a detailed list of products of industry 3554 , refer to table 6 A, product codes 3554011 to 3554081 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Paper Industries Machinery lndustry in 1963 totaled $\$ 404$ million. This amount included shipments of paper industries machinery (primary products), valued at $\$ 313$ million, shipments of other products (secondary products) valued at $\$ 42$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 49$ million.

This industry's shipments of paper industries machinery in 1963 represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 includes special industry machinery n.e.c. ( $\$ 14$ million), and all other gray iron castings ( $\$ 4$ million).

Shipments of paper industries machinery of this industry in 1963 represented 90 percent of all shipments of these products ( $\$ 348$ million) by all industries. In 1958 the coverage ratio was 91 percent. Another industry shipping paper industries machinery (primary products) was industry 3559, Special Industry Machines, N.E.C., $\$ 11$ million.

The production index for the primary products of the industry increased to 202 in 1963 from the 1958 level of 144 . The unit value index for 1963 was 98 compared to 111 in 1958. Both indexes were computed on a basis of 1954-100.

## 3555-PRINTING TRADES MACHINERY AND EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing machinery and equipment used by the printing and bookbinding trades. Establishments primarily engaged in manufacturing textile printing machinery are classified in industry 3552. For a detailed list of products of industry 3555 , refer to table 6 A, product codes 3555111 to 3555298 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Printing Trades Machinery Industry in 1963 totaled $\$ 448$ million. This amount included shipments of printing trades machinery (primary products), valued at $\$ 369$ million, shipments of other products (secondary products) valued at $\$ 18$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 61$ million.

This industry's shipments of printing trades machinery in 1963 represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was also 95 percent. Secondary products shipped by this industry in 1963 include fabricated rubber products, n.e.c. ( $\$ 4$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 40 percent of the total industry shipments are represented by plants specializing in printing presses and 55 percent in other printing trades machinery.

Shipments of printing trades machinery by this industry in 1963 represented 92 percent of all shipments of these products ( $\$ 403$ million) by all industries. In 1958 the coverage ratio was 91 percent.

The production index for the primary products of the industry decreased to 141 in 1963 from the 1958 level of 118 . The unit value index for 1963 was 123 compared to 100 in 1958. Both indexes were computed on a basis of 1954-100.

## 3559-SPECIAL INDUSTRY MACHINERY, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing special industry machinery, n.e.c., such as smelting and refining equipment, cement making, clay working, cotton ginning, glass making, hat making, incandescent lamp making, leather working, paint making, rubber working, cigar and cigarette making, tobacco working, shoe making, and stone working machinery. For a detailed list of products of industry 3559 , refer to table 6A, product codes 3559111 to 3559593.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Special Industry Machinery, N.E.C., Industry in 1963 totaled $\$ 1,015$ million. This amount included shipments of special industry machinery (primary products) valued at $\$ 734$ million, shipments of other products (secondary products) valued at $\$ 150$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 130$ million.

This industry's shipments of special industry machinery, n.e.c., in 1963 represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was also 83 percent. Secondary products shipped by this industry in 1963 include general industrial machinery, n.e.c., ( $\$ 16$ million), other industrial food products machinery ( $\$ 13$ million) and paper industries machinery ( $\$ 11$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 15 percent of the total industry shipments are represented by plants specializing in plastics-working machinery; 15 percent in chemical manufacturing industry machinery; and 48 percent in other special industrial machinery.

Shipments of special industry machinery, n.e.c., by this industry in 1963 represented 74 percent of all shipments of these products ( $\$ 988$ million) by all industries. In 1958 the coverage ratio was 77 percent. Other industries shipping special industry machinery (primary products) includes industry 3551, Food Products Machinery, $\$ 14$ million; and industry 3541, Machine Tools, Metal Cutting Type, $\$ 16$ million.


# table 1. General Statistics: 1963 and Earlier Years 

| Year | Companies <br> (number) | Establistments |  | All employees |  | Production workers |  |  | $\begin{gathered} \text { Value } \\ \text { added by } \\ \text { manufacture, } \\ \text { adjusted } \\ (\$ 1,000) \end{gathered}$ | Cost of materials <br> $(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization (percent) | Cov- <br> erage <br> ratio <br> (per- <br> cent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total (number) | With 20 employees (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| INDUSTRY 3551.-FOOD PRODUCTS MACHINERY |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 649 | 681 | 279 | 31,684 | 205,368 | 21,018 | 43,276 | 118,036 | 380,406 |  |  |  |  |  |
|  | (NA) | (NA) | (NA) | 31,943 | 201,469 | 21,689 | 45,586 | 115,085 | 365,150 | 260, | 626,2 | 11,834 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 30,935 | 187,928 | 20,912 | 42,328 | 103,830 | 359,651 | 250,465 | 588,020 | 10,508 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 30,519 | 181,317 | 20,323 | 42,734 | 103,582 | 337,845 | 227,842 | 557,324 | 8,765 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 28,680 | 164,956 | 19,146 | 38,778 | 93,403 | 300,593 | 205,870 | 501,078 | 9,332 | (NA) | (NA) |
| 1958. | 657 | 672 | 240 | 27,715 | 152,515 | 18,195 | 36,304, | 86,824 | 268,639 | 185,816 | 456,171 | 7,801 | 87 | 84 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 32,160 | 167,192 | 22,722 | 45,964 | 100,964 | 256,506 | 169,893 | 429,709 | (S) | (NA) | (NA) |
| 19561 | (NA) | (NA) | (NA) | 34,130 | 172,950 | 24,329 | 51,153 | 106,332 | 279,485 | 173,492 | 434,014 | (S) | (NA) | (NA) |
| 1955 | (NA) | (NA) | (NA) | 31,276 | 148,417 | 22,282 | 46,212 | 93,316 | 242,572 | 140,080 | 380,905 | (S) | (NA) | (NA) |
|  | 650(NA)(NA)(NA)(NA)(NA)(NA5(NA)(NA) | 672(NA)(NA)(NA)(NA)(NA)623406323 | 261(NA)(NA)(NA)(NA)(NA)(NA(NA)(NA) | 33,205 | 152,518 | 23,717 | 49,009 | 98,570 | 261,779 | 168,585 | 432,200 | 7,571 | 84 | 86 |
|  |  |  |  | 30,763 | 137,301 | 22,183 | (NA) | 90,723 | 231,047 | 129,154 | 360,201 | (NA) | (NA) | (NA) |
|  |  |  |  | 30,704 | 132,965 | 22,220 | (NA) | 87,736 | 218,522 | 125,281 | 343,803 | (NA) | (NA) | (NA) |
|  |  |  |  | 33,973 | 141,729 | 24,938 | (NA) | 95,948 | 215,895 | 143,792 | 359,687 | (NA) | (NA) | (NA) |
|  |  |  |  | 29,796 | 109,231 | 21,373 | (NA) | 69,902 | 173,918 | 113,152 | 287,070 | (NA) | (NA) | (NA) |
|  |  |  |  | 29,187 | 98,236 | 21,530 | (NA) | 64,793 | 155,750 | 96,383 | 252,133 | (NA) | (NA) | (NA) |
|  |  |  |  | 36,927 (NA) | 113,823 (NA) | 28,894 | 62,099 (NA) | 82,246 | 191,758 | 135,923 | 327,681 | (NA) | 89 | 82 |
|  |  |  |  | (NA) | (NA) | 18,475 | (NA) | 26,579 | 74,781 | 33,082 39,301 | 114,082 | (NA) | (NA) (NA) | (NA) (NA) |
|  | INDUSTRY 3552.-TEXTILE MACHINERY |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 529 | 561 | 216 | 36,004 | 196,379 | 26,870 | 56,145 | 129,064 | 314, 190 | 232,271 | 542,684 | 13,870 | 93 | 94 |
| 19621 | (NA) | (NA) | (NA) | 38,678 | 201,660 | 27,573 | 60,730 | 137,676 | 346,974 | 230,736 | 577, 860 | (15, 334) | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 37,685 | 192,819 | 26,550 | 58,730 | 129,806 | 317,773 | 214,699 | 530,350 | (12,962) | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 39,321 | 188,265 | 28,639 | 61,559 | 131,601 | 325,236 | 219,371 | 538,480 | (11,370) | (na) | (NA) |
| 1959 | (NA) | (NA) | (NA) | 35,766 | 173,594 | 27,627 | 58,194 | 120,553 | 271,336 | 186,898 | 445,493 | 6,813 | (NA) | (NA) |
| 1958. | 513 | 553 | 212 | 34, 313 | 154,548 | 25,611 | 51,206 | 101,897 | 214,199 | 154,182 | 376,340 | 8,508 | 87 | 94 |
|  | (NA) | (NA) | (NA) | 38,871 | 171,533 | 29,355 | 60,342 | 117,213 | 256,419 | 140,192 | 393,794 | 18,820 | 87 | 95 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 40,858 | 178,744 | 31,511 | 65,146 | 122,067 | 283,416 | 169,937 | 441,314 | 12,250 | (NA) | (NA) |
| 1955 | (NA) | (NA) | (NA) | 38,579 | 162,641 | 29,866 | 62,437 | 113,821 | 265,131 | 152,177 | 405,993 | 9,253 | (NA) | (NA) |
| 1954. | 517 | 535 | 210 | 36,595 | 145,253 | 28,093 | 55,733 | 98,668 | 216,606 | 127,167 | 347,145 | 8,528 | 89 | 93 |
| 1953 | (NA) | (NA) | (NA) | 38,295 | 154,807 | 20,017 | (NA) | 112,012 | 228,361 | 113,847 | 342,208 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 44,350 | 174,355 | 34,610 | (NA) | 122,996 | 273,923 | 133,066 | 406,989 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 56,539 | 214,834 | 45,561 | (NA) | 157,020 | 338,685 | 210,488 | 549,173 | (NA) | (NA) | (NA) |
| 19501 | (NA) | (NA) | (NA) | 50,492 | 178,039 | 39,161 | (NA) | 128,675 | 299,119 | 156,665 | 455,784 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 49,847 | 166,330 | 39,481 | (NA) | 119,673 | 283,570 | 149,192 | 430,762 | (NA) | (NA) | (NA) |
| 1947. | 470 | 489 | (NA) | 53,583 | 158,446 | 45,393 | 98,607 | 126,142 | 256,436 | 146,949 | 403,385 | (NA) | 95 | 93 |
| 1939. | (NA) | 339 | (NA) | (NA) | (NA) | 22,580 | (NA) | 28,461 | 62,033 | 34,876 | 96,909 | (NA) | (NA) | (NA) |
| 19374 | (NA) | 356 | (NA) | 29,161 | 42,566 | 25,340 | (NA) | 33,139 | 71,883 | 35,546 | 107,429 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 349 | (NA) | 22,682 | 29,731 | 19,072 | (NA) | 21,246 | 45,715 | 23,131 | 68,846 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 314 | (NA) | 21,281 | 23,855 | 18,576 | (NA) | 18,737 | 41,945 | 18,378 | 60,323 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 330 | (NA) | (NA) | (NA) | 18,808 | (NA) | 21,238 | 47,623 | 18,175 | 65,798 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 376 | (NA) | 31,263 | 50,497 | 27,019 | (NA) | 37,836 | 85,883 | 36,556 | 122,439 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 367 | (NA) | 30,220 | 47,398 | 26,154 | (NA) | 36,481 | 80,740 | 36,181 | 116,921 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 379 | (NA) | 32,329 | 49,003 | 27,869 | (NA) | 37,464 | 82,616 | 39,037 | 121,653 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 428 | (NA) | 40,041 | 57,086 | 35,672 | (NA) | 46,023 | 90,955 | 49,706 | 140,661 | (NA) | (NA) | (NA) |
| ${ }_{1919} 1921 . .$. | (NA) | 421 | (NA) | 34,469 | 47,129 | 31,025 | (NA) | 38,831 | 84,031 | 44,904 | 128,935 | (NA) | (NA) | (NA) |
|  | (NA) | 432 | (NA) | 35,772 | 44,627 | 31,823 | (NA) | 36,529 | 76,452 | 45,637 | 122,089 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3553. - WOODWORKING MACHINERY |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963.......... | 245 | 249 | 91 | 12,057 | 72,928 | 8,725 | 17,662 | 45,877 | 146,998 | 110,061 | 252,762 | 4,720 | 77 | ) |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 12,307 | 69,562 | 9,099 | 16,888 | 42,175 | 141,060 | 111,528 | 247,431 | $(4,597)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 10,885 | 62,103 | 7,776 | 14,732 | 37,136 | 113,486 | 88,298 | 213,003 | (7,608 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 11,511 | 62,396 | 8,160 | 15,948 | 38,282 | 128,997 | 92,630 | 224,357 | (3,008 | (NA) | (NA) |
| 1959 | (NA) | (NA) | (NA) | 13,096 | 69,320 | 9,145 | 18,422 | 43,591 | 146,418 | 106,818 | 24, 888 | 5,228 | (NA) | ( NA ) |
| 1958. | 251 | 257 | 96 | 12,219 | 63,414 | 8,036 | 15,945 | 36,904 | 112,936 | 88,530 | 214,376 | 6,924 | 78 | 86 78 |
| 1957 | (NA) | (NA) | (NA) | 11,376 | 55,638 | 8,161 | 16,601 | 37,468 43,295 | 108,615 | 74,191 84,096 | 176,578 | (S) | 82 (NA) | ( $\begin{array}{r}78 \\ \text { (A) }\end{array}$ |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 12,869 | 62,983 | 9,616 | 19,283 | 43,025 | 133,493 | 84,096 | 200,727 | (s) | (NA) | (NA) |
| 19551 | (NA) | (nA) | (NA) | 13,254 | 57,257 | 9,796 | 18,994 | 39,228 | 118,375 | 71,365 | 183,739 | (s) | (NA) | (NA) |
| 1954 | 247 | 249 | 96 | 11,973 | 53,821 | 8,839 | 17,771 | 35, 224 | 102,525 | 73,945 | 178,799 | 4,329 | 84 | 81 |
| 19531 | (NA) | (NA) | (NA) | 15,349 | 65,636 | 11,338 | (NA) | 4, 497 | 107,075 | 85,108 | 192,183 | (NA) | (NA) | (NA) |
| 1952 | (NA) | (NA) | (NA) | 13,124 | 56,666 | 10,226 | (NA) | 39,850 | 93,075 | 59,398 | 152,473 | (NA) | (NA) | (NA) |
| 1951 | (NA) | ((NA) | (NA) | 14,879 | 61,799 | 11,578 | (NA) | 43,816 | 102,956 | 80,218 | 183,174 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 13,148 | 48,313 | 10,065 | (NA) | 31,915 | 78,158 | 52,834 | 130,992 | (NA) | ( NA$)$ | (NA) |
| 1947 1939 | (NA) | 294 | (NA) | 16,233 | 50,488 | 13,018 | 27,219 | 36,383 | 90,841 | 62,040 | 152,881 | (NA) | ( 78 | ( 77 |
|  | (NA) | 148 | (NA) | (NA) | (NA) | 3,649 | (NA) | 4,683 | 12,677 | 7,783 | 20,460 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3554.-PAPER INDUSTRIES MACHINERY |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. |  |  |  |  |  | 12,914 |  |  |  | 196,467 | 403,925 | 10, 348 | 88 | 90 |
| 1962. | (NA) | (NA) | (NA) | 19,099 | 128,540 | 13,263 | 27,385 | 78,218 | 194,120 | 203,176 | 398,581 | (9,637) | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 18,610 | 117,943 | 12,726 | 25,381 | 70,377 | 188,003 | 182,299 | 364,967 |  | (NA) | (NA) |
| 1960 | (NA) | (NA) | (NA) | 18,439 | 117,458 | 12,868 | 27,159 | 73,564 | 191,045 | 202,301 | 380,011 |  |  | (NA) |
| 1959 | (NA) | (NA) | (NA) | 16,788 | 97,422 | 12,012 | 24,670 | 60,696 | 150,184 | 167,799 | 333,310 | 7,033 4,847 | (NA) | (NA) 91 |
| 1958 | 192 | 202 | (Na) | 15,713 | 89,881 | 11,356 | $\begin{array}{r}22,727 \\ 29 \\ \hline 2924\end{array}$ | 58,198 | 123,758 |  | 310,179 332,386 | 11,811 | 93 | 89 |
| 1957 | (NA) | (NA) | (NA) | 19,208 | 104,540 97,844 | 14,412 13,648 | 29,724 29,117 | 70,459 | 221,104 | 145,973 | 332,386 288,343 | 11, 13117 | ( Pa ) | ( NA ) |
| 1955 | (NA) | (NA) | (NA) | 15,626 | 79,911 | 11,768 | 24,349 | 53,969 | 132,072 | 99,697 | 224,015 | 6,962 | (NA) | (NA) |
| 954 | 1 | 169 | 98 | 15,003 | 73,713 | 11,516 | 23,745 | 50,057 | 109,803 | 92,479 | 206,951 | 4,916 | 85 | 86 |

See footnotes at end of table.
table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies <br> (number) | Establistments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-ciarization ratio (percent) | Corerage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3554.-PAPER INDUSTRIES MACHINERY-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 13,802 | 66,912 | 10,667 | (NA) | 46,610 | 99,682 | 78,867 | 178,549 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 15,487 | 71,654 | 11,880 | (NA) | 50,781 | 101,775 | 81,581 | 183,356 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 15,328 | 67,500 | 11,891 | (NA) | 48,213 | 97,581 | 76,153 | 173,734 | (NA) | (NA) | (NA) |
| 19501 | (NA) | (NA) | (NA) | 12,939 | 51,054 | 9,761 | (NA) | 34,279 | 74,415 | 54, 376 | 128,791 | (NA) | (NA) | (NA) |
| 1947. | 144 | 149 | (NA) | 17,088 | 57,749 | 13,398 | 29,782 | 41,523 | 81, 358 | 69,727 | 151,085 | (NA) | 85 | 89 |
| 1939 | (NA) | 116 | (NA) | (NA) | (NA) | 5,570 | (NA) | 7,984 | 20,198 | 13,017 | 33,215 | (NA) | (NA) | (NA) |
| $1937{ }^{3}$ | (NA) | 91 | (NA) | (NA) | (NA) | 6,813 | (NA) | 10,861 | 24,391 | 19,015 | 43,406 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3555. - PRINTING TRADFS MACHINERY |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 463 | 490 | 136 | 22,952 | 159,407 | 16,437 | 34,269 | 104,446 | 285,879 | 170,723 | 448,398 | 8,911 | 95 | 92 |
| 1962 | (NA) | (NA) | (NA) | 23,648 | 159,928 | 16,546 | 34,405 | 99,948 | 288,542 | 166,575 | 459,961 | $(13,675)$ | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 23,156 | 151,010 | 16,287 | 33,324 | 96,795 | 270,084 | 159,593 | 420,759 | 9,596 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 22,243 | 143,040 | 15,554 | 32,545 | 92,312 | 246,718 | 151,471 | 399,418 | 10,233 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 20,763 | 128,037 | 14,613 | 31,009 | 82,192 | 220, 205 | 128,000 | 342,926 | 5,824 | (NA) | ( NA ) |
| 1958. | 421 | 442 | 119 | 21,453 | 119,575 | 15,278 | 30,001 | 78,005 | 188,881 | 111,702 | 309,797 | 8,496 | 95 | 91 |
| 19571 | (NA) | (NA) | (NA) | 23,150 | 130,589 | 17,038 | 33,569 | 83,823 | 214,068 | 89,297 | 295,678 | 7,570 | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 23,985 | 132,712 | 18,111 | 36,941 | 89,524 | 218,496 | 87,626 | 287,812 | 8,748 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 21,763 | 114,368 | 16,150 | 33,149 | 75,869 | 194, 344 | 69,809 | 251,425 | 7,240 | (NA) | (NA) |
| 1954. | 342 | 358 | 109 | 21,960 | 110,679 | 16,416 | 33,027 | 74,515 | 178,966 | 95,538 | 276,320 |  |  | 90 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 19,554 | 98,554 | 15,011 | (NA) | 73,743 | 159,791 | 65,797 | 225,588 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 23,461 | 113,806 | 17,173 | (NA) | 79,428 | 171,233 | 79,270 | 250,503 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 24,421 | 110,813 | 18,265 | (NA) | 77,548 | 155,797 | 80,370 | 236,167 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 22,298 | 87,535 | 16,679 | (NA) | 61,219 | 141,855 | 62,073 | 203,928 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 23,512 | 88,352 | 18, 271 | (NA) | 61,455 | 148,715 | 63,788 | 212,503 | (NA) | (NA) | (NA) |
| 1947. | 300 | 327 | (NA) | 24,880 | 84,750 | 19,684 | 42,739 | 62,919 | 138,915 | 60,447 | 199,362 | (NA) | 95 | 94 |
| 1939 | (NA) | 254 | (NA) | (NA) | (NA) | 9,564 | (NA) | 14,903 | 41,137 | 15,419 | 56,556 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 230 | (NA) | 17,191 | 29,851 | 13,716 | (NA) | 22,378 | 57,662 | 20,966 | 78,628 | (NA) | (NA) | (NA) |
| 19356...... | (NA) | 238 | (NA) | 12,935 | 20,484 | 9,884 | (NA) | 13,582 | 38,429 | 13,131 | 51,560 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3559.-SPECIAL INDUSTRY MACHINES, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 1,074 | 1,092 | 388 | 50,226 | 330,127 | 34,063 | 70,932 | 199,400 | 572,236 | 443,993 | 1,015,014 | 22,533 | 83 | 74 |
| 1962 | (NA) | (NA) | (NA) | 48,936 | 313,576 | 34,012 | 68,296 | 189,315 | 527,639 | 433,886 | 961,728 | 17,669 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 50,666 | 313,986 | 35,008 | 68,914 | 187,384 | 512,486 | 435,167 | 960,555 | 20,000 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 53,448 | 322,993 | 36,780 | 75,549 | 196,961 | 532,552 | 436,730 | 955,940 | 21,644 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 51,253 | 299,238 | 35,255 | 72,538 | 182,948 | 494,794 | 398,324 | 873,618 | 17,202 | (NA) | (NA) |
| 19587. | 1,025 | 1,048 | 388 | 50,849 | 273, 665 | 34,042 | 67,312 | 163,464 | 431,117 | 320,070 | 761,077 | 17,449 | 83 | 77 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 53,986 | 295, 328 | 37,627 | 79,340 | 186,546 | 489,144 | 363,274 | 837,304 | (S) | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 53,649 | 287,434 | 38,602 | 82,695 | 186,357 | 512,756 | 331,364 | 798,888 | (S) | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 47,420 | 237,667 | 33,735 | 71,099 | 150,079 | 390,828 | 254,038 | 622,970 | 14,541 | (NA) | (NA) |
| 1954. | 898 | 917 | 330 | 47,007 | 218,553 | 33,997 | 69,310 | 141,160 | 353,857 | 244,974 | 625,053 | 13,742 | 81 | 73 |
| $1947{ }^{1}$ | (NA) | 1,185 | (NA) | 58,670 | 187,727 | 45,156 | (NA) | 134,013 | 294,236 | 189,041 | 483,275 | (NA) | 80 | 78 |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to l935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(X) Not applicable.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
n.e.c. Not elsewhere classified.
$1_{\text {These }}$ figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ The figures for 1939 are not entirely comparable with those for earlier years. Value added by manufacture for 1939 on a basis comparable with 1937 was $\$ 58.9$ million for "Food-products machinery." No comparable figures are available for "Woodworking machinery" prior to 1939.
${ }^{3}$ "Food-products machinery" and "Paper-industries machinery" were not shown as separate industries prior to 1937 , but were included with the industry formerly designated "Machinery, n.e.c."
"The figures for "Textile machinery" for 1937 and earlier years are not entirely comparable with those for later years because they include data for establishments reporting roll covering or re-covering as their major activity. Figures for 1937 include 44 such establishments having $\$ 1.1$ million total value of products.
${ }^{5}$ "Textile machinery" was not shown as a separate industry prior to 1919, but was included with the industry formerly designated "Foundry and machine shop products."
${ }^{6}$ Prior to 1935, "Printing-trades machinery" was included among the three discontinued industries "Printers' supplies," "Engravers' materials," and "Foundry and machine shop products." Separate figures are, therefore, not available for earlier years.
${ }^{7}$ The 1957 edition of the Standard Industrial Classification redefined industry 3559 to include establishments primarily engaged in manufacturing electric and fuel-fired nonmetallic processing industrial furnaces, ovens, kilns, and lehrs which were formerly classified in industry 3567 , Industrial Furnaces and Ovens. The effect of this change in definition is negligible, amounting to less than one percent both in total number of employees and value of shipments for 1958.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958


[^179]table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


[^180]
# TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued 

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of material s$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expend itures, new $(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> (\$1,000) | Total <br> (number) | $\begin{aligned} & \begin{array}{c} \text { Man- } \\ \text { hours } \end{array} \\ & (1,000) \end{aligned}$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3559.-SPECIAL INDUSTRY MACHINES, N.E.C.-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West North Central. Minnesota......... Iowa. Missouri.$\qquad$$\qquad$ | 48 | 18 | 1,352 | 7,900 | 897 | 1,871 | 4,624 | 15,738 | 11,420 | 26,579 | 2,000 | , 620 |  |
|  | 11 | 5 | 303 | 1,963 | 243 | 489 | 1,447 | 3,506 | 1,286 | 4,702 | (D) |  | (2) |
|  | 13 | 6 | 460 | 2,594 | 382 | 802 | 1,890 | 4,946 | 3,686 | 8,588 | (D) | 376 | 3,310 |
|  | 15 | 3 | 360 | 2,053 | 126 | 253 | 629 | 3,547 | 4,811 | 8,006 | (D) | 825 | 3,824 |
| South Atlantic.. | 58 | 24 | 3,837 | 25,435 | 2,470 | 5,279 | 12,519 | 38,660 | 33,307 | 71,517 | 2,444 | 3,993 | 28,341 |
| Virginia......... | 5 | 3 | 175 | 1,009 | 131 | 260 | 600 | 1,641 | 1,190 | 2,942 | (D) | 435 | 1,729 |
| North Carolina... | 9 | 3 | 606 | 3,000 | 470 | 1,021 | 2,024 | 5,201 | 3,815 | 9,227 | 123 | 347 | 2,646 |
| Georgia.......... | 14 | 7 | 816 | 4,287 | 574 | 1,231 | 2,330 | 8,768 | 5,740 | 14,062 | 385 | 1,020 | 8,498 |
| Florida. . | 11 | 1 | 246 | 1,522 | 151 | 343 | 717 | 3,286 | 2,811 | 5,971 | 70 | 192 | 803 |
| East South Central. | 30 | 12 | 1,451 | 8,096 | 1,098 | 2,201 | 5,557 | 17,509 | 12,347 | 26,398 | 439 | 1,126 | 8,943 |
| Tennessee... | 14 | 4 | 328 | 1,825 | 267 | 54.4 | 1,414 | 3,242 | 1,705 | 4,940 | 256 | 225 | 2,035 |
| Alabama. | 5 | 3 | 868 | 4,803 | 656 | 1,319 | 3,205 | 10,109 | 6,375 | 14,370 | 75 | 774 | 5,485 |
| West South Central. | 64 | 19 | 2,847 | 15,526 | 1,854 | 4,043 | 9,126 | 27,373 | 26,253 | 53,377 | 983 | 3,159 | 27,726 |
| Oklahoma. | 13 | 3 | 332 | 1,973 | 248 | 503 | 1,274 | 3,677 | 3,030 | 6,626 | 118 | ${ }^{(2)}$ | ${ }^{2}$ ) |
| Texas.. | 46 | 12 | 2,253 | 12,529 | 1,404 | 3,103 | 7,169 | 21,037 | 20,660 | 41,894 | 765 | 2,648 | 24,604 |
| Mountain. . . . . . . . . | 12 | 2 | 244 | 1,545 | 60 | 112 | 1,393 | 1,512 | 5,323 | 7,463 | 105 | \} 3,196 |  |
| Pacific........... | 151 | 29 | 2,586 | 16,775 | 1,891 | 3,803 | 10,592 | 33,505 | 23,645 | 56,796 | 792 |  | 30,369 |
| Oregon........... | 12 | 2 | 330 | 2,221 | 234 | 475 | 1,491 | 4,197 | 3,496 | 7,643 | 40 | 254 | 3,062 |
| California....... | 125 | 24 | 1,882 | 12,041 | 1,413 | 2,837 | 7,644 | 25,000 | 16,287 | 40,994 | 691 | 2,634 | 22,836 |

[^181](D) Withheld to avoid disclosing figures for individual companies.
n.e.c. Not elsewhere classified.
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3551, Food Products Machinery: New England-Maine, 1 (1-19); Vermont, 2 (1-19); Rhode Island, l (1-19); Connecticut, 8(645); Middle AtlanticNew Jersey, 24 (343); Pennsylvania, 36 (1737); West North Central—North Dakota, 1 (1-19); South Dakota, 1 (1-19); Nebraska, 3 (1-19);
South Atlantic-Delaware, 1 (1-19); Virginia, 8 (394) ; North Carolina, 4 (250-499); East South Central-Tennessee, 2 (1-19); Alabama, 1 (1-19); Mississippi, 2 (1-19); West South Central—Arkansas, 4 (20-99); OkJahoma, 7 (104); Mountain-Idaho, 1 (1-19); Colorado, 3 (100-249); Arizona, 1 (1-19); Utah, 2 (100-249); Nevada, 1 (1-19); Pacific—Oregon, 6 (118); Hawaii, 1 (100-249).
SIC 3552, Textile Machinery: New England-Maine, 5 (450); New Hampshire, 5 (1,465); Connecticut, 7 (20-99); East North Central-Illinois, 7 (866); Michigan, 3 (1-19); Wisconsin, 4 (20-99); West North Central-Minnesota, 1 (1-19); Iowa, 2 (1-19); Missouri, 1 (20-99); Nebraska, 1 (1-19); South Atlantic-Delaware, l (20-99); Virginia, 3 (20-99); Florida, 4 (20-99); East South Central—Kentucky, 4 (100-249); Tennessee, 4 (399); Alabama, 4 (100); West South Central—Louisiana, 1 (1-19); Texas, 1 (1-19); Mountain—Utah, 1 (1-19); Pacific—Washington, 1 (1-19); Oregon, 1 (1-19); California, 6 (20-99).
SIC 3553, Woodworking Machinery: New England-Maine, 3 (1-19); New Hampshire, 3 (20-99); Massachusetts, 13 (397); Connecticut, 1 (1-19); Middle Atlantic—New Jersey, 3 (261); Pennsylvania, 9 (514); West North Central—Minnesota, 7 ( 873 ); Missouri, 5 (112); South Atlantic-Virginia, 1 (1-19); West Virginia, 1 (1-19) ; North Carolina, 10 (794); South Carolina, 1 (1-19); Georgia, 3 (185); East South Central-Kentucky, 3 (1-19); Alabama, 2 (100-249); Mississippi, 3 (250-499); West South Central—Arkansas, 3, (20-99); Louisiana, 1 (100-249); Texas, 7 (100-249); Mountain-Colorado, 1 (1-19); New Mexico, 1 (1-19); Utah, 1 (1-19).
SIC 3554, Paper Industries Machinery: New England-Maine, 3 (20-99); Rhode Island, 4 (473); Connecticut, 4 (1-19); East North Central-Indiana, 4 (109); Illinois, 4 (20-99); Michigan, 4 (20-99) ; West North Central-Minnesota, 3 (20-99); Missouri, 2 (1-19); Kansas, 2 (1-19); South AtlanticMaryland, 4 (461); Virginia, 2 (100-249); West Virginia, 1 (1-19); South Carolina, 1 (1-19); Florida, 5 (20-99); East South Central-Kentucky, 1 (20-99); Alabama, 3 (20-99); West South Central—Arkansas, 1 (20-99); Louisiana, 2 (20-99); Oklahoma, 1 (1-19); Pacific—Washington, 1 (250-499); Oregon, 2 (20-99); California, 8 (196).
SIC 3555, Printing Trades Machinery: New England-New Hampshire, 4 (455); Vermont, 1 (1-19); Massachusetts, 21 (578); Rhode Island, 3 (1-19); East North Central-Indiana, 3 (20-99); Wisconsin, 8 (106); West North Central-Minnesota, 10 (108); Iowa, 5 (20-99); Nebraska, 3 (1-19); Kansas, 2 (100-249); South Atlantic-Maryland, 7 (20-99); District of Columbia, 1 (1-19); North Carolina, 5 (1-19); Georgia, 5 (20-99); Florida, 1 (1-19); East South Central-Tennessee, 3 (1-19); Alabama, 2 (1-19); West South Central-Louisiana, 1 (1-19); Oklahoma, 2 (20-99); Mountain-Colorado, 1 (1-19); New Mexico, 1 (20-99); Arizona, 2 (1-19); Pacific-Oregon, 1 (1-19).
SIC 3559, Special Industry Machines, N.E.C.: New England-Maine, 5 (20-99); New Hampshire, 3 (1-19); Vermont, 3 (128); West North Central-North Dakota, 2 (20-99); South Dakota, 1 (1-19); Kansas, 6 (197); South Atlantic—Delaware, 5 (500-999); Maryland, 7 (1,135); District of Columbia, l (1-19); West Virginia, 3 (20-99); South Carolina, 3 (20-99); East South Central—Kentucky, 9 (100-249); Mississippi, 2 (1-19); West South CentralArkansas, 1 (20-99); Louisiana, 4 (100-249); Mountain-Idaho, 1 (20-99); Colorado, 5 (176); Arizona, 4 (20-99); Utah, 2 (20-99); Pacific-Washington, 13 (250-499); Hawaii, 1 (1-19).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958
report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

| Item | Food products machinery (SIC 3551) | Textile machinery (SIC 3552) | Woodworking machinery (SIC 3553) | Paper industries machinery (SIC 3554) | Printing trades machinery (SIC 3555) | Special industry machines, n.e.c. (SIC 3559) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio.......................... | . 86 | . 93 | .77 | . 88 | . 95 | . 83 |
|  | . 87 | . 94 | . 81 | . 90 | . 92 | . 74 |
| Establishments, total....................................number.. | 681 | 561 | 249 | 217 | 490 | 1,092 |
| With 1 to 19 employees............. . . . . . . . . . . . . . . . . .do.. . | 402 | 345 | 158 | 125 | 354 | 704 |
| With 20 to 99 employees.................................d. ${ }^{\text {do... }}$ | 203 | 156 | 67 | 51 | 86 | 285 |
| With 100 employees or more.............................d. ${ }^{\text {do.... }}$ | 76 | 60 | 24 | 41 | 50 | 103 |
| Proprietors and working partners.......................d.do.... | 226 | 195 | 90 | 49 | 151 | 400 |
| All employees (average for the year)....................do.... | 31,684 | 36,004 | 12,057 | 18,605 | 22,952 | 50,226 |
| Payroll (all employees), total for year............... $\$ 1,000 .$. | 205,368 | 196,379 | 72,928 | 130,614 | 159,407 | 330,127 |
| Production workers: |  |  |  |  |  |  |
| Average for the year.................................number.. | 21,018 | 26,870 | 8,725 | 12,914 | 16,437 | 34,063 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do.. . . | 20,750 | 27,001 | 8,451 | 12,786 | 16,903 | 33,818 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 21,114 | 26,989 | 8,388 | 12,913 | 16,173 | 33,612 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do... . | 21,011 | 27,078 | 8,834 | 12,731 | 15,931 | 34,016 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.... | 21,197 | 26,412 | 9,228 | 13,226 | 16,742 | 33,805 |
| Man-hours....... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000 .$. | 43,276 | 56,145 | 17,662 | 27,233 | 34,269 | 70,932 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 10,804 | 14,169 14,343 | 4,425 | 6,693 6,882 | 8,899 8,882 | 17,768 |
| April-June................................................. . do.... | 11,104 | 14,343 13,382 | 4,496 4,467 | 6,882 6,634 | 8,882 7,727 | 18,332 17,195 |
|  | 10,355 11,013 | 13,382 14,251 | 4,467 4,274 | 6,634 7,024 | 7,727 | 17,195 17,637 |
| Wages.................................................. $\$ 1,000 .$. | 118,036 | 129,064 | 45,877 | 82,299 | 104,446 | 199,400 |
| Cost of materials, etc., total..........................do. | 255,278 | 232,271 | 110,061 | 196,467 | 170,723 | 443,933 |
| Materials, parts, containers, and supplies consumed..do.... | 204,807 | 209,812 | 94,429 | 165,618 | 123,152 | 355,869 |
| Cost of resales.........................................do. | 35,443 | 12,946 | 9,379 | 22,729 | 36,978 | 58,568 |
| Fuels consumed.......................................... ${ }^{\text {do.... }}$ | 1,636 | 2,516 | 941 | 1,324 | 977 | 3,579 |
| Electric energy: Purchased: |  |  |  |  |  |  |
| Quantity...............................million kw. -hrs.. | 160 | 202 | 100 | 122 | 101 | 324 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 2,673 | 3,006 | 1,375 | 1,896 | 1,821 | 5,096 |
| Generated less sold.....................million kw.-hrs.. | - | 7 | (D) | (D) | - | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 10,719 | 3,991 | 3,937 | 4,900 | 7,795 | 20,781 |
| Value of shipments (including resales), total..........do.... | 640,507 | 542,684 | 252,762 | 403,925 |  | 1,015,014 |
| Value of resales.........................................do.... | 44,426 | 17,716 | 13,427 | 29,487 | 47,965 | -75,739 |
| Value added by manufacture, adjusted...................do.... | 380,406 | 314,190 | 146,998 | 217,475 | 285,879 | 572,236 |
| Manufacturers' inventories: |  |  |  |  |  |  |
| Beginning of year, total..............................do. . . | 156,779 | 132,424 | 47,246 | 93,401 | 121,987 | 240,723 |
| Finished products.................................... . do.... | 59,299 | 39,657 | 15,306 | 15,222 | 39,544 | 85,502 |
| Work-in-process..................................... . . do.... | 58,206 | 51,577 | 20,610 | 53,119 | 59,073 | 88,482 |
| Materials, supplies, fuel, etc.......................do.... | 39,274 | 41,190 | 11,330 | 25,060 | 23,370 | 66,739 |
| End of year, total...................................do.... | 154,082 | 135,260 | 57,582 | 103,239 |  | 238,295 |
| Finished products...................................d. ${ }^{\text {do... }}$ | 56,195 | 41,940 | 16,678 | 17,674 | 43,566 | 85,539 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 56,487 | 53,071 | 23,535 | 60,684 | 63,255 | 89,599 |
| Materials, supplies, fuel, etc.......................do.... | 41,400 | 40,249 | 17,369 | 24,881 | 22,412 | 63,156 |
| Expenditures for plant and equipment, total...........do. | 11,925 | 15,180 | 5,748 | 11,948 | 9,625 | 24,663 |
| New, total............................................... ${ }^{\text {do. . }}$ | 11,031 | 13,870 | 4,720 | 10,349 | 8,911 | 22,533 |
| New structures and additions to plant...............d. do. | 3,004 | 2,815 | 1,641 | 3,142 | 1,273 | 5,903 |
| New machinery and equipment........................do.... | 8,027 | 11,055 | 3,079 | 7,207 | 7,638 | 16,630 |
| Used plant and equipment..............................do... | 894 | 1,310 | 1,028 | 1,599 | 714 | 2,130 |
| Selected operating ratios: |  |  |  |  |  |  |
| Payroll/Total employment...................................... | 6,482 | 5,454 | 6,049 | 7,020 | 6,945 | 6,573 |
| Production workers/Total employment. ......................... | . 66 | . 75 | . 72 | . 69 | . 72 | . 68 |
| Man-hours/Production workers................................. . | 2,058 | 2,090 | 2,024 | 2,109 | 2,085 | 2,082 |
| Production worker wages/Man-hours............................ | 2.73 | 2.30 | 2.60 | 3.02 | 3.05 | 2.81 |
| Cost of materials and payrolls/Total value of shipments.... | . 72 | . 79 | . 72 | . 81 | . 74 | . 76 |
| Cost of materials/Total value of shipments.................. | . 40 | . 43 | . 44 | . 49 | . 38 | . 44 |
| Adjusted value added/Total employment... | 12,006 | 8,727 | 12,192 | 11,689 | 12,415 | 11,393 |
| Salaries and wages/Adjusted value added..................... | . 54 | . 63 | . 50 | . 60 | . 56 | . 58 |

Note: Detail figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
${ }^{-}$Represents zero. (D) Withheld to avoid disclosing figures for individual companies. n.e.c. Not elsewhere classified.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.
table 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & 1 \text { to } 4 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 4999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 2,500 \\ \text { employees } \\ \text { and over } \end{gathered}$ |
|  | INDUSTRY 3551. - FOOD PRODUCTS MACHINERY |  |  |  |  |  |  |  |  |  |  |
| Establishments.............. number. . | 681 | 202 | 105 | 95 | 142 | 61 | 53 | 14 | 8 | 1 | - |
| All employees: ${ }_{\text {Total }}$..................do..... |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 31,684 205,368 | 398 2,065 | 717 4,059 | 1,327 8,370 | 4,610 28,580 | 4,350 26,836 | 7,791 48,815 | 5,134 33,783 | $\begin{array}{r}7,357 \\ \hline 52.860 \\ \hline 1\end{array}$ | (D) | - |
| Value added, adjusted........do.... | 380,406 | 4,548 | 7,355 | 15,654 | 47,407 | 50,795 | 88,289 | 54,158 | 112.200 | (D) | - |
| Value of shipments...........do.... | 640,507 | 8,502 | 12,826 | 28,279 | 81,331 | 88,744 | 155,304 | 95,761 | 169,760 | (D) | - |
| Capital expenditures, new....do.... | 11,031 | 132 | 161 | 359 | 1,066 | 1,555 | 2,957 | 2,517 | 2,284 | (D) | - |
|  | INDUSTRY 3552.-TEXTILE MACHINERY |  |  |  |  |  |  |  |  |  |  |
| Establishments. . . . . . . . . . . . number. . | 561 | 159 | 92 | 94 | 116 | 40 | 34 | 15 | 4 | 5 | 2 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total........................do... | 36,004 | 295 | 627 | 1,334 | 3,651 | 2,869 | 5,482 | 5,101 | 2,589 | 14,056 | (D) |
| Payroll.................. . $\$ 1,000 .$. | 196,379 | 1,470 | 2,948 | 6,821 | 18,864 | 14,323 | 29,505 | 29,177 | 12,865 | 80,406 | (D) |
| Value added, adjusted........do.... | 314,190 | 2,039 | 5,589 | 11,808 | 31,220 | 24,813 | 48,729 | 45,841 | 24,917 | 119,234 | (D) |
| Value of shipments...........do.... | 542,684 | 4,702 | 9,397 | 21,896 | 52,904 | 44,205 | 85,950 | 86,900 | 37,184 | 199,546 | (D) |
| Capital expenditures, new....do.... | 13,870 | 125 | 192 | 379 | 1,188 | 611 | 2,041 | 1,932 | 1,153 | 6,249 | (D) |
|  | INDUSTRY 3553.-WOODWORKING MACHINERY |  |  |  |  |  |  |  |  |  |  |
| Establishments.............. number. . | 249 | 72 | 47 | 39 | 40 | 27 | 15 | 7 | 1 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 12,057 | 110 | 321 | 593 | 1,240 | 1,835 | 2,520 | 5,438 | (D) | (D) | - |
| Payroll.................. $\$ 1,000 .$. | 72,928 | 800 | 1,640 | 3,303 | 7,386 | 11,645 | 16,097 | 32,057 | (D) | (D) | - |
| Value added, adjusted.........do.... | 146,998 | 2,025 | 3,230 | 7,153 | 12,131 | 20,110 | 23,193 | 126,167 | (D) | (D) | - |
| Value of shipments...........dido.... | 252,762 | 4,243 | 6,072 | 13,002 | 21,684 | 38,420 | 43,174 | 126,167 | (D) | (D) | - |
| Capital expenditures, new....do.... | 4,720 | 95 | 94 | 234 | 290 | 1,242 | 726 | 2,039 |  |  | - |
|  | INDUSTRY 3554. -PAPER INDUSTRIES MACHINERY |  |  |  |  |  |  |  |  |  |  |
| Establishments.............. number.. | 217 | 53 | 32 | 40 | 36 | 15 | 19 | 16 | 5 | - | 1 |
| All ermployees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 18,605 | 103 | 215 | 566 | 1,208 | 1,025 | 3,171 | 5,528 | 6,789 | - | (D) |
| Payroll.................. $\$ 1,000 .$. | 130,614 | 667 | 1,237 | 3,494 | 7,867 | 6,829 | 22,438 | 39,877 | 48,205 | - | (D) |
| Value added, adjusted........do ... | 217,475 | 922 | 2,057 | 6,339 | 12,508 | 10,632 | 37,422 | 66,622 | 80,973 | - | (D) |
| Value of shipments...........do.... | 403,925 | 1,784 | 3,309 | 9,688 | 22,196 | 18,933 | 68,022 | 116,581 | 163,412 | - | (D) |
| Capital expenditures, new....do.... | 10,349 | 57 | 68 | 211 | 451 | 475 | 1,526 | 3,266 | 4,295 | - | (D) |
|  | INDUSTRY 3555.-PRINITNG TRADES MACHINERY |  |  |  |  |  |  |  |  |  |  |
| Establishments..............number. . | 490 | 191 | 86 | 77 | 62 | 24 | 26 | 15 | 8 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do.... | 22,952 | 360 | 605 | 1,103 | 1,945 | 1,528 | 4,223 | 5,208 | 7,980 | (D) | - |
| Payroll................... \$1,000. . | 159,407 | 2,188 | 3,532 | 6,998 | 12,693 | 9,814 | 28,445 | 35,880 | 59,857 | (D) | - |
| Value added, adjusted........do.... | 285,879 | 5,244 | 6,458 | 12,920 | 23,468 | 20,331 | 51,016 | 61,711 | 104,731 | (D) | - |
| Value of shipments...........do.... | 448,398 | 8,255 | 10,081 | 20,788 | 38,933 | 32,139 | 76,126 | 101,755 | 160,321 | (D) | - |
| Capital expenditures, new....do.... | 8,911 | 149 | 147 | 337 | 526 | 490 | 2,068 | 1,935 | 3,259 | (D) | - |
|  | INDUSTRY 3559.--SPECIAL INDUSTRY MACHINERY, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments.............. number. . | 1,092 | 324 | 191 | 189 | 189 | 96 | 62 | 23 | 12 | 6 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do.... | 50,226 | 611 | 1,287 | 2,589 | 6,022 | 6,538 | 9,453 | 8,003 | 7,847 | 7,876 | - |
| Payroll.................. $\$ 1,000 .$. | 330,127 | 3,221 | 7,206 | 15,361 | 38,519 | 42,711 | 60,204 | 53,333 | 54,244 | 55,328 | - |
| Value added, adjusted........do.... | 572,236 | 6,867 | 13,629 | 28,840 | 68,179 | 77,435 | 100,038 | 10,468 | 89,515 | 80,314 | - |
| Value of shipments...........do.... | 1,015,014 | 12,908 | 23,319 | 48,963 | 123,540 | 132,835 | 190,948 | 194,965 | 152,061 | 135,475 | - |
| Capital expenditures, new....do.... | 22,533 | 310 | 511 | 983 | 2,285 | 2,502 | 6,770 | 2,881 | 2,656 | 3,636 | - |

[^182]n.e.c. Not elsewhere classified.

# table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958 

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio <br> Col. B <br> Col. B+C <br> (percent) | Total, made in all industries <br> $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | I |
| 3551 | Food products machinery........... $1963 .$. | $\begin{aligned} & 640,507 \\ & 456,171 \end{aligned}$ | $\begin{aligned} & 450,556 \\ & 334,764 \end{aligned}$ | $\begin{aligned} & 71,860 \\ & 51,725 \end{aligned}$ | $\begin{array}{r} 118,091 \\ 69,682 \end{array}$ | 86 87 | $\begin{aligned} & 517,304 \\ & 399,846 \end{aligned}$ | $\begin{aligned} & 450,556 \\ & 3344,764 \end{aligned}$ | $\begin{aligned} & 66,748 \\ & 65,082 \end{aligned}$ | $\begin{aligned} & 87 \\ & 84 \end{aligned}$ |
| 3552 | Textile machinery. ................... 1963. . $1958 .$. | $\begin{aligned} & 542,684 \\ & 376,340 \end{aligned}$ | $\begin{aligned} & 467,902 \\ & 304,233 \end{aligned}$ | $\begin{array}{r} 37,869 \\ 45,058 \end{array}$ | $\begin{aligned} & 36,913 \\ & 27,049 \end{aligned}$ | 93 87 | $\begin{aligned} & 499,096 \\ & 322,239 \end{aligned}$ | $\begin{aligned} & 467,902 \\ & 304,233 \end{aligned}$ | $\begin{aligned} & 31,194 \\ & 18,006 \end{aligned}$ | 94 94 |
| 3553 | Woodworking machinery. . . . . . . . . . . 1963.. | $\begin{aligned} & 252,762 \\ & 214,376 \end{aligned}$ | $\begin{aligned} & 178,873 \\ & 149,808 \end{aligned}$ | $\begin{aligned} & 52,281 \\ & 42,438 \end{aligned}$ | $\begin{aligned} & 21,608 \\ & 22,130 \end{aligned}$ | 77 78 | $\begin{aligned} & 220,822 \\ & 174,489 \end{aligned}$ | $\begin{aligned} & 178,873 \\ & 149,808 \end{aligned}$ | $\begin{aligned} & 41,949 \\ & 24,681 \end{aligned}$ | 81 86 |
| 3554 | Paper industries machinery....... $\begin{array}{r}\text { 1963.. } \\ \text { 1958.. }\end{array}$ | $\begin{aligned} & 403,925 \\ & 310,179 \end{aligned}$ | $\begin{aligned} & 312,775 \\ & 253,624 \end{aligned}$ | $\begin{aligned} & 41,922 \\ & 19,442 \end{aligned}$ | $\begin{aligned} & 49,228 \\ & 37,113 \end{aligned}$ | 88 93 | $\begin{aligned} & 347,552 \\ & 280,106 \end{aligned}$ | $\begin{aligned} & 312,775 \\ & 253,624 \end{aligned}$ | $\begin{aligned} & 34,777 \\ & 26,482 \end{aligned}$ | 90 91 |
| 3555 | Printing trades machinery.......... $1963 .$. | $\begin{aligned} & 448,398 \\ & 309,797 \end{aligned}$ | $\begin{aligned} & 369,476 \\ & 249,845 \end{aligned}$ | $\begin{aligned} & 17,710 \\ & 14,650 \end{aligned}$ | $\begin{aligned} & 61,212 \\ & 45,302 \end{aligned}$ | 95 95 | $\begin{aligned} & 403,215 \\ & 273,301 \end{aligned}$ | $\begin{aligned} & 369,476 \\ & 249,844 \end{aligned}$ | $\begin{array}{r} 33,739 \\ 23,457 \end{array}$ | 92 91 |
| 3559 | Special industry machines, n.e.c.................................. . 1963. . | $\begin{array}{r} 1,015,014 \\ 761,077 \end{array}$ | $\begin{aligned} & 734,336 \\ & 558,163 \end{aligned}$ | $\begin{aligned} & 150,390 \\ & 114,704 \end{aligned}$ | $\begin{array}{r} 130,288 \\ 88,210 \end{array}$ | $\begin{aligned} & 83 \\ & 83 \end{aligned}$ | $\begin{aligned} & 988,355 \\ & 726,212 \end{aligned}$ | $\begin{aligned} & 734,336 \\ & 557,938 \end{aligned}$ | $\begin{aligned} & 254,019 \\ & 168,274 \end{aligned}$ | $\begin{aligned} & 74 \\ & 77 \end{aligned}$ |

NOTE: See Introcuction for an explanation of terms used.
n.e.c. Not elsewhere classified.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next colurin(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


TABLE 5B. Industry-Product Analvsis-Shipments by Product Class and Industry: 1963-Continued


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


- Represents zero. (X) Not applicable.
n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 3443 , Boiler Shop Products, and 3522, Farm Machinery and Equipment.
${ }^{2}$ The following industry had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing individual company figures: 3532, Mining Machinery and Equipment.
${ }^{3}$ Includes chemical manufacturing industries machinery and equipment (product class 35591) valued at $\$ 13,511$ thousand.
4ncludes the following product class which totaled $\$ 2$ million or more but i.s withheld to avoid disclosing individual company figures: 3554 , Paper Industries Machinery.
${ }^{5}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual cormpanies: 3541, Metal-Cutting Machine Tools, and 3559, Special Industry Machines, N.E.C.

6 The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3531, Construction Machinery, and 3717, Motor Vehicles and Parts.
${ }^{7}$ Includes the following product classes which totaled $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 34990 , Fabricated metal products, n.e.c., and 35790, Addressing, dictating, duplicating and other office machines, n.e.c.
${ }^{8}$ Includes $\$ 9,157$ thousand shipped by industry 3541, Metal-Cutting Machine Tools. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3522, Farm Machinery and Equipment; 3531, Construction Machinery; and, 3542, Metal-Forming Machine Tools.
${ }^{9}$ The following industry had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies: industry 3621, Motors and Cenerators.
${ }^{10}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 33214, All other gray iron castings; 35422, Special industrial fasteners; 35195, Outboard motors; 35197, Parts and accessories for internal combustion engines; and, 37176 , Parts and accessories for passenger cars, trucks and busses shipped to other than motor vehicle manufacturers.
${ }^{11}$ Includes $\$ 11,217$ thousand shipped by industry 3559 , Special Industry Machines, N.E.C. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: industry 3315, Steel Wire Drawing, Etc.; industry 3551, Food Products Machinery; and, industry 3731, Ship Building and Repairing.
${ }^{12}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 34819 , Other fabricated wire products, not produced by wire drawers; 35551, Printing presses; 35663, Other mechanical power-transmission equipment; and 35690, Ceneral industrial machinery, n.e.c.
${ }^{13}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3552 Textile Machinery, and 3554, Paper Industries Machinery.
${ }^{14}$ Includes $\$ 5,543$ thousand shipped by industry 3069 , Rubber Products, N.E.C. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclesing figures for individual companies: 3011, Tires and Inner Tubes, 3551, Copper Rolling and Drawing, and 3622, Industrial Controls, 3572, Typewriters.
${ }^{15}$ Includes the following product classes which totaled $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 3552 ,
Textile Machinery, and 35790, Office machines, n.e.c.
${ }^{16}$ Includes shipments for the specified amounts (in thousands) for the following industries: $\$ 2,996$ by industry 3443, Boiler Shop Products; $\$ 13,511$ by industry 3551 , Food Products Machinery. In addition, the following industries each shipped $\$ 2$ million or more, but are withheld to avoid disclosing figures for individual companies: 3536, Hoists, Cranes and Monorails; 3554, Paper Industries Machinery; 3567, Industrial Furnaces and Ovens; and 3742, Railroad and Street Cars.
${ }^{17}$ Over $\$ 2$ million was shipped by industry 3541, Metal-Cutting Machine Tools. The exact figure is withheld to avoid disclosing data for individual companies.

Includes $\$ 16,489$ thousand from industry 3541, Metal-Cutting Machine Tools. In addition, over $\$ 2$ million was shipped by industry 3554 , Paper Industries Machinery.
${ }^{19}$ Over $\$ 2$ million was shipped by industry 3544, Special Dies and Tools. The exact figure is withheld to avoid disclosing data for individual companies.
${ }^{20}$ Includes shipments for the specified amounts (in thousands) for the following industries: $\$ 4,676$ by industry 3443, Boiler Shop Products; $\$ 5,227$ by industry 3535, Elevators and Moving Stairways; $\$ 4,040$ by industry 3548, Metalworking Machinery; $\$ 3,243$ by industry 3551 , Food Products Machinery; $\$ 5,266$ by industry 3552, Textile Machinery; $\$ 2,461$ by industry 3553 , Woodworking Machinery; $\$ 9,843$ by industry 3567 , Industrial Furnaces and Ovens; $\$ 2,007$ by industry 3569, General Industry Machines, N.E.C.; $\$ 3,010$ by industry 3599, Miscellaneous Machinery; and, $\$ 3,984$ by industry 3731 , ship Building and Repairing. In addition each of the following industries reported more than $\$ 2 \mathrm{million}$ : 1999, Ordnance and Accessories, N.E.C.; 3211, Flat Glass, 3356, Rolling and Drawing, N.E.C.; 3532, Mining Machinery and Equipment; 3545, Machine Tool Accessories; 3585, Refrigeration Machinery; 3586,Measuring and Dispensing Purps; 3641, Electric Lamps; 3661, Telephone; Telegraph Apparatus; 3674, Semiconductors; 3861, Photographic Equipment.
${ }^{21}$ Includes shipments of over $\$ 2$ million for each of the following product classes: 32914, Metal abrasives; 33220, Malleable iron castings; 35414, Grinding and polishing machines; 35422, Presses including forging presses; 35521, Textile machinery; 35642, Dust collection, air purification equipment and air washers; 37292, Guided missile components and subassemblies, n.e.c.; and, 38213, Industrial process instruments.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


See fontnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3552- -- | TEXTILE-INDUSTRIES MACHINERY, TOTAL |  | (X)(X) | $\begin{aligned} & 499,096 \\ & 252,569 \end{aligned}$ | (x) | $\begin{aligned} & 322,239 \\ & 143,720 \end{aligned}$ |
| 35521 -- | Textile machinery, total. |  |  |  | (x) |  |
|  | Fiber-to-fabric textile machinery (except parts, attachments, and accessories): <br> Cleaning and opening machinery: |  |  |  |  |  |
| 3552113 | Picker machines............................................ | Number. | 791271 | 2,8381,465 | $\begin{array}{r} 618 \\ (\mathrm{NA}) \end{array}$ | 1,989 |
| 3552119 | Garnetting and other | ...do............ |  |  |  |  |
| 3552122 3552132 32 |  | ...do.......... | $\begin{array}{r} 451 \\ \left(6^{6}\right) \\ 1,701 \end{array}$ | $\begin{aligned} & 3,311 \\ & (6) \end{aligned}$ | 265 | $\begin{array}{r} 2,422 \\ 2,774 \\ 11,057 \end{array}$ |
| 3552136 | Drawing and roving frames | , |  |  | 1,168 |  |
| 3552142 | Spinning and twisting frames: |  | 2,636 | 29,101 | 852166,840 |  |
| 3552146 | \} Spinning frames.. | Total no. of |  | 2,101 |  | 11,172( X$)$ |
|  |  | spindles...... | $\begin{array}{r} 756,346 \\ 711 \end{array}$ | $\begin{array}{r} (\mathrm{X}) \\ 11,979 \end{array}$ |  |  |
| $\begin{aligned} & 3552147 \\ & 3552148 \end{aligned}$ | Twisting frames. | Number......... Total no. of |  |  | $\begin{array}{r} 166,840 \\ 552 \end{array}$ | 7,874 |
|  |  | spindles..... | 85,885 | (X) | 72,313 | (x) |
| 3552151 | Winding machines (skein, spool, bobbin, quill, cone, etc.)... Other yarn-preparing machines (beaming, warping, warp tying, warp drawing-in, splashing, etc.). | Number......... | 1,016 | 13,830 | 409 | 5,641 |
| 3552153 |  |  |  | 6,509 |  |  |
| 3552155 | Other fiber-to-fabric machinery.............................. |  | (x) | ${ }^{6} 19,241$ | (x) | 4,183 |
| $\begin{array}{ll} 35521 & 64 \\ 35521 & 68 \end{array}$ | Fabric machinery (except parts, attachments, and accessories): Power looms (including looms operating without shuttle): Cotton and synthetic broadlooms, except carpet. All other power looms. | $\left.\begin{array}{l} \text { Number of looms } \\ \text {...do............ } \end{array}\right\}$ | (7) |  |  |  |
|  | Knitting machines: |  |  | (7) | (NA) | 10,620 |
| 3552172 | Hosiery (circular and full fashioned)....................... | Number.. | $\begin{aligned} & 5,655 \\ & 1,660 \end{aligned}$ | $\begin{aligned} & 22,017 \\ & 17,216 \end{aligned}$ | 5,184 964 | $\begin{gathered} 20,486 \\ 6,892 \end{gathered}$ |
| 3552184 | Other fabric machinery (including lace, embroidery, braiding, and tufting machinery, and hand looms).............................. |  | (NA) | 746,199 | (X) | 4,525 |
| 3552185 | Bleaching, dyeing, and finishing machinery..................... |  | (X)(X)( | $\begin{array}{r} 28,080 \\ 7,950 \end{array}$ | (X) | 11,1274,419 |
| $\begin{aligned} & 3552187 \\ & 3552198 \end{aligned}$ | Machinery for drying stocks, yarns, cloth, etc................. Other textile industries machinery, |  |  |  |  |  |
|  | attachments, and accessories)............................... |  | (x) | $\begin{array}{r} 23,503 \\ 3,0 \div 7 \end{array}$ | (X) | $\begin{array}{r} 17,759 \\ 9,394 \end{array}$ |
| 3552100 | Textile machinery, n.s.k.. |  |  |  |  |  |
| 35522 -- | Parts and attachments for textile machinery...................... |  | (X) | 232,122 | (x) | 168,737 |
| 3552211 | Textile-industries machinery, parts, attachments, and accessories: <br> Textile machinery turnings and shapes (bobbins, shuttles, spools, picker sticks, etc.)........................................ |  | (X) | 38,196 | (x) |  |
|  | Parts, attachments, and accessories for fiber-to-fabric machinery: |  |  |  |  | 23,939 |
| $\begin{aligned} & 35522 \\ & 35522 \\ & 31 \end{aligned}$ |  | 1,000 sq. ft... | 1,912 | 9,330 | 1,747 | 7,121 |
|  | fabric machinery, except card clothing.......................... |  |  | 47,425 | (x) | 38,980 |
| 3552241 | Parts, attachments, and accessories for power looms.. |  | (X) | 66,210 | (x) | 38,588 |
| 3552245 | Parts, attachments, and accessories for knitting machines, excluding needles. |  | (X) | 10,677 | (x) |  |
| 3552253 | Parts, attachments, and accessories for fabric machinery (except parts, attachments, and accessories for power looms and knitting machines). |  | (X) |  |  | 11,168 |
| 3552271 | Parts, attachments, and accessories for bleaching, dyeing, and finishing machinery. |  | (X) | 7,655 | (x) | 6,135 |
| 3552298 | Textile-industries machinery parts, attachments, and accessories, |  | (x) | 40,585 | (X) | 26,240 |
| 3552200 | Parts and attachments for textile machinery, n.s.k. |  | (x) | 5,236 | (x) | 8,836 |
| 3552000 | Textile-industries machinery, including parts and attachments, n.s.k. |  | (x) | 14,405 | (X) | 9,782 |

See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Productcode | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{gathered} \text { Value } \\ (\$ 1,000) \\ \hline \end{gathered}$ | Quantity | $\begin{gathered} \hline \text { Value } \\ (\$ 1,000) \\ \hline \end{gathered}$ |
| 3553- -- | WOODWORKTNG MACHINERY, TOTAL. |  | (X) | 220,822 | ( X ) | 174,489 |
| 35531 -- | Woodworking machinery (except machinery designed primarily for home work shops, garages, and service shops), total................ |  | (X) | 185,987 | (X) | 145,078 |
| 3553112 | Savmill equipment....................................... |  | (X) | 22,398 13,828 | (x) | 15,780 |
| 3553115 | Veneer and plywood-making; wood box and crate-making machinery.. |  | (X) | 13,828 | (X) | 7,954 |
| 3553162 | Sawing machines (except sawmill equipment and chain saws): <br> Quantity reported. <br>  | No. of units.. | 22,774 | $\begin{aligned} & 9,415 \\ & 1,878 \end{aligned}$ | 39,635 | 10,744 |
| 3553167 | Chain saws.................................................... | No. of units.. | 392,766 | 45,963 | 329,164 | 43,867 |
| 3553171 | Jointers, matchers, molders, mortisers, shapers, and tenoners (except power-driven hand-held tools) |  | (NA) | 11,326 | (NA) | 8,221 |
| 3553181 | Parts, attachments, and accessories for woodworking machinery (sold separately). |  | (X) | 53,769 | (X) | 38,521 |
| 3553198 | Other woodworking machinery (except power-driven hand-held tools), including lathes, planing machines, and surfacing machines, except hand-held, n.s.k. |  | (X) | 25,662 | (X) | 12,515 |
| 3553100 | Woodworking machinery (except machinery designed primarily for home workshops, garages, and service shops), including parts, attachments, and accessories $\qquad$ |  | ( X ) | 1,748 | (X) | 7,476 |
| 35532 -- | Woodworking machinery (designed primarily for home workshops, garages, and service shops) (excluding power-driven hand tools), total |  | ( X ) | 28,990 | (X) | 25,685 |
| 3553221 | Saws, including circular: <br> Quantity reported. <br> Quantity not reported. | No. of units.. | $196,953$ | 17,555 1,969 | 249,251 | 14,439 |
| 3553281 | Parts, attachments, and accessories for machine tools and woodworking machines designed primarily for home workshops, etc. (sold separately) (except parts for power-driven hand tools)... |  | (X) | 3,595 | (X) | 3,116 |
| 3553298 | Other machine tools and woodworking machines designed primarily for home workshops, etc. (except power-driven hand tools), in- |  |  |  |  |  |
| 3553200 | cluding lathes, drilling machines, jointers, planers and shapers Woodworking machinery (designed primarily for home workshops, garages, and service shops) (excluding power-driven hand tools), n.s.k. |  | (X) (X) | 5,871 | (X) (X) ( | 6,693 1,437 |
| 3553000 | Woodworking machinery, n.s.k |  | (X) | 5,845 | (X) | 3,726 |
| 3554- -- | PAPER-INDUSTRIES MACHINERY, TOTAL. |  | (X) | 347,552 | (x) | 280,106 |
| 3554011 | Pulp- and paper-industries machinery (new): <br> Wood preparation equipment (including barkers, chippers, kotters, splitters, chipscreens, etc.)............................... |  | (X) | 2,170 | (X) | 1,826 |
| 3554021 | Pulp mill machinery: Grinders....................... | No. of units.. | 325 | 7,431 | 99 | 2,879 |
| 3554025 | Deckers, thickeners, wet lap machines, bleaching equipment, |  |  |  |  |  |
| 3554029 | pulp screens, washers, and savealls. <br> Other pulp mill machinery including digesters and recovery room equipment |  | (X) | $\begin{array}{r} 21,022 \\ 6,216 \end{array}$ | (X) | 18,564 |
| 3554031 | Paper mill machinery: <br> Beaters, jordans, and other stock preparation.................... |  | (X) | 20,329 | ( X ) | 15,179 |
|  | Paper machines: |  |  |  |  |  |
| 35540 <br> 35540 <br> 15 | Fourdriniers including yankee machines. | No. of units.. | 45 | 49,519 | 39 | 63,201 2,131 |
| $\begin{aligned} & 354045 \\ & 3554043 \end{aligned}$ | Calenders including super calenders |  | 49 | 5,999 | 10 | 2,131 |
| 3554049 | Other paper machinery, including forming and finishing machinery, but excluding calenders. |  | (X) | 41,802 | (x) | 38,600 |
|  | Paper and paperboard converting equipment: |  |  |  |  |  |
| $\begin{aligned} & 3554051 \\ & 3554052 \end{aligned}$ | Bagmaking machines including shipping sack machines...... Envelope making machines.............................. | No. of units.. | 817 | 9,007 | 1,236 | 13,334 |
| 3554053 | Envelope making machines................. |  | 1,234 | 24,696 | 1,265 | 17,63 |
| 3554054 | Box, carton, and shipping container making machines (except corrugated box machines). | ...do.......... | 1,025 | 13,080 | 840 | 6,850 |
| 3554056 3554059 | Toilet roll and napkin making machines............................ | ...do......... | 129 | 7,012 | 125 | 3,230 |
| 3554059 | Other paper and paperboard converting equipment, including drum, can, and tube making machines........................................... |  | (X) | 32,890 | (X) | 19,025 |
|  | Rebuilt pulp- and paper-industries machinery: Rebuilt paper machines including fourdriniers, yankees, |  |  |  |  |  |
|  | Rebuilt paper machines including fourdriniers, yankees, cylinders, and forming machines....................................... |  | (X) |  | (X) | 16,872 |
| 3554075 | Other rebuilt pulp- and paper-industries machinery................. |  | (X) | 1,973 | (X) | 3,257 |
| 3554081 | Parts and attachments for pulp mill, paper mill, and paper converting machinery and equipment (sold separately) |  | (X) | 44,851 | (x) | 43,329 |
| 3554000 | tries machinery, |  | (X) | 8,429 | (X) | 14,195 |

See footnotes at end of table.

# table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 



[^183]
# table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 



- Represents zero, (NA) Not available. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
(X) Not applicable.
${ }^{1}$ Figures for "Butter, cheese, dry milk and ice cream packaging machines" and "Uncasers and casers" are included with "Other dairy and milk products processing plant machinery and equipment.
${ }^{2}$ Includes power-driven machines for use by hotels, restaurants, institutions, meat markets, butcher shops, food-product stores, and similar commercial organizations.
${ }^{3}$ For combination slicing and wrapping machines the number and value of slicing units are included with slicing machines and the number and value of wrapping units with wrapping machines.
${ }_{5}{ }_{5}$ For 1958 "Labeling machines" are included with "Other food bottling machinery, except dairy."
${ }^{5}$ Figures for "Uncasers and casers" are included with "Carbonators and other food bottling machinery, except dairy."
${ }^{6}$ Data for combing machines (product code 3552132) are included with data for other fiber-to-fabric machinery (product code 3552155).
${ }^{7}$ Data for power looms (product codes 3552164 and 3552168 ) are included with data for other fabric machinery (product code 3552184).
${ }^{8}$ Some equipment in this product class may be leased rather than sold outright. For leased equipment, estimates of the value of products produced were reported. These estimates approximate the value of the products had they been sold outright and are based on market values of the products, tax or insurance valuations, etc.
table 6B. Product Classes-Indexes of Production and
Unit Value for Primary Products, Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 355 | Special industry machinery ${ }^{1}$. $\ldots$................... ${ }^{\text {1963.. }} 19$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3551 | Food products machinery ${ }^{1}$............................... ${ }^{\text {. }}$ 1963.. ${ }^{\text {1958. }}$ | $\left(\begin{array}{l}1 \\ (1) \\ \hline\end{array}\right.$ | $(1)$ |
| 35512 | Commercial food products machinery................. $1963 .$. | 98 98 | 136 |
| 3552 |  | (1) | (1) $(1)$ |
| 35521 | Textile machinery...................................... $1963 .$. | 134 83 | 131 120 |
| 3553 | Woodworking machinery......................................... 1963.. 1958. . | 111 | 119 |
| 3554 | Paper industries machinery............................ $1963 .$. | 202 | 98 |
|  | 1958.. | 144 | 111 |
| 3555 | Printing trades machinery............................. $1963 .$. | 141 | 123 |
|  | 1958. . | 118 | 100 |
| 3559 | Special industry machinery ${ }^{1}$.......................... $1963 .$. | $\left({ }^{1}\right)$ | $\left.{ }^{1}{ }^{1}\right)$ |
|  | 1958.. | (1) | ${ }^{1}$ ) |
| 35593 | Plastics-working machinery and equipment..........1963.. | 287 | 126 |
|  | 1958.. | 97 | 139 |

[^184]TABLE 6C. Product Classes-Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962^{1}$ | $1961{ }^{1}$ | $1960^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3551- | Food products machinery. | 517,304 | 500,739 | 460,586 | 458,197 | 435,935 | 399,846 | 371,408 | 335,928 |
| 35511 | Dairy and milk products plant machinery and equipment. | 71,589 | 67, 242 | 60,617 | 59,101 | 61,193 | 64,611 | 81, 267 | 62, 060 |
| 35512 | Commercial food-products machinery......... | 217,638 | 118,415 | 118,838 | 123,670 | 113,371 | 100,980 | 88,158 | 82,256 |
| 35513 | Other industrial food products machinery, including parts and attachments............. | 300,481 | 284, 697 | 257,338 | 251,198 | 234, 234 | 210,790 | 197,517 | 191,612 |
| 35510 | Food products machinery, n.s.k............. | 27,596 | (s) | (s) | (s) | (S) | 23,465 | 4,466 |  |
| 3552- | Textile machinery. | 499,096 | 532,027 | 488,523 | 493,662 | 399,592 | 322,239 | 304,053 | 391,829 |
| 35521 | Textile machinery. | 252,569 | 282,803 | 264,722 | 269,600 | 200,665 | 143,720 | 143,315 | 245,984 |
| $\begin{aligned} & 35522 \\ & 35520 \end{aligned}$ | Parts and sttachments for textile machinery Textile machinery, n.s.k....................... | 232,122 14,405 | 218,270 $(\mathrm{~S})$ | 205,272 | 205,710 (S) | 184,476 | 168,737 9,782 | 160,738 | 141,456 4,389 |
| 3553- | Woodworking machinery. | 220,822 | 203,335 | 171,362 | 179,110 | 186,980 | 174,489 | 163,431 | 151,379 |
| 35531 | Woodworking machines (except home workshop) including parts and attachments............ | 185,987 | 174,054 | 141,845 | 151,415 | 154,699 | 145,078 | 136,208 | 128,853 |
| 35532 | Woodworking machines for home workshop, including parts and attachments........ | 28,990 | 28,646 | 28,374 | 27,086 | 28,432 | 25,685 | 27,223 | 22,526 |
| 33530 | Woodworking machines, n.s.k.. | 5,845 |  | (s) | (s) | (s) | 3,726 |  |  |
| 35540 | Paper industries machinery | 347,552 | 369,810 | 333,801 | 348,447 | 299,676 | 280,106 | 176,172 | 134,713 |
| 3555- | Printing trades machinery. | 403,215 | 399,518 | 365,566 | 352,740 | 301,912 | 273,301 |  |  |
| 35551 | Printing presses................. | 137,602 | 149,972 | 127,655 | 122,600 | 105,963 | 94, 201 | 228,774 | 195,112 |
| 35552 | Other printing trades machinery including parts and attachments.......................... | 243,848 | 217,481 | 209,792 | 204,879 | 167,386 |  |  |  |
| 35550 | Printing-trades machinery, n.s.k............ | 21,765 |  |  |  |  | 23,939 |  |  |
| 3559- | Special industry machinery........ | 988,355 | 1,002,688 | 910,824 | 924,476 | 797,518 | 726, 212 | 604,535 | 462, 202 |
| 35591 | Chemical manufacturing industries machinery | 152,371 | 129, 848 | 141,829 | 137,339 | 104,518 | 118,458 | 102,794 | 87, 375 |
| 35592 | Foundry machinery......................... | 89,569 | 75,886 | 59,460 | 69,811 | 60,509 | 52,639 | 62,480 | 34,431 |
| 35593 | Plastics-working machinery | 137,082 | 113,302 | 91,276 | 91, 264 | 80, 118 | 50,818 | 37,610 | 19,666 |
| 35594 | Rubber-working machinery | 76,759 | 87, 845 | 80,432 | 90,350 | 66,314 | 53,870 | 52,521 | 46,445 |
| 35595 | Other special-industrial machinery......... | 500,225 | 565,768 | 512,428 | 512,025 | 456,546 | 414,691 | 319,968 | 226,133 |
| 35590 | Special industrial machinery, n.s.k. | 32,349 | (s) | (s) | (S) | (s) | 35,736 | 10,269 | 25,674 |

[^185]
# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the disperare not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1963{ }^{1}$ | 1958 |  | $1963{ }^{1}$ | 1958 |  | $1963{ }^{1}$ | 1958 |
| DATRY AND MILK PRODUCTS PLANT MACHINERY AND EQUTPMENT (35511) |  |  | OTHER INDUSTRIAL FOOD PRODUCTS MACHINERY (35513)-Continued |  |  | WOODWORKING MACHINERY (EXCEPT HONE WORKSHOPS) (35531)-Continued |  |  |
| United States, | 71,589 | 64,611 | West North Central. | 22,620 | 20,889 | Middle Atlantic. |  | \% |
| New England................. |  | 1,689 | Minne | $\begin{aligned} & 6,218 \\ & 9,998 \end{aligned}$ | 4,891 | East North Central, ........ |  |  |
|  |  |  | Miss |  | 7,017 |  |  | 4,5237,0802,176 |
| Middle Atlantic <br> New York. <br> Pennsylvania | $\begin{aligned} & 8,64,4 \\ & 5,148 \\ & 3,465 \end{aligned}$ | $\begin{aligned} & 12,539 \\ & 10,84 \end{aligned}$ | South Atlantic. |  |  | Ohio....................... | 10,583 |  |
|  |  |  |  | 34,049 | $\begin{array}{r} 20,833 \\ 10,642 \\ (\mathrm{Z}) \end{array}$ | Indiona. | $\begin{array}{r}3,814 \\ 23,347 \\ \hline\end{array}$ | 2,17617,6196,615 |
|  |  |  | Maryland. | 14,5212,427 |  | Illinois |  |  |
|  |  |  | Virginia |  |  | Michi | 11,122 |  |
| East North Central.......... | 40,152 |  | North Car | 2,412 | ( (z) | Wisco |  | 6,6015 11,033 |
|  | $\begin{aligned} & 40,152 \\ & 15,796 \\ & 12,334 \end{aligned}$ |  | Georgia. | 4,843 | 4,394 |  |  | 3,128$(2)$$(2)$ |
| Wisconsin. . . . . . . . . . . |  | 13,257 | Florida |  |  |  | $\begin{aligned} & 7,066 \\ & 4,715 \\ & 2,351 \end{aligned}$ |  |
|  | $11,621$ | 12,97 | East South | 5,582 | 1,966 |  |  |  |
| South. <br> West $\qquad$ <br> COMMERCIAL FOOD PRODUCTS MACHINERY (35512) | $\begin{aligned} & 3,016 \\ & 6,665 \end{aligned}$ | 2,693 | West South Central Louisiana. Texas. | $\begin{array}{r} 12,579 \\ 1,854 \\ 9,695 \end{array}$ | $\begin{aligned} & 4,198 \\ & 1,380 \end{aligned}$ |  | $\begin{array}{r} 32,746 \\ 2,094 \end{array}$ | 9,374 ${ }_{(2)}$ |
|  |  |  |  |  |  |  |  |  |
|  |  | 1,552 |  |  | $1,478$ | East South Central. Tennessee. Alabama. Mississippi. | $\begin{aligned} & 9,793 \\ & 2,433 \\ & 1,904 \\ & 5,456 \end{aligned}$ |  |
|  |  |  | Mountain. | $\begin{aligned} & 9,695 \\ & 5,217 \end{aligned}$ |  |  |  | 11,1192,867$(2)$$(2)$ |
|  |  |  |  |  | 2,267 |  |  |  |
|  |  |  |  | $\begin{array}{r} 32,821 \\ 1,852 \\ 27,792 \end{array}$ | $\begin{aligned} & 26,158 \\ & 1,165 \\ & 24,209 \end{aligned}$ |  |  |  |
| United States, total | 117,638 | 100,980 |  |  |  |  | 5,692 | ,098 |
| New England..................Massachusetts........... | 5,6493,040 | 7,902 ${ }_{(2)}$ | TEXTILE MACHINERY (35521) |  |  | West. | $\begin{aligned} & 59,350 \\ & \text { 21,380 } \end{aligned}$ | $\begin{aligned} & 44,024 \\ & 13,355 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |
| Midale Atlantic <br> New York. <br> New Jersey. <br> Pennsylvania. | $\begin{array}{r} 20,289 \\ 11,1,014 \\ 1,557 \\ 7,718 \end{array}$ | $\begin{array}{r} 15,303 \\ 5,748 \\ 1,7727 \\ 7,828 \end{array}$ | United States, | 252 | 143,720 | PRINTING PRESSES (35551) |  |  |
|  |  |  |  | $\begin{array}{r} 100,826 \\ 74,378 \\ 15,216 \end{array}$ |  |  |  |  |  |  |
|  |  |  | $\begin{array}{\|l} \text { New England.................... } \\ \quad \text { Massachusetts............ } \\ \text { Rhode Island............... } \end{array}$ |  | $\begin{aligned} & 70,788 \\ & 33,519 \\ & 10,580 \end{aligned}$ | United States, | 137,602 | 4,2 |
|  |  |  |  |  |  |  |  |  |
| East North Central. <br> Ohio. <br> Indiana. . <br> Illinois. <br> Michigan. <br> Wisconsin. | $\begin{array}{r} 65,775 \\ 27,952 \\ 7,785 \\ 11,777 \\ 15,772 \\ 3,189 \end{array}$ | $\begin{array}{r} 56,550 \\ 20,65 \\ 5,882 \\ 15,101 \\ 11,633 \\ 3,269 \end{array}$ | Middle Atlantic <br> New York. <br> New Jersey. <br> Pennsylvania. . | $\begin{aligned} & 57,809 \\ & 14.123 \\ & 10,699 \\ & 32,987 \end{aligned}$ | 35,032 | New England | ,7 | 530 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 9,168 | Midale Atla | 31,794 | 07 |
|  |  |  |  |  | 6,687 | New York | 12,419 |  |
|  |  |  |  |  | 19,177 | New Jersey | 9,859 | 7,441 |
|  |  |  |  |  |  | Pennsylv | 9,516 |  |
| West North | $\begin{aligned} & 2,333 \\ & 3,507 \end{aligned}$ | $\begin{aligned} & 6,934 \\ & 1,376 \\ & 2,853 \end{aligned}$ | Nor |  |  | North Central Wisconsin. | $\begin{array}{r} 80,700 \\ 3,220 \end{array}$ | \} 49,064 |
| Minnesota. |  |  | South and West. | 82,383 | 28,727 |  |  |  |
| Missouri |  |  | North Carolin South Carolin | 34,481 32,735 | 13,344 7,428 | East South Central. . | 5,444 |  |
| South Atlantic | 6,438 | 4,31 | Georgia........ | 9,829 | 3,886 |  |  |  |
|  |  |  |  |  |  | st. | 4,959 |  |
| East South Ce | 288 | 1,57 | PARTS AND ATTACHENTS FOR TEXTILE MACHINERY (35522) |  |  | OTHER PRTNTTNG TRADES <br> MACHINERY, INCLUDING PARTS <br> AND ATTACHMENTS (35552) |  |  |
| West South C | 2,316 |  |  |  | 168,737 |  |  |  |
| Texas..... |  |  |  | 232,12 |  |  |  |  |
| West. California | $\begin{aligned} & 7,901 \\ & 6,614 \end{aligned}$ | 6,8305,546 |  | $\begin{array}{r} 93,547 \\ 1,776 \\ 1,298 \\ 61,356 \\ 20,593 \end{array}$ | $\begin{array}{r} 75,009 \\ 7,169 \\ 1,802 \\ 49,532 \\ 8,349 \end{array}$ | United States, tot | 243,848 | 155,662 |
|  |  |  |  |  |  | New England. Massachusetts. Connecticut | 26,18816,4307,515 | $\begin{gathered} 14,830 \\ 9,209 \\ (2) \end{gathered}$ |
|  |  |  |  |  |  |  |  |  |
| OTHER INDUSTRIAL FOOD |  |  |  |  |  |  |  |  |
| PRODUC |  |  | Middle Atlantic. <br> New York. New Jersey Pennsylvania | $\begin{array}{r} 43,373 \\ 3,575 \\ 127,162 \\ 27,636 \end{array}$ |  |  | $\begin{gathered} 112,118 \\ 63,626 \\ 28,104 \\ 20,388 \end{gathered}$ | $\begin{aligned} & 78,809 \\ & 4,787 \\ & 19,161 \\ & 11,861 \end{aligned}$ |
|  | 300 | 210 |  |  | $\begin{array}{r} 33,653 \\ 2,752 \\ 10,409 \\ 20,492 \end{array}$ |  |  |  |
| United States, |  |  |  |  |  |  |  |  |
| New England..............Massachusetts....... | 31,98822,931 | $\begin{aligned} & 24,706 \\ & 17,882 \end{aligned}$ |  |  |  |  |  |  |
|  |  |  | North Central.......... | 14,269 | 6,088 |  | 73,15120,100 | 49,221 |
| Middle Atlantic <br> New York. New Jersey. Pennsylvania. | $\begin{array}{r} 46,418 \\ 22,580 \\ 7,020 \\ 16,818 \end{array}$ | $\begin{array}{r} 39,886 \\ 20,476 \\ 3,081 \\ 16,329 \end{array}$ | South and West. North Carolina South Carolina Georgia. | $\begin{aligned} & 80,933 \\ & 30,822 \\ & 38,279 \end{aligned}$ | $\begin{array}{r} 53,987 \\ 2,316 \\ 23,519 \\ 7,677 \end{array}$ |  |  | 28,4924,388$\left({ }^{(2)}\right.$ |
|  |  |  |  |  |  | Illinois. <br> Michigan. <br> Wisconsin | $\begin{array}{r} 40,697 \\ 8,396 \\ 3,785 \end{array}$ |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  | 7,906 |  |  |  |  |
| East North C | $\begin{array}{r} 109,207 \\ 31,260 \\ 6,776 \\ 41,945 \\ 4,940 \\ 24,284 \end{array}$ | $\begin{array}{r} 69,887 \\ 15,730 \\ 4,584 \\ 27,512 \\ 3,5120 \\ 18,289 \end{array}$ | WOODWORKING MACHINERY <br> (EXCEPT HONE WORKSHOPS) <br> (35531) <br> United States, total...... <br> New England. <br> Massachusetts. | $\begin{array}{r} 185,987 \\ 4,825 \\ 3,265 \end{array}$ |  | West North Central. Missouri <br> South. <br> Pacific. Califormia. | $\begin{array}{r} 11,471 \\ 8,206 \\ 12,442 \\ 8,478 \\ 7,784 \end{array}$ | $\begin{aligned} & \text { 2, (Z) } \\ & 5,903 \\ & 5,95 \\ & 4,558 \\ & 4,468 \end{aligned}$ |
| Ohio. |  |  |  |  | $\begin{array}{r} 145,078 \\ 12,962 \\ 5,863 \end{array}$ |  |  |  |
| Indiana. |  |  |  |  |  |  |  |  |
| Illinois |  |  |  |  |  |  |  |  |
| Michigan. Wisconsin |  |  |  |  |  |  |  |  |

## TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments $1963^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1963{ }^{1}$ | 1958 |  | $1963{ }^{1}$ | 1958 |  |  |
| CHEMICAL MANUFACTURING INDUSTRIES MACHINERY AND EQUIPMENT (35591) |  |  | PLASTICS-WORKING MACHINERY AND EQUIPMENT EXCLUDING PATTERNS AND MOLDS (35593) |  |  | OTHER SPECIAL INDUSTRY MACHINERY AND EQUIPMENT (35595) |  |
|  |  |  |  |  |  | United States, total. | 500,225 |
| United States, total....... | 152,371 | 118,458 | United States, total...... | 137,082 | 50,818 | New England. Maine..... | $\begin{array}{r} 61,574 \\ 2,565 \end{array}$ |
| New England................... | 8,691 | 7,907 | New England. . . . . . . . . . . . . . .Massachusetts. . . . . . . . . . . <br> Connecticut. . . . . . . | $\begin{aligned} & 43,914 \\ & 14,244 \\ & 16,484 \end{aligned}$ | $\begin{array}{r} 18,203 \\ 6,918 \\ 6,333 \end{array}$ | Massachusetts | 43,300 |
|  |  |  |  |  |  | Connecticut. | 12,904 |
| Middle Atlantic................. <br> New York. . <br> New Jersey. <br> Pennsylvania. | $\begin{aligned} & 67,689 \\ & 25,222 \\ & 17,652 \\ & 24,815 \end{aligned}$ | $\begin{aligned} & 56,507 \\ & 19,946 \\ & 11,522 \\ & 25,039 \end{aligned}$ |  |  |  | Middle Atlantic. | 134,281 |
|  |  |  | Middle Atlantic. .............. <br> New York.................... <br> New Jersey............... <br> Pennsylvania. ............. | 36,024 |  | New York. | 33,088 44,565 |
|  |  |  |  | 4,776 | 3,195 | New Jersey................ | 44,565 56,628 |
|  |  |  |  | 24,695 | 6,665 | East North Central......... |  |
| North Central.................. | 44,285 |  |  | 6,553 | 2,331 |  | $\begin{array}{r} 159,297 \\ 33,281 \end{array}$ |
| Ohio...... | $\begin{aligned} & 23,531 \\ & 12,960 \end{aligned}$ | 16,228 | Pennsylvania. | 52,485 | 18,733 | Ohio. <br> Indiana | 16,698 |
| Illinois. | $\begin{array}{r} 12,960 \\ 5,456 \end{array}$ | $\begin{array}{r} 10,530 \\ 3,488 \end{array}$ | Ohio. Michigan. | $\begin{array}{r} 34,455 \\ 5,354 \end{array}$ | $\begin{array}{r} 14,285 \\ 1,637 \end{array}$ | Il1inois.................. | 42,065 |
| Michigan..................... |  |  |  |  |  | Michigan. ................. | 51,246 |
| South and West. | $\begin{array}{r} 31,706 \\ 2,228 \end{array}$ | $\begin{array}{r} 22,689 \\ 3,167 \end{array}$ | Wisconsin.................. | 2,030 | (z) | Wiscons | 16,007 |
| California.............. |  |  | South and West <br> Califormia. | $\begin{aligned} & 4,661 \\ & 1,949 \end{aligned}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 1.208 \end{array}$ | West North Central......... | 23,823 |
|  |  |  |  |  |  | Minnesota. | 7,935 |
| FOUNDRY MACHINERY AND |  |  |  |  |  | Kans | 4,957 |
| EQUIPMENT, EXCLJDING PATTERNS AND MOLDS (35592) |  |  | RUBBER-WORKING MACHINERY AND EQUTPMENT, EXCLUDING TIRE MOLDS ( 35594 ) |  |  | South Atlantic | 27,329 5,074 |
|  |  |  |  |  |  | Maryland.... <br> North Carolin | 5,074 7,405 |
| United States, total....... | 89,569 | 52,639 | United States, total...... |  |  | Georgia. | 7,015 |
|  |  |  |  | 76,759 | 54,095 | Florida.................. | 1,760 |
| Northeast.........................Pennsylvania................ | $\begin{aligned} & 9,078 \\ & 7,809 \end{aligned}$ | $\begin{aligned} & 4,098 \\ & 3,353 \end{aligned}$ |  |  | 13,938 | East South Central.......... Kentucky. | 16,086 |
|  |  |  |  | 15,340 |  |  | 5,601 |
|  |  |  |  | 2,163 | (z) | West South Central......... | 43,389 |
| North Central. . . . . . . . . . . . . | 63,72318,913 | 38,137 |  | 3,204 | 2,439 | Louisiana. . . . . . . . . . . . . | 3,763 |
| Ohio.. |  | 13,282 | East North Central........... Ohio. $\qquad$ | $\begin{aligned} & 49,760 \\ & 46,558 \end{aligned}$ | $\begin{aligned} & 27,056 \\ & 23,526 \end{aligned}$ | Texas. | 4,056 |
| Illinois. | 16,514 |  |  |  |  |  | 35,057 |
| Michigan.................... | $\begin{aligned} & 8,735 \\ & 4,857 \end{aligned}$ | $(2)$3,760 | West North Central........... |  | 1,250 |  |  |
| Wisconsin. ................... |  |  |  | 1,076 |  | West. | 34,446 |
| South and West. | 16,768 | 10,404 | South and West. <br> Cali fornia. | $\begin{array}{r} 10,583 \\ 8,232 \end{array}$ | $\begin{aligned} & 11,851 \\ & 10,035 \end{aligned}$ | Oregon...... California. | 7,885 5,356 |
| California. | 3,953 |  |  |  |  |  | 20,343 |

( $Z$ ) Less than $\$ 1$ million reported.
${ }^{1}$ For the specific product classes, shipments of $\$ 1$ million or more were reported for the states listed, but the exact figures are withheld to avoid disclosures of individual company figures: 35511, Ohio, Michigan, Minnesota, Iowa, Missouri, and Virginia; 35512, Connecticut, Kansas, Virginia, Georgia, and Kentucky; 35513, Connecticut, Kansas, Kentucky, Colorado, and Oregon; 35521, Maine, New Hampshire, Ohio, Illinois, and Tennessee; 35522, New Hompshire, Ohio, Illinois, Michigan, and Tennessee; 35531, New Hampshire, New York, New Jersey, North Carolina, South Carolina, Louisiana, Texas, Washington, and California; 35551, New Hampshire, Massachusetts, Connecticut, Ohio, Illinois, Michigan, Missouri, Kansas, Kentucky, Texas, New Mexico, and California; 35552, Rhode Island, Kansas, Virginia, North Carolina, and Kentucky; 35591, Massachusetts, Connecticut, Delaware, Maryland, Virginia, North Carolina, Kentucky, Tennessee, and Texas; 35592, Indiana and Maryland; 35593, New Hampshire and Indiana; 35594, Connecticut, New Jersey, Indiana, and North Carolina; 35595, Rhode Island, Missouri, Delaware, Virginia, and Alaska.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.
table 7A. Materials by Kind: 1963 and 1958


[^186]
## TABLE 7A. Materials by Kind: 1963 and 1958-Continued



[^187]
## table 7A. Materials by Kind: 1963 and 1958-Continued



See footnotes at end of table.

## table 7A. Materials by Kind: 1963 and 1958-Continued



## table 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost <br> $(\$ 1,000)$ | Quantity | Delivered cost $(\$ 1,000)$ |
|  |  |  | INDUSTRY $3559 .-$ SPECIAL INDUSTRY MACHINES,N.E.C. -Continued |  |  |  |
|  | Castings (rough and semi-finished): ${ }^{1}$ |  |  |  |  |  |
| 332011 | Iron (gray and malleable). | Short tons. | 33,358 | 14,254 | 24,717 | 8,230 |
| 332300 | Steel....... | ...do... | 19,815 | 11,767 | 14.361 | 8,224 |
| 336100 | Aluminum and aluminum-base alloy.................................... | 1,000 lbs | 3,861 | 3,299 | 2,615 | 2,641 |
| 336200 | Copper and copper-base alloy........................................ | . . .do. | 1,962 | 2,005 | 2,152 | 1,644 |
|  | Electrical motors and generators: ${ }^{1}$ |  |  |  |  |  |
| 362115 | Fractional horsepower electric motors (under l hp.) (excluding timing motors) $\qquad$ | Number. | 53,466 | 2,124 | 40,161 | 1,500 |
| 362120 | Integral horsepower motors and generators (1 hp. and over)....... | ...do. | 51,116 | 11,211 | 24,197 | 6,633 |
|  | Bearings: |  |  |  |  |  |
| $\begin{aligned} & 356218 \\ & 356228 \end{aligned}$ | Ball......... |  | (X) | 3,003 | \} (X) | 3,824 |
| 970099 | All other materials and components, parts, containers, and supplies consumed. |  | (X) | 178,360 | (X) | 139,918 |
| 976000 | Materials, etc., n.s.k. ${ }^{2}$. ............................................... |  | (X) | 59,138 | (X) | 31,828 |

(D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
n.s.k. Not specified by kind.
(X) Not applicable. In addition, the following quantities were produced and consumed at the same establishment:

| Code | Item | Unit of measure | $\begin{aligned} & \text { Industry } \\ & 3551 \end{aligned}$ | $\begin{aligned} & \text { Industry } \\ & 3552 \end{aligned}$ |  | $\begin{aligned} & \text { Industry } \\ & 3553 \end{aligned}$ |  | $\begin{aligned} & \text { Industry } \\ & 3554 \end{aligned}$ |  | Industry <br> 35551963 | $\begin{gathered} \text { Industry } \\ 3559 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 | 1963 | 1958 | 1963 | 1958 | 1963 | 1958 |  | 1963 | 1958 |
| 332011 | Castings (rough and semi-finished): <br> Iron (gray and malleable) |  |  |  |  |  |  |  |  |  |  |  |
| 332300 | Iron (gray and malleable)........................ Steel | Short tons | 4,871 | 6,118 | 2,348 (NA) | 11,118 1,191 | 4,187 (NA) | 31, 351 | 33,491 (NA) | 3,281 (NA) | 12,773 134 | 17,135 (NA) |
| 336100 | Aluminum and aluminum-base alioy | 1,000 ibs. | 338 | 419 | (NA) | (D) | (NA) | (D) | (NA) | 92 | 1,640 | (NA) |
| 336200 | Copper and copper-base alloy. | ...do.... | (D) | (NA) | (NA) | (D) | (NA) | (D) | (NA) | (D) | - 173 | (NA) |
|  | Electric motors and generators: |  |  |  |  |  |  |  |  |  |  |  |
| 362115 | Fractional horsepower electric motors (under 1 hp.$)$ (excluding timing motors)............ | Number. . . . | (D) | (NA) | (NA) | (D) | (NA) | (NA) | (NA) | 533 | 208 | (NA) |
| 362120 | Integral horsepower motors and generators ( 1 hp . and over) | .do. | (D) | 45 | (NA) | (D) | (NA) | (D) | (NA) | (D) | (D) | (NA) |

Data for iron and steel forgings and timing motors synchronous and subsynchronous for industry 3553 are withheld to avoid disclosing figures for individual companies.
${ }^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested, and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

## table 7B. Fuels and Electric Energy Consumed, and Horsepower Rating of Power Equipment: 1962

| Item | Food products machinery (SIC 3551) | Textile machinery (SIC 3552) | Woodworking machinery (SIC 3553) | Paper industries machinery (SIC 3554) | Painting trades machinery (SIC 3555) | Special industry machines, n.e.c. (SIC 3559) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy.......... $\$ 1,000$. | 4,835 | 5,716 | 1,816 | 3,263 | 3,103 | 8,513 |
| Total cost of purchased fuels...............................do.... | 1,896 | 2,750 | 703 | 1,404 | 1,134 | 3,579 |
| Bituminous coal, lignite, and anthracite: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 000 short tons. . <br> Cost. | (S) | 52 571 | (S) (S) | (S) | (S) | 13 125 |
| Coke and breeze: |  |  |  |  |  |  |
|  | (S) | 4 120 | (S) | (S) | (S) | 7 216 |
| Fuel oil (distillate and residual): <br> Quantity............................ 1,000 barrels of 42 gallons.. <br> Cost. $\qquad$ | 133 550 | 448 1,419 | 28 106 | 137 546 | 166 671 | $\begin{array}{r} 316 \\ 1,135 \end{array}$ |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |
| Quantity.........................................mitlion cu. ft.. | 829 | 642 | 486 | 650 | 433 | 2,232 |
| Cost. ....................................................... . $\$ 1,000$. . | 638 | 398 | 307 | 465 | 316 | 1,401 |
| Other fuels......................................................do.... | 527 | 242 | 61 | 182 | 73 | 702 |
| Electric energy: |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |
| Quantity............................................................... Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. | 155 2,939 | 206 2,966 | 90 1,113 | 136 1,859 | 109 1,969 | 295 4,934 |
| Generated less sold............................million kw.-hrs.. | (S) | 21 | - | (S) | - | 10 |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total..........1,000 hp.. | 138 | 182 | 44 | 122 | 109 | 275 |
| Prime movers, total............................................. do.... | 8 | 23 | 3 | 11 | 3 | 28 |
|  | 3 | 18 | 1 | 2 | 2 | 16 |
| Not driving generators....................................... . . . . . . . | 5 | 5 | 2 | 9 | 1 | 12 |
| Electric motors, total................................................. | 130 | 178 | 42 | 112 | 107 | 257 |
| Driven by purchased energy.................................do.... | 130 | 159 | 42 | 112 | 106 | 246 |
| Driven by energy generated at establishment..............do.... | (Z) | 19 | - |  | 1 | 11 |
| Aggregate horsepower per 100 production workers..................... | 636 | 660 | 484 | 920 | 659 | 809 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1) -6.
-Represents zero. (Z) Less than 500 hp .
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); cost of fuel less than $\$ 50$ thousand; quantity of electric energy less than 5 million kw.-hrs.; to avoid disclosing figures of individual companies; or on the basis of a general consistency review.
n.e.c. Not elsewhere classified.

# table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3554- | PAPER INDUSTRIES MACHINERY |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. Establishments with-- | 217 | 18,605 | 130,614 | 12,914 | 27,233 | 82,299 | 217,475 | 196,467 | 403,925 | 10,349 |
|  | 90\% or more specialization.. 75-89\% specialization....... | $\begin{array}{r} 181 \\ 10 \end{array}$ | $\begin{array}{r}13,135 \\ \hline 756\end{array}$ | $\begin{array}{r} 93,668 \\ 6,041 \end{array}$ | $\begin{array}{r} 9,490 \\ 506 \end{array}$ | 19,551 1,244 | $\begin{array}{r} 62,067 \\ 3,677 \end{array}$ | $\begin{array}{r} 154,075 \\ 10,066 \end{array}$ | $\begin{array}{r} 153,916 \\ 7,226 \end{array}$ | $\begin{array}{r} 299,595 \\ 16,763 \end{array}$ | $\begin{array}{r} 7,095 \\ 370 \end{array}$ |
| 3555- | PRINTING TRADES MACHINERY |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with-- | 490 | 22,952 | 159,407 | 16,437 | 34,269 | 104,446 | 285,879 | 170,723 | 448,398 | 8,911 |
|  | 90\% or more specialization. . 75-89\% specialization........ | $\begin{array}{r} 438 \\ 16 \end{array}$ | 19,290 2,275 | $\begin{array}{r} 135,057 \\ 14,715 \end{array}$ | 13,637 1,770 | 28,427 3,473 | $\begin{aligned} & 87,256 \\ & 10,840 \end{aligned}$ | 240,067 30,706 | $\begin{array}{r} 144,871 \\ 17,325 \end{array}$ | 375,686 49,012 | 7,763 966 |
| 35551 | $\begin{aligned} & \text { Printing presses (primary product } \\ & \text { class of estab.)............................. } \end{aligned}$ | 44 | 9,404 | 69,378 | 6,618 | 14,126 | 45,831 | 115,642 | 75,054 | 186,645 | 4,459 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | 26 5 | 3,320 3,059 | 22,938 23,149 | 2,435 2,201 | 5,124 4,525 | $\begin{aligned} & 16,033 \\ & 15,772 \end{aligned}$ | $\begin{aligned} & 42,565 \\ & 32,753 \end{aligned}$ | $\begin{aligned} & 22,034 \\ & 20,326 \end{aligned}$ | $\begin{aligned} & 63,103 \\ & 50,724 \end{aligned}$ | $\begin{aligned} & 1,405 \\ & 1,634 \end{aligned}$ |
| 35552 | Other printing trades machinery including parts and attachments (primary product class of estab.) Establishments with-- | 206 | 12,352 | 83,197 | 8,955 | 18,399 | 53,784 | 157,011 | 88, 889 | 240,730 | 4,048 |
|  | 90\% or more specialization.... <br> 75-89\% specialization.......... | $\begin{array}{r} 158 \\ 20 \end{array}$ | $\begin{aligned} & 8,115 \\ & 2,102 \end{aligned}$ | $\begin{aligned} & 55,001 \\ & 14,194 \end{aligned}$ | $\begin{aligned} & 5,829 \\ & 1,653 \end{aligned}$ | 11,898 3,296 | $\begin{aligned} & 35,096 \\ & 10,274 \end{aligned}$ | $\begin{array}{r} 100,938 \\ 31,252 \end{array}$ | $\begin{aligned} & 53,573 \\ & 17,067 \end{aligned}$ | $\begin{array}{r} 149,667 \\ 49,128 \end{array}$ | $\begin{array}{r} 2,482 \\ 920 \end{array}$ |
| 3559- | SPECIAL INDUSTRY MACHINES N.E.C... |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with-- | 1,092 | 50,226 | 330,127 | 34,063 | 70,932 | 199,400 | 572,236 | 433,933 | 1,015,014 | 22,533 |
|  | $90 \%$ or more specialization.. 75-89\% specialization....... | $\begin{array}{r} 887 \\ 48 \end{array}$ | 28,448 5,082 | 183,519 35,493 | 19,439 3,121 | 40,478 6,454 | $\begin{array}{r} 109,696 \\ 19,768 \end{array}$ | $\begin{array}{r} 320,304 \\ 58,756 \end{array}$ | $\begin{array}{r} 271,330 \\ 44,799 \end{array}$ | $\begin{aligned} & 592,861 \\ & 102,676 \end{aligned}$ | $\begin{array}{r} 14,329 \\ 1,838 \end{array}$ |
| 35591 | ```Chemical manufacturing industries machinery (primary product class of estab.)........................... Establishments with--``` | 79 | 7,629 | 52,163 | 4,737 | 9,869 | 28,113 | 87,577 | 62,627 | 149,732 | 2,906 |
|  | 90\% or more specialization.... <br> 75-89\% specialization. ......... | $\begin{aligned} & 43 \\ & 10 \end{aligned}$ | 1,652 1,291 | 13,774 9,435 | 1,074 677 | 2,195 | 6,905 4,243 | $\begin{aligned} & 20,882 \\ & 16,032 \end{aligned}$ | $\begin{aligned} & 18,363 \\ & 10,142 \end{aligned}$ | $\begin{aligned} & 37,825 \\ & 26,397 \end{aligned}$ | 801 |
| 35592 | Foundry machinery (primary product class of estab.).................... Establishments with-- | 70 | 5,161 | 35,169 | 3,405 | 7,388 | 20,086 | 65,255 | 44,276 | 109,234 | 1,796 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | 51 8 | $\begin{aligned} & 1,959 \\ & 1,270 \end{aligned}$ | $\begin{array}{r} 13,702 \\ 8,462 \end{array}$ | 1,300 753 | $\begin{aligned} & 2,963 \\ & 1,598 \end{aligned}$ | $\begin{aligned} & 7,748 \\ & 4,319 \end{aligned}$ | $\begin{aligned} & 27,758 \\ & 12,894 \end{aligned}$ | $\begin{aligned} & 17,108 \\ & 13,001 \end{aligned}$ | $\begin{array}{r} 44,622 \\ 25,843 \end{array}$ | 461 396 |
| 35593 | Plastics working machinery (primary product class of estab.).... Establishments with-- | 95 | 7,399 | 52,532 | 4,899 | 10,461 | 31,098 | 92,070 | 72,979 | 163,333 | 3,931 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | $\begin{array}{r} 59 \\ 8 \end{array}$ | 1,842 664 | 12,037 4,615 | $\begin{array}{r}1,187 \\ \hline 86\end{array}$ | 2,529 807 | 6,644 2,503 | 18,381 9,930 | 19,640 9,409 | 38,109 18,884 | 1,292 367 |
| 35594 | Rubber working machinery (primary product class of estab.).......... Establishments with-- | 35 | 3,162 | 21,451 | 2,197 | 4,569 | 14,081 | 37,976 | 37,227 | 76,433 | 1,067 |
|  | $90 \%$ or more specialization.... | 22 | 2,146 | 13,940 | 1,595 | 3,288 | 9,234 | 26,637 | 22,249 | 49,964 | 580 |
| 35595 | Other special industrial machinery (primary product class of estab.) Establishments with-- | 492 | 24,487 | 155,903 | 17,002 | 35,043 | 96,635 | 265,579 | 212,442 | 478,604 | 11,860 |
|  | $90 \%$ or more specialization.... | $375$ | $14,878$ | $91,914$ | $10,215$ | $20,945$ | $56,104$ | $164,216$ | $\begin{array}{r} 135,240 \\ 29,261 \end{array}$ | $\begin{array}{r} 299,429 \\ 62,634 \end{array}$ | 8,068 |
|  | 75-89\% specialization......... | $42$ |  | $22,682$ |  |  | $13,642$ | $31,363$ | $\text { 29, } 261$ | 62,634 | $1,874$ |

n.e.c. Not elsewhere classified.

## table 9. Establishments and Production Workors for Selected Metalworking Operations: 1963



|  | INDUSTRY 3553.-WOODWORKING MACHINERY |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ferrous foundry. | 13 | 4 | 6 | 3 | 310 | 10 | 54 | 246 |
| Nonferrous foundry (except die casting). | 1 | 1 | - | - | (D) | (D) | - | - |
| Nonferrous die casting.... | 3 | 1 | 1 | 1 | 72 | (D) | (D) | (D) |
| Forging........... | 3 | 3 | - | - | 5 | 5 | - | - |
| Electroplating and other plating. | 5 | 1 | 3 | 1 | 89 | (D) | (D) | (D) |
| Heat treating of metals.. | 20 | 17 | 3 | - | 74 | 38 | 36 | - |
| Automatic screw machine department | 17 | 14 | 2 | 1 | 67 | 23 | (D) | (D) |
| Machine shop.. | 119 | 31 | 45 | 43 | 3,274 | 50 | 467 | 2,757 |
| Tool and die shop. | 31 | 20 | 10 | 1 | 247 | 40 | (D) | (D) |
| Foundry pattern shop.. | 18 | 17 | 1 | - | 32 | (D) | (D) | - |
| Plate or structural fabrication. | 51 | 18 | 26 | 7 | 431 | 26 | 242 | 163 |
| Stamping, blanking and forming of metals | 31 | 18 | 12 | 1 | 212 | 27 | (D) | (D) |
| Painting, lacquering and enameling on metals......... | 80 | 70 | 8 | 2 | 219 | 83 | (D) | (D) |

INDUSTRY 3554.-PAPER INDUSTRIES MACHINERY
Ferrous foundry. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
Nonferrous foundry (except die casting).
Heat treating of metals...............
Machine shop..
Tool and die shop.
Foundry pattern shop
Plate or structural fabrication.
Stamping, blanking and forming of metals.
Painting, lacquering and enameling metais

| 11 | 1 | 3 | 7 | 733 | (D) | (D) | 697 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9 | 7 | 1 | 1 | 46 | (D) | (D) | (D) |
| 1 | 1 | - | - | (D) | (D) | - | - |
| 1 | 1 | - | - | (D) | (D) | - | - |
| 102 | 21 | 31 | 50 | 7,779 | 22 | 330 | 7,427 |
| 19 | 10 | 8 | 1 | 105 | 25 | (D) | (D) |
| 25 | 17 | 6 | 2 | 131 | 26 | (D) | (D) |
| 36 | 19 | 9 | 8 | 592 | 29 | 88 | 475 |
| 2 | 2 | - | - | (D) | (D) | - | - |
| 45 | 41 | 4 | - | 84 | 58 | 26 | - |

INDUSTRY 3555.—PRINTING TRADES MACHINERY
Ferrous foundry
Nonferrous foundry (except die casting)
Heat treating of metals...............
Automatic screw machine department.
Machine shop...........................................................................
Tool and die shop.
Foundry pattern shop.
Plate or structural fabrication.
Stamping, blanking and forming of metals.
Painting, lacquering and enameling on metals

\section*{|  |
| :--- |}

See footnotes at end of table.

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963-Continued



Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

| Item | Industry |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3551 | 3552 | 3553 | 3554 | 3555 | 3559 |
| Total number of establishments in the industry........................................... | 681 | 561 | 249 | 217 | 490 | 1,092 |
| Number of establishments which reported one or more of the specified operations......... | 353 | 261 | 143 | 125 | 162 | 537 |
| Percent of industry production workers in these establishments....................... | 80-85 | 80-85 | 90-95 | 90-95 | 80-85 | 85-90 |
| Number of establishments which reported "none" of the operations apply.................... |  |  | 5 | 10 | 54 | 31 |
| Percent of industry production workers in these establishments....................... | 0-5 | 0-5 | 0-5 | 0-5 | 0-5 | 0-5 |
| Percent of industry production workers in establishments which completed metalworking operations inquiry. | 80-85 | 80-85 | 90-95 | 95-100 | 85-90 | 85-90 |

- Represents zero. n.e.c. Not elsewhere classified.
(D) Withheld to avoid disclosing figures for individual companies.
lThese size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.


## gENERAL INDUSTRIAL MACHINERY AND EQUIPMENT

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3561-Pumps, Air and Gas Compressors, and Pumping Equipment<br>3562-Ball and Roller Bearings<br>3564-Blowers, Exhaust and Ventilating Fans<br>3565-Industrial Patterns<br>3566-Mechanical Power Transmission Equipment, Except Ball and Roller Bearings<br>3567-lndustrial Process Furnaces and Ovens<br>3569-General Industrial Machinery and Equipment, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3561 - PUMPS, AIR AND GAS COMPRESSORS, AND PUMPING EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing pumps, compressors, and pumping equipment for general industrial use. Establishments primarily engaged in manufacturing measuring and dispensing pumps for gasoline service station use are classified in industry 3586; and ice making, refrigerating, and air conditioning units in industry 3585 . For a detailed list of products of industry 3561 , refer to table 6A, product codes 3561101 to 3561611 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Pumps and Compressors industry totaled $\$ 1,419$ million. This amount included shipments of pumps and compressors (primary products) valued at $\$ 1,070$ million, shipments of other products (secondary products) valued at $\$ 186$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 163$ million.

This industry's shipments of pumps and compressors represented 85 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary
products shipped by this industry in 1963 include other metal valves and fittings ( $\$ 22$ million), and parts and accessories for internal combustion engines ( $\$ 12$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 29 percent of the total industry shipments are represented by plants specializing in industrial pumps, except fluid power; and 27 percent in air and gas compressors, except refrigeration.

Shipments of pumps and compressors by this industry represented 86 percent of all shipments of these products ( $\$ 1,249$ million) by all industries. In 1958 the coverage ratio was 85 percent. Other industries shipping pumps and compressors (primary products) include industry 3519, Internal Combustion Engines, $\$ 26$ million; and industry 3494, Valves and Pipe Fittings, \$16 million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3561 , e.g., Domestic water systems and pumps, 93 percent; and Hydraulic fluid power pumps and motors, 76 percent.

The production index for the primary products of the industry increased to 147 in 1963 from the 1958 level of 101 . The unit value index for 1963 was 95 compared to 113 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3562-BALL AND ROLLER BEARINGS

This industry comprises establishments primarily engaged in manufacturing ball and roller bearings and parts. Establishments primarily engaged in manufacturing bearings, except ball and roller, are classified in industry 3566. For a detailed list of products of industry 3562 , refer to table 6A, product codes 3562111 to 3562451 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Ball and Roller Bearings Industry totaled $\$ 999$ million. This amount included shipments of ball and rollerbearings (primary products) valued at $\$ 946$ million, shipments of other products (secondary products) valued at $\$ 32$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 21$ million.

This industry's shipments of ball and roller bearings represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent. Secondary products shipped by this industry in 1963 include power transmission equipment ( $\$ 5$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 48 percent of the total industry shipments are represented by plants specializing in roller bearings, complete; and 42 percent in ball bearings, complete.

Shipments of ball and roller bearings by this industry represented 98 percent of all shipments of these products ( $\$ 961$ million) by all industries. In 1958 the coverage ratio was also 98 percent. Other industries shipping ball and roller bearings include industry 3566 , Power Transmission Equipment, $\$ 12$ million.

## 3564—BLOWERS, EXHAUST AND VENTILATING FANS

This industry comprises establishments primarily engaged in manufacturing blowers, and exhaust and ventilating fans for general industrial, commercial, and household use. Establishments primarily engaged in manufacturing complete air conditioning units are classified in industry 3585 , and free air circulating fans for use on desks, pedestals, or wall brackets in industry 3634 . For a detailed list of products of industry 3564 , refer to table 6A, product codes 3564111 to 3564255 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Blowers and Fans Industry totaled $\$ 315$ million. This amount included shipments of blowers and fans (primary products) valued at $\$ 237$ million, shipments of other products (secondary products) valued at $\$ 51$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 28$ million.

This industry's shipments of blowers and fans represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was also 83 percent. Secondary products shipped by this industry in 1963 includes nonelectric heating equipment (\$9 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 69 percent of the total industry shipments are represented by plants specializing in industrial fans and blowers; and 24 percent in dust collection, air purification equipment, and air washers.

Shipments of blowers and fans by this industry represented 79 percent of all shipments of these products ( $\$ 299$ million) by all industries. In 1958 the coverage ratio was also 79 percent. Other industries shipping blowers and fans include industry 3585 , Refrigeration Machinery, $\$ 12$ million; and industry 3444, Sheet Metal Work, $\$ 8$ million.

## 3565-INDUSTRIAL PATTERNS

This industry comprises establishments primarily engaged in manufacturing industrial patterns. For a detailed list of products of industry 3565 , refer to table 6 A , product codes 3565011 to 3565098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Industrial Patterns Industry totaled \$141 million. This amount included shipments of industrial patterns (primary products) valued at $\$ 128$ million, shipments of other products (secondary products) valued at $\$ 6$ million, and miscellaneous receipts at $\$ 7$ million.

This industry's shipments of industrial patterns represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent.

Shipments of industrial patterns by this industry represented 80 percent of all shipments of these products ( $\$ 160$ million) by all industries. In 1958 the coverage ratio was 74 percent. Other industries shipping industrial patterns (primary products) include industry 3321, Gray Iron Foundries, $\$ 10$ million; and industry 3323, Steel Foundries, $\$ 6$ million.

## 3566-MECHANICAL POWER TRANSMISSION EQUIPMENT, EXCEPT BALL AND ROLLER BEARINGS

This industry comprises establishments primarily engaged in manufacturing mechanical power transmission equipment and parts for industrial machinery. Establishments primarily engaged in manufacturing automotive, tank, and tractor power transmission equipment are classified in industry 3714 (census industry 3717); aircraft power transmission equipment in industry 3729; and ball and roller bearings in industry 3562. For a detailed list of products of industry 3566, refer to table 6A, product codes 3566115 to 3566398 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Power Transmission Equipment lndustry totaled $\$ 889$ million. This amount included shipments of power transmission equipment (primary products) valued at $\$ 696$ million, shipments of other products (secondary products) valued at $\$ 130$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 63$ million.

This industry's shipments of mechanical power transmission equipment represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. Secondary products shipped by this industry in 1963 include motor vehicles and parts ( $\$ 30$ million), and conveyors ( $\$ 19$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 37 percent of the total industry shipments are represented by plants specializing in speed changers, industrial high-speed drives and gears.

Shipments of power transmission equipment by this industry represented 79 percent of all shipments of these products ( $\$ 883$ million) by all industries. $\ln 1958$ the coverage ratio was also 79 percent. Other industries shipping mechanical power transmission equipment (primary products) include industry 3717, Motor Vehicles and Parts, \$34 million; and industry 3621, Motors and Generators, $\$ 22$ million.

## 3567-1NDUSTRIAL PROCESS FURNACES AND OVENS

This industry comprises establishments primarily engaged in manufacturing industrial process furnaces, ovens, induction and dielectric heating equipment, and related devices. For a detailed list of products of industry 3567 , refer to table 6 A, product codes 3567111 to 3567391 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Industrial Furnaces and Ovens Industry totaled $\$ 279$ million. This amount included shipments of industrial furnaces and ovens (primary products) valued at $\$ 202$ million, shipments of other products (secondary products) valued at $\$ 40$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 37$ million

This industry's shipments of industrial furnaces and ovens represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 include special industry machines, n.e.c. (\$15 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 41 percent of the total industry shipments are represented by plants specializing in high frequency induction and dielectric heating equipment and 34 percent in fuel-fired industrial furnaces and ovens, metal processing.

Shipments of industrial furnaces and ovens by this industry represented 85 percent of all shipments of these products ( $\$ 238$ million) by all industries. In 1958 the coverage ratio was 83 percent.

The production index for the primary products of the industry increased to 126 in 1963 from the 1958 level of 91 . The unit value index for 1963 was 111 compared to 114 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3569-GENERAL INDUSTR1AL MACHINERY ANDEQUIPMENT, NOT ELSEWHERE CLASSIF1ED

This industry comprises establishments primarily engaged in manufacturing machinery, equipment, and components for general industrial use, and for which no special classification is provided. Machine shops primarily engaged in producing machine and equipment parts, usually on a job or order basis, are classified in industry 3599. For a detailed list of products of industry 3569, refer to table 6A, product codes 3569012 to 3569098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the General lndustry Machines, N.E.C., Industry totaled $\$ 691$ million. This amount included shipments of general industry machines, n.e.c., (primary products) valued at $\$ 463$ million, shipments of other products (secondary products) valued at $\$ 93$ million, and miscellaneous receipts (mainly receipts for research and development) at $\$ 136$ million.

This industry's shipments of general industry machines, n.e.c., represented 83 percent of its total product shipments (primary and secondary). The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 include nonelectric heating equipment ( $\$ 15 \mathrm{million}$ ) and metalworking machines, n.e.c. ( $\$ 8$ million).

Shipments of general industry machines, n.e.c., by this industry represented 70 percent of all shipments of these products ( $\$ 664$ million) by all industries. In 1958 the coverage ratio was 74 percent. Other industries shipping general industry machinery, n.e.c. (primary products) include industry 3559, Special lndustry Machines, N.E.C., $\$ 16$ million; and industry 3599, Miscellaneous Machinery, $\$ 13$ million.

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 <br> employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| 1963.......... | INDUSTRY 3561.-PUMPS AND COMPRESSORS |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 589 | 642 | 267 | 61,322 | 395,769 | 38,934 | 80,825 | 224,721 | 768,787 | 660,549 | 1,419,081 | 28,417 | 85 | 85 |
| $1962^{\text {i }}$ | (NA) | (NA) | (NA) | 61,609 | 383,325 | 38,180 | 78,648 | 214,398 | 681,380 | 601,994 | 1,296,653 | 24,672 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 59,415 | 353,585 | 37,005 | 75,601 | 196,187 | 636,007 | 569,392 | 1,229,662 | 18,480 | (NA) | (NA) |
| 1960 | (NA) | (NA) | (NA) | 62,806 | 360,813 | 39,716 | 80,543 | 206,072 | 674,077 | 603,031 | 1,275,082 | 26,133 | (NA) | (NA) |
| 19592 | (NA) | (NA) | (NA) | 59,398 | 330,516 | 38,134 | 76,380 | 188,592 | 623,976 | 580,712 | 1,207,558 | 23,883 | (NA) | (NA) |
| 1958. | 530 | 582 | 243 | 60,042 | 321,509 | 37,407 | 74,975 | 180,146 | 542,037 | 535,221 | 1,114,053 | 24,678 | 87 | 85 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 62,105 | 317,730 | 40,799 | 83,472 | 188,579 | 589,595 | 518,080 | 1,091,719 | 29,877 | 86 | 83 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 59,507 | 295,413 | 40,505 | 34,206 | 183,524 | 576,470 | 485,832 | 1,029,401 | 25,005 | (NA) | (NA) |
| $1955^{1}$ | (NA) | (NA) | (NA) | 60,562 | 286,231 | 41,152 | 84,353 | 177,358 | 565,597 | 440,767 | 963,036 | 17,967 | (NA) | (NA) |
| 1954 | 463 | 496 | 237 | 60,324 | 272,632 | 41,269 | 82,859 | 168,613 | 495,471 | 460,547 | 974,810 | 18,015 | 82 | 78 |
| 19531 | (NA) | (NA) | (NA) | 61,269 | 273,140 | 42,350 | 90,035 | 181,588 | 481,639 | 440,924 | 922,563 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 60,992 | 260,461 | 42,947 | 91,443 | 175,424 | 475,041 | 410,404 | 885,445 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 58,674 | 237,535 | 41,883 | 89,628 | 160,811 | 407,324 | 393,184 | 800,508 | (NA) | (NA) | (NA) |
| 1950 | (NA) | (NA) | (NA) | 44,016 | 155,104 | 30,500 | 60,740 | 99, 308 | 268,416 | 232,170 | 500,586 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 44,714 | 149,401 | 30,888 | 62,036 | 95,455 | 261,833 | 228, 355 | 490,188 | (NA) | (NA) | (NA) |
| 1947. | 425 | 448 | 237 | 56,142 | 172,857 | 41,413 | 85,505 | 119,763 | 291,658 | 1279,555 | 571,213 | 14,631 | 81 | 85 |
| 1939 | (NA) | 369 | (NA) | (NA) | (NA) | 20,063 | (NA) | 27,480 | 84,780 | 57,034 | 141,814 | (NA) | (NA) | (NA) |
| $1937{ }^{2}$ | (NA) | 310 | (NA) | (NA) | (NA) | 21,668 | (NA) | 30,910 | 83,297 | 60,749 | 144,046 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3562. - BALL AND ROLLER BEARINGS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 . | (N3 | 125 | (93 | 52,316 | 348,700 | 42,003 | 85,970 | 263,022 | 627,694 | 372,267 | 998,784 | 39,243 | ${ }^{97}$ | 98 |
| 1962 | (NA) | (NA) | (NA) | 53,397 | 348,048 | 42,458 | 84,964 | 249,621 | 623,505 | 345,394 | 962,726 | 32,881 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 50,288 | 306,430 | 39,584 | 76,779 | 215,375 | 530,444 | 291,615 | 824,134 | 32,269 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 54,113 | 315,114 | 42,562 | 84,132 | 225,751 | 547,608 | 315,842 | 865,331 | 44,862 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 53,707 | 325,313 | 43,373 | 91,561 | 243,186 | 599,776 | 358,661 | 920,049 | 35,488 | (NA) | (NA) |
| 1958. | 86 | 107 | 81 | 46,439 | 241,160 | 35,757 | 67,323 | 169,117 | 407,744 | 231,314 | 649,640 | 34, 303 | 98 | 98 |
| 1957 | (NA) | (NA) | (NA) | 54,506 | 279,668 | 43,889 | 85,802 | 205,375 | 480,275 | 277,374 | 753,556 | 36,312 | 98 | 97 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 55,441 | 278,613 | 45,166 | 92,745 | 214,101 | 467,706 | 286,762 | 742,120 | 38,528 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 52,650 | 263,527 | 43,185 | 92,678 | 204,922 | 422,846 | 275,876 | 681,119 | 27,452 | (NA) | (NA) |
| 1954. | 83 | 102 | 81 | 49,720 | 214,088 | 39,974 | 78,233 | 159,813 | 329,393 | 207,624 | 543,622 | 27,828 | 98 | 98 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 58,503 | 251,056 | 48,772 | 99,627 | 197,633 | 401,370 | 231,429 | 632,799 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 59,803 | 239,855 | 50,204 | 102,983 | 191,139 | 396,614 | 217,988 | 614,602 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 59,644 | 239,127 | 51,048 | 111,663 | 198,352 | 388,475 | 237,258 | 625,733 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 48,256 | 173,022 | 40,854 | 85,973 | 140,942 | 282, 397 | 171,159 | 453,556 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 42,527 | 132,766 | 35,320 | 67,185 | 103,836 | 213,479 | 121,768 | 335,247 | (NA) | (NA) | (NA) |
| $\begin{aligned} & 1947 . \\ & 1939^{3} . \end{aligned}$ | 78 | 94 | 74 | 52,174 | 153,333 | 45,075 | 91,323 | 125,711 | 259,060 | 106,524 | 365,584 | 21,872 | 94 | 96 |
|  |  | 58 | (NA) | (NA) | (NA) | 19,164 | (NA) | 27,219 | 77,497 | 27,989 | 105,486 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3564. - BLOWERS AND FANS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 225 | 237 | 97 | 15,244 | 94,090 | 10,733 | 21,616 | 57,776 | 180,801 | 135,733 | 315,285 | 6,979 | 83 | 79 |
| $1962{ }^{2}$ | (NA) | (NA) | (NA) | 14,722 | 93,582 | 9,832 | 20,423 | 51,749 | 169,245 | 140,182 | 306,971 | $(7,678)$ | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 14,432 | 88,915 | 9,650 | 19,508 | 49,714 | 155,094 | 131,581 | 286,192 | 5,162 | (NA) | (NA) |
| $1960{ }^{\circ}$ | (NA) | (NA) | (NA) | 14,593 | 88,498 | 9,849 | 19,701 | 49,907 | 153,772 | 125,294 | 280,495 | 5,996 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 15,540 | 88,640 | 10,493 | 21,203 | 50,466 | 154,584 | 132,876 | 285,564 | 4,504 | (NA) | (NA) |
| 1958. | 199 | 207 | 104 | 15,947 | 82,457 | 10,980 | 21,356 | 50,322 | 145,050 | 121,646 | 271,629 | 5,569 | 83 | 79 |
| 1954 | 208 | 214 | 106 | 18,125 | 80,850 | 13,724 | 27,349 | 54,033 | 153,366 | 124,415 | 279,693 | 5,873 | 83 | 76 |
| $1953{ }^{1}$ | (NA) | (NA) |  | 16,384 | 76,098 |  |  |  | 143,384 |  |  | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 14,450 | 63,864 | 10,588 | 22,680 | 42,859 | 124,517 | 74,866 | 199,383 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 15,293 | 63,485 | 11,168 | 23,914 | 41,031 | 121,409 | 75,289 | 196,698 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 12,048 | 43,604 | 8,961 | 20,682 | 28,493 | 78,803 | 55,533 | 134,336 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 12,940 | 44,290 | 10,009 | 20,818 | 29,448 | 80,883 | 55,423 | 136,306 | (NA) | (NA) | (NA) |
| 1947. | 187 | 192 | 93 |  |  | 11,087 | 23,389 | 30,329 | 84,429 | 56,287 | 140,716 | 3,551 | 75 | 78 |
| $\begin{aligned} & 19399^{\circ} \\ & 1937^{\circ} \end{aligned}$ | (NA) | 89 | (NA) | (NA) | (NA) | 4,069 | (NA) | 5,563 | 17,474 | 12,168 | 29,642 | (NA) | (NA) | (NA) |
|  | (NA) | 42 | (NA) | (NA) | (NA) | 3,997 | (NA) | 5,845 | 17,534 | 12,731 | 30,265 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3565.-INDUSTRIAL PATTERNS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 i. | 1,206 | 1,209 | 106 | 9,914 | 75,605 | 8,685 | 17,710 | 64,877 | 112,587 | 29,167 | 140,696 | 3,794 | 96 | 80 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 9,459 | 67,024 | 8,584 | 15,963 | 56,552 | 98,293 | 22,175 | 119,682 | (961) | (NA) | (NA) |
|  | (NA, | (NA) | (NA) | 8,877 | 59,066 | 8,095 | 14,452 | 49,139 | 85,457 | 21,534 | 106,360 | $(1,483)$ | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 9,148 | 63,794 | 8,402 | 15,411 | 53,665 | 93,034 | 22,339 | 116,486 | (S) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 9,430 | 61,4144 | 8,581 | 16,183 | 51,809 | 88,270 | 23,141 | 110,406 | (S) | (NA) | (NA) |
| 19584..... | 1,170 | 1,174 | 96 | 8,870 | 54,746 | 7,683 | 13,950 | 45,370 | 78,108 | 20,726 | 98,343 | 3,214 | 95 | 74 |
|  | INDUSTRY 3566.-POWER TRANSMISSION EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 498 |  | 272 | 46,670 | 303,314 | 34,400 | 71,101 | 203,941 | 555,710 | 345,058 | 888,641 | 26,444 | 84 | 79 |
| $1962{ }^{1}$. | (NA) | (NA) | (NA) | 43,642 | 281,744 | 31,393 | 64,632 | 182,756 | 494,926 | 300, 869 | 787,631 | $(32,026)$ | (x) | (x) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 40,042 | 244,846 | 28,768 | 57,754 | 157,287 | 429,021 | 252,271 | 682,644 | 17,225 | (X) | (X) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 41,829 | 249,780 | 30,324 | 61,371 | 161,757 | 431,082 | 257,050 | 691,915 | 23,021 | (X) | (X) |
| $1959{ }^{\text {² }}$ | (NA) | (NA) | (NA) | 44,186 | 255,613 | 32,248 | 64,551 | 168,433 | 470,903 | 283,326 | 739,948 | 21,908 | (X) | (X) |
| $1958{ }^{4}$ | 449 | 470 | 236 | 41,782 | 226,101 | 29,762 | 57,537 | 143,812 | 384,372 | 230,817 | 630,303 | 26,842 |  | 79 |

[^188]table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted ( $\$ 1,000$ ) | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3567.-INDUSTRTAL FURNACES AND OVENS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 1963 \ldots \ldots \\ & 1962^{1} \ldots \ldots \\ & 1961^{1} \ldots \ldots \\ & 1960^{1} \ldots \ldots \\ & 1999^{1} \ldots \ldots \\ & 1958^{4} \ldots \ldots \end{aligned}$ | 229 | 238 | 93 | 12,118 | 83,738 | 6,782 | 13,963 | 38,731 | 143,009 | 137, 732 | 279,058 | 4,561 | 83 | 85 |
|  | (NA) | (NA) | (NA) | 11,082 | 72,328 | 6,169 | 13,017 | 33,705 | 117,549 | 121,176 | 238,045 | 2,308 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 10,725 | 69,908 | 5,897 | 12,688 | 31,470 | 115,711 | 107,904 | 225,125 | $(2,746)$ | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 11,276 | 70,999 | 6,349 | 13,464 | 33,457 | 124,769 | 129,565 | 259,795 | 2,139 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 10,956 | 65,107 | 6,395 | 13,299 | 31,622 | 114,596 | 113,044 | 222,463 | (S) | (NA) | (NA) |
|  | 197 | 201 | 89 | 10,288 | 57,394 | 5,774 | 11,671 | 26,859 | 96,450 | 101,814 | 204,835 | 2,853 | 85 | 83 |
|  | INDUSTRY 3569.-GENERAL INDUSTRY MACHINES, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 754 | 777 | 277 | 35,559 | 240,816 | 20,332 | 40,869 | 109,354 | 424,084 | 272,709 | 691,280 | 15,102 | 83 | 70 |
| $1962{ }^{1}$. | (NA) | (NA) | (NA) | 33,027 | 219,059 | 19,161 | 36,714 | 92,943 | 284, 354 | 314,938 | 609,430 | $(20,353)$ | (NA) | (NA) |
| $1961{ }^{1}$. | (NA) | (NA) | (NA) | 30,646 | 200,595 | 17,243 | 33,881 | 86,223 | 256,854 | 297,415 | 572,232 | 20,087 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 29,468 | 185,762 | 16,597 | 33,369 | 82,121 | 261,558 | 252,254 | 549,910 | 18,738 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 28,901 | 175,567 | 16,889 | 33,248 | 80,523 | 306,859 | 207,556 | 496,245 | 20,225 | (NA) | (NA) |
| $1958{ }^{4}$. | 568 | 584 | 209 | 28,014 | 159,915 | 16,068 | 31,784 | 75,622 | 281,423 | 189,847 | 458,280 | 17,347 | 87 | 74 |

[^189]TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Vaiue added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| Total........... | INDUSTRY 3561. -PUMPS AND COMPRESSORS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 642 | 267 | 61,322 | 395,769 | 38,934 | 80,825 | 224,721 | 768,787 | 660,549 | 1,419,081 | 28,417 | 60,042 | 542,037 |
| New England..... Massachusetts. | 30 18 | 16 10 | 4,176 2,304 | 26,000 13,631 | 2,523 1,443 | 5,286 3,034 | 14,279 8,257 | 52,413 23,995 | 29,902 16,534 | 82,045 40,894 | 1,754 1,107 | 3,594 1,678 | $\begin{aligned} & 30,682 \\ & 12,766 \end{aligned}$ |
| Massachusetts. | 18 | 10 | 2,304 | 13,631 | 1,443 | 3,034 | 8,257 | 23,995 | 16,534 | 40,894 | 1,107 | 1,678 | $12,766$ |
| Middle Atlantic.... | 124 | 52 | 19,239 | 125,689 | 12,288 | 25,227 | 73,414 | 220,421 | 223,364 | 443,979 | 7,684 | 19,384 | 162,390 |
| New York. . . . . . . . | 40 | 15 | 8,768 | 56,422 | 5,484 | 11,251 | 32,031 | 99,377 | 107,616 | 209,280 | 3,436 | 9,570 | 78,082 |
| New Jersey....... | 39 | 15 | 5,976 | 39,228 | 4,113 | 8,206 | 25,598 | 69,564 | 73,519 | 144, 612 | 2,314 | 5,409 | 45,824 |
| Pennsylvania..... | 45 | 22 | 4,495 | 30,039 | 2,691 | 5,770 | 15,785 | 51,480 | 42,229 | 90,087 | 1,934 | 4,405 | 38,484 |
| East North Central. | 197 | 92 | 22,318 | 146,619 | 14,236 | 29,961 | 82,503 | 286,775 | 221,440 | 500,081 | 11,450 | 24,839 | 226,783 |
| Ohio... | 49 | 27 | 8,965 | 58,214 | 5,650 | 11,675 | 32,810 | 103,966 | 80,829 | 182,139 | 5,040 | 9,004 | 77,768 |
| Indiana.. | 23 | 9 | 2,315 | 13,549 | 1,502 | 3,061 | 7,789 | 27,551 | 25,711 | 52,618 | 1,188 | 2,341 | 21,314 |
| Illinois. | 54 | 25 | 6,252 | 41,543 | 4,012 | 8,976 | 23,775 | 97,633 | 64,645 | 158,403 | 3,044 | 5,751 | 67,708 |
| Michigan. | 37 | 15 | 1,883 | 12,614 | 1,216 | 2,484 | 6,762 | 23,954 | 16,803 | 40,771 | 986 | 4,116 | 24,814 |
| Wisconsin. | 34 | 16 | 2,903 | 20,699 | 1,856 | 3,765 | 11,367 | 33,671 | 33,452 | 66,150 | 1,192 | 3,627 | 35,179 |
| West North Central. | 42 | 18 | 4,067 | 25,198 | 2,725 | 5,522 | 15,667 | 65,397 | 41,826 | 105,623 | 1,502 | 3,001 | 27,788 |
| Iowa..... | 9 | 3 | 812 | 5,079 | 487 | 1,058 | 2,817 | 9,748 | 6,351 | 15,940 | 323 | 662 | 5,523 |
| Missouri. | 9 | 5 | 1,202 | 7,374 | 828 | 1,631 | 4,750 | 14,874 | 15,023 | 29,777 | 216 | 820 | 8,245 |
| South Atlantic..... | 36 | 10 | 698 | 3,392 | 491 | 997 | 2,031 | 7,393 | 5,267 | 12,664 | 491 | 550 | 2,939 |
| Georgia. | 6 | 3 | 373 | 1,812 | 241 | 471 | 924 | 4,090 | 2,517 | 6,580 | 119 | 150 | 1,068 |
| Florida. | 20 | 6 | 272 | 1,347 | 212 | 453 | 958 | 2,894 | 2,236 | 5,164 | 358 | 277 | 1,355 |
| East South Central. | 12 | 3 | 635 | 3,576 | 477 | 1,000 | 2,412 | 5,618 | 5,862 | 11,287 | 395 | 362 | 2,636 |
| West South Central. | 70 | 32 | 3,869 | 22,869 | 2,628 | 5,390 | 12,859 | 51,101 | 50,025 | 100,001 | 2,842 | 2,620 | 27,079 |
| Oklahoma.. | 22 | 13 | 1,517 | 8,933 | 990 | 1,939 | 4,846 | 17,365 | 15,935 | 34,620 | 2,078 | (2) | ${ }^{(2)}$ |
| Texas. | 42 | 16 | 2,073 | 12,647 | 1,438 | 3,076 | 7,306 | 30,739 | 28,253 | 56,762 | 741 | 1,323 | 14,903 |
| Mountain. | 13 | 5 | 448 | 3,084 | 220 | 545 | 1,402 | 7,561 | 9,629 | 17,184 | 86 | 341 | 4,972 |
| Pacific..... | 118 | 39 | 5,872 | 39,342 | 3,356 | 6,897 | 20,154 | 72,108 | 73,234 | 146,217 | 2,213 | 5,351 | 56,768 |
| California. | 111 | 38 | 5,834 | 39,113 | 3,335 | 6,857 | 20,025 | 71,674 | 72,672 | 145,243 | 2,207 | 5,318 | 56,464 |



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


[^190]table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| East North Central-Continued Michigan.......... | INDUSTRY 3567.-INDUSTRIAL FURNACES AND OVENS-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 28 | 10 | 647 | 4,404 | 1,417 | 929 | 2,656 | 7,234 | 9,937 | 17,351 | 126 | ${ }^{2}$ ) | (2) |
| West North Central. Minnesota......... | 10 | 3 2 | 374 261 | $\begin{aligned} & 2,540 \\ & 1,728 \end{aligned}$ | 243 160 | $\begin{aligned} & 504 \\ & 339 \end{aligned}$ | 1,332 965 | 4,764 3,045 | $\begin{aligned} & 3,695 \\ & 3,122 \end{aligned}$ | $\begin{aligned} & 8,451 \\ & 6,158 \end{aligned}$ | $\begin{aligned} & 57 \\ & 40 \end{aligned}$ | $\begin{aligned} & 525 \\ & 341 \end{aligned}$ | $\begin{aligned} & 4,863 \\ & 2,676 \end{aligned}$ |
| South.... | 12 | 2 | 136 | 884 | 103 | 240 | 574 | 1,572 | 1,482 | 3,179 | 229 | 76 | 458 |
| West. California | 40 31 | 11 | $\begin{aligned} & 811 \\ & 619 \end{aligned}$ | 5,416 4,238 | $\begin{aligned} & 522 \\ & 393 \end{aligned}$ | 1,041 | 3,132 2,468 | 7,839 6,248 | 6,809 5,708 | 14,557 11,849 | $\begin{aligned} & 236 \\ & 215 \end{aligned}$ | $\begin{aligned} & 389 \\ & 305 \end{aligned}$ | $\begin{aligned} & 3,514 \\ & 2,689 \end{aligned}$ |
|  | INDUSTRY 3569.-GENERAL INDUSTRY MACHINES, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.. | 777 | 277 | 35,559 | 240,816 | 20,332 | 40,869 | 109,354 | 424,084 | 272,709 | 691,280 | 15,102 | 28,014 | 281,423 |
| New England......... Massachusetts.... Connecticut. $\qquad$ | $\begin{aligned} & 63 \\ & 32 \\ & 25 \end{aligned}$ | $\begin{aligned} & 27 \\ & 14 \\ & 10 \end{aligned}$ | 3,352 836 1,898 | $\begin{array}{r} 20,507 \\ 4,727 \\ 12,343 \end{array}$ | 2,017 514 1,112 | $\begin{aligned} & 4,092 \\ & 1,075 \\ & 2,320 \end{aligned}$ | 10,441 2,710 6,174 | $\begin{array}{r} 55,807 \\ 7,102 \\ 42,806 \end{array}$ | $\begin{array}{r} 24,817 \\ 5,257 \\ 15,134 \end{array}$ | $\begin{aligned} & 80,678 \\ & 12,846 \\ & 57,810 \end{aligned}$ | $\begin{array}{r} 1,653 \\ 144 \\ 1,422 \end{array}$ | $\begin{aligned} & 5,683 \\ & 2,336 \\ & 2,537 \end{aligned}$ | $\begin{aligned} & 48,638 \\ & 21,077 \\ & 20,537 \end{aligned}$ |
| Middle Atlantic.... <br> New York. <br> New Jersey....... <br> Pennsylvania..... | 210 90 59 61 | 78 30 22 26 | 10,080 5,089 1,590 3,401 | 66,751 35,684 9,550 21,517 | 6,001 2,702 1,118 2,181 | 12,159 5,420 2,298 4,441 | 33,923 15,869 5,959 12,095 | 106,091 49,172 19,188 37,731 | 69,466 31,832 12,774 24,860 | 173,192 81,903 32,494 58,795 | 1,579 2,363 460 1,756 | 6,532 3,442 1,474 1,616 | 58,278 28,416 13,719 16,143 |
| East North Central. | 218 | 84 | 9,284 | 59,006 | 6,174 | 12,182 | 33,599 | 107,323 | 71,282 | 180,439 | 3,249 | 7,536 | 76,565 |
| Ohio............. | 61 | 19 | 2,511 | 15,353 | 1,439 | 2,751 | 7,595 | 26,496 | 17,542 | 44,776 | -777 | 2,133 | 20,642 |
| Indiana.......... | 15 | 7 | 1,274 | 8,055 | 901 | 1,697 | 4,435 | 13,196 | 11,364 | 23,586 | 463 | (2) | ${ }^{(2)}$ |
| Illinois......... | 61 | 24 | 1,703 | 11,739 | 1,105 | 2,114 | 6,206 | 23,800 | 12,053 | 35,953 | 634 | 2,834 | 30,076 |
| Michigan......... | 52 | 19 | 2,492 | 15,517 | 1,805 | 3,658 | 10,109 | 26,955 | 16,236 | 44,013 | 1,036 | ${ }^{2}$ ) | ${ }^{(2)}$ |
| Wisconsin........ | 29 | 15 | 1,304 | 8,342 | 924 | 1,962 | 5,254 | 16,876 | 14,087 | 32,111 | 339 | 1,293 | 15,842 |
| West North Central. | 48 | 23 | 1,713 | 9,189 | 1,197 | 2,473 | 5,336 | 19,098 | 15,447 | 34,308 | 912 | 868 | 9,158 |
| Minnesota. | 17 | 10 | 678 | 3,939 | 460 | 920 | 2,125 | 7,602 | 5,801 | 13,220 | 114 | 449 | 3,875 |
| Iowa..... | 8 | 4 | 477 | 2,194 | 361 | 805 | 1,465 | 6,136 | 4,303 | 10,551 | 482 | ${ }^{2}$ ) | (2) |
| Missouri. | 10 | 2 | 114 | , 704 | 86 | 178 | 487 | + 949 | +916 | 1,784 | 31 | $(2)$ <br> $(2)$ | $\left(\begin{array}{l}\text { (2) } \\ (2)\end{array}\right.$ |
| Kansas. | 7 | 4 | 177 | 1,146 | 115 | 261 | 608 | 2,339 | 1,795 | 4,089 | 83 |  | ${ }^{2}$ ) |
| South Atlantic... | 39 | 8 | 686 |  | 502 | 944 | 2,143 | 7,948 | 6,684 |  | 325 |  |  |
| North Carolina... | 7 | 2 | 122 | 548 | 98 | 184 | 319 | 1,520 | 1,077 | 2,570 | 77 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| Florida.. | 13 | 2 | 105 | 638 | 65 | 137 | 321 | 1,443 | 1,268 | 2,632 | 35 | 171 | 1,151 |
| East South Central. Alabama........... | 22 8 8 | 6 1 | $\begin{aligned} & 984 \\ & 108 \end{aligned}$ | $\begin{array}{r} 5,682 \\ 528 \end{array}$ | $\begin{array}{r}715 \\ 84 \\ \hline\end{array}$ | $\begin{array}{r} 1,574 \\ 154 \end{array}$ | $\begin{array}{r} 3,338 \\ 377 \end{array}$ | 10,323 897 | $\begin{array}{r} 10,405 \\ 1,733 \end{array}$ | $\begin{array}{r} 21,132 \\ 2,812 \end{array}$ | $\begin{array}{r} 414 \\ 50 \end{array}$ | $\begin{aligned} & 471 \\ & \left(^{(2)}\right. \end{aligned}$ | $\begin{array}{r} 4,469 \\ \left({ }^{2}\right) \end{array}$ |
| West South Central. Texas. $\qquad$ | $\begin{aligned} & 37 \\ & 25 \end{aligned}$ | 11 | 818 404 | $\begin{aligned} & 4,723 \\ & 2,089 \end{aligned}$ | 500 271 | 1,038 557 | 2,321 1,140 | $\begin{array}{r} 12,237 \\ 5,282 \end{array}$ | $\begin{aligned} & \text { 6,050 } \\ & 2,728 \end{aligned}$ | $\begin{array}{r} 18,144 \\ 7,965 \end{array}$ | 316 176 | $\begin{array}{r} 1,014 \\ 656 \end{array}$ | $\begin{aligned} & 6,522 \\ & 4,018 \end{aligned}$ |
| West......... | 140 | 40 | 8,642 | 71,375 | 3,226 | 6,407 | 18,253 | 105,257 | 68,558 | 169,597 | 3,654 | 4,603 | 64,210 |
| California....... | 120 | 34 | 8,011 | 67,497 | 2,813 | 5,563 | 15,775 | 95,707 | 61,589 | 154,818 | 3,523 | 4,032 | 57,665 |

${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3561, Pumps and Compressors: New England-New Hampshire, 1 (20-99); Rhode Island, 4 (250-499); Connecticut, 7 (1,525); West North CentralMinnesota, 11 (454); South Dakota, l (1-19); Nebraska, 3 (873); Kansas, 9 (500-999); South Atlantic—Delaware, l (1-19); Maryland, 5 (20-99); Virginia, 2 (20-99); West Virginia, 2 (1-19); East South Central—Kentucky, 3 (20-99); Tennessee, 5 (310); Alabama, 1 (100-249); Mississippi, 3 (100-249); West South Central-Arkansas, 3 (261); Louisiana, 3 (1-19); Mountain-Wyoming, 1 (1-19); Colorado, 6 (196); New Mexico, 1 (1-19); Arizona, 2 (20-99); Utah, 2 (100-249); Nevada, 1 (1-19); Pacific-Washington, 3 (1-19); Oregon, 3 (20-99); Hawaii, 1 (1-19).
SIC 3562, Ball and Roller Bearings: New England-New Hampshire, 4 ( $1,000-2,499$ ); Massachusetts, 4 (250-499); Middle Atlantic-New Jersey, 8 (3,959); Pennsylvania, 17 ( 5,127 ); East North Central-Ohio, 9 ( 10,700 ); Indiana, 8 (1,000-2,499); Wisconsin, 1 (20-99); West North Central-Missouri, 1 (1-19); Kansas, l (20-99); South Atlantic-Virginia, 2 (100-249); North Carolina, l (20-99); South Carolina, 4 (455); Florida, l (1-19); East South Central-Tennessee, l (100-249); West South Central-Oklahoma, 2 (250-499).
SIC 3564, Blowers and Fans: New England-Massachusetts, 10 (1,000-2,499); Connecticut, 6 (1,000-2,499); West North Central-Iowa, 1 (1-19); Missouri, 5 (20-99); Kansas, 2 (1-19); South Atlantic-Delaware, 3 (1-19); North Carolina, 2 (20-99); East South Central-Kentucky, 4 (91l); Tennessee, 7 (20-99); Alabama, 2 (100-249); Mississippi, 1 (1-19); West South Central-Arkansas, 1 (20-99); Louisiana, 3 (20-99); Oklahoma, 1 (20-99); Mountain-Colorado, 3 (20-99); Arizona, 3 (1-19); Utah, 1 (1-19); Pacific-Washington, 4 (20-99); Oregon, 1 (1-19).
SIC 3565, Industrial Patterns: New England-Maine, 1 (1-19); New Hampshire, 5 (1-19); Vermont, 1 (1-19); Rhode Island, 9 (20-99); Middle AtlanticNew Jersey, 54 (185); Pennsylvania, 96 (646); East North Central—Ohio, 152 (1,157); Wisconsin, 80 (574); West North Central—Minnesota, 19 (102); Iowa, 8 (20-99); Nebraska, 3 (1-19); Kansas, 10 (20-99); South Atlantic-Delaware, 2 (1-19); Maryland, 4 (20-99); Virginia, 3 (20-99); West Virginia, 3 (20-99); North Carolina, 6 (20-99); South Carolina, 2 (1-19); Georgia, 3 (1-19); Florida, 2 (1-19); East South Central-Kentucky, 6 (1-19); Tennessee, 5 (20-99); West South Central—Louisiana, 2 (1-19); Oklahoma, 8 (20-99); Texas, 20 (1-99); Mountain-Colorado, 9 (20-99); Arizona, 2 (1-19); Utah, 1 (1-19); Pacific-Washington, 9 (20-99); Oregon, 10 (20-99).
SIC 3566, Power Transmission Equipment: New England—Maine, 1 (1-19); Vermont, 2 (20-99); Rhode Island, 2 (20-99); West North Central-Nebraska, 1 (20-99); Kansas, 3 (100-249); South Atlantic—Maryland, 3 (923); South Carolina, 2 (100-249); Georgia, 2 (1-19); Florida, 3 (1-19); East South Central-Kentucky, 2 (250-499); Tennessee, l (20-99); West South Central—Arkansas, 3 (20-99); Oklahoma, 3 (20-99); Mountain-Colorado, 5 (256); Pacific-Washington, 2 (20-99); Oregon, 5 (20-99)
SIC 3567, Industrial Furnaces and Ovens: New England-New Hampshire, 2 (100-249); Rhode Island, 3 (183); Connecticut, 4 (100-249); East North Central-Indiana, 5 (500-999); Wisconsin, 2 (250-499); West North Central-Iowa, l (1-19); Missouri, 3 (100-249); Kansas, 1 (1-19); South Atlantic-Maryland, 1 (1-19); West Virginia, 1 (1-19); North Carolina, 1 (1-19); Florida, 3 (1-19); East South Central-Alabama, 1 (20-99); West South Central-0klahoma, 1 (1-19); Texas, 4 (20-99); Mountain-Colorado, 1 (100-249); Arizona, 1 (1-19); Utah, 1 (1-19); Pacific-Washington, 5 (20-99); Oregon, 1 (1-19).
SIC 3569, General Industry Machines, N.E.C.: New England-Maine, I (100-249); New Hampshire, 2 (250-499); Rhode Island, 3 (177); West North CentralNorth Dakota, 1 (1-19); South Dakota, 2 (100-249); Nebraska, 3 (149); South Atlantic-Delaware, 1 (1-19); Maryland, 7 (20-99); Virginia, 4 (20-99); West Virginia, 2 (20-99); South Carolina, 2 (20-99); Georgia, 3 (238); East South Central-Kentucky, 5 (250-499); Tennessee, 7 (579); Mississippi, 2 (20-99); West South Central-Arkansas, 3 (20-99); Louisiana, 2 (100-249); Oklahoma, 7 (276); Mountain-Colorado, 2 (20-99); Arizona, 1 (20-99); Utah, 4 (329); Pacific-Washington, 7 (166); Oregon, 6 (20-99).
${ }^{\text {This }}$ State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

|  |
| :---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

 in computer operations. See Introduction for an explanation of tems used

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963


[^191](D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
class.

## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shioment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio Col. B <br> Col. B+C <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3561 | Pumps and compressors............ ${ }^{\text {r }}$ 1963.. 1958.. | $\begin{aligned} & 1,419,081 \\ & 1,114,053 \end{aligned}$ | $\begin{array}{r} 1,070,049 \\ 855,661 \end{array}$ | $\begin{aligned} & 185,874 \\ & 128,521 \end{aligned}$ | $\begin{aligned} & 163,158 \\ & 129,871 \end{aligned}$ | $\begin{aligned} & 85 \\ & 87 \end{aligned}$ | $\begin{aligned} & 1,249,219 \\ & 1,015,841 \end{aligned}$ | $\begin{array}{r} 1,070,049 \\ 863,465 \end{array}$ | $\begin{aligned} & 179,170 \\ & 152,376 \end{aligned}$ | 86 85 |
| 3562 | Ball and roller bearings.............1963.. 1958. . | $\begin{aligned} & 998,784 \\ & 649,640 \end{aligned}$ | $\begin{aligned} & 946,318 \\ & 622,896 \end{aligned}$ | $\begin{aligned} & 31,702 \\ & 10,654 \end{aligned}$ | $\begin{aligned} & 20,764 \\ & 16,090 \end{aligned}$ | $\begin{aligned} & 97 \\ & 98 \end{aligned}$ | $\begin{aligned} & 961,032 \\ & 636,777 \end{aligned}$ | $946,318$ $622,896$ | $\begin{aligned} & 14,714 \\ & 13,881 \end{aligned}$ | 98 98 |
| 3564 | $\begin{array}{r} \text { Blowers and fans. . . . . . . . . . . . . . . . } 1963 . . \\ 1958 . \text {. } \end{array}$ | $\begin{aligned} & 315,285 \\ & 271,629 \end{aligned}$ | $\begin{aligned} & 236,709 \\ & 199,295 \end{aligned}$ | $\begin{aligned} & 50,653 \\ & 41,512 \end{aligned}$ | $\begin{aligned} & 27,923 \\ & 30,822 \end{aligned}$ | $\begin{aligned} & 83 \\ & 83 \end{aligned}$ | $\begin{aligned} & 299,385 \\ & 252,899 \end{aligned}$ | $\begin{aligned} & 236,709 \\ & 199,295 \end{aligned}$ | $\begin{aligned} & 62,676 \\ & 53,604 \end{aligned}$ | 79 79 |
| 3565 | Industrial patterns.................... 1963.. | $\begin{array}{r} 140,696 \\ 98,343 \end{array}$ | $\begin{array}{r} 127,669 \\ 90,078 \end{array}$ | $\begin{aligned} & 5,871 \\ & 4,395 \end{aligned}$ | $\begin{aligned} & 7,156 \\ & 3,870 \end{aligned}$ | $\begin{aligned} & 96 \\ & 95 \end{aligned}$ | $\begin{aligned} & 159,896 \\ & 121,279 \end{aligned}$ | $\begin{array}{r} 127,669 \\ 90,078 \end{array}$ | $\begin{aligned} & 32,227 \\ & 31,201 \end{aligned}$ | 80 74 |
| 3566 | Power transmission equipment.......1963.. 1958. . | $\begin{aligned} & 888,641 \\ & 630,303 \end{aligned}$ | $\begin{aligned} & 696,038 \\ & 489,658 \end{aligned}$ | $\begin{array}{r} 129,923 \\ 99,084 \end{array}$ | $\begin{aligned} & 62,680 \\ & 41,561 \end{aligned}$ | $\begin{aligned} & 84 \\ & 83 \end{aligned}$ | $\begin{aligned} & 883,382 \\ & 622,741 \end{aligned}$ | $\begin{aligned} & 696,038 \\ & 489,658 \end{aligned}$ | $\begin{aligned} & 187,344 \\ & 133,083 \end{aligned}$ | 79 79 |
| 3567 | Industrial furnaces and ovens.....1963.. 1958.. | $\begin{aligned} & 279,058 \\ & 204,835 \end{aligned}$ | $\begin{aligned} & 201,778 \\ & 152,831 \end{aligned}$ | $\begin{aligned} & 40,326 \\ & 26,661 \end{aligned}$ | $\begin{aligned} & 36,944 \\ & 25,343 \end{aligned}$ | $\begin{aligned} & 83 \\ & 85 \end{aligned}$ | $\begin{aligned} & 237,660 \\ & 184,845 \end{aligned}$ | $\begin{aligned} & 201,788 \\ & 152,831 \end{aligned}$ | $\begin{aligned} & 35,872 \\ & 32,014 \end{aligned}$ | 85 83 |
| 3569 | General industry machines, n.e.c..1963.. | $\begin{aligned} & 691,280 \\ & 458,280 \end{aligned}$ | $\begin{aligned} & 462,679 \\ & 344,724 \end{aligned}$ | $\begin{aligned} & 92,594 \\ & 52,079 \end{aligned}$ | $\begin{array}{r} 136,007 \\ 61,477 \end{array}$ | $\begin{aligned} & 83 \\ & 87 \end{aligned}$ | $\begin{aligned} & 664,276 \\ & 467,391 \end{aligned}$ | $\begin{aligned} & 462,679 \\ & 344,724 \end{aligned}$ | $\begin{aligned} & 201,597 \\ & 122,667 \end{aligned}$ | 70 <br> 74 |

[^192]
## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

## Prod. class code

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

| Prod. class code | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | General industry machines, n.e.c. (SIC 3569) | $\begin{gathered} \text { Boiler } \\ \text { shop } \\ \text { products } \\ \text { (SIC } 3443 \text { ) } \end{gathered}$ | Valves and pipe fittings (SIC 3494) | Conveyors (SIC 3535) | Food products machinery (SIC 3551) | Special industry machines, п.e.c. (SIC 3559) | Pumps and compressors (SIC 3561) | Miscel- <br> laneous machinery (SIC 3599) | Other industries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37175 | GENERAL INDUSTRY MAChINES, N.E.C., INDUSTRY-Continued <br> Secondary products-Continued |  |  |  |  |  |  |  |  |  |  |
|  | Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers........ Other secondary products.. | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | $\begin{array}{r} 6,461 \\ 1936,635 \end{array}$ | (X) | (X) | $\begin{aligned} & (x) \\ & (X) \end{aligned}$ | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | $\begin{aligned} & (X) \\ & (X) \end{aligned}$ | $\begin{aligned} & (X) \\ & (X) \end{aligned}$ | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{x}) \end{aligned}$ | (X) |
|  | Miscellaneous receipts.. | (x) | 136,007 | (x) | (x) | (x) | (x) | (x) | (x) | (X) | (X) |
|  | Contract work. | (x) | 13,996 | (X) | (x) | (X) | (x) | (x) | (x) | (x) | (x) |
|  | Sales of products bought and resold... | (X) | 28,712 | (X) | (X) | (x) | (X) | (X) | (X) | (x) | (X) |
|  | Receipts for research and development work. ......................................... | (x) | 82,671 | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
|  | Receipts for installation of products.. | (x) | 2,186 | (x) | (x) | (X) | (x) | (x) | (x) | (x) | (x) |
|  | Other miscellaneous receipts.. | (x) | 8,442 | (X) | (x) | (X) | (x) | (X) | (X) | (X) | (X) |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
pplicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind
${ }^{1}$ Includes $\$ 3.9$ million shipped by industry 3494, Valves and Pipe Fittings, $\$ 2.5$ million by industry 3531, Construction Machinery, and $\$ 6.9$ million by industry 3621, Motors and Generators. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3522, Farm Machinery and Equipment; 3561, Promps and Compressors; 3541, Metal-Cutting Machine Tools; 3586, Measuring and Dispensing Pumps; 3589, Service Industry Machines, N.E.C.; and, 3731, Ship Building and Repairing.
${ }^{2}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3494, Valves and Pipe Fittings; 3599, Miscellaneous Machinery; and, 3729, Aircraft Equipment, N.E.C.
${ }^{3}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3443, Boiler Shop Products; 3511, Steam Engines and Turbines; and, 3519, Internal Combustion Engines.

4ncludes $\$ 2.1$ million shipped by industry 3494, Valves and Pipe Fittings; and $\$ 6.7$ million by industry 3533, Oil Field Machinery.
${ }^{5}$ Includes $\$ 3.8$ million shipped by industry 3533, Oil Field Machinery. In addition, the following industries had shipments which totaled $\$ 2$ million million or more but are withheld to avoid disclosing figures for individual companies: 3519, Internal Combustion Engines; 3621, Motors and Generators; 3644, Noncurrent Carrying Devices; and, 3729, Aircraf't Equipment, N.E.C.
${ }^{6}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 30692 , Rubber hose and tubing; 33230, Steel castings; 34336, Other heating equipment (except electric) and parts for nonelectric heating equipment; 35112 , Steam, gas, and hydraulic turbine and parts, steam engines and parts; and 35334, Other oil and gas field machinery and tools (except pumps), including water wells.
${ }^{7}$ Includes the following product classes which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 33620, Copper and copper-base alloy castings; 34990, Fabricated metal products, n.e.c.; 35351, Conveyors and conveying equipment (except hoists and farn elevators); and 37175, Parts and accessories for passenger cars, trucks, and busses, shipped to other than motor vehicle manufacturers.
${ }^{8}$ Includes $\$ 6.8$ million shipped by industry 3443 , Boiler Shop Products, and $\$ 8.9$ million by industry 3585, Refrigeration Machinery. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3444, Sheet Metal Work; 3494, Valves and Pipe Fittings; 3599, Miscellaneous Machinery; and 3621, Motors and Cenerators.
${ }^{9}$ Includes $\$ 4.9$ million shipped by industry 3444, Sheet Metal Work, and $\$ 2.9$ million by industry 3585, Refrigeration Machinery. In addition, the following industry had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies: 3559, Special Industry Machines, N.E.C.
${ }^{10}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 35663 , Other mechanical power transmission equipment; 35851, Heat transfer equipment; 36430, Current carrying wiring devices, including lightning rods;
and, 36992. Lamp bulb components (except glass flasks) and electrical products.
${ }^{11}$ Includes $\$ 3.8$ million shipped by industry 3362, Brass, Bronze, Copper Castings; $\$ 3.8$ million by industry 3562 , Ball and Roller Bearings; and $\$ 14.4$ million by industry 3717, Motor Vehicles and Parts. In addition, the following industry had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies: 3722, Aircraft Engines and Parts.
${ }^{12}$ Includes $\$ 3.4$ million shipped by industry 3541, Metal-Cutting Machine Tools, and $\$ 21.6$ million by industry 3621 , Motors and Generators. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3511, Steam Engines and Turbines; 3533, Oil Field Machinery; 3548, Metalworking Machinery, N.E.C.; 3561, Pumps and Compressors; 3717, Motor Vehicles and Parts; 3729, Aircraft Equipment, N.E.C.
${ }^{13}$ Includes $\$ 17.2$ million shipped by industry 3717, Motor Vehicles and Parts. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3431, Metal Plumbing Fixtures; 3532, Mining Machinery and Equipment; 3535, Conveyors; 3554, Paper Industries Machinery; 3564, Blowers and Fans; 3722, Aircraft Engines and Parts; and 3821, Mechanical Measuring Devices.
${ }^{14}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 33230 , Steel castings; 35370, Industrial trucks and tractors; and 35623, Mounted bearings.
${ }^{15}$ The following industry had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies: 3441, Fabricated Structural Steel.
${ }^{16}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3446, Architectural Metal Work; 3693, X-Ray Apparatus and Tubes; and 3717, Motor Vehicles and Parts.
${ }^{17}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 35322 , Crushing, pulverizing, and screening plants, stationary, and 38213, Industrial process instruments.
${ }^{18}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3079, Plastics Products, N.E.C.; 3296, Mineral Wool; 3444, Sheet Metal Work; 3498, Fabricated Pipe and Fittings; 3522, Farm Machinery and Equipment; 3531, Construction Machinery; 3532, Mining Machinery and Equipment; 3534, Elevators and Moving Stairways; 3541, Metal-Cutting Machine Tools; 3582 , Commercial Laundry Equipment; 3585, Refrigeration Machinery; 3621, Motors and Generators; 3731, Ship Building and Repairing; and 3821, Mechanical Measuring Devices.
${ }^{19}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures; 28993 , Essential oils, fireworks, and pyrotechnics, chemicals and chemical preparations, n.e.c.; 34612, Job stampings, except automotive.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958



[^193]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

# table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 

\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow{3}{*}{\[
\begin{aligned}
\& \text { Product } \\
\& \text { code }
\end{aligned}
\]} \& \multirow{3}{*}{Product} \& \multicolumn{4}{|c|}{Total shipments including interplant transfers} \\
\hline \& \& \multicolumn{2}{|c|}{1963} \& \multicolumn{2}{|c|}{1958} \\
\hline \& \& \begin{tabular}{l}
Quantity \\
(number of units)
\end{tabular} \& \[
\begin{gathered}
\text { Value } \\
(\$ 1,000)
\end{gathered}
\] \& \begin{tabular}{l}
Quantity \\
(number of units)
\end{tabular} \& \[
\begin{gathered}
\text { Value } \\
(\$ 1,000) \\
\hline
\end{gathered}
\] \\
\hline 35615 -- \& \begin{tabular}{l}
Pumps and compressors, n.e.c., except refrigeration compressors, total... Products included in the census of manufactures and on Census Annual Form MA-35P: \\
As reported in the census of manufactures \({ }^{8}\) \\
As reported on Census Form MA-35P.
\(\qquad\)
\end{tabular} \& (X)

(X)
(X) \& 147,958

286,858
277,045 \& (X)

(X)
(X) \& 123,889

84, 373
(NA) <br>
\hline \& Value of drivers (reported separately).. \& (x) \& 35,329 \& (X) \& (NA) <br>

\hline \[
$$
\begin{aligned}
& 3561511 \\
& 3561513 \\
& 3561515
\end{aligned}
$$

\] \& | Oil-well and oil-field pumps (except boiler-feed): |
| :--- |
| Subsurface pumps for oil-well pumping. |
| Slush pumps. |
| Other oil-well and oil-field purmp | \& \[

$$
\begin{array}{r}
40,975 \\
1,52 \\
1,656
\end{array}
$$
\] \& 31,556

6,041
5,554 \& (NA)
(114)

(NA) \& $$
\begin{array}{r}
25,539 \\
9,091 \\
8,779
\end{array}
$$ <br>

\hline 3561596 \& Other pumps (except automotive) (such as oil burner and appliance pumps, fire engine pumps, laboratory pumps, sump pumps, etc.)..... \& 1,761,346 \& 28,565 \& (NA) \& 940,964 <br>
\hline 3561531

3561551 \& | Industrial spraying equipment: |
| :--- |
| Power paint-spraying outfits and liquid power sprayers, except agricultural types. Hand sprayers, except agricultural and flame types. | \& ( C ( N$)$ \& 54,164

1,919 \& $$
\begin{gathered}
(X) \\
339,402
\end{gathered}
$$ \& 32,397

3,466 <br>
\hline 3561500 \& Pumps and compressors, n.s.k. \& (X) \& 5,017 \& (X) \& 3,653 <br>
\hline 3561611

35610 \& | Parts and attachnents for pumps, air and gas compressors, and pumping equipment. . |
| :--- |
|  | \& $\left(\begin{array}{l}\text { (X) } \\ \text { (x) }\end{array}\right.$ \& \[

$$
\begin{array}{r}
250,088 \\
18,358
\end{array}
$$

\] \& \[

$$
\begin{aligned}
& (X) \\
& (x)
\end{aligned}
$$

\] \& \[

$$
\begin{array}{r}
180,166 \\
11,762
\end{array}
$$
\] <br>

\hline
\end{tabular}

3561000

3562- -
35621 --

3562111
3562113
3562114
3562116
3562118
3562119
3562125
3562133
3562135 3562151 3562100

35622 --
3562211

3562223 3562227
3562231
3562241
3562251 3562298 3562200

35623 -
35623 11 3562351

35624
3562411
3562431
3562451
3562400
3562000


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ The value figure for each product line in 1958 included both the value of the pump or compressor and the value of the drivers when shipped with the driven unit. See footnote 3 for explanation of reporting such values in 1963.
${ }^{2}$ For these products, data were also collected in the Census Commodity Survey Program. In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified classes of products for which separate figures had previously been collected on the annual, quarterly, or monthly form. In most cases, the value figures reported in the census of manufactures for each class of product agreed closely with the corresponding figures reported in the commodity surveys. However, there were some differences between the census figures and the commodity survey figures. These variations were due primarily to the following reasons:
a. Use of different reporting periods (calendar year vs. fiscal year).
b. Use of different bases for reporting value (company sales vs. factory production).
c. Use of estimates in reporting data on the comodity surveys, whereas census of manufactures figures generally represent more exact shipments figures.

Footnotes continued on next page.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

## Footnotes for Table 6A-35E--Continued

${ }^{3}$ The value of drivers was reported only at the product class level. For each product line, value figures exclude, except as noted for codes 3561452-57, the value of drivers (electric motors or prime movers) shipped with that product. Separate data on the value of drivers are not available for product class 35613. See footnote 1 for explanation of reporting such values in 1958.
${ }_{5}^{4}$ Does not include hydraulic fluid power pumps for power steering units in passenger automobiles. In 1958 such data are included.
${ }^{5}$ Included with product code 3561596 , Other punps.
${ }^{6}$ Includes the value of drivers.
${ }^{7}$ Includes compressors for air brake systems used in transportation equipment and pneumatic (air) power compressors and motors.
${ }^{8}$ Data reported in the census of manufactures differ from comparable figures reported in Annual Survey MA-35P chiefly due to companies not included in the Annual Survey. In addition, there were minor differences between figures for a few companies reporting in the two surveys. ${ }^{9}$ Represents "Other pumps and compressors" and includes dry vacuum pumps. No separate figures are available for "Other pumps" compared with "Other compressors."
${ }^{10}$ of these totals, the following figures (in millions of dollars) represent the value of shipments of ball and roller bearings transferred from one plant of a company to another plant of the same company:

| Product <br> code | 1963 | 1958 |
| :--- | ---: | ---: |
| $3562-$ | 108 | 86 |
| 35621 | 13 | 21 |
| 35622 | 95 | 65 |
| 35624 |  |  |

${ }^{11}$ In 1963 represents 8,043 thousand units; for 1958 represents 4,911 thousand units.
${ }^{12}$ In 1963 represents 934 thousand units; for 1958 represents 771 thousand units.
13 Excludes captive production of industrial patterns.
${ }^{14}$ No quantity data available for 1958.
${ }^{15}$ Represents the value of gear motor reducer elements only. Does not include the value of electric motors shipped as part of gear motor reducer elements.
${ }^{16}$ Represents shipments of industrial furnaces and ovens produced by manufacturing establishments only. Does not include industrial furnaces and ovens erected at the site by engineering and construction firms which purchase component parts for such furnaces and ovens.
${ }^{7}$ Establishments classified in industry 3567 reported a breakdown of shipments of industrial furnaces and ovens between "Field assembled" and

 assembled" $\$ 66$ million and "Factory assembled" $\$ 73$ million. "Field assembled" represents installations erected at the site by the manufacturer, either using his own labor force or utilizing local labor under the supervision of the manufacturer's factory personnel.

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 356 | General industrial machinery..................... $1963 .$. | $(1)$ $(1)$ | $(1)$ $(1)$ |
| 3561 | Pumps and compressors ${ }^{2}$......................................... $1963 .$. $1958 .$. | 147 101 | 95 113 |
| 35611 | Industrial pumps, except hydraulic fluid power...1963.. | 142 101 | 86 110 |
| 35612 | Hydraulic fluid power pumps and motors............1963.. | 207 | 91 |
| 35613 | Domestic water systems and pumps, including pump jacks and cylinders..................................... 1963. | 112 143 98 | 96 89 |
| 35614 | Air and gas compressors, except refrigeration compressors................................................ $1963 .$. 1958.. | 118 95 | 112 |
| 3562 | Ball and roller bearings. $\qquad$ | $(1)$ $(1)$ 1 | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3564 | Blowers and fans................................................ $1963 .$. 1958.. | $(1)$ $(1)$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3565 | Industrial patterns............................................... $1963 .$. | $(1)$ $(1)$ | $(1)$ $(1)$ |
| 3567 | Industrial process furnaces and ovens ${ }^{3}$................1963.. <br> 1958. . | 126 91 | 111 |
| 35671 | Electric industrial furnaces and ovens, metal processing. ................................................... $1963 .$. | 92 86 | 176 114 |
| 35672 | Fuel-fired industrial fumaces and ovens, metal processing............................................... 1963.. | 116 88 | 89 114 |
| 3569 | General industrial machinery and equipment, n.e.c...1963.. 1958. . | $\left(\begin{array}{l}1 \\ (1) \\ \\ \end{array}\right.$ | $(1)$ <br> $(1)$ |

[^194]
# table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963 

| Code | Product class | 1963 | $1962^{3}$ | $1961{ }^{1}$ | $1960^{1}$ | $1959{ }^{2}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3561- | Pumps and compressors | ${ }^{2} 1,236,503$ | ${ }^{2} 1,161,143$ | ${ }^{2} 1,083,963$ | ${ }^{2} 1,092,572$ | ${ }^{2} 1,068,597$ | 1,015,841 | 867,400 | 524,389 |
| 35611 | Industrial pumps, except hydraulic fluid power | ${ }^{3} 320,795$ | ${ }^{3} 306,431$ | ${ }^{3} 300,315$ | ${ }^{3} 304,740$ | 293,292 | 295,373 |  |  |
| 35612 | Hydraulic fluid power pumps and motors.............................. | ${ }^{3} 134,023$ | ${ }^{3} 116,633$ | ${ }^{3} 93,931$ | ${ }^{3} 95,862$ | 105,682 | 276,769 | 316,384 | 163,173 |
| 35613 | Domestic water systems and pumps, including pump jacks and cylinders. | ${ }^{3} 79,403$ | ${ }^{3} 65,135$ | ${ }^{3} 64,958$ | ${ }^{3} 61,638$ | ${ }^{3} 72,063$ | 67,656 | 80,044 | 61,600 |
| 35614 | Air and gas compressors, except refrigeration compressors.................................. | ${ }^{3} 285,878$ | ${ }^{3} 289,663$ | ${ }^{3} 276,704$ | ${ }^{3} 290,416$ | 264,780 | 260,226 | 220,248 | 130,859 |
| 35615 | Pumps and compressors, n.e.c., except refrigeration compressors........................ | 147,958 | 141,806 | 125,482 | 127,952 | 133,478 | 123,889 | 101,148 | 90,703 |
| 35616 | Parts and attachments for pumps, air and gas compressors, and pumping equipment........... | 250,088 | 226,935 | 210,239 | 199,052 | 187,581 | 180,166 | 145,022 | 78,054 |
| 35610 | Pumps and compressors, n.s.k................. | 18,358 | $(14,540)$ | $(12,334)$ | $(12,912)$ | $(11,721)$ | 11,762 | 4,554 | - |
| 3562- | Ball and roller bearings. | 2961,032 | 2937,862 | 2799,732 | 2836,201 | ${ }^{2} 904,588$ | 636,777 | 533,796 | 352,501 |
| 35621 | Ball bearings, complete. | 388,197 | 388,161 | 343,622 | 358,089 | 395,520 | 289,073 | 213,694 | 148,460 |
| 35622 | Roller bearings, complete. | 444,829 | 420,986 | 344,143 | 369,854 | 394,257 | 269,316 | 248,430 | 147,569 |
| 35623 | Mounted bearings...... | 62,128 | 68,618 | 60,842 | 59,421 | 60,120 | 34,984 | 25,910 | 18,097 |
| 35624 | Parts and components for ball and roller bearings, includings balls and rollers, sold separately. $\qquad$ | 62,540 | 58,028 | 49,056 | 46,774 | 52,628 | 41,069 | 45,146 | 37,226 |
| 35620 | Ball and roller bearings, n.s.k.............. | 3,338 | $(2,069)$ | $(2,069)$ | $(2,063)$ | $(2,063)$ | 2,335 | 616 | 1,149 |
| 3564- | Blowers and fans. | ${ }^{2} 300,824$ | 2289,133 | 2273,899 | 2275,059 | 2246,791 | 252,899 | 274,045 | 129,913 |
| 35641 | Industrial fans and blowers................. | ${ }^{3} 192,674$ | ${ }^{3} 192,344$ | ${ }^{3} 183,129$ | ${ }^{3} 186,299$ | ${ }^{3} 162,412$ | 170,636 |  |  |
| 35642 | Dust collection, air purification equipment and air washers. | 94,952 | 83,393 | 78,199 | 76,201 | 73,345 | 70,064 | \} 274,045 | 129,913 |
| 35640 | Blowers and fans, n.s.k...................... | 13,198 | $(13,396)$ | 12,571 | $(12,559)$ | $(11,034)$ | 12,199 |  |  |
| 35650 | Industrial patterns, except shoe (of wood, metal, etc.)............................ | 159,896 | 147,536 | 122,552 | 139,564 | 126,836 | 121,279 | 127,572 | 53,765 |
| 3566- | Power transmission equipment | 883,382 | 803,854 | 718,115 | 711,034 | 738,979 | 622,741 | 595,019 | 426,713 |
| 35661 | Plain bearings. | 87,949 | 72,634 | 65,869 | 72,713 | 81,472 | 67,047 | 141,834 | 120,354 |
| 35662 | Speed changers, industrial high speed drives, and gears. $\qquad$ | 333,331 | 295,522 | 276,197 | 276,305 | 273,379 | 234,151 | 218,193 | 124,614 |
| 35663 | Other mechanical power transmission equipment. | 449,460 | 420,398 | 357,122 | 347,727 | 371,088 | 310,418 | 234,992 | 181,745 |
| 35660 | Power transmission equipment, n.s.k. | 12,642 | $(15,300)$ | $(18,927)$ | $(14,289)$ | $(13,040)$ | 11,125 | - | - |
| $3567-$ | Industrial furnaces and ovens | 237,660 | 193,251 | 185,061 | 214,551 | 197,436 | 184,845 | 154,284 | 84,612 |
| 35671 | Electric industrial furnaces and ovens, metal processing............................. | 44,697 | 47,065 | 45,292 | 46,368 | 39,948 | 35,665 | 37,915 | 16,303 |
| 35672 | Fuel-fired industrial furnaces and ovens, metal processing................................... | 76,552 | 59,987 | 50,977 | 76,737 | 65,576 | 75,456 | 81,919 | 34,362 |
| 35673 | High frequency induction and dielectric heating equipment and parts, attachments and components. | 109,875 | 78,225 | 79,012 | 84,483 | 85,557 | 67,652 | 32,553 | 23,215 |
| 35670 | Industrial furnaces and ovens, n.s.k........ | 6,536 | $(7,974)$ | $(9,780)$ | $(6,963)$ | $(6,355)$ | 6,072 | 1,897 | 10,732 |
| 35690 | General industrial machinery, n.e.c. | 664,276 | 607,935 | 558,282 | 554,451 | 519,904 | 467,391 | 429,066 | 321,709 |

[^195]| Product class | Current Industrial Reports Series |  |
| :--- | :--- | :--- |
| $35611,35612,35614$ | M35P | Pumps and compressors |
| 35613 | M3G | Farm pumps |
| 35641 | M35H | Fan blowers and unit heaters |

# TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 


listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1


See footnotes at end of table.

# TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued 



[^196]TABLE 7A. Materials by Kind: 1963 and 1958


See footnotes at end of table.

# table 7A. Materials by Kind: 1963 and 1958-Continued 



See footnotes at end of table.
table 7A. Materials by Kind: 1963 and 1958-Continued


| Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity | $\begin{gathered} \text { Delivered } \\ \text { cost } \\ (\$ 1,000) \\ \hline \end{gathered}$ | Quantity | Delivered cost <br> $(\$ 1,000)$ |
|  |  | INDUSTRY 3566.-POWER TRANSMISSION EQUIPMENT |  |  |  |
| Materials, components, parts, containers, and supplies, total.. |  | (X) | 290,185 | (X) | 193,457 |
| Mill shapes and forms (except castings): <br> Carbon steel: |  |  |  |  |  |
| Bars and bar shapes. | Short tons. | 78,833 | 16,472 | 53,710 | 12,820 |
| Sheet and strip... | ...do. | 85,047 | 18,067 | 47,961 | 9,799 |
| Plates......... | .do. | 29,926 | 4,682 | 23,487 | 3,517 |
| Structural shapes.. | .do. | 3,694 | 818 | 2,191 | 443 |
| Wire and wire products.. | do | 3,319 | 1,593 | 2,729 | 1,164 |
| All other carbon steel mill shapes and forms.................... | .do. | 7,782 | 2,295 | 5,676 | 1,785 |
| Alloy steel (except stainless): |  |  |  |  |  |
| Bars and bar shapes.......... | . . do. | 35,615 | 9,906 | 22,173 | 6,367 |
| All other alloy steel mill shapes and forms..................... | do | 16,938 | 8,193 | 11,412 | 4,364 |
| Stainless steel. | ...do. | 1,584 | 1,970 | 1,099 | 1,515 |
| Copper and copper-base alloy: |  |  |  |  |  |
| Bare wire (for electrical conduction)............................. | 1,000 lbs. | 131 | 104 | 161 | 112 |
| Insulated wire and cable........................................... | $\begin{aligned} & \text { 1,000 lbs. } \\ & \text { (copper content } \end{aligned}$ | 305 | 230 | 101 | 68 |
| Rod, bar, and mechanical wire, including extruded and/or drawn shapes. | 1,000 lbs....... |  |  | $\}$ |  |
| Pipe and tube.,.................................................... | ...do............ | 2,017 | 1,584 | \{\} 1,141 | 781 |
| Plate, sheet, and strip, including military cups and discs.. | . do. | 1,247 | 785 |  |  |

See footnotes at end of table.
tABLE 7A. Materials by Kind: 1963 and 1958-Continued


## table 7A. Materials by Kind: 1963 and 1958-Continued

|  | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code |  |  | Quantity | Delivered cost <br> ( $\$ 1,000$ ) | Quantity | Delivered cost <br> $(\$ 1,000)$ |
|  |  |  | INDUSTRY 3569.-GENERAL INDUSTRY MACHINES, N.E.C.-Con. |  |  |  |
|  | Mill shapes and forms (except castings)-Continued |  |  |  |  |  |
| 331031 | Stainless steel............................................................... | Short tons....... | 4,527 | 7,026 | 1,206 | 2,036 |
| 335728 | Copper and copper-base alloy: <br> Bare wire (for electrical conduction) |  |  |  | \} 373 | 146 |
| 335790 | Insulated wire and cable................................................ | $\left\lvert\, \begin{aligned} & \text { 1,000 lbs. ........ } \\ & \text { (copper content) } \end{aligned}\right.$ | (NA) | 244 | $\left\{\begin{array}{l}72\end{array}\right.$ | 146 36 |
| 335102 | Rod, bar, and mechanical wire, including extruded and/or drawn shapes $\qquad$ | 1,000 lbs........ | 1,028 | 674 |  |  |
| 335123 335127 | Plate, sheet, and strip, including military cups and discs..... | ...do............. | 1.865 1,263 | 895 701 | \} 5,098 | 3,145 |
| 335127 | Pipe and tube.................................................................. | . . do............. |  |  | ) |  |
| 335202 | Aluminum and aluminum-base alloy: Sheet, plate, and foil........ | ...do............. | 4,676 | 2,644 | 2,054 | 1,172 |
| 335205 | Extruded shapes, including extruded rod, bar, pipe, tube, etc.. | .do. | 1,572 | 1,863 |  |  |
| 335209 | All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welded tubing, etc.). | . . do. | 1,507 | 1,296 | \} 1,711 | 1,105 |
| 331051 | Pig iron excluding silvery iron........................................ | Short tons....... | 469 | 29 | 812 | 55 |
| 999811 | Iron and steel scrap (excluding home scrap)............................ | ...do............. | 2,414 | 121 | 1,201 | 48 |
|  | Castings (rough and semifinished) ${ }^{1}$ |  |  |  |  |  |
| 332011 332300 | Iron (gray and malleable).................................................. | . . . do............. | 13,722 2,543 | 6,340 2,224 |  |  |
| 332300 | Steel........................... | ...do............. | 2,543 | 2,224 | 1,818 | 1,274 |
| 336100 | Aluminum and aluminum-base alloy.......................................... . . Copper and copper-base alloy. | 1,000 lbs......... | 1,425 2,414 | 1,006 | 678 1,554 | 620 1,067 |
| 336200 | Copper and copper-base alloy <br> Electric motors and generators: ${ }^{1}$ | ...do............. | 2,414 | 1,999 | 1,554 | 1,067 |
| 362115 | Fractional horsepower electric motors (under 1 hp .) (excluding timing motors) | Number. . . . . . . . . . | 51,208 | 1,887 | 27,115 | 877 |
| 362120 | Integral horsepower motors and generators (i hp. and over)........ | ...do.............. | 18,566 | 2,070 | 6,514 | 7,110 |
|  | Bearings: |  |  |  |  |  |
| 356228 |  |  | (X) | 312 | (X) | ) 377 |
| 970099 | All other materials and components, parts, containers, and supplies consumed. |  | (X) | 115,220 | (X) | 76,417 |
| 976000 | Materials, parts, containers, and supplies, n.s.k.t .................. |  | (X) | 49,031 | (X) | 36,678 |

[^197]${ }^{1}$ In addition the following quantities were produced and consumed in the same establishment:

| Code | Item | $\begin{gathered} \text { Unit } \\ \text { of } \\ \text { measure } \end{gathered}$ | INDUSTRY |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 3561 |  | $\begin{array}{\|l\|} \hline 3562 \\ \hline 1963 \end{array}$ | $\frac{3564}{1963}$ | $\begin{array}{\|l\|} 3565 \\ \hline 1963 \end{array}$ | 3566 |  | $\begin{array}{\|l\|} \hline 3567 \\ \hline 1963 \\ \hline \end{array}$ | 3569 |  |
|  |  |  | 1963 | 1958 |  |  |  | 1963 | 1958 |  | 1963 | 1958 |
| $\begin{aligned} & 332011 \\ & 332300 \\ & 336100 \\ & 336200 \end{aligned}$ | Castings (rough and semifinished): <br> Iron (gray and malleable)......... Steel. $\qquad$ Aluminum and aluminum-base alloy. Copper and copper-base alloy..... | Short tons...do.........do...... | 54,933 (D) <br> (D) <br> (NA) | $\begin{array}{r} 56,020 \\ 761 \\ 7,968 \\ 1,991 \end{array}$ | $\begin{array}{r} \text { (NA) } \\ (\mathrm{NA}) \\ (\mathrm{D}) \end{array}$ | $\begin{array}{r} 1,712 \\ 490 \\ \text { (D) } \end{array}$ | $\begin{gathered} \text { (NA) } \\ \text { (NA) } \\ \text { (D) } \\ \text { (D) } \end{gathered}$ | $34,724$ | $\begin{array}{r} 23,575 \\ 184 \\ \text { (NA) } \\ \text { (D) } \end{array}$ | $\begin{gathered} \text { (NA) } \\ (\mathrm{D}) \\ (\mathrm{NA}) \\ (\mathrm{NA}) \end{gathered}$ | 1, 802 <br> (D) <br> (D) | $\begin{array}{r} 1,703 \\ (\mathrm{NA}) \\ \text { (NA) } \\ \text { (NA) } \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 339100 | Iron and steel forgings Engines: | Short tons | (D) | - | (D) | (NA) | (NA) | (D) | 2,444 | (NA) | (NA) | (NA) |
| 351920 |  | Number. | (D) | (D) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 351901 | Gasoline and other carburetor. | ...do. | (D) | (D) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | - |
| 362.115 | Electric motors and generators: Fractional horsepower electric motors (under l hp.) (excluding timing motors). $\qquad$ | . . .do..... | 420,357 | 465,812 | (NA) | (D) | (NA) | (NA) | (NA) | (NA) | (D) | 144 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 362120 | Integral horsepower motors and generators ( lhp . and over)..... |  |  |  |  |  |  |  |  |  |  |  |

[^198]${ }^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Pumps and compressors (SIC 3561) | Ball and roller bearings (SIC 3562) | Blowers and fans (SIC 3564) | Industrial patterns (SIC 3565) | Power transmission equipment (SIC 3566) | Industrial furnaces and ovens (SIC 3567) | General industry machines, n.e.c. (SIC 3569) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000$. . | 10,612 | 12,100 | 2,226 | 1,240 | 9,144 | 1,751 | 5,321 |
| Total cost of purchased fuels.............................d.... | 4,961 | 4,720 | 946 | 486 | 3,859 | 713 | 1,976 |
| Bituminous coal, lignite, and anthracite: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons. . Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. | $\begin{aligned} & 109 \\ & 818 \end{aligned}$ | 89 491 | $\begin{aligned} & (\mathrm{S}) \\ & (\mathrm{S}) \end{aligned}$ | (S) | 53 426 | (S) | (S) (S) |
| Coke and breeze: <br> Quantity............................................. 1,000 short tons. <br> Cost. <br> .\$1,000. | $\begin{array}{r} 18 \\ 626 \end{array}$ | - | $\begin{aligned} & (\mathrm{S}) \\ & (\mathrm{S}) \end{aligned}$ | - | r 9 | - | (S) |
| Fuel oil (distillate and residual): Quantity........................... 1,000 barrels of 42 gallons.. Cost.. | $\begin{array}{r} 299 \\ 1,082 \end{array}$ | $\begin{array}{r} 408 \\ 1,168 \end{array}$ | $\begin{array}{r} 74 \\ 260 \end{array}$ | $\begin{aligned} & \text { (s) } \\ & \text { (S) } \end{aligned}$ | $\begin{aligned} & 227 \\ & 845 \end{aligned}$ | $\begin{aligned} & (S) \\ & (S) \end{aligned}$ | 154 619 |
| ```Gas (natural, manufactured, still, blast furnace, and coke oven): Quantity....................................................................... Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000. .``` | $\begin{aligned} & 3,544 \\ & 2,182 \end{aligned}$ | $\begin{aligned} & 4,850 \\ & 3,021 \end{aligned}$ | 646 456 | 214 156 | 3,219 2,150 | 437 335 | 1,230 810 |
| Other fuels..................................................... . ${ }^{\text {do. . }}$ | 253 | 40 | 172 | 258 | 183 | 226 | 352 |
| Electric energy: <br> Purchased: |  |  |  |  |  |  |  |
| Quantity....................................................... . . . . . . <br> Cost. | $\begin{array}{r} 410 \\ 5,651 \end{array}$ | 673 7,380 | 76 1,280 | 34 754 | 377 5,285 | 58 1,038 | $\begin{array}{r} 229 \\ 3,345 \end{array}$ |
| Generated less sold. . . . . . . . . . . . . . . . . . . . . . .milition kw.-hrs.. | 22 | - | (S) | - | (S) | - | (S) |
| Aggregate horsepower of prime movers and electric motors <br> driven by purchased energy (December 31), total.........1,000 hp.. | 442 | 407 | 84 | 32 | 304 | 40 | 130 |
| Prime movers, total...........................................do.... | 85 | 5 | 17 | (z) | 9 | 2 | 9 |
| Dri.ving generators. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. <br> Not driving generators.......................................................... | 18 67 | (z) 5 | ${ }_{16}^{1}$ | (2) | 2 | 1 | 5 |
| Electric motors, total.........................................do.... | 367 | 401 | 68 | 31 | 296 | 38 | 123 |
| Driven by purchased energy.................................................... Driven by energy generated at establishment................do.... | 357 10 | 401 | (2) | 31 | 296 (Z) | 38 | 120 2 |
| Aggregate horsepower per 100 production workers. | 1,158 | 959 | 854 | 373 | 968 | 648 | 678 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for l962 and horsepower of power
 fore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated
 consistency review.

# TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll $(\$ 1,000)$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3561- | PUMPS AND COMPRESSORS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. | 642 | 61,322 | 395,769 | 38,934 | 80,825 | 224,721 | 768,787 | 660,549 | 1,419,081 | 28,417 |
|  | $90 \%$ or more specialization. . <br> 75-89\% specialization. | $\begin{array}{r} 520 \\ 40 \end{array}$ | 32,083 10,520 | 205,324 65,690 | 20,418 6,320 | $\begin{aligned} & 42,240 \\ & 12.965 \end{aligned}$ | 115,089 35,804 | $\begin{aligned} & 399,195 \\ & 137.109 \end{aligned}$ | $\begin{array}{r} 391,230 \\ 88,149 \end{array}$ | $\begin{aligned} & 785,422 \\ & 220,998 \end{aligned}$ | $\begin{array}{r} 16,478 \\ 4,205 \end{array}$ |
| 35611 | Industrial pumps, except hydraulic fluid power (primary product class of estab.). <br> Establishments with- | 159 | 18,318 | 121,723 | 11,627 | 24,579 | 70,422 | 228,568 | 187,268 | 413,059 | 8,415 |
|  | 90\% or more specialization.... <br> 75-8\% specialization. | $\begin{aligned} & 76 \\ & 19 \end{aligned}$ | 2,412 2,088 | $\begin{aligned} & 15,516 \\ & 12,692 \end{aligned}$ | $\begin{aligned} & 1,453 \\ & 1,262 \end{aligned}$ | $\begin{aligned} & 3,022 \\ & 2,642 \end{aligned}$ | $\begin{aligned} & 8,183 \\ & 6,784 \end{aligned}$ | $\begin{aligned} & 35,426 \\ & 26,027 \end{aligned}$ | $\begin{aligned} & 32,006 \\ & 22,948 \end{aligned}$ | $\begin{aligned} & 66,308 \\ & 49,518 \end{aligned}$ | $\begin{array}{r} 1,379 \\ 892 \end{array}$ |
| 35612 | Hydraulic fluid power pumps and motors (primary product class of estab.). $\qquad$ Establishments with- | 38 | 8,208 | 54,378 | 5,169 | 10,844 | 30,745 | 114,656 | 71,694 | 185,263 | 3,742 |
|  | 90\% or more specialization.... <br> 75-89\% specialization.......... | 13 7 | 1,177 874 | $\begin{aligned} & 7,495 \\ & 5,218 \end{aligned}$ | $\begin{aligned} & 878 \\ & 611 \end{aligned}$ | $\begin{aligned} & 1,837 \\ & 1,342 \end{aligned}$ | $\begin{aligned} & 5,229 \\ & 3,265 \end{aligned}$ | $\begin{array}{r} 15,019 \\ 7,753 \end{array}$ | $\begin{aligned} & 7,930 \\ & 5,434 \end{aligned}$ | $\begin{aligned} & 22,293 \\ & 12,459 \end{aligned}$ | $\begin{aligned} & 908 \\ & 388 \end{aligned}$ |
| 35613 | Domestic water systems and pumps, including pump jacks and cyl- |  |  |  |  |  |  |  |  |  |  |
|  | ```of estab.)........................ Establishments with-``` | 35 | 3,955 | 23,117 | 2,782 | 5,553 | 14,442 | 56,519 | 58,539 | 114,006 | 1,958 |
|  | 90\% or more specialization.... | 13 | 158 | 730 | 103 | 227 | 482 | 1,426 | 1,552 | 2,962 | 38 |
| 35614 | Air and gas compressors, except refrigeration compressors (primary product class of estab.).... Establishments with- | 55 | 16,305 | 103,039 | 10,210 | 21,380 | 58,326 | 193,146 | 187,095 | 377,021 | 7,351 |
|  | 90\% or more specialization.... <br> 75-89\% specialization.......... | 27 9 | 742 2,922 | $\begin{array}{r} 4,609 \\ 19,333 \end{array}$ | $\begin{array}{r} 479 \\ 1,873 \end{array}$ | $\begin{aligned} & 1,055 \\ & 4,042 \end{aligned}$ | $\begin{array}{r} 2,475 \\ 10,725 \end{array}$ | $\begin{array}{r} 8,350 \\ 32,627 \end{array}$ | $\begin{aligned} & 17,174 \\ & 26,244 \end{aligned}$ | $\begin{aligned} & 25,031 \\ & 57,019 \end{aligned}$ | $\begin{array}{r} 172 \\ 2,618 \end{array}$ |
| 35615 | Pumps and compressors, n.e.c., except refrigeration compressors (primary product class of estab.) Establishments with- | 124 | 6,993 | 44,218 | 4,539 | 9,263 | 24,550 | 93,036 | 71,403 | 162,889 | 4,267 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | $\begin{aligned} & 85 \\ & 12 \end{aligned}$ | 2,119 966 | 13,663 6,141 | 1,387 687 | 2,884 1,442 | $\begin{aligned} & 7,664 \\ & 3,596 \end{aligned}$ | $\begin{array}{r} 33,422 \\ 13,204 \end{array}$ | $\begin{array}{r} 23,769 \\ 5,374 \end{array}$ | $\begin{aligned} & 57,022 \\ & 18,345 \end{aligned}$ | $\begin{aligned} & 871 \\ & 173 \end{aligned}$ |
| 35616 | Parts and attachments for pumps, air and gas compressors, and |  |  |  |  |  |  |  |  |  |  |
|  | uct class of estab.)................ <br> Fstablishents wit | 56 | 6,437 | 43,645 | 3,794 | 7,567 | 22,518 | 71,946 | 76,315 | 147,954 | 2,310 |
|  | 90\% or more specialization.... | 22 | 681 | 4,857 | 451 | 903 | 2,767 | 8,759 | 5,105 | 14,037 | 294 |
|  | 75-89\% specialization......... | 7 | 252 | 1,721 | 126 | 264 | 769 | 2,338 | 6,999 | 9,233 | 43 |
| 3562- | ball and roller bearings |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 125 | 52,316 | 348,700 | 42,003 | 85,970 | 263,022 | 627,694 | 372,267 | 998,784 | 39,243 |
|  | $90 \%$ or more specialization.. 75-89\% specialization....... | $\begin{array}{r} 111 \\ 7 \end{array}$ | 46,102 4,592 | 305,878 31,514 | $\begin{array}{r} 37,394 \\ 3,454 \end{array}$ | $\begin{array}{r} 76,107 \\ 7,232 \end{array}$ | 233,039 21,608 | $\begin{array}{r} 562,091 \\ 50,711 \end{array}$ | $\begin{array}{r} 339,516 \\ 19,765 \end{array}$ | $\begin{array}{r} 899,599 \\ 71,384 \end{array}$ | $\begin{array}{r} 33,265 \\ 5,331 \end{array}$ |
| 35621 | Ball bearings, complete (primary product class of estab.).......... Establishments with- | 46 | 25,327 | 161,118 | 20,444 | 41,441 | 120,901 | 281,032 | 129,813 | 416,036 | 16,833 |
|  | 90\% or more specialization.... <br> 75-89\% specialization. ......... | $\begin{array}{r} 32 \\ 8 \end{array}$ | $\begin{array}{r} 13,874 \\ 6,830 \end{array}$ | $\begin{aligned} & 87,151 \\ & 40,097 \end{aligned}$ | $\begin{array}{r} 11,276 \\ 5,671 \end{array}$ | $\begin{aligned} & 23,211 \\ & 10,962 \end{aligned}$ | $\begin{aligned} & 65,563 \\ & 31,260 \end{aligned}$ | $\begin{array}{r} 161,020 \\ 65,790 \end{array}$ | $\begin{aligned} & 72,864 \\ & 28,433 \end{aligned}$ | $\begin{array}{r} 233,533 \\ 99,692 \end{array}$ | $\begin{aligned} & 9,030 \\ & 2,999 \end{aligned}$ |
| 35622 | Roller bearings, complete (primary product class of estab.)........... Establishments with- | 29 | 22,132 | 156,392 | 17,799 | 36,393 | 118,773 | 288,850 | 198,561 | 481,542 | 18,184 |
|  | 90\% or more specialization.... | 19 | 15,677 | 107,844 | 13,073 | 26,827 | 85,134 | 200,599 | 154,996 | 353,024 | 11,439 |
| 35623 | Mounted bearings (primary product class of estab.)...................... Establishments \|with - | 8 | 2,618 | 18,149 | 1,925 | 4,309 | 12,629 | 34,914 | 25,323 | 60,138 | 1,807 |
|  | 90\% or more specialization.... | 3 | 160 | 904 | 126 | 272 | 604 | 1,331 | 1,930 | 3,267 | 153 |

[^199]TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued


See footnotes at end of table.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total (number) | Payroll $(\$ 1,000)$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3567- | INDUSTRIAL FURNACES AND OVENS-Con. |  |  |  |  |  |  |  |  |  |  |
| 35673 | High frequency induction and dielectric heating equipment and parts, attachments and components (primary product class of estab.). Establishments with- | 73 | 5,699 | 38,274 | 3,476 | 7,140 | 19,879 | 64,629 | 53,658 | 115,809 | 2,865 |
|  | 90\% or more specialization.... 75-89\% specialization.......... | $\begin{aligned} & 52 \\ & 11 \end{aligned}$ | $\begin{array}{r} 2,790 \\ 597 \end{array}$ | $\begin{array}{r} 18,992 \\ 3,709 \end{array}$ | $\begin{array}{r} 1,791 \\ 312 \end{array}$ | $\begin{array}{r} 3,666 \\ 646 \end{array}$ | $\begin{array}{r} 10,249 \\ 1,615 \end{array}$ | $\begin{array}{r} 32,551 \\ 6,615 \end{array}$ | $\begin{array}{r} 28,853 \\ 4,420 \end{array}$ | $\begin{aligned} & 59,135 \\ & 10,868 \end{aligned}$ | $1, \frac{133}{225}$ |
| 3569- | GENERAL INDUSTRY MACHINES, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. | 777 | 35,559 | 240,816 | 20,332 | 40,869 | 109,354 | 424,084 | 272,709 | 691,280 | 15,102 |
|  | $90 \%$ or more specialization.. <br> 75-89\% specialization....... | $\begin{array}{r} 629 \\ 40 \end{array}$ | $\begin{array}{r} 21,818 \\ 2,846 \end{array}$ | $\begin{array}{r} 151,048 \\ 18,043 \end{array}$ | $\begin{array}{r} 11,829 \\ 1,751 \end{array}$ | $\begin{array}{r} 24,214 \\ 3,573 \end{array}$ | $\begin{aligned} & 62,724 \\ & 10,089 \end{aligned}$ | $\begin{array}{r} 252,364 \\ 48,121 \end{array}$ | $\begin{array}{r} 176,671 \\ 27,648 \end{array}$ | $\begin{array}{r} 427,639 \\ 76,846 \end{array}$ | $\begin{array}{r} 10,621 \\ 688 \end{array}$ |

n.e.c. Not elsewhere classified.

## table 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963



See footnotes at end of table.

# table 9. Establishments, and Production Workers for Selected Metalworking Operations: 1963-Continued 

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | 20 or <br> more |  | 1 to 4 | 5 to 19 | $20 \text { or }$ more |
| Plate or structural fabrication............................. <br> Stamping, blanking and forming of metals............... <br> Painting, lacquering and enameling on metals.......... | INDUSTRY 3565.-INDUSTRIAL PATTERNS-Continued |  |  |  |  |  |  |  |
|  | 2 3 9 | $\overline{-}$ | 2 2 - | - | (D) 17 19 | (D) 19 | (D) | - |
|  | INDUSTRY 3566.-POWER TRANSMISSION EQUIPMENT |  |  |  |  |  |  |  |
| Ferrous foundry. <br> Nonferrous foundry (except die casting). <br> Forging-presses, hamers, or upsetters (excluding manufacture of nuts, bolts, etc.). $\qquad$ <br> Electroplating and other plating <br> Heat treating of metals. <br> Automatic screw machine department $\qquad$ <br> Machine shop............................. . . . . . . . . . . . . . . . . . . . . <br> Tool and die shop... <br> Foundry pattern shop. $\qquad$ <br> Plate or structural fabrication. <br> Stamping, blanking and forming of metals. <br> Painting, lacquering and enameling on metals. <br> Assembly of product. | 10 | - | 2 | 8 | 1,330 |  | (D) | (D) |
|  | 14 | 1 | 4 | 9 | 467 | (D) | (D) | 408 |
|  | 5 | 2 | 2 | 1 | 50 | (D) | (D) | (D) |
|  | 19 | 16 | 1 | 2 | 93 | 26 | (D) | (D) |
|  | 68 | 37 | 24 | 7 | 668 | 73 | 269 | 326 |
|  | 80 | 36 | 36 | 8 | 757 | 68 | 324 | 365 |
|  | 284 | 53 | 99 | 132 | 13,018 | 73 | 1,062 | 11,883 |
|  | 86 | 39 | 31 | 16 | 931 | 75 | 295 | 561 |
|  | 32 | 23 | 7 | 2 | 143 | 41 | (D) | (D) |
|  | 21 | 12 | 4 | 5 | 365 | 14 | 58 | 293 |
|  | 60 | 30 | 11 | 19 | 1,195 | 54 | 108 | 1.033 |
|  | 71 | 63 | 8 | - | 150 | 91 | 59 | - |
|  | 150 | 71 | 38 | 41 | 3,545 | 139 | 351 | 3,055 |
|  | INDUSTRY 3567.-INDUSTRIAL FURNACES AND OVENS |  |  |  |  |  |  |  |
| Machine shop...................................................... <br> Plate or structural fabrication. <br> Starping, blanking and forming of metals............... <br> Painting, lacquering and enameling on metals. | 85 | 50 | 20 | 15 | 1,598 | 103 | 198 | 1,297 |
|  | 73 | 30 | 29 | 14 | 1,028 | 77 | 283 | 668 |
|  | 58 | 29 | 21 | 8 | 495 | 62 | 191 | 242 |
|  | 66 | 55 | 9 | 2 | 207 | 95 | (D) | (D) |
|  | INDUSTRY 3569.-GENERAL INDUSTRY MACHINES, N.E.C. |  |  |  |  |  |  |  |
| Ferrous foundry........................................................... <br> Nonferrous foundry (except die casting)................. | 54 | 21 | 1 | 21 | 8041 | (D) | (D) | (D) |
|  |  |  |  |  |  |  |  |  |
| Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.). <br> Electroplating and other plating. | 4 | 3 | - | 1 | 37 | (D) | - | (D) |
|  | 9 | 8 | 1 | - | 33 | (D) | (D) |  |
| Galvanizing and other hot dip coating.................... | 5 | 3 | 2 | - | 15 | (D) | (D) | - |
|  | 29 | 27 | 2 | - | 62 | (D) | (D) | - |
| Heat treating of metals. Automatic screw machine department........................ | 26 | 21 | 4 | 1 | 93 | 34 | (D) | (D) |
|  | 249 | 87 | 94 | 68 | 4,258. | 172 | 974 | 3,112 |
|  | 63 | 45 | 17 | 1 | 280 | 82 | (D) | (D) |
| Tool and die shop. <br> Foundry pattern shop. | 22 | 19 | 3 | - | 58 | 33 | 25 | - |
| Plate or structural fabrication. <br> Stamping, blanking and forming of metals.............. <br> Painting, lacquering and enameling on metals.......... | 116 | 61 | 36 | 19 | 1,475 | 107 | 331 | 1,037 |
|  | 88 | 54 | 25 | 9 | 697 | 75 | 242 | 380 |
|  | 157 | 144 | 13 | - | 296 | 172 | 124 | - |

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below:

| Item | Industry |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3561 | 3562 | 3564 | 3565 | 3566 | 3567 | 3569 |
| Total number of establishments in the industry...................... | 642 | 125 | 237 | 1,209 | 532 | 239 | 778 |
| Number of establishments which reported one or more of the specified operations.............................................................. Percent of industry production workers in these establishments... | 334 $80-85$ | 99 $95-100$ | 106 $80-85$ | 449 $60-65$ | 316 $85-90$ | 121 $80-85$ | 348 $65-70$ |
| Number of establishments which reported "none" of the operations apply. <br> Percent of industry production workers in these establishments.... | 56 $0-5$ | 6 $0-5$ | $\begin{aligned} & (x) \\ & (x) \end{aligned}$ | 100 $10-15$ | 56 $0-5$ | 17 $5-10$ | 68 $0-5$ |
| Percent of industry production workers in establishments which completed metalworking operations inquiry | 80-85 | 95-100 | 80-85 | 75-80 | 85-90 | 90-95 | 70-75 |

[^200] applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ These size groups are based on the number of employees in each specific operation. They are not based on total employment in the establishment.

## OFFICE, COMPUTING, AND ACCOUNTING MACHINES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3571 -Computing and Accounting Machines, Including Cash Registers<br>3572-Typewriters<br>3576-Scales and Balances, Except Laboratory<br>3579-Office Machines, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

3571-COMPUTING AND ACCOUNTING MACHINES, INCLUDING CASH REGISTERS
This industry comprises establishments primarily engaged in manufacturing computing machines including electronic, accounting machines, and cash register. Establishments primarily engaged in manufacturing typewriters are classified in industry 3572, and office duplicating machines and devices and autographic registers in industry 3579. For a detailed list of products of industry 3571, refer to table 6A, product codes 3571101 to 3571297 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Computing and Related Machines Industry totaled $\$ 2,020$ million. This amount included shipments of computing and related machines (primary products) valued at $\$ 1,752$ million, shipments of other products (secondary products) valued at $\$ 122$ million, and miscellaneous receipts (largely sales of products bought and resold) at $\$ 145$ million.

This industry's shipments of computing and related machines represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each
of the different product classes. The extent of this specialization is indicated in table 8. Approximately 54 percent of the total industry shipments are represented by plants specializing in computing and accounting machines, including cash registers; and 45 percent in electronic data processing machines and associated equipment, except typewriters.

Shipments of computing and related machines by this industry represented 94 percent of all shipments of these products ( $\$ 1,859$ million) by all industries. In 1958 the coverage ratio was 91 percent. Other industries shipping computing and related machines include industry 3662, Radio, TV Communications Equipment, $\$ 44$ million; and industry 3572, Typewriters, over $\$ 22$ million.

## 3572-TYPEWRITERS

This industry comprises establishments primarily engaged in manufacturing typewriters and parts. For a detailed list of products of industry 3572, refer to table6A, product codes 3572001 to 3572098 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Typewriters Industry totaled $\$ 315$ million. This amount included shipments of typewriters (primary products) valued at $\$ 262$ million, shipments of other products (secondary products) valued at $\$ 45$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 8$ million.

This industry's shipments of typewriters represented 85 percent of its total product shipments. The industry specialization ratio in 1958 was 82 percent. Secondary products shipped by this industry in 1963 include computing and related machines of over $\$ 22$ million.

Shipments of typewriters by this industry represented 99 percent of all shipments of these products ( $\$ 265$ million) by all industries. In 1958 the coverage ratio was also 99 percent.

The production index for the primary products of the industry increased to 158 in 1963 from the 1958 level of 116. The unit value index for 1963 was 119 compared to 115 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3576-SCALES AND BALANCES, EXCEPT LABORATORY

This industry comprises establishments primarily engaged in manufacturing weighing and force measuring machines and devices of all types, except those regarded as scientific apparatus for laboratory and experimental work which are classified in industry 3811. For a detailed list of products of industry 3576 , refer to table 6 A , product codes 3576011 to 3576084 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Scales and Balances Industry totaled $\$ 98$ million. This amount included shipments of scales and balances (primary products) valued at $\$ 87$ million, shipments of other products (secondary products) valued at $\$ 7$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 4$ million.

This industry's shipments of scales and balances represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent.

Shipments of scales and balances by this industry represented 97 percent of all shipments of these products ( $\$ 90$ million) by all industries. In 1958 the coverage ratio was also 97 percent.

## 3579—OFFICE MACHINES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing office machines and devices, n.e.c. Establishments primarily engaged in manufacturing computing machines and cash registers are classified in industry 3571, typewriters in industry 3572, and photocopy and microfilm equipment in industry 3861. For a detailed list of products of industry 3579, refer to table 6A, product codes 3579010 to 3579091 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Office Machines, N.E.C., Industry totaled $\$ 349$ million. This amount included shipments of office machines, n.e.c. (primary products) valued at $\$ 223$ million, shipments of other products (secondary products) valued at $\$ 51$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 76$ million.

This industry's shipments of office machines, n.e.c., represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent. Secondary products shipped by this industry in 1963 included other fabricated wire products, not produced by wire drawers ( $\$ 7$ million), and computing and related machines (over $\$ 4$ million).

Shipments of office machines, n.e.c., by this industry represented 81 percent of all shipments of these products ( $\$ 276$ million) by all industries. In 1958, the coverage ratio was 85 percent. Another industry shipping office machines, n.e.c., was industry 3315, Steel Wire Drawing, $\$ 7$ million.


## table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours (1,000) | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| $1963 . \ldots . . .$.$1962^{1} \ldots \ldots .$.$1961^{1} \ldots \ldots .$.$1960^{1} \ldots \ldots .$.$1959^{1} \ldots . . .$. | INDUSTRY 3571. -COMPUTING AND RELATED MACHINES |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 213 | $\begin{aligned} & 248 \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | $\begin{aligned} & 139 \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | $\begin{array}{r} 96,370 \\ 100,549 \\ 98,261 \\ 95,050 \\ 78,154 \end{array}$ | $\begin{aligned} & 703,231 \\ & 722,357 \\ & 677,751 \\ & 638,796 \\ & 488,028 \end{aligned}$ | $\begin{aligned} & 58,985 \\ & 59,519 \\ & 60,720 \\ & 60,043 \\ & 50,147 \end{aligned}$ | $\begin{array}{r} 119,521 \\ 118,109 \\ 120,280 \\ 120,306 \\ 98,406 \end{array}$ | $\begin{aligned} & 369,459 \\ & 364,645 \\ & 366,431 \\ & 353,748 \\ & 275,080 \end{aligned}$ | 1,101,484 | $\begin{aligned} & 926,876 \\ & 841,338 \end{aligned}$ | 2,019,714 | $92,628$ | 93 | 94 |
|  | (NA) |  |  |  |  |  |  |  | $\begin{array}{r} 1,025,776 \\ 915,619 \end{array}$ |  | 1,833,241 |  | $\begin{aligned} & (\mathrm{NA}) \\ & (\mathrm{NA}) \end{aligned}$ | (NA) |
|  | (NA) |  |  |  |  |  |  |  |  | 850,876 | 1,676,748 | 93,147 |  |  |
|  | (NA) |  |  |  |  |  |  |  | 822,012 | 791,137 | 1,555,715 | 69,754 | (NA) |  |
|  | ( NA) |  |  |  |  |  |  |  | 722,538 | 619,401 | 1,301,719 | 38,958 | (NA) | (NA) |
| 1958 ${ }^{2}$ (New) . . | 119 | 136140 | $\begin{aligned} & 71 \\ & 74 \end{aligned}$ | $\begin{aligned} & 80,864 \\ & 82.442 \end{aligned}$ | 473,455$r_{480,845}$ | 50,52351,543 | $\begin{array}{r} 98,497 \\ 100,472 \end{array}$ | 269,013 | 579,103590,897 | 528,065530,784 | $1,104,194$$1,118,683$ | $\begin{aligned} & 61,494 \\ & 61,980 \end{aligned}$ | $\begin{array}{r} 94 \\ \text { (NA) } \end{array}$ | 91(NA) |
| 1958 ${ }^{2}$ (01d).. | (NA) |  |  |  |  |  |  | 273,770 |  |  |  |  |  |  |
| $1957{ }^{1}$. | (NA) | (NA) | (NA) | 77,070 | 459,219 | 51,862 | $\begin{aligned} & 113,755 \\ & 107,963 \end{aligned}$ | 278,024 | 658,563 | 465,279 | 1,008,095 | 105,037 | (NA) | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ |
| 1956 | (NA) | (NA) | (NA) | 65,477 | 378,348 | 48,315 |  | 252,099 | 591,408 | 317,836 | 767,483 | 59,126 |  |  |
| $1955{ }^{1}$ | ( NA) | (NA) | (NA) | 60,135 | 303,883 | 46,933 | 92,464 | 218,719 | 407,729 | 252,417 | 661,775 | 33,911 | (NA) | (NA) |
| 1954 | $\begin{array}{r} 73 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \end{array}$ | $\begin{aligned} & 84 \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | $\begin{array}{r} 51 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \end{array}$ | 56,692 56,789 <br> 53,256 <br> 49,974 |  | 45,014 46,287 43,86941,792 | $\begin{aligned} & 88,484 \\ & 91,363 \\ & 86,615 \\ & 85,079 \end{aligned}$ |  | $\begin{aligned} & 405,414 \\ & 384,634 \\ & 342,369 \\ & 310,100 \end{aligned}$ |  |  | $\begin{array}{r} 31,571 \\ (\mathrm{NA}) \\ \text { (NA) } \\ \text { (NA) } \end{array}$ | $\begin{gathered} 78 \\ (\mathrm{NA}) \\ (\mathrm{NA}) \\ \text { (NA) } \end{gathered}$ | $\begin{array}{r} 93 \\ (\mathrm{NA}) \\ (\mathrm{NA}) \\ (\mathrm{NA}) \end{array}$ |
| $1953{ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1952{ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1951{ }^{1}$. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 1950^{1} \ldots \ldots . . \\ & 1949{ }^{1} \ldots \ldots . . \\ & 1947 \ldots \ldots . . \\ & 1939^{3} \ldots \ldots . . \end{aligned}$ | $\begin{array}{r} \text { (NA) } \\ \text { (NA) } \\ 50 \\ \text { (NA) } \end{array}$ | $\begin{array}{r} \text { (NA) } \\ \text { (NA) } \\ 51 \\ 38 \end{array}$ | $\begin{array}{r} \text { (NA) } \\ \text { (NA) } \\ 29 \\ \text { (NA) } \end{array}$ | $\begin{array}{r} 42,664 \\ 41,112 \\ 45,611 \\ (\mathrm{NA}) \end{array}$ | $\begin{array}{r} 167,293 \\ 152 ; 913 \\ 152,678 \\ \text { (NA) } \end{array}$ | 35,911 | 73,065 71,863 <br> 85,445 <br> (NA) | $\begin{array}{r} 133,015 \\ 125,605 \\ 127,569 \\ 25,798 \end{array}$ | $\begin{array}{r} 260,684 \\ 230,387 \\ 231,207 \\ 71,929 \end{array}$ | 84,676 73,302 <br> 62,262 <br> 10,400 | $\begin{array}{r} 345,360 \\ 303,689 \\ 293,469 \\ 82,329 \end{array}$ | $\begin{array}{r} \text { (NA) } \\ \text { (NA) } \\ 22,295 \\ \text { (NA) } \end{array}$ | $\begin{gathered} \text { (NA) } \\ \text { (NA) } \\ 94 \\ (N A) \end{gathered}$ | $\begin{gathered} \text { (NA) } \\ \text { (NA) } \\ 94 \\ \text { (NA) } \end{gathered}$ |
|  |  |  |  |  |  | 35,602 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 40,467 |  |  |  |  |  |  |  |  |
| $1939^{3} \ldots . .$ |  |  |  |  |  | 16,517 |  |  |  |  |  |  |  |  |
|  | INDUSTRX 3572.-TYPEWRITERS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 1963 . \ldots . . . . \\ & 1962^{1} \ldots \ldots . . \\ & 1961^{1} \ldots \ldots . . \\ & 1960^{1} \ldots \ldots . . \\ & 1959^{1} \ldots \ldots . . \end{aligned}$ | $\begin{aligned} & 17 \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | $\begin{aligned} & 21 \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | $\begin{gathered} 16 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \end{gathered}$ | 18,023 | $\begin{array}{r} 102,885 \\ 96,697 \end{array}$ |  |  | 71, 06869,308 | 243,190 | 79,64179,737 |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 206, 883 |  | $\begin{array}{rrrr}315,385 & 9,576 & 85 & \text { (N9) }\end{array}$ |  |  |  |
|  |  |  |  |  | 96,697 93,788 | 14,049 14,848 | $\begin{aligned} & 27,549 \\ & 28,677 \end{aligned}$ | 68,096 | 195,834 | 75,412 | 270,535 | 8,309 | (NA) | (NA)(NA)(NA) |
|  |  |  |  | 19,102 | 92,965 | 15,266 | 29,665 | 68,064 | 201,186 | 75,527 | 282,971 | 10,307 | (NA) |  |
|  |  |  |  | 19,692 | 93,593 | 16,125 | 31,320 | 71,586 | 188,658 | 71,763 | 265,358 | 7,395 | (NA) | (NA) |
| 1958. | 16(NA)(NA)(NA)15 | $\begin{array}{r} 18 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \end{array}$ | $\begin{gathered} 13 \\ \text { (NA) } \end{gathered}$ | $\begin{aligned} & 19,779 \\ & 24,058 \end{aligned}$ | $\begin{aligned} & 84,467 \\ & 95,026 \end{aligned}$ |  |  |  |  | $\begin{aligned} & 67,691 \\ & 76,893 \end{aligned}$ | $\begin{aligned} & 238,173 \\ & 265,076 \end{aligned}$ | 9,880 | 82 | 99 |
| 1957 |  |  |  |  |  |  |  |  |  |  |  | 30,426 | (NA) | (NA) <br> (NA) <br> (NA) |
| $1956{ }^{1}$ |  |  | (NA) | 22,075 | $\begin{aligned} & 86,703 \\ & 75,935 \end{aligned}$ | $\begin{aligned} & 21,043 \\ & 19,466 \end{aligned}$ | $\begin{aligned} & 40,676 \\ & 38,554 \end{aligned}$ | $\begin{aligned} & 81,610 \\ & 74,588 \end{aligned}$ | $\begin{aligned} & 214,757 \\ & 182,116 \end{aligned}$ | 58,202 | 229,849 | 13,775 | (NA) |  |
| $1955{ }^{1}$ |  |  | (NA) | 19,931 |  | 18,147 | 35,064 | 68,165 | 162,328 | 47,808 | 207,056 | 2,704 | (NA) |  |
| 1954. |  | 18 | 14 | 18,435 | 67,399 | 16,699 | 32,589 | 60,075 | 136,953 | 44,722 | 178,799 | 2,789 | 80 | 97 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 19,822 | 73,341 | 17,392 | (NA) | 62,248 | 135,121 | 46,466 | 181,587 | (NA) | (NA) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (NA) | 21,057 | 73,627 | 18,567 | (NA) | 62,792 | 133,691 | 41,793 | 175,484 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 22,778 | 79,263 | 20,564 | (NA) | 69,701 | 141,155 | 36,739 | 177, 894 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 19,692 | 61,408 | 17,906 | (NA) | 54,129 | 113,764 | 27,845 | 141,609 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 17,603 | 50,350 | 15,683 | (NA) | 43,830 | 87,704 | 27,227 | 114,931 | (NA) | (NA) | (NA) |
| 1947. | 23 | 28 | (NA) | 26,604 | 73,177 | 23,838 | 49,684 | 63,509 | 121,385 | 32,539 | 153,924 | (NA) | 90 | 97 |
| 1939. | (NA) | 18 | (NA) | (NA) | (NA) | 16,195 | (NA) | 19,214 | 29,096 | 10,830 | 39,926 | (NA) | (NA) | ( NA ) |
| 1937. | (NA) | 21 | (NA) | 22,930 | 28,488 | 21,440 | (NA) | 25,956 | 31,614 | 13,392 | 45,006 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 20 | (NA) | 16,920 | 18,796 | 15,398 | (NA) | 16,632 | 25,228 | 8,630 | 33,858 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 14 | (NA) | 10,361 | 8,549 | 9,591 | (NA) | 7,565 | 13,209 | 3,256 | 16,465 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 20 | (NA) | (NA) | (NA) | 10,924 | (NA) | 10,328 | 18,272 | 3,785 | 22,057 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 26 | (NA) | 18,409 | 25,656 | 16,945 | (NA) | 22,319 | 54,609 | 7,249 | 61,858 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 26 | (NA) | 17,222 | 22,237 | 15,603 | (NA) | 19,398 | 45,383 | 9,936 | 55,319 | (NA) | (NA) | (NA) |
|  |  |  |  |  |  |  | USTRY 3576 | -SCALES A | D BALANCES |  |  |  |  |  |
| 1963. | 81 | 85 | 35 | 5,765 | 35,052 | 3,725 | 7,678 | 19,919 | 64,362 | 35,298 | 98,491 | 1,149 | 92 | 97 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 5,179 | 29,121 | 3,377 | 6,979 | 16,457 | 49,849 | 27,719 | 77,735 | 970 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 5,245 | 28,943 | 3,475 | 7,292 | 16,699 | 49,664 | 26,362 | 74,810 | 771 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 5,045 | 26,848 | 3,415 | 7,001 | 15,621 | 48,254 | 24,077 | 70,382 | 1,341 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 5,392 | 27,846 | 3,565 | 7,378 | 16,076 | 49,987 | 29,064 | 80,880 | $(1,842)$ | (NA) | (NA) |
| 19582 ${ }^{2}$ (New)... | ${ }_{7}^{7}$ | 72 | 32 38 | 5,347 | 26,574 | 3,515 | 6,886 | 14,974 | 49,125 | 27,844 | 78,335 | 1,406 | 91 | 97 |
| 19582 ${ }^{\text {(01d) }}$.. | (NA) | 79 | 38 | 5,733 | 28,335 | 3,798 | 7,417 | 16,007 | 52,008 | 28,597 | 81,999 | 1,512 | (NA) | (NA) |
| 1957¹........ | (NA) | (NA) | (NA) | 6,646 | 34,965 | 4,843 | 9,091 | 21,335 | 64,207 | 30,563 | 91,350 | (S) | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 6,393 | 31,054 | 4,789 | 8,903 | 19,563 | 60,116 | 28,793 | 86,114 | (S) | (NA) | (NA) |
| $1955{ }^{1}$. | (NA) | (NA) | (NA) | 5,687 | 26,271 | 4,300 | 8,712 | 17,067 | 51,087 | 24,685 | 74,878 | (S) | (NA) | (NA) |
| 1954......... | 77 |  | 35 | 5,381 | 21,276 | 4,074 | 7,636 | 14,193 | 45,535 | 20,135 | 64,182 | 1,103 | 90 | 96 |
| 19531........ | (NA) | (NA) | (NA) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 6,683 | 26,061 | 4,659 | 9,705 | 15,991 | 53,548 | 25,104 | 78,652 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 6,519 | 24,300 | 5,166 | 10,688 | 16,681 | 46,080 | 31,693 | 77,773 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 7,117 | 24,676 | 4,443 | 8,838 | 13,365 | 42,426 | 20,671 | 63,097 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$. | (NA) | (NA) | (NA) | 6,122 | 19,639 | 4,385 | 8,249 | 11,991 | 38,013 | 16,764 | 54,777 | ( NA) | (NA) | (NA) |
| 1947. | 73 | 75 | 32 | 6,526 | 18,849 | 4,385 | 10,041 | 12,847 | 34,766 | 19,776 | 54,542 | 1,457 | 91 | 92 |
| 1939. | (NA) | 56 | (NA) | 3,757 | 5,566 | 2,839 | (NA) | 3,306 | 9,363 | 4,987 | 14,350 | (NA) | ( NA) | (NA) |
| 1937. | (NA) | 57 | (NA) | 4,139 | 5,797 | 3,299 | (NA) | 4,115 | 11,998 | 5,858 | 17,856 | (NA) | (NA) | (NA) |
| 1935 | (NA) | 56 | (NA) | 3,271 | 4,195 | 2,468 | (NA) | 2,633 | 9,567 | 3,816 | 13,383 | (NA) | (NA) | (NA) |

See footnotes at end of table.

## table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | $\begin{gathered} \text { Value } \\ \text { added by } \\ \text { manufacture, } \\ \text { adjusted } \\ (\$ 1,000) \end{gathered}$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> ( $\$ 1,000$ ) | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees of more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3576. -SCALES AND BALANCES-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1933. | (NA) | 45 | (NA) | 2,896 | 2,883 | 2,187 | (NA) | 1,825 | 6,171 | 2,162 | 8,333 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 54 | (NA) | (NA) | ( NA ) | 2,814 | (NA) | 3,233 | 3,644 | 10,917 | 14,561 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 59 | (NA) | 6,183 | 8,845 | 4,118 | (NA) | 5,995 | 22,943 | 7,438 | 30,381 | (NA) | (NA) | (NA) |
| 1927. | ( NA) | 60 | (NA) | 4,988 | 7,891 | 3,906 | (NA) | 5,461 | 17,201 | 7,454 | 24,655 | (NA) | (NA) | (NA) |
| 1925. | ( NA) | 71 | (NA) | 5,397 | 8,242 | 4,292 | (NA) | 5,783 | 19,888 | 7,349 | 27,237 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 65 | (NA) | 5,289 | 7,794 | 4,245 | (NA) | 5,500 | 17,563 | 6,594 | 24,157 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 65 | (NA) | 4, 804 | 6,290 | 3,720 | (NA) | 4,428 | 11,169 | 4,716 | 15,885 | (NA) | (NA) | (NA) |
| 1919. | (NA) | 79 | (NA) | 6,783 | 8,800 | 5,432 | (NA) | 6,534 | 13,647 | 6,994 | 20,641 | (NA) | (NA) | (NA) |
| 1914. | (NA) | 83 | (NA) | 5,443 | 4,168 | 4,467 | (NA) | 2,934 | 6,560 | 3,174 | 9,734 | (NA) | (NA) | (NA) |
| 1909. | (NA) | 87 | (NA) | 4,231 | 3,001 | 3,559 | (NA) | 2,186 | 6,082 | 2,704 | 8,786 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 85 | (NA) | 3,564 | 2,231 | 3,133 | (NA) | 1,755 | 4,370 | 1,633 | 6,003 | (NA) | (NA) | (NA) |
| 1899...... | ( NA ) | 86 | (NA) | 3,080 | 1,734 | 2,775 | (NA) | 1,437 | 3,707 | 1,533 | 5,240 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3579.-OFFICE MACHINES, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 158 |  |  | 16,980 | 104,053 | 11,616 | 22,996 | 63,258 | 224,654 | 126,658 | 349,210 | 16,257 | 81 | 81 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | $(19,220)$ | $(114,963)$ | $(13,224)$ | $(26,471)$ | $(67,945)$. | $(255,777)$ | $(103,111)$ | $(374,384)$ | $(7,919)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 18, 866 | 110,835 | 13,031 | 26,239 | 64,381 | 239,005 | 93, 94, | 351,115 | 7,204 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 16,581 | 98,942 | 11,831 | 23,894 | 59,862 | 223,343 | 90,860 | 321,174 | 8,491 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 15,581 | 86,625 | 10,867 | 21,165 | 52,717 | 191,132 | 98,995 | 292,893 | 9,662 | (NA) | (NA) |
| $1958{ }^{2}$. | 119 | 120 | 72 | 15,625 | 82,984 | 10,600 | 21,227 | 50,108 | 173,424 | 90,596 | 264,513 | 11,817 | 84 | 85 |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample, of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data. ${ }_{2}^{2}$ A A revision in the definition of this industry was industry are not strictly comparable with those for earlier years. The 1957 and earlier years are based on the old SIC definition of the industry.
${ }^{3}$ Comparable figures are not available for prior years.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees (number) | Valueadded by manufacture. adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payrol! } \\ & (\$ 1,000) \end{aligned}$ | Total (number) | $\begin{gathered} \begin{array}{c} \text { Man- } \\ \text { hours } \end{array} \\ (1,000) \end{gathered}$ | Wages $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3571.-COMPUTING AND RELATED MACHINES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 248 | 139 | 96,370 | 703,231 | 58,985 | 119,521 | 369,459 | 1,101,484 | 926,876 | 2,019,714 | 92,628 | 80,864 | 579,103 |
| $\begin{aligned} & \text { New England.......... } \\ & \text { Massachusetts..... } \end{aligned}$ | 27 21 | 16 13 | 3,494 3,050 | 21,403 19,366 | 2,467 2,092 | 5,519 4,792 | 12,305 10,797 | 50,306 46,128 | 34,942 33,785 | 83,616 78,504 | 2,596 2,307 | 2,791 1,318 | 17,215 8,631 |
| Máddle Atlantic..... | 72 | 35 | 33,814 | 264,731 | 17,987 | 37,171 | 116,047 | 296,120 | 436,725 | 738,841 | 41,096 | 35,517 | 193,238 |
| New York........... | 38 | 19 | 26,885 | 218,977 | 13,500 | 27,929 | 91,530 | 212,510 | 351,804 | 565,877 | 28,764 | 30,752 | 162,427 |
| New Jersey........ | 11 | 8 | 2,442 | 16,108 | 1,568 | 3,450 | 8,778 | 28,498 | 25,076 | 48,836 | (D) | $\left(\begin{array}{l}(2) \\ (2)\end{array}\right.$ | ${ }^{(2)}$ |
| Pennsylvania...... | 23 | 8 | 4,487 | 29,646 | 2,919 | 5,792 | 15,739 | 55,112 | 59,845 | 124,128 | (D) | $\left({ }^{2}\right)$ | ${ }^{2}$ ). |
| East North Central.. | 34 | 18 | 26,577 | 186,515 82,679 | 21,849 6,049 | 42,981 | 146,342 35,108 | 323,064 195,516 | 133,275 141,993 | 467,615 312,111 | 11,574 19,587 | 31,071 | 280,206 |
| West North Central.. | 17 | 11 | 11,632 | 82,679 | 6,049 | 12,510 | 35,108 | 195,516 | 141,993 | 312,111 | 19,587 | 31, |  |
| South. Maryland $\qquad$ . . . . . . . . | 24 5 | 18 | 4,006 173 | 21,487 1,374 | 2,766 115 | 5,536 247 | 12,230 903 | 67,123 897 | 43,958 2,449 | 110,860 4,144 | $\begin{array}{r}1,084 \\ \hline 69\end{array}$ | 1,192 ${ }_{(2)}$ | 16,939 $(2)$ |
| West................ | 74 | 41 | 16,847 | 126,416 | 7,867 | 15,804 | 47,427 | 169,355 | 135,983 | 306,671 | 16,691 | 10,293 | 71,505 |
|  | INDUSTRY 3572.-TYPEWRITERS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total........... | 21 | 16 | 18,023 | 102,885 | 13,940 | 27,076 | 71,068 | 243,190 | 79,641 | 315,385 | 9,576 | 19,779 | 168,877 |
| Northeast: <br> New York. . . . ...... | 7 | 5 | 6,975 | 34,809 | 5,794 | 11,329 | 27,415 | 86,338 | 26,648 | 110,746 | 1,801 | 9,237 | 81,097 |
| All other States.... | 14 | 21 | 11,048 | 68,076 | 8,146 | 15,747 | 43,653 | 156,852 | 52,993 | 204,639 | 7,775 | 10,542 | 87,780 |
|  | INDUSTRY 3576.-SCALES AND BALANCES |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 85 | 35 | 5,765 | 35,052 | 3,725 | 7,678 | 19,919 | 64,362 | 35,298 | 98,491 | 1,149 | 5,347 | 49,125 |
| Northeast and North Central $\qquad$ | 61 | 29 | 5,421 | 32,600 | 3,478 | 7,164 | 18,241 | 59,814 | 32,697 | 91,302 | 1,080 | $\left({ }^{2}\right)$ | ${ }^{2}$ ) |
| New York........... | 6 | 3 | -740 | 3,973 | - 531 | 1,153 | 2,629 | 6,448 | 5,113 | 11,657 | 29 | 794 | 6,303 |
| Pennsylvania..... | 5 | 2 | 126 | 712 | 103 | 245 | 529 | 1,137 | 539 | 1,570 | (D) | ${ }^{(2)}$ | ${ }^{(2)}$ |
| Ohio.............. | 9 | 4 | 1,690 | 10,838 | 960 | 1,962 | 5,420 | 20,270 | 11,046 | 30,990 | 575 | 1,423 | 14,431 |
| Illinois.......... | 14 | 10 | 1,078 | 6,044 | 732 | 1,434 | 3,251 | 13,043 | 6,840 | 19,657 | 282 | 1,108 | 10,520 |
| South and West...... | 24 | 6 | 344 | 2,452 | 247 | 514 | 1,678 | 4,548 | 2,601 | 7,189 | 69 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ |
| California....... | 11 | 5 | 274 | 2,028 | 199 | 409 | 1,416 | 3,732 | 2,150 | 5,914 | 66 | (2) | ${ }^{2}$ ) |


| Total. | 161 | 75 | 16,980 | 104,053 | 11,616 | 22,996 | 63,258 | 224, 654 | 126,658 | 349,210 | 16,257 | 15,625 | 173,424 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New England. | 20 | 10 | 4,270 | 27,757 | 3,007 | 6,187 | 17,957 | 59,470 | 23,669 | 83,731 | 2,715 | 4,372 | 48,258 |
| Connecticut. | 11 | 6 | 3,547 | 23,817 | 2,454 | 5,021 | 15,342 | 51,303 | 17,282 | 69,450 | 2,010 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| Middle Atlantic | 48 | 18 | 3,187 | 16,986 | 2,497 | 4,996 | 11,726 | 29,495 | 18,268 | 47,455 | 916 | 3,113 | 24,194 |
| New York. | 29 | 11 | 1,866 | 9,475 | 1,494 | 3,053 | 6,743 | 17,531 | 11,479 | 28,861 | 567 | 1,674 | 14,507 |
| New Jersey. | 13 | 5 | 1,208 | 6,893 | 912 | 1,766 | 4,573 | 10,675 | 5,846 | 16,355 | 281 | 1,103 | 7,738 |
| Pennsylvania | 6 | 2 | 113 | 618 | 91 | 177 | 410 | 1,289 | 943 | 2,239 | 68 | 336 | 1,949 |
| North Central. | 53 | 28 | 8,220 | 52,815 | 5,135 | 9,801 | 29,568 | 125,940 | 78,864 | 202,534 | 11,607 | 7,395 | 94,349 |
| Michigan. . | 7 | 3 | 439 | 2,516 | 294 | 527 | 1,352 | 3,122 | 3,704 | 6,634 | 58 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Minnesota. | 5 | 3 | 140 | 715 | 122 | 266 | 567 | 1,646 | 892 | 2,567 | 25 | ${ }^{2}$ ) | $\left.{ }^{2}\right)$ |
| South and West. | 40 | 19 | 1,303 | 6,495 | 977 | 2,012 | 4,007 | 9,749 | 5,857 | 15,490 | 1,019 | 745 | 6,623 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companie
(NA) Not available. 1 (1-19); Utah, 1 (1-19); Pacific-Oregon, 1 (1-19).
SIC 3579, Office Machines, N.E.C.: New England—New Hampshire, 1 (100-249); Massachusetts, 7 (500-999); Rhode Island, 1 (1-19); East North CentralOhio, 7 (3,315); Indiana, 1 (1-19); Illinois, 27 (4,244); Wisconsin, 1 (1-19); West North Central-Iowa, 1 (1-19); Missouri, 3 (20-99); Kansas, 1 (1-19); South Atlantic-Maryland, l (20-99); District of Columbia, 2 (20-99); Virginia, 1 (20-99); North Carolina, 2 (250-499); South Carolina, 1 (20-99); Georgia, 3 (20-99); West South Central-Oklahoma, 1 (20-99); Texas, 6 (100-249); Mountain-Colorado, 1 (1-19); Arizona, 1 (1-19); Utah, 1 (1-19); Pacific-Washington, 3 (20-99); California, 17 (250-449).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

| Item | Computing and related machines (SIC 3571) | Typewriters (SIC 3572) | $\begin{gathered} \text { Scales } \\ \text { and } \\ \text { balances } \\ \text { (SIC } 3576 \text { ) } \end{gathered}$ | Office machines, n.e.c. (SIC 3579) |
| :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio... | . 93 | . 85 | . 92 | . 81 |
| Coverage ratio................................................... | . 94 | . 99 | . 97 | . 81 |
| Establishments, total.....................................number.. | 248 | 21 | 85 | 161 |
| With 1 to 19 employees..................................d. ${ }^{\text {do... }}$ | 109 | 5 | 50 | 86 |
| With 20 to 99 employees..................................do... | 59 | 4 | 20 | 47 |
| With 100 employees or more...............................do.... | 80 | 12 | 15 | 28 |
| Proprietors and working partners........................do... | 46 | - | 27 | 41 |
| All employees (average for the year)...................do.... | 96, 370 | 18,023 | 5,765 | 16,980 |
| Payroll (all employees), total for year................ $\$ 1,000 .$. | 703,231 | 102,885 | 35,052 | 104,053 |
| Production workers: |  |  |  |  |
| Average for the year.................................number.. | 58,985 | 13,940 | 3,725 | 11,616 |
| March................................................... . . do... | 58,614 | 14,397 | 3,576 | 11,440 |
| May..................................................... . ${ }^{\text {do. . . }}$ | 57,551 | 13,866 | 3,691 | 21,613 |
| August................................................. . do.... | 58,472 | 13,739 | 3,802 | 11,588 |
| November................................................ do.... | 61,289 | 13,754 | 3,829 | 11,843 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 119,521 | 27,076 | 7,678 | 22,996 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . | 30,323 | 7,207 | 1,862 | 5,952 |
|  | 29,904 | 6,992 | 1,972 | 6,000 |
| July-September........................................... . . . do. | 27,060 | 5,980 | 1,876 | 5,362 |
| October-Decernber. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 32,234 | 6,900 | 1,998 | 5,682 |
| Wages.................................................. . $\$ 1,000 .$. | 369,459 | 71,068 | 19,919 | 63,258 |
| Cost of materials, etc., total...........................do. | 926,876 | 79,641 | 35,298 | 126,658 |
| Materials, parts, containers, and supplies consumed..do.. | 846,766 | 73,871 | 32,049 | 77, 836 |
| Cost of resales.............................................do... | 42,942 | 2,951 | 2,241 | 44,042 |
| Fuels consumed............................................... . . . . . . . | 3,267 | 984 | 257 | 750 |
| Electric energy: |  |  |  |  |
| Purchased: |  |  |  |  |
| Quantity.................................million kw.-hrs.. | 578 |  | 23 |  |
| Cost................................................ $\$ 1,000 .$. | 6,951 | 1,426 | 410 | 1,336 |
| Generated less sold........................million kw.-hrs.. | (D) | - | (D) | - |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 26,950 | 409 | 341 | 2,694 |
| Value of shipments (including resales), total...........do.... |  |  |  |  |
| Value of resales............................................................ | $60,579$ | 7,031 | 2,472 | 69,453 |
| Value added by manufacture, adjusted...................do.. | 1,101,484 | 243,190 | 64,362 | 224,654 |
| Manufacturers' inventories: |  |  |  |  |
| Beginning of year, total...............................do.... | 642,545 | 57,072 | 22,394 | 86,684 |
| Finished products...................................... do. | 115,891 | 9,981 | 6,135 | 40,250 |
| Work-in-process......................................do.... | 452,511 | 38,934 | 11,813 | 34,704 |
| Materials, supplies, fuel, etc......................do.... | 74,143 | 8,157 | 4,446 | 11,730 |
| End of year, total..................................... do.. | 653,536 | 65,187 | 24,045 | 89,814 |
| Finished products...................................... . do.. | 114,303 | 13,191 | 7,100 | 41,509 |
| Work-in-process.... . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 463,015 | 43,170 | 12,017 | 35,547 |
| Materials, supplies, fuel, etc......................do.... | 76,218 | 8,826 | 4,928 | 12,758 |
| Expenditures for plant and equipment, total...........do.... | 101,328 | 9,603 | 1,177 | 16,612 |
| New, total..............................................do.... | 92,628 | 9,576 | 1,149 | 16,257 |
| New structures and additions to plant..............do.... | 13,486 | 1,851 | 1,97 | 6,121 |
| New machinery and equipment.........................do.... | 79,142 | 7,725 | 1,052 | 10,136 |
| Used plant and equipment...............................do.... | 8,700 | 27 | 28 | 355 |
| Selected operating ratios: |  |  |  |  |
| Payroll/Total employment........................................ | 7,298 | 5,709 | 6,080 | 6,128 |
| Production workers/Total employment.......................... | . 61 | . 77 | . 65 | . 68 |
| Man-hours/Production workers.... | 2,026 | 1,942 | 2,061 | 1,980 |
| Production worker wages/Man-hours........................... | 3.09 | 2.62 | 2.59 | 2.75 |
| Cost of materials and payrolls/Total value of shipments.... | . 81 | . 58 | . 71 | . 66 |
| Cost of materials/Total value of shipments.................. | . 46 | . 25 | . 36 | . 36 |
| Adjusted value added/Total employment........................ | 11,430 | 13,493 | 11,164 | 13,231 |
| Salaries and wages/Adjusted value added..................... | . 64 | . 42 | . 54 | . 46 |

[^201]TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \end{gathered}$ employees | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
| Establishments. .............. number. . All employees: | INDUSTRY 3571.-COMPUTING AND RELATED MACHINES |  |  |  |  |  |  |  |  |  |  |
|  | 248 | 54 | 23 | 32 | 36 | 23 | 25 | 24 | 10 | 11 | 10 |
|  | $96,370$ | 76544 | $\begin{array}{r} 151 \\ 1,118 \end{array}$ | $\begin{array}{r} 448 \\ 2,908 \end{array}$ | $\begin{aligned} & 1,139 \\ & 7,100 \end{aligned}$ | 1,62211,683 | $\begin{array}{r} 3,988 \\ 26,312 \end{array}$ | $\begin{array}{r} 8,792 \\ 54,416 \end{array}$ | $\begin{array}{r} 7,592 \\ 42,212 \end{array}$ | $\begin{array}{r} 16,965 \\ 113,598 \end{array}$ | 55,597443,340 |
| Payroll. . . . . . . . . . . . . . . . . \$1,000. | 703,231 |  |  |  |  |  |  |  |  |  |  |
| Value added, adjusted.......do.... | 1,101,484 | 1,353 | 1,874 | 5,373 | 10,971 | 19,662 | 43,237 | 89,421 | 122,933 | 245,750 | $\begin{array}{r} 560,910 \\ 1,138,562 \\ 44,614 \end{array}$ |
| Value of shipments...........d. do.... | $\begin{array}{r} 2,019,714 \\ 92,628 \end{array}$ | 1,731 | 2,760 | 7,288 | 18,498 | 29,349 | 61,800 | 141,158 | 247,757 | 370,811 |  |
|  |  | 62 |  | , 211 | 464 | 747 | 2,112 | 4,405 | 3,292 | 36,627 |  |
|  | INDUSTRY 3572.-TYPEWRITERS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number.. | 21 | 2 | 1 | 2 | 4 | - | 2 | 1 | 2 | 4 | 3 |
| All employees: |  |  |  | (D) | 421 | - | (D) | 1.901 | (D) | 6,417 | 9,243 |
| Total............................ | 102,885 | 161 | (D) | (D) | 4.750 | - | (D) | 9,075 | (D) | 32,408 | 58,867 |
| Value added, ad.................disted...... | 243,190 | $\frac{160}{364}$ | (D) | (D) | 2,083 | - | (D) | 27,861 | (D) | 79,516 | 133,366 |
| Value of shipments............do.... | 315,385 | 562 | (D) | (D) | 3,869 | - | (D) | 32,472 | (D) | 102,027 | 176,455 |
| Capital expenditures, new....do.... | 9,576 | $\underline{22}$ | (D) | (D) | $\bigcirc$ | - | (D) | 503 | (D) | 1,664 | 7,334 |
|  | INDUSTRY 3576. -SCALES AND BALANCES |  |  |  |  |  |  |  |  |  |  |
| Establishments................number. . All employees: | 85 | 32 | 9 | 9 | 14 | 6 | 10 | 2 | 2 | I | - |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do.... | 5,765 | 46 | 57 | 117 | 489 | 406 | 1,573 | 3,077 | (D) | (D) | - |
| Payroll................... $\$ 1,000$. . | 35,052 | 328 | 339 | 812 | 3,002 | 2,634 | 9,186 | 18, 751 | (D) | (D) |  |
| Value added, adjusted.......do.... | 64,362 | 659 | 803 | 1,499 | 5,444 | 4,299 | 21,465 | 30,193 | (D) | (D) |  |
| Value of shipments............do.... Capital expenditures, new...do.... | 98,491 | 1,021 | 1,226 | 2,670 | 9,471 | 6,779 | 32,642 | 44,682 | (D) | (D) |  |
|  | 1,149 | 13 | 10 | 13 | 93 | 126 | 436 | 458 | (D) | (D) |  |
|  | INDUSTRY 3579.-OFFICE MACHINES, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments...............number.. All employees: | 161 | 44 | 21 | 21 | 29 | 18 | 12 | 9 | 3 | 3 | 1 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total.....................do.... | 16,980104,053 | 55299 | 133 | 2821,515 | 9255,149 | 1,2376,758 | 2,07711,169 | 2,89216,662 | 1,98410,48437 | 7,395 | (D) |
| Payroll.................. \$1,000. . |  |  |  |  |  |  |  |  |  | , $\frac{51,195}{36,962}$ | (D) |
| Value added, adjusted.......do.... | 224,654 | 732 | 1,306 | 2,371 | 8,443 | 12,087 | 21,708 | 23,256 |  |  |  |
| Value of shipments..........do.... | 349,21016,257 | $\begin{array}{r} 1,188 \\ \mathbf{1} 666 \\ \hline \end{array}$ | $\begin{gathered} 2,097 \\ \text { (D) } \end{gathered}$ | $\begin{array}{r} 4,548 \\ 162 \end{array}$ | $\begin{array}{r} 14,650 \\ 423 \end{array}$ | $\begin{array}{r} 19,457 \\ 614 \end{array}$ | $\begin{array}{r} 33,002 \\ 939 \end{array}$ | 38,744 | 29,808 | $\frac{205,716}{12331}$ | (D) |
| Capital expenditures, new...do.... |  |  |  |  |  |  |  |  | 504 |  |  |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified. ${ }^{1}$ Includes capital expenditures for plants under construction but not in operation of approximately $\$ 200-\$ 500$ thousand.


## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958


as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio Col. B <br> Col. B+C <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3571 | Computing and related machines...r $\begin{array}{r}\text { 1963.. } \\ 1958 . .\end{array}$ | $\begin{aligned} & 2,019,714 \\ & 1,104,194 \end{aligned}$ | $1,752,266$ 944,581 | $\begin{array}{r} 122,371 \\ 65,626 \end{array}$ | $\begin{array}{r} 145,077 \\ 93,987 \end{array}$ | 93 94 | $\begin{aligned} & 1,858,501 \\ & 1,038,802 \end{aligned}$ | $\begin{array}{r} 1,752,266 \\ 944,581 \end{array}$ | $\begin{array}{r} 106,235 \\ 94,221 \end{array}$ | 94 91 |
| 3572 | $\text { Typewriter. . . . . . . . . . . . . . . . . . . . . . } 1963 . \text {. }$ | $\begin{aligned} & 315,385 \\ & 238,173 \end{aligned}$ | $\begin{aligned} & 261,947 \\ & 188,021 \end{aligned}$ | $\begin{aligned} & 45,137 \\ & 41,118 \end{aligned}$ | $\begin{aligned} & 8,301 \\ & 9,034 \end{aligned}$ | $\begin{aligned} & 85 \\ & 82 \end{aligned}$ | $\begin{aligned} & 265,456 \\ & 188,556 \end{aligned}$ | $\begin{aligned} & 261,947 \\ & 188,021 \end{aligned}$ | $\begin{array}{r} 3,509 \\ 535 \end{array}$ | 99 99 |
| 3576 | Scales and balances.................1963.. 1958. . | $\begin{array}{r} 98,491 \\ 78,335 \end{array}$ | $\begin{aligned} & 87,215 \\ & 68,565 \end{aligned}$ | $\begin{aligned} & 7,342 \\ & 7,122 \end{aligned}$ | $\begin{aligned} & 3,934 \\ & 2,648 \end{aligned}$ | $\begin{aligned} & 92 \\ & 91 \end{aligned}$ | $\begin{aligned} & 90,024 \\ & 70,992 \end{aligned}$ | $\begin{aligned} & 87,215 \\ & 68,565 \end{aligned}$ | $\begin{aligned} & 2,809 \\ & 2,427 \end{aligned}$ | 97 97 |
| 3579 | Office machines, n.e.c........... 1963.. | $\begin{aligned} & 349,210 \\ & 264,513 \end{aligned}$ | $\begin{aligned} & 222,651 \\ & 180,416 \end{aligned}$ | $\begin{aligned} & 51,038 \\ & 33,510 \end{aligned}$ | $\begin{aligned} & 75,521 \\ & 50,587 \end{aligned}$ | $\begin{aligned} & 81 \\ & 84 \end{aligned}$ | $\begin{aligned} & 275,806 \\ & 211,205 \end{aligned}$ | $\begin{aligned} & 222,651 \\ & 180,416 \end{aligned}$ | $\begin{array}{r} 53,155 \\ 30,789 \\ \hline \end{array}$ | 81 <br> 85 |

[^202]n.e.c. Not elsewhere classified.

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products). (b) products classified in other industries (secondary products), and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 -Continued

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958



See footnotes at end of table.

# table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 


a. Use of different reporting periods (calendar year vs. fiscal year.)
b. Use of different bases for reporting value (company sales vs. factory production.)
c. Use of estimates in reporting data on the annual survey, whereas census of manufactures figures generally represent more exact shipments figures.

Footnotes continued on next page.

# table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 

## Footnotes for Table 6A-35F-Continued

[^203]
## table 6B. Product Clásses-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 357 | Office machines, n.e.c............................... $1963 .$. | $\left(\begin{array}{l}1 \\ (1) \\ \\ \end{array}\right.$ | (1) $(1)$ |
| 3571 | Computing and related machines..................... $1963 .$. | $\left({ }^{1}\right)$ | (1) ${ }^{1}$ (1) |
| 3572 | Typewriters and parts................................... 1963.19. | 158 | 119 |
| 3576 | Scales and balances, except laboratory............... $1963 .$. | (1) | (1) |
| 3579 | Office machines, n.e.c................................. 1963.. 19. | (1) $(1)$ $(1)$ | 11 $(1)$ $(1)$ |

n.e.c. Not elsewhere classified.
${ }^{1}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.
table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962^{1}$ | $1961{ }^{1}$ | $1960^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3571 | Computing and related machines ................ | 22, 840,857 | ${ }^{2} 1,676,847$ | 21,472,618 | ${ }^{2} 1,297,183$ | ${ }^{2} 1,123,777$ | ${ }^{2} 1,033,560$ | 482,729 | (NA) |
| 35711 | Electronic data processing machines and associated equipment, except typewriters.. | ${ }^{3} 861,956$ | ${ }^{3} 685,857$ | ${ }^{3} 545,507$ | 3472,489 | ${ }^{3} 317,673$ | ${ }^{3} 319,057$ |  |  |
| 35712 | Computing and accounting machines, including cash registers....................... | 970,255 | 989,128 | 924,855 | 821,501 | 803,770 | 708,681 | \} 482,729 | (NA) |
| 35710 | Computing and related machines, n.s.k...... | 8,646 | $(1,862)$ | $(2,256)$ | $(3,193)$ | $(2,334)$ | 5,822 | J |  |
| 35720 | Typewriters and parts............................ | 265,456 | 243,643 | 212,906 | 218,160 | 206,456 | 188,556 | 141,677 | 140,163 |
| 35760 | Scales and balances, except laboratory....... | 90,024 | 70,037 | 65,918 | 65,863 | 75,037 | 70,992 | 56,750 | 49,445 |
| 35790 | Addressing, dictating, duplicating, and office machines, n.e.c. | 275,806 | 278,739 | 266,220 | 243,607 | 222,182 | 211,205 | 159,239 | 110,554 |

Standard Notes: - Represents zero. (D) Witheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ These figures represent the sum of 5 -digit product class data obtained from Current Industrial Reports Series M35R and the census of manufactures
or the annual survey of manufactures.
${ }^{3}$ Source: Current Industrial Reports Series M35R "Office Computing and Accounting Machines."

## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.

| Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ELECTRONIC DATA PROCESSING MACHINES, AND ASSOCIATED EQUIPMENT, EXCEPT TYPEWRITERS (35711) <br> United States, total.... | $1963{ }^{2}$ | COMPUTING AND ACCOUNTING MACHINES, INCLUDING CASH REGISTERS (35712) - Con. | $1963{ }^{1}$ | ADDRESSING, DICTATING DUPLICATING AND OFFICE MACHINES, N.E.C. (35790) - Continued | $1963{ }^{1}$ |
|  | 879,600 | Midale Atlantic.............. <br> New York.................... | 341,258304,246 |  | 38,964 |
|  |  |  |  | Midale Atlantic............ |  |
|  |  | New Jersey. | 16,084 | New York.................. | 25,058 |
| Northeast.................... | 57,429 | Pennsylvania............. | 20,828 | New Jersey | 11,841 |
| Midale Atlantic.............. North Central........... | 325,632 209,315 |  |  | Pennsylvania........ |  |
| North Central................ | 209,315 | East North Central......... | $\begin{array}{r} 372,848 \\ 101,224 \\ 34,512 \\ 91,698 \end{array}$ | East North Central......... | 123,546 |
| South. . . . . . . . . . . . . . . . . . . | 78,1194,295 | West North Central <br> South. <br> West. |  | Ohio...................... | 123,546 59,958 |
| Texas....................... |  |  |  | Illinois... | 53,361 |
| West.. | 209,105 |  |  | Michigan................... | 9,845 |
| COMPUTING AND ACCOUNTING |  | ADDRESSING, DICTATING <br> DUPLICATING AND OFFICE MACHINES, N.E.C. (35790) |  | West North Central.......... Minnesota. | 7,1646,113 |
| MACHINES, INCLUDING CASH REGISTERS (35712) |  |  |  |  |  |
| United States, total.... | 970,255 | United States, total... | 275,806 | South. <br> District of Columbia..... | $\begin{array}{r} 16,768 \\ 1,054 \end{array}$ |
| Northeast. . . . . . . . . . . . . . . . | 28,815 | Northeast.. | 82,809 |  |  |
| Massachusetts.............. | 19,216 | Massachusetts | 15,678 | West...... | 6,555 |
| Connecticut.............. | 5,018 | Connecticut | 61,720 | California................ | 6,028 |

n.e.c. Not elsewhere classified.
${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 35711, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Michigan, Wisconsin, Minnesota, Iowa, Virginia, Florida, Kentucky, Arizona, and California; 35712, Vermont, Ohio, Illinois, Michigan, Wisconsin, Minnesota, Maryland, Virginia, South Carolina, Florida, Kentucky, Arkansas, Washington, and California; 35790, New Hampshire, Rhode Island, North Carolina, Georgia, and Kentucky.

## table 7A. Materials by Kind: 1963 and 1958



See footnotes at end of table.
table 7A. Materials by Kind: 1963 and 1958-Continued


[^204]table 7A. Materials by Kind: 1963 and 1958-Continued


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ No data are available for castings, electric motors and generators, electron tubes or solid state semiconductors produced and consumed in the same establishment.
${ }^{2}$ Represents estimates published in MC58(1)-7 (Supplement), "Selected Materials Consumed, "from data collected in a supplemental survey on Form MA-131, "Consumption of Materials, Parts, Containers and Supplies During 1958." This survey was limited to large establishments in selected
 collected as a regular part of the census of manufactures.

 forms."

## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Computing and related machines (SIC 3571) | Typewriters (SIC 3572) | $\begin{gathered} \text { Scales } \\ \text { and } \\ \text { balances } \\ \text { (SIC 3576) } \end{gathered}$ | Office machines, n.e.c. (SIC 3579) |
| :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000$. | 10,281 | 2,319 | 577 | 2,077 |
| Total cost of purchased fuels..............................do.... | 3,223 | 1,054 | 224 | 784 |
| Bituminous coal, lignite, and anthracite: <br> Quantity. .......................................... 1,000 short tons. . | 107 | (S) | (S) | 26 |
| Cost................................................ $\$ 1,000$. | 908 | (S) | (S) | 211 |
| Coke and breeze: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons.. <br> Cost. $\qquad$ .\$1,000. | - | - | - | - |
| Fuel oil (distillate and residual): <br> Quantity........................... 1,000 barrels of 42 gallons.. <br> cost.. | 458 1,268 | 73 215 | 21 82 | 92 281 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .mil. | 1,303 726 | 1,059 613 | 61 45 | 296 196 |
| Other fuels...................................................do.... | 321 | (S) | (S) | 96 |
| Electric energy: |  |  |  |  |
| Purchased: <br> million kw -hrs |  | 99 | 17 | 87 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,058 | 1,265 | 353 | 1,293 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . . million kw. -hrs.. | 69 | - | (S) | - |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.........l,000 hp.. | 202 | 38 | 15 | 53 |
| Prime movers, total.............................................do.... | 34 | 9 | 1 | 5 |
| Driving generators. $\qquad$ do.... | 28 | (z) | ( ${ }^{1}$ | (z) |
|  | 6 | 9 | (z) | 5 |
| Electric motors, total........................................ .do.... | 198 | 29 | 14 | 48 |
| Driven by purchased energy................................do.. | 168 | 29 | 14 | 48 |
| Driven by energy generated at establishment...............do.... | 30 | - | (z) | - |
| Aggregate horsepower per 100 production workers........... | 339 | 270 | 444 | 401 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(x) Not applicable. (Z) Less than 500 horsepower. n.e.c Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| $\begin{gathered} \text { Industry } \\ \text { or } \\ \text { product } \\ \text { class } \\ \text { code } \\ \hline \end{gathered}$ | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3571 | COMPUTING AND RELATED MACHINES |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. Establishments with-- | 248 | 96,370 | 703,231 | 58,985 | 119,521 | 369,459 | 1,101,484 | 926,876 | 2,019,714 | 92,628 |
|  | 90\% or more specialization.. <br> 75-89\% specialization....... | 205 12 | 77,762 2,222 | $\begin{array}{r} 564,486 \\ 13,096 \end{array}$ | $\begin{array}{r} 46,672 \\ 1,675 \end{array}$ | $\begin{array}{r} 94,888 \\ 3,489 \end{array}$ | 291,580 8,769 | $\begin{array}{r} 975,586 \\ 17,192 \end{array}$ | 742,911 10,180 | $1,712,467$ 27,686 | 79,249 508 |
| 35711 | Electronic data processing machines and associated equipment, except typewriters (primary product class of estab.).......... Establishments with-- | 77 | 36,385 | 278,827 | 17,736 | 36,195 | 110,177 | 478,355 | 467,279 | 907,753 | 50,968 |
|  | 90\% or more specialization. | 55 | 15,064 | 111,353 | 6,731 | 13,818 | 37,860 | 220,982 | 223,151 | 424,878 | 32,642 |
| 35712 | Computing and accounting machines, including cash registers (primary product class of estab.).......... Establishments with-- | 94 | 58,605 | 416,783 | 40,248 | 81,226 | 254,183 | 611,031 | 453,916 | 1,096,387 | 41,053 |
|  | 90\% or more specialization. | 63 | 20,694 | 136,637 | 13,850 | 27,762 | 77,466 | 206,522 | 155,196 | 374,486 | 14,724 |
| 3572 | TYPEWRITERS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. | 21 | 18,023 | 102,885 | 13,940 | 27,076 | 71,068 | 243,190 | 79,641 | 315,385 | 9,576 |
|  | $90 \%$ or more specialization.. | 12 | 10,252 | 50,618 | 8,709 | 16,728 | 40,926 | 106,939 | 27,946 | 134,522 | 2,152 |
| 3579 | OFFICE MACHINES, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry... | 161 | 16,980 | 104,053 | 11,616 | 22,996 | 63,258 | 224,654 | 126,658 | 349,210 | 16,257 |
|  | $90 \%$ or more specialization.. | 122 | 9,362 | 61,042 | 6,546 | 12,905 | 38,620 | 147,413 | 64,684 | 208,862 | $12,093$ |
|  | 75-89\% specialization....... | 11 | 1,247 | 7,109 |  | 1,879 | 4,390 | 10,932 | 8,756 | 19,589 |  |

[^205]
## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963



[^206]
## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963-Continued

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{gathered} 20 \text { or } \\ \text { more } \end{gathered}$ |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
| Nonferrous foundry (except die casting).............. Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.)....................... | INDUSTRY 3579. - OFFICE MACHINES, N.E.C. |  |  |  |  |  |  |  |
|  | 1 | - | 1 | - | (D) | - | (D) | - |
|  | 1 |  | $\overline{6}$ | $\overline{2}$ | (D) | (D) | (D) | (D) |
| Electroplating and other plating..................... | 16 | 8 |  |  | 156 | 18 |  |  |
| Galvanizing and other hot dip coating............... | - | - | - | - | - | - | 35 | - |
| Heat treating of metals............................... | 11 | 79 | 4 | 3 | 43 | 19 |  |  |
| Automatic screw machine department.................... | 19 |  |  |  | 215 |  | 63 | 1331,524 |
| Machine shop............................................. . | 44 | 10 | 14 | 20 | 1,658 | 15 | 119 |  |
| Tool and die shop..................................................... | 32 2 | 12 | 16 | 4 | 410 | 21 | 147 | 242 - |
| Stamping, blanking and forming of metals............ | 45 | 21 | 16 | 8 | 493 | 44 | 169 | 280 |
| Painting, lacquering and enameling on metals........ | 33 | 20 | 12 | 1 | 187 | 32 |  |  |
| Plastics molding........................................ | 6 | 4 | 1 | 1 | 45 | (D) | (D) | (D)2,096 |
| Assembly of product.................................... | 55 | 18 | 10 | 27 | 2,231 | 34 | 101 |  |
| Shipping department, including packing and crating.. | 52 | 34 | 16 | 2 | 299 | 51 | (D) | (D) |

NOTE: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is show in terms of production-worker employment on the last line of the table below:

| Item | Industry |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 3571 | 3572 | 3576 | 3579 |
| Total number of establishments in the industry.................................... | 248 | 21 | 85 | 161 |
| Number of establishments which reported one or more of the specified operations. Percent of industry production workers in these establishments................... | $\begin{array}{r} 137 \\ 95-100 \end{array}$ | $\begin{array}{r} 15 \\ 95-100 \end{array}$ | r $\begin{array}{r}45 \\ 80-85\end{array}$ | 73 $75-80$ |
| Number of establishments which reported "none" of the operations apply........... Percent of industry production workers in these establishments.................... | $\begin{array}{r} 15 \\ 0-5 \end{array}$ | 3 0.5 | - $\begin{array}{r}1 \\ 0-5\end{array}$ | 3 $0-5$ |
| Percent of industry production workers in establishments which completed the metalworking operations inquiry. | 95-100 | 95-100 | 80-85 | 80-85 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## SERVICE INDUSTRY MACHINES AND MACHINE SHOPS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3581-Automatic Merchandising Machines<br>3582-Commercial Laundry, Dry Cleaning, and Pressing Machines<br>3585--Refrigerators; Refrigeration Machinery, Except Household; and Complete Air-Conditioning Units<br>3586-Measuring and Dispensing Pumps<br>3589-Service Industry Machines, Not Elsewhere Classified<br>3599-Miscellaneous Machinery, Except Electrical

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3581 -AUTOMATIC MERCHANDISING MACHINES

This industry comprises establishments primarily engaged in manufacturing automatic merchandising units; also referred to as vending machines (excluding music, amusement, or gaming machines), and coin operated mechanisms for such machines. For a detailed list of products of industry 3581, refer to table 6A, product codes 3581002 to 3581269.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Automatic Vending Machines Industry totaled $\$ 238$ million. This amount included shipments of automatic vending machines and parts (primary products) valued at $\$ 187$ million, shipments of other products (secondary products) valued at $\$ 44$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 7$ million.

This industry's shipments of automatic vending machines represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent. Secondary products shipped by this industry in 1963 included refrigeration machinery ( $\$ 7$ million).

Shipments of automatic vending machines by this industry represented 90 percent of all shipments of these products ( $\$ 207$ million) by all industries. In 1958 the coverage ratio
was 92 percent. Another industry shipping automatic vending machines was industry 3585, Refrigeration Machinery, $\$ 4$ million.

The production index for the primary products of the industry increased to 189 in 1963 from the 1958 level of 140 . The unit value index for 1963 was 133 compared to 112 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3582-COMMERCIAL LAUNDRY, DRY CLEANING, AND PRESSING MACHINES

This industry comprises establishments primarily engaged in manufacturing laundry and dry cleaning equipment and pressing machines for commercial and industrial use. Establishments primarily engaged in manufacturing household laundry equipment are classified in industry 3633. Although the SIC classifies coin-operated household washing machines in industry 3582, data for these machines are included in the 1963 Census of Manufactures, as in 1958, in industry 3633. For a detailed list of products of industry 3582, refer to table 6A, product codes 3582021 to 3582091.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Commercial Laundry Equipment lndustry totaled $\$ 137$ million. This amount included shipments of commercial laundry, dry cleaning, and pressing machines (primary products) valued at $\$ 116$ million, shipments of other products (secondary products) valued at $\$ 12$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 9$ million.

This industry's shipments of commercial laundry equipment represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent.

Shipments of commercial laundry, dry cleaning, and pressing machines by this industry represented 89 percent of all shipments of these products ( $\$ 130$ million) by all industries. ln 1958 the coverage ratio was 95 percent. Another industry shipping commercial laundry equipment was industry 3633, Household Laundry Equipment.

The production index for the primary products of the industry increased to 202 in 1963 from the 1958 level of 122. The unit value index for 1963 was 84 compared to 114 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3585-REFRIGERATORS; REFRIGERATION MACHINERY, EXCEPT HOUSEHOLD; AND COMPLETE AIR-CONDITIONING UNITS

This industry comprises establishments primarily engaged in manufacturing equipment and systems utilizing the basic refrigeration cycle, including mechanical and absorption refrigerators for commercial and industrial use; refrigeration machinery; and complete air-conditioning units for domestic, commercial, and industrial use. Establishments primarily engaged in manufacturing soda fountains and beer dispensing equipment are classified in this industry, and those primarily engaged in manufacturing household refrigerators and home and farm freezers in industry 3632. For a detailed list of products of industry 3585 , refer to table 6A, product codes 3585101 to 3585798 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.
Value of shipments and other receipts of the Refrigeration Machinery Industry totaled $\$ 1,928$ million. This amount include shipments of refrigeration machinery (primary products) valued at $\$ 1,588$ million, shipments of other products (secondary products) valued at $\$ 194$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 146$ million.

The specialization and coverage ratios have not been calculated for industry 3585 as the data from which these ratios are obtained include extensive duplication. This results from the fact that products of some establishments in the industry are consumed as materials by other establishments in the same industry. This is especially true of refrigeration and air-conditioning components which may be shipped to producers of complete refrigeration and air-conditioning equipment where they are again included in both the cost of materials and the value of shipments.

Industry 3585 comprises two major establishment types. One group of establishments specializes primarily in the manufacture of compressors, condensers, and other components for air-conditioning and commercial refrigeration. Many of these establishments also produce complete air-conditioning equipment as well as subassemblies for airconditioning and commercial refrigeration equipment. These establishments also rely on other establishments for their motors and other electrical equipment.

The other major segment of industry 3585 covers the production of commercial refrigeration equipment such as walk-in and reach-in refrigerators, display cases for meat, dairy, and other food products, low temperature freezing and dispensing equipment, florist cabinets, etc. Although significant amounts of metal are consumed in the manufacture of these products, many of these items contain substantial amounts of wood, glass, and other nonmetallic materials. Some types of commercial refrigeration equipment are shipped from the factory without compressors, condensing units or refrigeration equipment. These "remote type units" are then installed at the site with the suitable refrigeration components.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 60 percent of the total industry shipments are represented by plants specializing in heat transfer equipment; and 15 percent in commercial refrigerations.

The production index for the primary products of the industry increased to 208 in 1963 from the 1958 level of 135 . The unit value index for 1963 was 86 compared to 90 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3586-MEASURING AND DISPENSING PUMPS

This industry comprises establishments primarily engaged in manufacturing measuring and dispensing pumps commonly used in service and filling stations for dispensing gasoline, oil, and grease, including grease guns. Establishments primarily engaged in manufacturing pumps, compressors, and pumping equipment for general industrial use are classified in industry 3561. For a detailed list of products of industry 3586, refer to table 6A, product codes 3586011 to 3586098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Measuring and Dispensing Pumps Industry totaled $\$ 159$ million. This amount included shipments of measuring and dispensing pumps (primary products) valued at $\$ 103$ million, shipments of other products (secondary products) valued at $\$ 38$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 19$ million.

This industry's shipments of measuring and dispensing pumps represented 73 percent of its total product shipments. The industry specialization ratio in 1958 was 75 percent.

Secondary products shipped by this industry in 1963 included pumps and compressors ( $\$ 10$ million).

Shipments of measuring and dispensing pumps by this industry represented 85 percent of all shipments of these products ( $\$ 121$ million) by all industries. In 1958 the coverage ratio was 89 percent. Another industry shipping measuring and dispensing pumps was industry 3561, Pumps and Compressors, $\$ 7$ million.

The production index for the primary products of the industry increased to 113 in 1963 from the 1958 level of 79 . The unit value index for 1963 was 133 compared to 138 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3589-SERVICE INDUSTRY MACHINES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing machines and equipment, not elsewhere classified, for use in service industries, such as floor sanding machines, industrial vacuum cleaners, scrubbing machines, commercial cooking and food warming equipment, and commercial dishwashing machines. Establishments primarily engaged in manufacturing household electrical appliances are classified in group 363 . For a detailed list of products of industry 3589 , refer to table 6A, product codes 3589111 to 3589398 .

The code number for this industry in the Standard Industrial Classification manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. Establishments primarily engaged in producing industrial vacuum cleaners are now classified in industry 3589. Such establishments were formerly classified in industry 3584.

Value of shipments and other receipts of the Service Industry Machines, N.E.C., Industry totaled $\$ 378$ million. This amount included shipments of service industry machines, n.e.c., (primary products) valued at $\$ 288$ million, shipments of other products (secondary products) valued at $\$ 46$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 44$ million.

This industry's shipments of service industry machines, n.e.c., represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 54 percent of the total industry shipments are represented by plants specializing in service industry machines and parts; and 34 percent in commercial cooking and food warming equipment.

Shipments of service industry machines, n.e.c., by this industry represented 84 percent of all shipments of these products ( $\$ 342$ million) by all industries. In 1958 the coverage ratio was 81 percent.

The production index for the primary products of the industry increased to 202 in 1963 from the 1958 level of 143 . The unit value index for 1963 was 116 compared to 112 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3599-MISCELLANEOUS MACHINERY, EXCEPT ELECTRICAL

This industry comprises establishments primarily engaged in manufacturing machinery and parts except electrical, not elsewhere classified, such as pistons and piston rings. carburetors, metallic packing, and amusement park equipment. This industry also
includes establishments primarily engaged in producing or repairing machine and equipment parts, not elsewhere classified, on a job or order basis for others. These establishments usually operate on a job or order basis and are equipped with machine tools and other power-driven metalworking machinery capable of manufacturing a wide range of machine and equipment parts. Machine shops classified in this industry are characterized by their method of operation rather than their product, and the fact that they may be primarily engaged in repair work does not exclude them from this classification; however, machine shops engaged exclusively in repair work are classified in repair industries.

Although generally characterized by method of operation rather than type of product, establishments primarily engaged in manufacturing the following products are classified in industry 3599: Metal bellows, bushings machined from purchased castings, carburetors, catapults, boiler-tube cleaners, valve cores, hydraulic cylinders, iron flasks, flexible metal hose and tubing, metallic packing (except asbestos-metallic), pistons and piston rings, and intake and exhaust valves for internal combustion engines. For a detailed list of products of industry 3599, refer to table 6A, product codes 3599011 to 3599098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Miscellaneous Machinery Industry totaled $\$ 2,036$ million. This amount included shipments of machine shop products (primary products) valued at $\$ 1,440$ million, shipments of other products (secondary products) valued at $\$ 157$ million, and miscellaneous receipts (mainly contract work on materials owned by others) at $\$ 439$ million.

This industry's shipments of machine shop products represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent. Secondary products shipped by this industry in 1963 include parts and accessories for passenger cars, trucks, and busses shipped to other than motor vehicle manufactures ( $\$ 21$ million), and general industrial machinery, n.e.c. ( $\$ 13$ million).

Shipments of machine shop products by this industry represented 90 percent of all shipments of these products ( $\$ 1,606$ million) by all industries. In 1958 the coverage ratio was also 90 percent.

Since machining is a common operation in most of the establishments producing metal products, many of the metal products establishments classified in industries other than industry 3599 maintain machine shop departments for their own use. Data for captive machine shops appear in the metalworking operations table (table 9) for individual industries.

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted <br> $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{aligned} & \text { Total } \\ & \text { (number) } \end{aligned}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3581. - AUTOMATIC VENDING MACHINES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 148 | 158 | 68 | 11,672 | 64,791 | 8,442 | 16,790 | 40,427 | 121,365 | 116,908 | 238,000 | 3,479 | 81 | 90 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 13,378 | 71,524 | 9,482 | 18,285 | 42,362 | 130,772 | 121,373 | 247,542 | 6,364 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 11,134 | 57,893 | 7,709 | 15,329 | 34,043 | 96,507 | 94,286 | 201,326 | 2,681 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 10,990 | 56,834 | 8,102 | 16,412 | 37,000 | 123,584 | 101,753 | 213,581 | 3,542 | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 8,588 | 42,073 | 6,284 | 12,726 | 26,286 | 83,493 | 83,416 | 165,197 | 2,452 | (NA) | (NA) |
| 1958... | $119{ }^{\prime}$ | 121 | 53 | 7,894 | 37,049 | 5,557 | 10,846 | 21,945 | 64,694 | 76,600 | 141,635 | 2,798 | 92 | 92 |
| 1954 ${ }^{\text {2 }} 3$ | (NA) | 76 | (NA) | 5,233 | 21,570 | 3,925 | 7,821 | 13,880 | 37,248 | 46,702 | 83,957 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3582.-COMMERCTAL LAUNDRY EQUIPNENT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 107 | 115 | 58 | 6,542 | 37,929 | 4,667 | 9,605 | 23,462 | 70,771 | 64,925 | 136,757 | 2,487 | 91 | 89 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 6,329 | 36,128 | 4,327 | 9,192 | 21,567 | 64,616 | 64,205 | 124,698 | 1,266 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 5,879 | 32,613 | 4,148 | 8,433 | 20,408 | 61,548 | 55,931 | 119,881 | 2,705 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 6,937 | 36,898 | 4,741 | 9,304 | 22,111 | 74,697 | 63,315 | 137,342 | 1,308 | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 6,839 | 36,416 | 4,752 | 9,652 | 22,231 | 71,034 | 66,428 | 137,981 | 1,504 | (NA) | (NA) |
| 1958. | 113 | 119 | 47 | 6,560 | 33,047 | 4,544 | 9,218 | 20,183 | 65,580 | 54,058 | 119,499 | 2,024 | 94 | 95 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 7,017 | 33,948 | 5,002 | 10,208 | 21,020 | 71,578 | 48,240 | 117,456 | 2,675 | 84 | 89 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 7,013 | 33,113 | 5,056 | 10,476 | 20,813 | 66,661 | 47,044 | 107,725 | (S) | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 6,940 | 31,110 | 4,959 | 10,277 | 19,887 | 62,940 | 42,747 | 99,523 | (S) | (NA) | (NA) |
| 1954. | 101 |  |  | 6,543 | 28,630 | 4,659 |  |  |  | 46,189 |  |  | 83 |  |
| 19531. | (NA) | (NA) | (NA) | 6,291 | 27,807 | 4,667 | (NA) | 18,445 | 51,961 | 38,158 | 90,119 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 6,813 | 28,905 | 5,094 | (NA) | 20,606 | 54,964 | 38,877 | 94,056 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 6,682 | 26,574 | 4,981 | (NA) | 18,771 | 50,357 | 41,495 | 92,067 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 6,485 | 22,613 | 4,830 | (NA) | 15,227 | 42,730 | 33,776 | 76,581 | (NA) | (NA) | (NA) |
| 1947. | 119 | 127 |  | 9,093 | 27,435 | 6,888 | 14,790 | 19,015 | 54,347 | 40,626 | 94,361 | (NA) | 94 | 94 |
| 1939. | (NA) | 88 | (NA) | (NA) | (NA) | 2,783 | (NA) | 3,588 | 13,358 | 9,026 | 22,384 | (NA) | (NA) | (NA) |
| $1937{ }^{3}$ | (NA) | 62 | (NA) | (NA) | (NA) | 3,012 | (NA) | 4,274 | 13,036 | 10,874 | 23,910 | (NA) | (NA) | (NA) |


| 1963.. | 655 | 698 | 347 | 72,330 | 432,583 | 50,676 | 101,231 | 268,304 | 892,686 | ${ }^{4} 1$, 059, 887 | 41,928,001 | 33,471 | (4) | (4) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1962^{1}$ | (NA) | (NA) | (NA) | 62,533 | 366,967 | 44,730 | 90,249 | 225,401 | 676,544 | 4940,285 | 41,610,516 | 32,433 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 62,795 | 349,836 | 44,182 | 86,583 | 212,601 | 608,116 | 4894,931 | 41,501,918 | 37,880 | (NA) | (NA) |
| $1960{ }^{1}$. | (NA) | (NA) | (NA) | 65,846 | 361,180 | 45,973 | 90,981 | 217,590 | 674,304 | 4935,403 | 41,549,413 | 31,801 | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 69,350 | 377,760 | 47,898 | 95,522 | 224,181 | 733,391 | 4925,565 | 41,641,520 | 26,110 | (NA) | (NA) |
| $1958{ }^{5}$. | 600 | 625 | 278 | 67,715 | 342,169 | 46,210 | 90,352 | 204,934 | 598,032 | 4806,411 | 41,441,082 | 23,166 | (4) | (4) |



[^207]
# table 1. General Statistics: 1963 and Earlier Years-Continued 

| Year | Companies (number) | Establi shments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expendituses, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> (\$1.000) | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3599.-NISCELLANEOUS MACHINERY |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 12,032 | 12,090 | 1,402 | 135,820 | 793,629 | 108,445 | 224,320 | 593,147 | 1,366,327 | 673,823 | 2,036,299 | 71,729 | 90 | 90 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 139,789 | 772,437 | 114,352 | 224,847 | 567,581 | 1,352,037 | 724,186 | 2,055,866 | $(64,728)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 129,496 | 698,583 | 104, 773 | 208,780 | 509,228 | 1,189,398 | 636,589 | 1,829,957 | 61,892 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 126,494 | 672,704 | 102,375 | 201,076 | 489,605 | 1,150,844 | 614,433 | 1,765,105 | 58,296 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 130,690 | 676,118 | 106,835 | 207,792 | 498,018 | 1,155,562 | 665,077 | 1,812,162 | 58,347 | (NA) | (NA) |
| 1958 (new SIC) | 10,098 | 10,171 | 1,090 | 215,659 | 575,407 | 91,626 | 179,730 | 420,751 | 959,939 | 520,674 | 1,481,295 | 93,131 | 92 | 90 |
| 1958 (old SIC) | (NA) | 10,401 | 1,162 | 121,332 | 599,811 | 96,261 | 189,117 | 438,627 | 1,007,544 | 561,937 | 1,569,915 | 94,853 | (NA) | (NA) |
| $1957^{1}$. . . . . . . . | (NA) | (NA) | (NA) | 126,374 | 585,606 | 101,302 | 206,983 | 430,972 | 1975,948 | 511,169 | 1,468,476 | (S) | 87 | 87 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 124,739 | 562,800 | 101,144 | 208,899 | 420,528 | 968,074 | 501,202 | 1,429,202 | (S) | (NA) | (NA) |
| $1955{ }^{1}$. | (NA) | (NA) | (NA) | 112,697 | 490,625 | 91,161 | 188,646 | 365,457 | 824,136 | 461,524 | 1,256,412 | (S) | (NA) | (NA) |
| 1954.. | 6,795 | 6,832 | 977 | 103,727 | 442,177 | 83,782 | 171,400 | 326,031 | 737,315 | 404,180 | 1,150,308 | 39,588 | 88 | 86 |
| 19531. | (NA) | (NA) | (NA) | 118,521 | 503,204 | 98,171 | 203,295 | 398,207 | 845,645 | 413,657 | 1,259,302 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 88,667 | 364,787 | 75,176 | 159,632 | 285,169 | 647,760 | 309,827 | 957,587 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$. | (NA) | (NA) | (NA) | 74,743 | 276,364 | 63,397 | 132,619 | 217,800 | 478,228 | 261,078 | 739,306 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 51,696 | 170,035 | 42,519 | 84,575 | 124,165 | 304,417 | (NA) | (NA) | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) |  |  | (S) | (NA) | (NA) |  | (NA) | (NA) | (NA) | (NA) | (NA) |
| 1947. | (NA) | 3,113 | 513 | 62,400 | 173,729 | 52,313 | (NA) | 135,545 | 289,806 | 149,964 | 439,877 | (NA) | 92 | 77 |
| $1939{ }^{3}$ | (NA) | 1,325 | (NA) | (NA) | (NA) | 24,333 | (NA) | 32,076 | 82,106 | 48,566 | 130,672 | (NA) | (NA) | (NA) |

Note: See appendix A for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel; electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior io 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ Represents establishments specializing in producing automatic vending machines but excludes establishments producing coin-operated mechanisms for such machines. The former establishments accounted for an estimated 80-90 percent of the total value of shipments of all establishments primarily engaged in producing automatic vending machines and coin-operated mechanisms for such machines.
${ }^{3}$ No comparable figures are available for earlier years.
${ }^{4}$ The value of shipments and cost of materials for this industry includes extensive duplication arising from shipments between establishments in the same industry classification. Accordingly, the specialization ratios and coverage ratios are not shown. For further explanation see introductory text.
${ }^{5}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Accordingly, the data for $1958-1963$ are not comparable with those for earlier years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total (number) | Manhours $(1,000)$ | Wages <br> ( $\$ 1,000$ ) |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3581.-AUTOMATIC VENDING MACHINES |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 158 | 68 | 11,672 | 64,791 | 8,442 | 16,790 | 40,427 | 121,365 | 116,908 | 238,000 | 3,479 | 7,894 | 64,694 |
| Northeast.......... | 42 | 21 | 3,492 | $\begin{array}{r}19,827 \\ 3,086 \\ \hline\end{array}$ | 2,601 | 5,149 1,056 | 12,665 2,060 | 38,012 4,897 | 30,634 4,822 3 | 67,736 9,616 | 1,195 (D) | $(2)$ <br> $(2)$ <br> 20 | $(2)$ $(2)$ 2 |
| New York......... Pennsylvania... | 18 | 9 | 657 445 | 3,086 2,312 | 535 260 | 1,056 493 | 2,060 934 | 4,897 5,194 | 4,822 3,681 | 9,616 8,844 | (D) 228 | $(2)$ 307 | $(2)$ 2,666 |
| East North Central. | 46 | 22 | 3,146 | 18,260 | 2,371 | 4,879 | 12,552 | 33,775 | 35,979 | 71,237 | 1,146 | $\left({ }^{2}\right)$ | ${ }^{2}$ ) |
| Illinois......... | 23 | 12 | 1,665 | 8,515 | 1,315 | 2,721 | 6,152 | 14,887 | 15,207 | 29,869 | 642 | 1,230 | 8,497 |
| West North Central. | 19 | 9 | 2,924 | 17,180 | 1,860 | 3,582 | 8,839 | 30,021 | 30,556 | 60,451 | 714 | ${ }^{2}$ ) | (2) |
| Minnesota........ | 6 | 2 | 2, 199 | 1,073 | 159 | 346 | 810 | 1,612 | 1,985 | 3,608 | 22 | 275 | 1,345 |
| Missouri.......... | 5 | 4 | 2,442 | 14,752 | 1,455 | 2,709 | 6,956 | 26,202 | 26,797 | 52,791 | (D) | 1,791 | 15,343 |
| South.. | 27 | 8 | 1,333 | 5,755 | 1,003 | 1,943 | 3,688 | 10,927 | 12,121 | 22,921 | 233 | 893 |  |
| Texas............ | 6 | 2 | -129 | 665 | 86 | 154 | 377 | 635 | 2,224 | 2,810 | 19 | (2) | ${ }^{2}$ ) |
| Mountain. | 6 | - | 15 | 76 | 11 | 21 | 58 | 134 | 160 | 280 | 10 |  |  |
| Colorado. | 3 | - | 4 | 18 | 2 | 4 | 13 | 19 | 20 | 39 | 2 | 792 | 9,074 |
| ```Pacific............ California.``` | 18 | 8 | 762 | 3,693 | 596 | 1,216 | 2,625 | 8,496 | 7,458 | 15,375 | 181 |  |  |
|  | 18 | 8 | 762 | 3,693 | 596 | 1,216 | 2,625 | 8,496 | 7,458 | 15,375 | 181 | ( ${ }^{2}$ ) | $\left.{ }^{2}\right)$ |
|  | INDUSTRY 3582.-COMMERCIAL LAUNDRY EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.. | 115 | 58 | 6,542 | 37,929 | 4,667 | 9,605 | 23,462 | 70,771 | 64,925 | 136,757 | 2,487 | 6,560 | 65,580 |
| New England........ | 12 | 6 3 | 473 | 2,327 861 | 279 <br> 134 | 578 265 | 1,161 | 3,730 | 3,167 1,874 | 6,905 3,530 | 45 32 | 443 <br> $(2)$ | 3,747 |
| Massachusetts.... | 6 | 3 | 202 | 861 | 134 | 265 | 497 | 1,622 | 1,874 | 3,530 | 32 | $\left({ }^{2}\right)$ | ${ }^{2}$ ) |
| Middle Atlantic.... | 25 | 14 | 1,271 | 7,191 | 988 | 2,011 | 4,938 | 16,022 | 15,088 | 30,841 | 283 | 2,105 | 20,040 |
| New York. | 15 | 9 | 1,010 | 5,653 | 784 | 1,605 | 3,966 | 12,704 | 11,268 | 23,727 | 256 | 1,730 | 17,287 |
| East North Central. | 33 | 18 | 2,431 | 15,482 | 1,693 | 3,570 | 9,258 | 26,807 | 23,549 | 50,940 | 1,636 | 2,480 | 25,494 |
| Ohio.............. | 4 | 4 | 702 | 3,669 | 566 | 1,161 | 2,855 | 6,020 | 4,943 | 11,817 | 228 | 724 | 6,792 |
| West North Central. | 9 | 5 | 860 | 4,840 | 614 | 1,159 | 3,052 | 5,130 | 8,279 | 14,546 | 152 | 440 | 2,837 |
| South Atlantic.... | 4 | 1 | 25 | , 144 | 19 | 38 | 97 | 176 | +46 | . 220 |  |  |  |
| East South Central. | 6 | 3 | 568 | 3,099 | 449 | 930 | 2,145 | 7,172 | 4,766 | 11,755 | \} 326 | 808 | 10,673 |
| West South Central. | 13 | 8 | 449 | 2,325 | 321 | 667 | 1,278 | 5,371 | 5,923 | 11,197 |  |  |  |
| Texas............. | 7 | 4 | 254 | 1,261 | 173 | 354 | 674 | 3,105 | 3,295 | 6,289 | (D) | 276 | 3,456 |
| West............... | 13 | 3 | 465 | 2,521 | 304 | 652 | 1,533 | 6,363 | 4,107 | 10,353 | 45 | 284 | 2,789 |
|  | INDUSTRY 3585. -REFRIGERATION MACHINERY |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 698 | 347 | 72,330 | 432,583 | 50,676 | 101,231 | 268,304 | 892,686 | 1,059,887 | 1,928,001 | 33,471 | 67,715 | 598,032 |
| New England........ | 30 | 15 | 1,652 | 9,411 | 1,137 | 2,334 | 5,839 | 17,249 | 19,579 | 35,761 | 1,398 | 4,220 | 44,409 |
| Connecticut...... | 10 | 5 | 755 | 4,592 | 481 | 1,026 | 2,817 | 7,632 | 9,939 | 17,079 | 502 | ( ${ }^{2}$ ) | ${ }^{(2)}$ |
| Middle Atlantic.... | 165 | 80 | 20,495 | 128,773 | 13,301 | 26,448 | 74,257 | 272,594 | 281,608 | 545,625 | 12,626 | 19,303 | 176,733 |
| New York. . . . . . . . | 74 | 35 | 8,921 | 59,739 | 5,638 | 11,288 | 34,430 | 137,324 | 162,035 | 299,961 | 4,344 | 9,757 | 109,358 |
| New Jersey....... | 36 | 20 | 3,050 | 18,685 | 1,941 | 3,835 | 9,915 | 32,904 | 38,963 | 72,209 | 1,874 | 3,799 | 24,598 |
| Pennsylvania..... | 55 | 25 | 8,524 | 50,349 | 5,722 | 11,325 | 29,912 | 102,366 | 80,610 | 173,455 | 6,408 | 5,747 | 42,777 |
| East North Central. | 158 | 88 | 24,797 | 151,996 | 17,813 | 35,380 | 98,014 | 282,924 | 402,320 | 680,849 | 8,790 | 22,831 | 203,563 |
| Onio..... | 36 | 21. | 7,461 | 45,770 | 5,459 | 11,045 | 30,014 | 85,584 | 129,177 | 215,219 | 2,617 | 5,757 | 42,004 |
| Indiana.. | 14 | 9 | 3,954 | 21,766 | 2,970 | 5,715 | 15,299 | 36,462 | 48,394 | 82,007 | 1,075 | 2,377 | 22,812 |
| Illinois. | 50 | 27 | 2,108 | 13,295 | 1,568 | 3,332 | 8,808 | 24,255 | 25,550 | 49,903 | 688 | 1,998 | 15,735 |
| Michigan... | 38 | 21 | 6,873 | 44,120 | 5,273 | 10,341 | 30,326 | 84,826 | 152,932 | 236,867 | 2,681 | 8,375 | 79,540 |
| Wisconsin.. | 20 | 10 | 4,401 | 27,045 | 2,543 | 4,947 | 13,567 | 51,797 | 46,267 | 96,853 | 1,729 | 4,324 | 43,472 |
| West North Central. | 55 | 32 | 7,312 | 43,7.u | 4,959 | 10,154 | 26,211 | 110,548 | 91,688 | 199,976 | 2,735 | 8,268 | 66,395 |
| Minnesota........ | 18 | 10 | 2,717 | 17,309 | 1,916 | 4,109 | 10,117 | 40,729 | 39,760 | 78,934 | 1,571 | 2,744 | 24,971 |
| Missouri. | 23 | 15 | 3,478 | 19,495 | 2,182 | 4,307 | 11,393 | 31,245 | 33,370 | 64,167 | 613 | 3,783 | 33,016 |
| South Atlantic..... | 55 | 27 | 3,484 | 18,868 | 2,573 | 5,291 | 12,112 | 41,843 | 48,125 | 89,039 | 1,635 |  |  |
| North Carolina... | 8 | 6 | - 922 | 4,768 | 776 | 1,474 | 3,625 | 10,589 | 8,390 | 19,070 | 122 | $\left(\begin{array}{l}2 \\ (2) \\ \\ \end{array}\right.$ | (2) |
| Georgia.......... | 9 | 4 | 772 325 | 4,321 | 543 | 1,159 | 2,349 | 6,934 | 8,383 | 15,174 | 515 | $\left({ }^{2}\right)$ | ${ }^{(2)}$ |
| Florida.......... | 23 | 6 | 325 | 1,639 | 229 | 459 | 983 | 3,066 | 3,822 | 6,813 | 158 | 202 | 1,375 |
| East South Central. Tennessee. | 24 12 | 13 4 | 3,123 537 | 17,442 | 2,480 387 | 5,069 | 12,241 1,633 | 48,654 8,003 | 58,135 10,180 | 104,121 18,521 | 2,266 | 1,871 | 16, ${ }_{\text {(2) }}^{(2)}$ |

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials <br> (\$1,000) | Value of shipments$(\$ 1,000)$ | Capital expentitures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> ( $\$ 1,000$ ) |  |  |  |  |  |  |
| West South Central. <br> Arkansas. $\qquad$ <br> Oklahoma. <br> ......... . <br> Texas. <br> .............. | INDUSTRY 3585. - REFRIGERATION MACHINERY-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 81 | 43 | 6,076 | 29,716 | 4,638 | 9,299 | 18,873 | 65,698 | 92,940 | 152,129 | 2,593 | 4,120 | 35,683 |
|  | 6 | 3 | 369 | 1,798 | 283 | 575 | 1,172 | 4,269 | 4,995 | -9,377 | 2,136 | ${ }^{(2)}$ | (2) |
|  | 13 | 7 | 806 | 3,564 | 643 | 1,280 | 2,444 | 6,222 | 10,150 | 16,309 | 546 | 180 | 1,542 |
|  | 58 | 33 | 4,879 | 24,238 | 3,694 | 7,402 | 15,167 | 55,104 | 77,360 | 125,880 | 1,909 | 3,844 | 33,675 |
| Mountain. | 17 | 8 | 1,579 | 8,802 | 1,174 | 2,131 | 6,215 | 18,605 | 18,504 | 36,760 | 559 | 1,065 | 7,313 |
| Arizona. | 7 | 4 | 1,290 | 7,368 | 964 | 1,715 | 5,219 | 14,049 | 14,618 | 28,609 | 460 | $\left({ }^{2}\right)$ | ${ }^{(2)}$ |
| Pacific. Washington....... California $\qquad$ | 113 | 41 | 3,812 | 23,799 | 2,601 | 5,125 | 14,542 | 34,571 | 46,988 | 83,741 | 869 | 3,564 | 29,227 |
|  | 7 | 4 | 292 | 1,869 | 163 | 290 | 985 | 2,201 | 2,076 | 4,485 | 85 | ${ }^{2}$ ) | ${ }^{2}$ ) |
|  | 92 | 35 | 3,349 | 20,869 | 2,322 | 4,603 | 12,850 | 30,635 | 42,340 | 75,005 | 748 | 3,245 | 26,211 |
|  | INDIJSTRY 3586.-MEASURING AND DISPENSING PUMPS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 43 | 27 | 6,768 | 41,732 | 4,499 | 8,913 | 23,155 | 91,713 | 71,213 | 159,487 | 2,604 | 6,201 | 64,689 |
| Northeast. | 13 | 8 | 2,109 | 13,292 | 1,250 | 2,303 | 6,71]. | 24,561 | 18,491 | 40,935 | 710 | $\left(\begin{array}{l}2 \\ (2) \\ (2)\end{array}\right.$ | $\left(\begin{array}{l} 2 \\ (2) \end{array}\right.$ |
| New York. | 5 | 3 | 190 | 1,116 | 118 | 234 | 638 | 2,168 | 548 | 2,727 |  |  | $\left(^{2}\right)$ |
| East North Central. <br> West North Central. <br> South. . <br> ............... <br> West. <br> ................. | 13 | 9 | 2,385 | 15,223 | 1,607 | 3,209 | 8,435 | 33,495 | 26,620 | 59,874 | 1,263 | 2,711 | 32,327 |
|  | 6 | 5 | 1,353 | 7,542 | 1,068 | 2,209 | 5,257 | 22,707 | 11,608 | 33,713 | 396 | 1,451 | 13,295 |
|  | 6 | 3 | 854 | 5,308 | 534 | 1,108 | 2,589 | 10,052 | 14,069 | 23,697 | 222 | (2) | $\left.{ }^{2}\right)$ |
|  | 5 | 2 | 67 | 367 | 40 | 84 | 163 | 898 | 425 | 1,268 | 13 |  | ( |
|  | INDUSTRY 3589.-SERVICE INDUSTRY MACHINES, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 506 | 142 | 15,257 | 96,834 | 9,524 | 19,423 | 51,279 | 192,379 | 185,121 | 378,300 | 5,278 | (3) | (3) |
| New England. | 24 | 12 | 1,257 | 8,444 | 784 | 1,585 | 3,966 | 16,994 | 13,222 | 30,213 | 270 | 532 353 | 5,335 |
| Massachusetts. | 13 | 8 | 853 | 5,792 | 569 | 1,174 | 3,104 | 11,243 | 10,213 | 21,204 | 181 | 353 | 3,461 |
| Middle Atlantic. | 122 | 33 | 3,189 | 19,674 | 2,139 | 4,360 | 11,851 | 37,353 | 31,443 | 68,577 | 713 | 2,733 | 22,820 |
| New York. | 54 | 9 | 824 | 5,315 | 591 | 1,246 | 3,380 | 10,651 | 8,030 | 18,392 | 232 | 905 | 7,824 |
| New Jersey. | 34 | 14 | 1,446 | 9,033 | 991 | 2,020 | 5,635 | 15,323 | 13,300 | 28,474 | 207 | 1,136 | 10,018 |
| Pennsylvania. | 34 | 10 | 919 | 5,326 | 557 | 1,094 | 2,836 | 11,379 | 10,113 | 21,711 | 274 | 692 | 4,978 |
| East North Central. | 160 | 57 | 6,379 | 41,051 | 3,726 | 7,639 | 20,281 | 83,787 | 93,476 | 178,545 | 2,918 | 4,792 | 60,404 |
| Ohio.. | 31 | 15 | 1,474 | 9,310 | 1,042 | 2,093 | 5,879 | 23,316 | 24,582 | 49,423 | 848 | 994 <br> 255 | 12,554 2,628 |
| Indiana. | 15 | 3 | 301 | 1,790 | 230 | 465 | 1,204 | 2,577 | 2,545 53,619 | 5,003 100,807 | (D) 1,476 | 255 2,973 | 2,628 35,790 |
| Illinois. | 79 | 34 | 3,843 | 24,604 | 2,035 | 4,217 | 11,156 | 46,714 | 53,619 | 100,807 | 1,476 342 | 2,973 304 | 35,790 6,895 |
| Michigan. | 14 | 3 | 477 | 3,925 | 216 203 | 439 425 | 1,145 897 | 7,879 3,301 | 7,619 5,111 | 14,929 8,383 | 342 (D) | 304 266 | 6,895 2,537 |
| Wisconsin. | 21 | 2 | 284 | 1,422 | 203 | 425 | 897 | 3,301 | 5,111 | 8,383 | (D) | 266 | 2,537 |
| West North Central. | 38 | 15 | 1,895 | 11,776 | 1,138 | 2,268 | 5,542 | 24,279 | 19,138 | 42,754 | 605 | 1,049 | 11,081 |
| Minnesota. | 18 | 5 | 869 | 6,194 | 408 | 845 | 2,190 | 11,594 | 10,664 | 22,035 | 303 | 606 | 7,230 |
| Missouri. | 12 | 7 | 671 | 3,556 | 515 | 1,052 | 2,384 | 7,027 | 4,425 | 11,177 | 214 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| South. | 68 | 8 | 1,042 | 5,767 | 710 | 1,484 | 3,425 | 10,818 | 9,400 | 20,319 | 192 |  |  |
| Florida. | 16 | 2 | 132 | 757 | 92 | 195 | 442 | 948 | 988 | 2,035 | 41 | 2,151 | 21,260 |
| West. <br> California...... | 94 | 17 | 1,495 | 10,122 | 1,027 | 2,087 | 6,214 | 19,148 | 18,442 | 37,892 | 580 |  |  |
|  | 77 | 15 | 1,347 | 9,135 | 937 | 1,906 | 5,644 | 17,407 | 16,522 | 34,282 | 548 | 1,394 | 14,313 |
|  | INDUSTRY 3599.-MISCELLANEOUS MACHINERY |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 12,090 | 1,402 | 135,820 | 793,629 | 108,445 | 224,320 | 593,147 | 1,366,327 | 673,823 | 2,036,299 | 71,729 | 115,659 | 959,939 |
| New England........ | 1,026 | 143 | 11,878 | 69,482 | 9,434 | 19,961 | 50,651 | 107,247 | 47,441 | 154,604 | 5,920 | 9,365 | 68,458 |
|  | - 31 | 4 | -290 | 1,355 | 214 | 420 | 884 | 1,683 | 1,066 | 2,751 | 89 | 332 | 2,197 |
| New Hampshire... | 52 | 5 | 468 | 2,397 | 387 | 797 | 1,820 | 3,919 | 1,331 | 5,243 | 186 | 221 | 1,427 |
| Vermont.......... | 19 | 1 | 129 5 | 515 | +106 | 235 8842 | 22,411 | 1,330 47,092 | 385 20,622 | 1,696 67,580 | 38 3,291 | ${ }_{(2)}^{106}$ | (276 |
| Massachusetts.... |  | 75 | 5,349 | 30,878 | 4,227 | 8,742 | 22,456 | 47,092 | 20,622 | 67,580 | 3,291 | (2) |  |
| Rhode Island. | 464 84 | 6 | 830 | 4,221 | 664 | 1,295 | 3,132 | 6,767 46,456 | 2,551 21,486 | 9,312 68,022 | 298 2,018 | 4,313 |  |
| Connecticut. | 376 | 52 | 4,812 | 30,117 | 3,836 | 8,472 | 21,948 | 46,456 | 21,486 | 68,022 | 2,018 | 4,313 | 33,450 |
| Midale Atlantic.... | 2,278 | 273 | 23,008 | 131,511 | 18,706 | 38,717 | 99,612 | 217,233 | 100,541 | 315,780 | 11,693 | 21,867 | 165,380 |
| New York......... | 2,269 | 121 | 9,290 | 53,993 | 7,579 | 15,829 | 40,664 | 90,584 | 39,678 | 129,123 | 4,676 | 9,458 | 72,423 |
| New Jersey....... | 648 | 52 | 5,635 | 32,806 | 4,547 | 9,467 | 24,979 | 53,737 | 24,204 | 77,446 | 3,252 | 5,429 | 39,655 |
| Pennsylvania..... | 661 | 100 | 8,083 | 44,712 | 6,580 | 13,421 | 33,969 | 72,912 | 36,659 | 109,211 | 3,765 | 6,980 | 53,302 |
| East North Central. | 2,989 | 408 | 43,950 | 261,223 | 34,312 | 71,086 | 188,462 | 482,705 | 239,843 | 719,996 | 24,192 | ${ }^{(2)}$ | ${ }^{(2)}$ |
|  | 846715 | 108 | 10,019 | 55,529 | 8,241 | 17,003 | 42,384 | 99,345 | 55,192 | 153,254 171,608 | 4,396 6,184 | 9,339 | 71, 577 |
| Illinois. |  | 108 | 10,872 | 65,552 | 8,080 | 17,128 | 43,840 | 114,860 | 57,877 | 171,608 |  |  |  |

See footnotes at end of table.

# table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued 

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expentitures, new (\$1,000) | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3599.-MISCELLANEOUS MACHINERY-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
| West North Central. | 722 | 101 | 12,192 | 71,518 | 9,727 | 20,318 | 53,618 | 117,431 | 62,923 | 181,304 | 4,916 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Minnesota.. | 214 | 47 | 3,075 | 18,319 | 2,513 | 5,327 | 13,942 | 29,273 | 13,551 | 42,452 | 1,719 | 2,150 | 17,526 |
| Iowa. . | 109 | 6 | 701 | 3,248 | 597 | 1,263 | 2,578 | 5,834 | 2,254 | 8,093 | 407 | 510 | 3,899 |
| Missouri. | 213 | 32 | 6,176 | 37,697 | 4,712 | 9,638 | 27,450 | 59,047 | 34,043 | 94,433 | 1,736 | 4,571 | 38,605 |
| Nebraska. | 51 | 2 | 201 | 1,014 | 174 | 360 | 858 | 1,793 | 841 | 2,630 | 146 | 203 | 1,558 |
| Kansas. . | 106 | 13 | 1,732 | 9,489 | 1,470 | 3,154 | 7,388 | 18,56? | 10,224 | 28,806 | 783 | ${ }^{2}$ ) | $\left.{ }^{2}\right)$ |
| South Atlantic..... | 804 | 90 | 8,515 | 43,911 | 6,908 | 14,476 | 33,816 | 71,760 | 36,533 | 107,853 | 4,432 | 6,387 | 45,507 |
| Delaware. | 21 | 2 | 195 | 1,019 | 159 | 316 | 835 | 1,798 | 930 | 2,733 | 386 | 123 | 788 |
| Maryland.......... | 93 | 18 | 2,308 | 14,151 | 1,798 | 3,861 | 10,308 | 23,814 | 7,990 | 31,708 | 1,585 | 1,439 | 10,121 |
| District of Columbia......... | 10 | 2 | 128 | 764 | 102 | 200 | 585 | 1,237 | 495 | 1,735 | 71 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Virginia. | 90 | 11 | 825 | 3,791 | 685 | 1,399 | 2,952 | 6,307 | 3,855 | 10,138 | 382 | 576 | 3,638 |
| West Virginia... | 74 | 10 | 660 | 3,511 | 538 | 1,056 | 2,691 | 5,805 | 3,693 | 9,471 | 263 | 667 | 4,830 |
| North Carolina... | 148 | 17 | 1,144 | 5,222 | 961 | 1,969 | 4,114 | 8,477 | 5,313 | 13;755 | 359 | 1,050 | 7,181 |
| South Carolina... | 46 | 4 | 929 | 4,572 | 742 | 1,700 | 3,556 | 5,890 | 2,945 | 8,832 | 231 | 490 | 3,110 |
| Georgia. | 121 | 5 | 713 | 3,376 | 605 | 1,249 | 2,804 | 5,819 | 4,040 | 9,636 | 388 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Flurida. | 201 | 21 | 1,613 | 7,505 | 1,318 | 2,726 | 5,971 | 12,613 | 7,272 | 19,845 | 767 | 1,266 | 9,984 |
| East South Central. | 349 | 33 | 4,447 | 21,279 | 3,763 | 7,412 | 16,825 | 41,757 | 25,963 | 67,625 | 2,605 | 4,082 | 34,960 |
| Kentucky. | 76 | 8 | 1,767 | 8,120 | 1,527 | 2,964 | 6,586 | 18,263 | 11,648 | 30,012 | 786 | 1,643 | 14,288 |
| Tennessee. | 120 | 14 | 1,436 | 6,580 | 1,221 | 2,365 | 5,238 | 11,394 | 6,841 | 18,238 | 1,208 | 1,425 | 12,202 |
| Alabama. | 103 | 5 | 736 | 3,751 | 605 | 1,211 | 2,937 | 7,428 | 4,311 | 11,543 | 360 | 643 | 5,161 |
| Mississippi. | 50 | 6 | 508 | 2,828 | 410 | 872 | 2,064 | 4,672 | 3,163 | 7,832 | 251 | 371 | 3,309 |
| West South Central. | 970 | 79 | 6,989 | 36,394 | 5,681 | 11,658 | 28,694 | 62,075 | 33,780 | 95,885 | 3,804 | 5,979 | 49,109 |
| Arkansas.. | 61 | 5 | 366 | 1,715 | 306 | 658 | 1,378 | 2,891 | 1,721 | 4,630 | 196 | 311 | 2,429 |
| Louisiana. | 119 | 14 | 1,124 | 6,211 | 867 | 1,817 | 4,676 | 10,096 | 5,130 | 15,196 | 543 | 977 | 7,372 |
| Oklahoma | 168 | 10 | 1,118 | 5,517 | 908 | 1,800 | 4,335 | 9,142 | 4,365 | 13,513 | 699 | 1,112 | 8,634 |
| Texas. | 622 | 50 | 4,381 | 22,951 | 3,600 | 7,383 | 18,305 | 39,946 | 22,564 | 62,546 | 2,366 | 3,579 | 30.674 |
| Mountain. | 336 | 34 | 3,236 | 17,539 | 2,739 | 5,54, | 14,333 | 28,189 | 13,796 | 42,213 | 1,479 |  | $21,025$ |
| Idaho. | 25 | 1 | 102 | 531 | 86 | 177 | 413 | 925 | 874 | 1,785 | 97 | (2) | ${ }^{(2)}$ |
| Colorado | 86 | 11 | 1,195 | 5,915 | 1,034 | 1,976 | 5,035 | 9,974 | 5,727 | 15,762 | 440 | 1,081 | 11,168 |
| New Mexic | 54 | 4 | 383 | 2,371 | 318 | 703 | 1,838 | 4,043 | 1,989 | 6,130 | 204 | 309 | 2,332 |
| Utah. | 37 | 4 | 362 | 1,941 | 313 | 634 | 1,662 | 2,943 | 1,015 | 4,006 | 108 | 197 | 1,495 |
| Pacific.. | 2,616 | 241 | 21,605 | 140,772 | 17,175 | 35,149 | 107,136 | 237,930 | 113,003 | 351,039 | 12,688 | 18,115 | 175,757 |
| Washington....... | 168 | 14 | 1,508 | 9,279 | 1,208 | 2,362 | 7,271 | 14,739 | 10,893 | 25,727 | 666 | 1,334 | 14,423 |
| Oregon. | 139 | 11 | 1,207 | 7,378 | 965 | 1,839 | 5,756 | 13,776 | 6,836 | 20,166 | 676 | 886 | 8,321 |
| California. | 2,286 | 215 | 18,769 | 123,422 | 14,905 | 30,746 | 93,568 | 208,273 | 94,673 | 303,378 | 11,244 | 15,895 | 153,013 |

Standard Notes: - Represents zero. (D)
applicable. n.e.c. Not elsewhere classified
${ }^{\text {General }}$ statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3581, Automatic Vending Machines: New England-Massachusetts, 4 (1,000-2,499); Fhode Island, 1 (20-99); Connecticut, 1 (250-499); Middle AtlanticNew Jersey, 6 (697); East North Central-Ohio, 7 (157); Indiana, 6 (300); Michigan, 6 (547); Wisconsin, 4 (477); West North Central-Iowa, 4 (133); Nebraska, 1 (1-19); Kansas, 3 (100-249); South Atlantic-Maryland, 4 (250-499); District of Columbia, 1 (1-19); West Virginia, 1 (100-249); North Carolina, 1 (1-19); Georgia, 3 (20-99); Florida, 4 (20-99); East South Central-Tennessee, 3 (448); Alabama, 1 (1-19); West South CentralArkansas, 1 (20-99); Oklahoma, 2 (1-19); Mountain-Arizona, 2 (1-19); Utah, 1 (1-19).
SIC 3582, Commercial Laundry Equipment: New England-Maine, 1 (100-249); Fhode Island, 1 (1-19); Connecticut, 4 (20-99); Middle Atlantic-New Jersey, 5 (100-249); Pennsylvania, 5 (20-99); East North Central-Indiana, 5 (20-99); Illinois, 17 ( $1,000-2,499$ ); Michigan, 5 (124); Wisconsin, 2 (100-249); West North Central-Minnesota, 4 (612); Missouri, 3 (100-249); Nebraska, 1 (1-19); Kansas, 1 (100-249); South Atlantic-Maryland, 1 (1-19); Virginia, 1 (1-19); Georgia, 1 (20-99); Florida, 1 (1-19); East South Central-Kentucky, 2 (250-499); Tennessee, 2 (100-249); Alabama, 2 (1-19): West South Central-Arkansas, 2 (20-99); Louisiana, 1 (100-249); Oklahoma, 3 (20-99); Mountain-Colorado, 1 (1-19); Utah, 1 (250-499); Pacific-Pacific-Washington, 1 (20-99); California, 10 (20-99).
SIC 3585, Refrigeration Machinery: New England-Massachusetts, 15 (764); Rhode Island, 5 (133); West North Central-Iowa, 6 (761); Nebraska, 2 (1-19); Kansas, 6 (250-499); South Atlantic-Delaware, 1 (100-249); Maryland, 5 (270); Virginia, 4 (966); West Virginia, 2 (20-99); South Carolina, 3 (20-99); East South Central—Kentucky, 4 (1,376); Alabama, 5 (717); Mississippi, 3 (493); West South Central-Louisiana, 4 (20-99); MountainIdaho, 1 (20-99); Colorado, 4 (20-99); New Mexico, 3 (20-99); Utah, 1 (100-249); Nevada, 1 (20-99); Pacific-Oregon, 13 (100-249); Hawaii, 1 (1-19)
SIC 3586, Measuring and Dispensing Pumps: New England-Vermont, 1 (100-249); Massachusetts, 3 (1,000-2,499); Middle Atlantic-New Jersey, 1 (1-19); Pennsylvania, 3 (500-999); East North Central-0hio, 4 (227); Indiana, 3 (500-999); Illinois, 2 (500-999); Michigan, 3 (381); Wisconsin, 1 (20-99); West North Central-Minnesota, 3 (516); Iowa, 1 (100-249); Missouri, 1 (500-999); Nebraska, 1 (1-19); South Atlantic-Maryland, 1 (250-499); North Carolina, l (1-19); Florida, 1 (1-19); East South Central-Tennessee, 1 (250-499); West South Central-Oklahoma, 1 (1-19); Texas, 1 (100-249); Mountain-Colorado, I (1-19); Pacific-California, 4 (20-99).
SIC 3589, Service Industry Machines, N.E.C.: New England-New Hampshire, 2 (100-249); Vermont, 1 (20-99); Rhode Island, 2 (1-19); Connecticut, 6 (20-99); West North Central-Iowa, 2 (20-99); Nebraska, 3 (20-99); Kansas, 3 (238); South Atlantic-Maryland, 3 (255); Virginia, 2 (1-19); West Virginia, 1 (1-19); North Carolina, 6 (100-249); South Carolina, 1 (1-19); Georgia, 3 (1-19); East South Central-Kentucky, 2 (100-249); Tennessee, 1 (1-19); Alabama, 2 (1-19); West South Central-Louisiana, 8 (100-249); Oklahoma, 5 (1-19); Texas, 18 (100-249); MountainColorado, 7 (20-99); New Mexico, 1 (1-19); Arizona, 1 (1-19); Utah, 2 (1-19); Pacific-Washington, 3 (20-99); Oregon, 2 (20-99); Hawaii, 1 (1-19).
SIC 3599, Miscellaneous Machinery: East North Central-Indiana, 279 ( 5,872 ); Michigan, 834 (13,896); Wisconsin, 315 ( 3,291 ); West North CentralNorth Dakota, 18 (20-99); South Dakota, 11 (209); Mountain-Montana, 24 (20-99); Wyoming, 16 (20-99); Arizona, 83 (1,023); Nevada, 11 (20-99); Pacific-Alaska, 8 (20-99); Hawaii, 15 )20-99).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report
showed the number of establishments and total employment (either actual or in size ranges) for such States.
${ }^{3}$ Data for 1958 exclude those establishments primarily engaged in producing industrial vacuum cleaners. In 1958 there were 18 such establishments
with 432 employees and a value added (adjusted) of \$4,256 thousand.

## TABLE 3. Detailed Statistics: 1963

| Item | Automatic vending machines (SIC 3581) | Commercial laundry equipment (SIC 3582) | Refrigeration machinery (SIC 3585) | Measuring and dispensing pumps (SIC 3586) | Service industry machines, n.e.c. (SIC 3589) | Miscellaneous machinery (SIC 3599) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio ${ }^{1}$. Coverage ratio ${ }^{2}$ | . 81 | . 91 | $\left(\begin{array}{l}3 \\ (3) \\ \\ \\ \end{array}\right.$ | .73 <br> .85 | . 86 | .90 .90 |
|  <br> With 1 to 19 employees. $\qquad$ do. <br> With 20 to 99 employees......................................... . . . . . . . <br> With 100 employees or more. $\qquad$ | 158 90 44 24 | 115 57 40 18 | 698 351 211 136 | 43 16 11 16 | 506 364 104 38 | 12,090 10,688 1,267 135 |
| Proprietors and working partners. $\qquad$ All employees (average for the year) $\qquad$ Payroll (all employees), total for year................ $\$ 1,000$. . | 44 11,672 64,791 | 39 6,542 37,929 | 186 72,330 432,583 | 4 6,768 41,732 | 170 15,257 96,834 | $\begin{array}{r} 8,714 \\ 135,820 \\ 793,629 \end{array}$ |
| Production workers: |  |  | 450,676 |  |  |  |
| Average for the year.............................................................................. | 8,442 8,410 | 4,667 | 50,676 51,139 | 4,499 | 9,524 | 108,4,45 |
| May. | 8,783 | 4,707 | 53,170 | 4,536 | 9,537 | 108,443 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 8,337 | 4,561 | 48,987 | 4,696 | 9,639 | 109,074 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 8,249 | 4,629 | 49,422 | 4,435 | 9,631 | 109,450 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 16,790 | 9,605 | 101,231 | 8,913 | 19,423 | 224,320 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 4,169 | 2,445 | 25,146 | 2,158 | 4,722 | 55,182 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 4,361 | 2,405 | 27,325 | 2,396 | 4,927 | 56,267 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 4,088 | 2,328 | 23,544 | 2,223 | 4,811 | 55,292 |
| October-December. | 4,172 | 2,427 | 25,216 | 2,143 | 4,963 | 57,579 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .\$1,000. . | 40,427 | 23,462 | 269,304 | 23,155 | 51,279 | 593,147 |
| Cost of materials, etc., total...........................do. | 116,908 | 64,925 | 1,059,887 | 71,213 | 185,121 | 673,823 |
| Materials, parts, containers, at.d supplies consumed..do. | 108,790 | 57,531 | 958,092 | 59,780 | 150,797 | 528,661 |
| Cost of resales. | 2,914 | 4,737 | 70,258 | 9,440 | 26,419 | 43,901 |
| Fuels consumed. | 948 | 378 | 4,905 | 374 | 710 | 7,208 |
| Electric energy: Purchased: |  |  |  |  |  |  |
| Quantity................................million kw.-hrs. . | 73 | 26 | 616 | 35 | 144 | 881 |
| Cost. ............................................. $\$ 1,000$. . | 1,160 | 541 | 7,940 | 601 | 1,102 | 15,046 |
| Generated less sold........................million kw.-hrs.. | (D) | (D) | (D) | - | - | 3 |
| Contract work............................................ $\$ 1,000 .$. | 3,096 | 1,738 | 18,692 | 1,018 | 6,093 | 79,007 |
| Value of shipments (including resales), total...........do... <br> Value of resales......................................................... | $\begin{array}{r} 238,000 \\ 4,032 \end{array}$ | $\begin{array}{r} 136,757 \\ 6,493 \end{array}$ | $\begin{array}{r} 1,928,001 \\ 90,945 \end{array}$ | $\begin{array}{r} 159,487 \\ 14,347 \end{array}$ | $\begin{array}{r} 378,300 \\ 33,799 \end{array}$ | $\begin{array}{r} 2,036,299 \\ 57,109 \end{array}$ |
| Value added by manufacture, adjusted.....................do. | 121,365 | 70,771 | 892,686 | 91,713 | 192,379 | 1,366,327 |
| Manufacturers ' inventories: |  |  |  |  |  |  |
| Beginning of year, total...............................do | 54,036 | 33,017 | 387,771 | 36,307 | 68,646 | 230,974 |
| Finished products | 16,792 | 9,840 | 146,916 | 11,313 | 20,014 | 72,642 |
| Work-in-process. | 17,135 | 7,151 | 115,134 | 15,521 | 25,282 | 91,905 |
| Materials, supplies, fuel, etc.......................do. | 20,109 | 16,026 | 125,721 | 9,473 | 23,350 | 66,427 |
| End of year, total.......................................d. ${ }^{\text {do. }}$ | 53,968 | 32,697 | 417,090 | 37,212 | 68,744 | 233,457 |
|  | 18,678 | 9,230 | 154,889 | 11,568 | 18,869 | 74,205 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 15,522 | 6,700 | 132,258 | 18,705 | 25,627 | 94,193 |
| Materials, supplies, fuel, etc | 19,768 | 16,767 | 129,943 | 6,939 | 24,248 | 65,059 |
| Expenditures for plant and equipment, total............do. | 4,487 | 2,848 | 35,569 | 2,742 | 5,724 | 87,386 |
|  | 3,479 | 2,487 | 33,471 | 2,604 | 5,278 | 71,729 |
| New structures and additions to plant..............do | 491 | 1,126 | 9,838 | 484 | 2,250 | 20,595 |
| New machinery and equipment........................... ${ }^{\text {do.. }}$ | 2,989 | 1,361 | 23,633 | 2,120 | 3,028 | 51,134 |
| Used plant and equipment...............................do. | 1,008 | 361 | 2,098 | 138 | 446 | 15,658 |
| Selected operating ratios: |  |  |  |  |  |  |
| Payroll/Total employment. | 5,551 | 5,798 | 5,981 | 6,166 | 6,347 | 5,843 |
| Production workers'Total employment. | . 72 | . 71 | . 70 | . 66 | . 62 | . 80 |
| Man-hours/Production workers. | 1,989 | 2,058 | 1,998 | 1,981 | 2,039 | 2,069 |
| Production worker wages Man-hours. | 2.41 | 2.44 | 2.65 | 2.60 | 2.64 | 2.64 |
| Cost of materials and payrolls.'Total value of shipments. | . 76 | . 75 | . 77 | . 71 | . 75 | . 72 |
| Cost of materials'Total value of shipments.................. | . 49 | . 47 | . 55 | . 45 | . 49 | . 33 |
| Adjusted value added/Total employment... | 10,398 | 10,818 | 12,342 | 13,551 | 12,609 | 10,059 |
| Salaries and wages 'Adjusted value added..................... | . 53 | . 54 | . 48 | . 46 | . 50 | . 58 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See appendix A for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manurac-
turing establishments.
${ }^{3}$ The specialization and coverage ratios are not shown for industry 3585 as the data from which these ratios are obtained include extensive duplication because the products of some establishments in the industry are consumed as materials by other establishments in the industry.
${ }^{4}$ For this industry respondents additionally reported the number of production workers in the pay period ended nearest the 15 th of each month. This information is sumarized below. The average number of production workers appearing above and in tables 1,2 , and 8 are computed on the basis of the average for the months of March, May, August and November.

| Average number of production workers |  |  |
| :---: | :---: | :---: |
| 12 months ..... 50,298 | May . . . . . . . . 53,170 | September..... 48,338 |
| January...... . 48,722 | June . . . . . . . 52,995 | October. . . . . . . 49,395 |
| February ...... 49 494 | July . . . . . . 50,029 | November. . . . . . 49,422 |
| March......... . 51,139 | August..... 48,987 | December...... 49,984 |
| April......... 51,408 |  |  |

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | 2,500 employees and over |
|  | INDUSTRY 3581.-AUTOMATIC VENDING MACHINES |  |  |  |  |  |  |  |  |  |  |
| Establishments............... number. . All employees: | 158 | 44 | 20 | 26 | 24 | 20 | 13 | 5 | 4 | 2 | - |
| Total...................... do.... | 11,672 | 86 | 126 | 369 | 808 | 1,474 | 2,072 | 1,777 | 4.960 | (D) | - |
| Payroll.................. \$1,000.. | 64,791 | 372 | 511 | 1,751 | 4,321 | 7,089 | 10,775 | 9,164 | 30,808 | (D) | - |
| Value added, adjusted.......do.... | 121,365 | 752 | 703 | 3,443 | 7,285 | 10,264 | 20,331 | 23,774 | 54,813 | (D) | - |
| Value of shipments..........do.... | 238,000 | 1,436 | 1,352 | 7,922 | 13,085 | 22,909 | 41,895 | 51,266 | 98,135 | (D) | - |
| Capital expenditures, new...do.... | 3,479 | 77 | 86 | 252 | 345 | 407 | 843 | 996 | 473 | (D) | - |
|  | INDUSTRY 3582.-COMMERCIAL LAUNDRY EQUIPMENT |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 115 | 35 | 13 | 9 | 27 | 13 | 12 | 3 | 3 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 6,542 | 65 | 91 | 133 | 820 | 930 | 1,733 | 2,770 | (D) | - | - |
| Payroll..................\$1,000.. | 37,929 | 384 | 518 | 768 | 4,988 | 5,422 | 9,360 | 16,489 | (D) | - | - |
| Value added, adjusted.......do.... | 70,771 | 740 | 958 | 1,871 | 10,836 | 11,318 | 16,001 | 29,047 | (D) | - | - |
| Value of shipments..........do.... | 136,757 | 1,575 | 2,307 | 3,179 | 21,896 | 20,278 | 34,967 | 52,555 | (D) | - | - |
| Capital expenditures, new...do.... | 2,487 | 20 | 20 | 35 | 209 | 190 | 380 | 1,633 | (D) | - | - |
|  | INDUSTRY 3585.-PRFRIGERATION MACHINERY |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 698 | 163 | 94 | 94 | 132 | 79 | 70 | 33 | 24 | 5 | 4 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................di.... | 72,330 | 280 | 639 | 1,289 | 4,092 | 5,304 | 10,484 | 11,912 | 16,347 | 8,248 | 13,735 |
| Payroll.................. $\$ 1,000 .$. | 432,583 | 1,422 | 3,311 | 7,048 | 22,356 | 31,344 | 58,695 | 67,952 | 95,887 | 50,240 | 94,328 |
| Value added, adjusted.......do.... | 892,686 | 3,093 | 5,677 | 13,861 | 46,988 | 55,687 | 121,662 | 134,583 | 221,256 | 103,318 | 186,561 |
| Value of shipments..........do.... | 1,928,001 | 6,980 | 12,368 | 29,699 | 93,936 | 117,711 | 247,339 | 316,292 | 450,680 | 224,975 | 428,021 |
| Capital expenditures, new...do.... | 1, 33,471 | ${ }_{1} 147$ | 163 | 467 | 1,461 | 1,905 | 3,797 | 7,325 | 9,974 | 2,656 | 5,576 |
|  | INDUSTRY 3586.-MEASURING AND DISPENSING PUMPS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 43 | 7 | 2 | 7 | 8 | 3 | 7 | 4 | 5 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do.... | 6,768 | 30 | (D) | 97 | 440 | (D) | 830 | 1,452 | 3,919 | - | - |
| Payroll................. \$1,000. . | 41,732 | 160 | (D) | 541 | 2,497 | (D) | 4,996 | 8,576 | 24,962 | - | - |
| Value added, adjusted.......do.... | 91,713 | 140 | (D) | 1,171 | 4, 379 | (D) | 11,577 | 24,357 | 50,089 | - | - |
| Capital expenditures, new....do..... | 159,487 | 459 | (D) | 1,843 | 8,021 | (D) | 18,927 | 46,227 | 84,010 | - |  |
|  | 2,604 | $\underline{12}$ | (D) | 33 | $\underline{140}$ |  | 227 | 457 | 1,735 | - | - |
|  | INDUS'TRY 3589.-SERVICE INDUSTRY MACHINES, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments............ . number. . | 506 | 181 | 107 | 76 | 61 | 43 | 30 | 6 | 2 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total....................... do.... | 15,257 | 302 | 682 | 1,033 | 2,074 | 3,100 | 4,834 | 3,232 | (D) | - | - |
| Payroll................. \$1,000.. | 96,834 | 1,770 | 3,420 | 6,496 | 13,297 | 18,142 | 30,416 | 23,293 | (D) | - | - |
| Value added, adjusted.......do.... | 192,379 | 3,561 | 6,810 | 11,356 | 28,308 | 37,378 | 62,942 | 42,024 | (D) | - | - |
| Value of shipments..........do.... | 378,300 | 6,832 | 13,446 | 24,664 | 51,401 | 72,124 | 122,501 | 87,332 | (D) | - | - |
| Capital expenditures, new...do.... | 5,278 | 139 | 196 | 283 | 734 | 1,117 | 1,683 | 1,126 | (D) | - | - |
|  | INDUSTRY 3599.-MISCELLANEOUS MACHINERY |  |  |  |  |  |  |  |  |  |  |
| Establishments............ number.. | 12,090 | 6,535 | 2,316 | 1,837 | 1,051 | 216 | 97 | 19 | 12 | 6 | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 135,820 | 11,357 | 15,538 | 24,687 | 30,970 | 14,419 | 14,361 | 6,265 | 7,971 | 10,252 | (D) |
| Payroll................. \$1,000.. | 793,629 | 54,485 | 81',969 | 141,130 | 189,669 | 87,352 | 90,590 | 35,294 | 45,626 | 67,514 | (D) |
| Value added, adjusted.......do.... | 1,366,327 | 110,617 | 143,033 | 231,942 | 297,169 | 140,132 | 156,482 | 65,799 | 83,593 | 137,560 | (D) |
| Value of shipments..........do.... | 2,036,299 | 165,566 | 202, 832 | $328,149$ | 433,804 | 220,763 | 248,179 | 101,168 | 137,893 | 197,945 | (D) |
| Capital expenditures, new...do.... | 71,729 | 9,862 | 9,044 | 12,421 | 14,888 | 7,487 | 6,196 | 4,176 | 2,488 | 5,167 | (D) |

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## table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $\mathbf{A}$ through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Total } \\ & (\$ 1,000) \end{aligned}$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\qquad$ Col. B+C (percent) | Total, made in all industries <br> $(\$ 1,000)$ | Made in this industry <br> $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3581 | Automatic vending machines........1963.. | $\begin{aligned} & 238,000 \\ & 141,635 \end{aligned}$ | $\begin{aligned} & 186,923 \\ & 120,674 \end{aligned}$ | $\begin{aligned} & 44,033 \\ & 10,425 \end{aligned}$ | $\begin{array}{r} 7,044 \\ 10,536 \end{array}$ | $\begin{aligned} & 81 \\ & 92 \end{aligned}$ | $\begin{aligned} & 206,562 \\ & 130,850 \end{aligned}$ | $\begin{aligned} & 186,923 \\ & 120,674 \end{aligned}$ | $\begin{aligned} & 19,639 \\ & 10,176 \end{aligned}$ | 90 92 |
| 3582 | Commercial laundry equipment...... $\begin{array}{r}\text { 1963.. } \\ \text { 1958. }\end{array}$ | $\begin{aligned} & 136,757 \\ & 119,499 \end{aligned}$ | $\begin{aligned} & 115,796 \\ & 100,751 \end{aligned}$ | $\begin{array}{r} 11,939 \\ 6,558 \end{array}$ | $\begin{array}{r} 9,022 \\ 12,190 \end{array}$ | $\begin{aligned} & 91 \\ & 94 \end{aligned}$ | $\begin{aligned} & 129,613 \\ & 106,590 \end{aligned}$ | $\begin{aligned} & 115,796 \\ & 100,751 \end{aligned}$ | $\begin{array}{r} 13,817 \\ 5,839 \end{array}$ | 89 95 |
| 3585 | Refrigeration machinery........... $1963 .$. | $\begin{aligned} & 1,928,001 \\ & 1,441,082 \end{aligned}$ | $\begin{aligned} & 1,588,471 \\ & 1,170,030 \end{aligned}$ | $\begin{aligned} & 193,788 \\ & 159,941 \end{aligned}$ | $\begin{aligned} & 145,742 \\ & 111,111 \end{aligned}$ | $\binom{1}{1}$ | $\begin{aligned} & 2,104,632 \\ & 1,435,091 \end{aligned}$ | $\begin{aligned} & 1,588,471 \\ & 1,170,030 \end{aligned}$ | $\begin{aligned} & 516,161 \\ & 265,061 \end{aligned}$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3586 | Measuring and dispensing pumps.... $1963 .$. $1958 .$. | $\begin{aligned} & 159,487 \\ & 119,045 \end{aligned}$ | $\begin{array}{r} 102,529 \\ 78,590 \end{array}$ | $\begin{aligned} & 38,201 \\ & 26,477 \end{aligned}$ | $\begin{aligned} & 18,757 \\ & 13,978 \end{aligned}$ | $\begin{aligned} & 73 \\ & 75 \end{aligned}$ | 121,017 88,217 | $\begin{array}{r} 102,529 \\ 78,590 \end{array}$ | $\begin{array}{r} 18,488 \\ 9,627 \end{array}$ | 85 89 |
| 3589 | Service industry machines, n.e.c.................................... . 1963. 1958. | $\begin{array}{r} 378,300 \\ 245,227 \end{array}$ | $\begin{aligned} & 287,996 \\ & 180,665 \end{aligned}$ | $\begin{aligned} & 46,449 \\ & 31,479 \end{aligned}$ | $\begin{aligned} & 43,855 \\ & 33,083 \end{aligned}$ | $\begin{aligned} & 86 \\ & 85 \end{aligned}$ | $\begin{aligned} & 341,517 \\ & 221,987 \end{aligned}$ | $\begin{aligned} & 287,996 \\ & 180,642 \end{aligned}$ | $\begin{array}{r} 53,521 \\ 41,345 \end{array}$ | 84 81 |
| 3599 | Miscellaneous machinery........... $\begin{array}{r}\text { 1963. . } \\ \text { 1958.. }\end{array}$ | $\begin{aligned} & 2,036,299 \\ & 1,481,295 \end{aligned}$ | $\begin{aligned} & 1,440,088 \\ & 1,003,419 \end{aligned}$ | $\begin{array}{r} 157,218 \\ 91,477 \end{array}$ | $\begin{aligned} & 438,993 \\ & 386,399 \end{aligned}$ | $\begin{aligned} & 90 \\ & 92 \end{aligned}$ | $\begin{aligned} & 1,605,915 \\ & 1,117,684 \end{aligned}$ | $\begin{aligned} & 1,440,088 \\ & 1,003,419 \end{aligned}$ | $\begin{aligned} & 165,827 \\ & 114,265 \end{aligned}$ | 90 <br> 90 |

Note: See appendix A for an explanation of terms used.
n.e.c. Not elsewhere classified.
${ }^{1}$ The total value of shipments of refrigeration machinery includes extensive duplication resulting from the use of products of certain establishments as materials by others within the same industry. Accordingly, the specialization and coverage ratios have not been calculated.

## table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products c the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Includes $\$ 3.9$ million shipped by industry 3585, Refrigeration Machinery. In addition, the following industry had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3651, Radio and TV Receiving Sets.
${ }^{2}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 36341 , Electric fans, except industrial type; 36343, Other small household electric appliances; 36350, Household vacuum cleaners, including parts and attachments; 36393, Other household appliances and parts; and 36513, Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories.
${ }^{3}$ Includes $\$ 7$ million shipped by industry 3633, Household Laundry Equipment.
4Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 35690 , General industrial machinery, n.e.c., and 38213, Industrial process instruments.
${ }^{5}$ The total value of shipments of the Refrigeration Machinery Industry includes extensive duplication resulting from the use of products of some establishments in the industry as materials by others within the same industry.
${ }^{6}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3494, Valves and Pipe Fittings; 3564, Blowers and Fans; 3631, Household Cooking Equipment; 3639, Household Appliances, N.E.C.; 3651, Radio and TV Receiving Sets; 3717, Motor Vehicles and Parts; and 3729, Aircraft Equipment, N.E.C.
${ }^{7}$ Includes $\$ 17.5$ million shipped by industry 3632, Household Refrigerators. In addition, the following industry had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies: 3589, Service Industry Machines, N.E.C.

The following industry had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies: 3631 , Household Cooking Equipment.
${ }^{9}$ The following industry had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies: 3351 , Copper Rolling and Drawing.
${ }^{10}$ Includes $\$ 7.4$ million shipped by industry 3433, Heating Equipment, Except Electric; $\$ 12.3$ million shipped by industry 3494, Valves and Pipe Fittings; and $\$ 10.1$ million shipped by industry 3632, Household Refrigerators. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3567, Industrial Furnaces and Ovens; 3569, General Industry Machines, N.E.C.; 3723, Aircraft Propellers and Parts; and 3729, Aircraft Equipment, N.E.C.
${ }^{11}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 19310, Tanks and tank components; 19410, Sighting and fire-control equipment made from purchased lenses; 24331, Fabricated structural framing and wood laminates, ready-cut wood buildings; and panels or sections for prefabricated buildings; 33620, Copper and copper-base alloy castings; 34333, Cast iron heating boilers, radiators, and convectors, except parts; 34334, Domestic heating stoves (except electric), except parts; 34431, Heat exchangers and steam condensers; 34434, Gas cylinders; 35112, Steam, gas, and hydraulic turbine and parts; steam engines and parts; 35424 , Parts for metal forming machine tools and rebuilt metal forming machinery; 35481, Rolling-mill machinery and equipment; 35595, Other special industry machinery, and equipment; 35690, General industrial machinery, n.e.c.; 36312, Household ovens and ranges, equipment and parts, except electric; 37175, Parts and accessories for passenger cars, trucks and busses, shipped to motor vehicle manufacturers; 37176, Parts and accessories for passenger cars, trucks, and busses shipped to other than motor vehicle manufacturers; and 37413, Parts for locomotives, for sale separately, and rebuilt locomotives.
${ }^{12}$ Includes $\$ 6.9$ million shipped by industry 3561, Pumps and Compressors. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3494, Valves and Pipe Fittings; and 3548, Metalworking Machinery, N.E.C.
${ }^{13}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 34942 , Metal fittings and unions for piping systems; 34944, Other metal valves and fittings, except plumbers' brass goods and fittings; 35333 , Oil and gas field production machinery and equipment (except pumps); and 35595, Other special industry machinery and equipment.
${ }^{14}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3631, Household Cooking Equipment; and 3634, Electric Housewares and Fans.

# TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued 

Footnotes for Table 5B--35G-Continued
${ }^{15}$ Includes $\$ 3.8$ million shipped by industry 3639, Household Appliances, N.E.C. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 2842, Polishes and Sanitation Goods, and 3535 , Conveyors.
${ }_{16}$ Includes $\$ 2.3$ million shipped by industry 3548, Metalworking Machinery, N.E.C.
${ }^{17}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 35482 , Power-driven hand tools including parts and attachments; 356ll, Industrial pumps except hydraulic fluid power; 35853, Commercial refrigeration equipment; and 38213 , Industrial process instruments.
${ }^{18}$ Includes $\$ 4.5$ million shipped by industry 3323, Steel Foundries; $\$ 2.2$ million by industry 3361, Aluminum Castings; $\$ 2.3$ million by industry 3494, Valves and Pipe Fittings; $\$ 3.8$ million by industry 3541, Metal-Cutting Machine Tools; \$11.9 million by industry 3544 , Special Dies and Tools; $\$ 2.4$ million by industry 3548, Metalworking Machinery, N.E.C.; $\$ 3$ million by industry 3559, Special Industry Machines, N.E.C.; $\$ 6.9$ million by industry 3561, Pumps and Compressors; $\$ 6.1$ million by industry 3569, General Industry Machines, N.E.C.; $\$ 8.9$ million by industry 3717 , Motor Vehicles and Parts; and $\$ 13.5$ million by industry 3729, Aircraft Equipment, N.E.C. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3293, Gaskets and Insulations; 3312, Blast Furnaces and Steel Mills; 3352, Aluminum Rolling and Drawing; 3441, Fabricated Structural Steel; 3461, Metal Stampings; 3624, Carbon and Graphite Products; 3679, Electronic Components, N.E.C.; 3694, Engine Electrical Equipment; 3731, Ship Building and Repairing; and 3821, Mechanical Measuring Devices.
${ }^{19}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 19293 , Ammunition, n.e.c.; 19990, Ordnance and accessories, n.e.c.; 32933, Packing, except leather, rubber, and metal, and asbestos insulations; 34431, Heat exchangers and steam condensers; 34941, Metal valves for piping systems (except plumbing and heating valves); 34980, Fabricated pipe and fittings; 35370, Industrial trucks and tractors; 35641, Industrial fans and blowers; 36945, Other complete electrical equipment for internal combustion engines; 36946, Components and parts for engine electrical equipment; 37176, Parts and accessories for passenger cars, trucks and busses, shipped to other than motor vehicle manufacturers; and 38214, Motor vehicle instruments, except electric.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| Product code | Product | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity (number of units) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity (number of units) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3581- -- | AUTOMATIC VENDING MACHINES AND PARTS, TOTAL. | (X) | 206,562 | (X) | 130,850 |
| 35811 -- | Automatic vending machines (complete units): <br> As reported in the census of manufactures, total. <br> As reported on Census Annual Form MA-35U, total. | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | $\begin{aligned} & 164,338 \\ & 163,521 \end{aligned}$ | (X) | $\begin{aligned} & 1110,548 \\ & { }^{1} 108,400 \end{aligned}$ |
|  | Vending machines for beverages: Coffee: ${ }^{2}$ |  |  |  |  |
| 3581002 | Instant or liquid concentrates. | 6,954 | 2,783 |  |  |
| 3581003 | Fresh brew (batch). | 4,133 | 4,991 | 13,093 | 10,260 |
| 3581004 | Fresh brew (single cup) | 16,226 | 15,887 |  |  |
| 3581005 | Canned beverages (refrigerated) | 4,103 | 2,575 | $\left(^{3}\right)$ | (3) |
| 3581007 | Soft drink: Bottle.. | 145,433 | 52,722 | 110,561 | 36,011 |
| 3581008 | Cup (postmix) | 13,055 | 18,237 | 5,445 | 4,528 |
| 3581011 | Cup (premix). | 5,088 | 4,467 | 8,146 | 4,971 |
| $\begin{gathered} 3581001, \\ 06,19 \end{gathered}$ | Other vending machines for beverages ${ }^{4}$............................... | 5,898 | 4,398 | ${ }^{3} 7,883$ | ${ }^{3} 5,315$ |
| 3581021 | Vending machines for confections and foods: Bulk. | 113,295 | 1,812 |  |  |
| 3581022 | Candy bar. | 41,765 | 13,768 | 26,271 | 7,077 |
| 3581023 | Hot canned foods and soups. | 2,573 | 1,322 |  |  |
| $\begin{gathered} 35810 \\ 26 \end{gathered}$ | \} Multipurpose (refrigerated and nonrefrigerated)...................... | 4,982 | 6,659 | 31,099 | 6,418 |
| $\begin{gathered} 3581024, \\ 27,29 \end{gathered}$ | \} Other vending machines for confections and foods ${ }^{5} \ldots \ldots . . . . . . . .$. | 17.,088 | 6,190 |  |  |
| 3581031 | All other vending machines: Cigarette. | 62,793 | 21,311 | 98,989 | 27,927 |
| 3581033 | Ice....... | 854 | 2,793 | 609 | 1,541 |
| 3581035 | Postage stamp. | 13,382 | 706 | 11,105 | 505 |
| 3581039 | All other vending machines except for beverages, confections and foods ${ }^{6}$. | 149,043 | 2,900 | 83,706 | 2,433 |
| 35812 -- | Coin-operated mechanisms and parts for automatic vending machines, total.. | (X) | 32,757 | (X) | ${ }^{7} 20,302$ |
| 3581251 | Coin-operated mechanisms (for sale separately).......................... | 1,120,997 | 19,129 | 800,419 | 15,624 |
| 3581269 | Parts for automatic vending machines (except coin-operated mechanisms).. | (X) | 13,628 | (x) | 4,678 |
| 3581000 | Automatic vending machines and parts, n.s.k................................. | (X) | 9,467 |  |  |
| 3582- -- | COMMERCIAL LAUNDRY, DRY CLEANING, AND PRESSING MACHINES, TOTAL........ | (X) | 129,613 | (x) | 106,590 |
| 3582021 | Commercial laundry equipment and laundry presses: Washers only. | 5,653 | 8,750 | 6,056 | 11,262 |
| 3582022 | Extractors only. | 6,576 | 5,556 | 4,329 | 5,604 |
| 3582023 | Washer-extractor combinations | 7,380 | 14,456 | 513 | 1,690 |
| 3582025 | Drying tumblers.... | 49,787 | 20,948 | 41,818 | 17,756 |
| 3582026 | Ironers, flatwork.. | 1,694 | 5,743 | 1,448 | 4,723 |
| 3582027 | Presses, laundry.................... | 15,848 | 18,679 | 12,605 | 16,851 |
|  |  | (X) | 7,711 14,155 | (X) | 13,405 |
| 3582031 | Parts, attachments, and accessories ${ }^{8}$...................................... | (X) | 14,155 |  |  |
|  | Dry cleaning equipment and clothing presses: |  |  |  |  |
|  | Dry cleaning units: |  |  |  |  |
| 3582032 | Coin-operated. . . . . . . . | 5,187 | 10,184 | 1,951 | 8,776 |
| 3582033 | Other than coin-operated.................................................. . . | 1,560 | 3,926 |  |  |
| 3582052 | Washer-extractors. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 470 | 2,469 | 542 | 2,812 |
| 3582081 | Other dry cleaning equipnent, including tailor-type presses, washers, extractors and reclaiming units. | (X) | 9,168 | (X) | 15,074 |
| 3582081 | Parts, attachments, and accessories ${ }^{8}$. | (X) | 2,666 |  |  |
| 3582000 | Commercial laundry, dry cleaning, and pressing machines, n.s.k........... | (x) | 5,202 | (X) | 8,637 |
| 3585- -- | REFRIGERATION MACHINERY, TOTAL. | (x) | ${ }^{9} 2,104,632$ | (X) | ${ }^{9} 1,435,091$ |
| 35851 -- | Heat transfer equipment, total ${ }^{10}$. | (x) | 1,158,793 | (X) | 715,914 |
|  | Heat transfer equipment (evaporative condensers, unit coolers, etc.), centrifugal liquid chilling packages, unitary air conditioners, and other air-conditioning and refrigeration equipment: <br> As reported in the census of manufactures. <br> As reported on Census Form MA-35M. | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{x}) \end{aligned}$ | $\begin{aligned} & 1850,403 \\ & 1835,122 \end{aligned}$ | (X) | $\begin{array}{r} (\mathrm{NA}) \\ 458,235 \end{array}$ |

[^209]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


[^210]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


[^211]TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.
${ }^{1}$ For these products, data were also collected in the census annual conmodity survey program. In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified products or classes of products for which separate figures had previously been collected on the annual form. In most cases, the value figures reported in the census of manufactures for each product or class of products agreed closely with the corresponding figures reported in the annual survey. However, there were some differences between the census figures and the annual survey figures amounting generally to less than 1 percent at the industry level. These variations were due primarily to the following reasons:
a. Use of different reporting periods (calendar year vs. fiscal year).
b. Use of different bases for reporting value (company sales vs. factory production).
c. Use of estimates in reporting data on the annual survey whereas census of manufactures figures generally represent more exact shipments figures.
${ }^{2}$ These products are primarily coffee vending machines though they may also vend hot chocolate and/or hot soup from the same cabinet.
${ }^{3}$ In 1958 data for canned beverages are included with other vending machines for beverages.
${ }^{4}$ Includes packaged milk (indoor and outdoor); milk (bulk or cup); beverage combination (hot and cold); hot beverages such as hot chocolate and/or hot soup (except canned soup) not sold in a combination machine with coffee; and package dry ingredients for mixing into beverages.
${ }^{5}$ Includes vending machines for such conmodities as apples; cookies, crackers, and biscuits; popcorn, pastry; ice cream; and package chewing gum.
${ }^{6}$ Includes vending machines for such products as cosmetics and toiletries, novelties, detergents, newspapers, and stationery supplies.
${ }^{7}$ Includes automatic vending machines and parts, not specified by kind.
${ }^{8}$ Excludes coin-operated mechanisms.
${ }^{9}$ The total value of shipments of refrigeration machinery includes extensive duplication resulting from the use of products of some establishments
in the industry as materials by others within the same industry
${ }^{10}$ This product class includes on Census Form MA-35M products coded in the 35854 and 35852 groups.
${ }^{11}$ For 1963, a total of 68,631 units valued at $\$ 33,935$ thousand in the under $97,000 \mathrm{~B} . \mathrm{t} . \mathrm{u} . / \mathrm{hr}$. category were shipped. A breakdown between
"Horizontal" types and "Other" types was also obtained for units in this category. Of this total, 55,087 units valued at \$24,221 thousand represented "Horizontal" types. The corresponding figures for horizontal types under 97,999 B.t.u./hr. in 1958 were 44,809 units valued at $\$ 17,348$ thousand.
${ }^{12}$ Data for 1963 include units for household refrigerators. Such units are excluded from figures for 1958.
${ }^{13}$ Figures for compressor bodies 10 hp . and under hermetic-type motor compressors also include compressor bodies 10 hp . and under open-type compressors and (for 1958 only) 15 and 20 hp . open and hermetic types.
${ }^{14}$ Represents 20 hp . and under hermetic-type motor cormpressors.
${ }^{15}$ Excludes automotive air-conditioning compressors.
${ }^{16}$ No detail by horsepower is available for these units.
${ }^{17}$ Twin pumps are counted as one unit.
${ }^{18}$ Twin pumps are counted as two units.
${ }^{19}$ For 1963, data on noncomputing gasoline dispensing pumps are included with other measuring and dispensing pumps.
${ }^{20}$ Represents parts and accessories for commercial electric cooking equipment.
${ }^{21}$ The 1958 and 1963 figures are not directly comparable because of the apparent inclusion of some carburetors and valves in industry 3717 , "Motor Vehicles and Parts" in 1958.
${ }^{22}$ This figure differs from comprable totals shown in other tables because of inclusion of corrections that were introduced too late for inclusion in those tables. The effect on total figures is less than 5 percent.

## TABLE 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 358-- | Service industry machines........................ ${ }^{1963 . .} \begin{array}{r}1958 . .\end{array}$ | $\begin{aligned} & 200 \\ & 132 \end{aligned}$ | 93 96 |
| 3581- | Autamatic vending machines and parts................ $1963 .$. $1958 .$. | 189 140 | 133 112 |
| 35811 | Automatic vending machines (cbmplete unit).......1963.. ${ }^{1958 . .}$ | 148 122 | 143 113 |
| 35812 | Coin-operated mechanisms and parts for automatic vending machines....................... $1963 .$. $1958 .$. | 305 150 | 97 112 |
| 3582- | Commercial laundry, dry cleaning, and pressing machines........................................................ . . 1963.. | 202 | 84 114 |
| 3585- | Refrigeration machinery ${ }^{1}$. ${ }^{\text {a }}$. . . . . . . . . . . . . . . . . . . . . $1963 .$. $1958 .$. | 208 135 | 86 90 |
| 35851 | Heat transfer equipment................................ $1963 .$. | 260 146 | 83 82 |
| 35853 | Commercial refrigorators and related equipment...1963.. | 125 | 100 |
| 35854 | Compressors and compressor units, all refrigerants. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1963 .$. $1958 .$. | 115 231 139 | 106 77 90 |
| 3586- | Measuring and dispensing pumps............................1963.. 1958.. | 113 79 | 133 138 |
| 3589- | Service industry machines ${ }^{2}$ $\qquad$ . $1963 .$. 1958. . | 202 | 116 |
| 35892 | Service industry machines and parts................. $1963 .$. | 203 161 | 121 |
| 35893 | Commercial and industrial vacuum cleaners, including parts and attachments......................1963.. 1958. . | 386 189 | 61 88 |
| 3599- | Miscellaneous machinery except electrical............1963.. 1958.. | $\left(\begin{array}{l}\text { (3) } \\ (3)\end{array}\right.$ | $\left(\begin{array}{l}(3) \\ (3)\end{array}\right.$ |

[^212]
# table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963 

| Code | Product class | 1963 | $1962{ }^{1}$ | $1961{ }^{1}$ | $1960^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3581- | Automatic vending machines. | 206,562 | 222,324 | 195,191 | 185,111 | 158,653 | 130,850 | (NA) | (NA) |
| 35811 | Automatic merchandising machines.......... | 164,338 | ) 218.529 |  |  |  | \{ 110,548 | 74,258 | 74,250 |
| 35812 | Coin-operated mechanisms and parts for automatic merchandising machines.......... | 32,757 | \} 218,529 | 194,707 | 184,302 | 153,438 | $\left\{\begin{array}{l}\text { 20,302 }\end{array}\right.$ | (NA) | (NA) |
| 35810 | Automatic vending machines, n.s.k......... | 9,46.7 | $(3,795)$ | (484) | (809) | $(5,215)$ | , 20,302 | (NA) | (NA) |
| 35820 | Commercial laundry, dry cleaning, and pressing machinery and equipment............. | 129,613 | 134,902 | 127,461 | 119,935 | 123,619 | 106,590 | 76,637 | 93,078 |
| 3585- | Refrigeration machinery ${ }^{2}$.................... | 2,077,006 | ${ }^{3} 2,043,788$ | $3^{3} 1,840,078$ | ${ }^{3} 1,878,944$ | 1,720,293 | 1,435,091 | (NA) | (NA) |
| 35851 | Heat transfer equipment ${ }^{4}$. ................. | 1,131,167 | 949,735 | 869,699 | 883,044 | 5768,142 | 715,914 | (NA) | (NA) |
| 35853 | Commercial refrigeration equipment........ | 253,711 | 287,113 | 249,945 | 261,335 | 269,159 | 240,409 | 201,660 | 227,369 |
| 35854 | Compressors and compressor units, all refrigerants | 269,359 | 265,714 | 234,607 | 247,475 | 237,114 | 181,821 | 162,991 | 63,371 |
| $35855$ | Condensing units, all refrigerants........ | 73,538 | 102,717 | 97,517 | 108,749 | 104,763 | 70,307 | 85,274 | 111,697 |
|  | equipment, including soda fountain and beer dispensing equipment | 302,530 | ${ }^{3}(406,951)$ | ${ }^{3}(356,867)$ | ${ }^{3}(358,921)$ | ${ }^{3}(313,180)$ | 195,198 | (NA) | (NA) |
| 35850 | Refrigeration machinery, n.s.k............ | 46,701 | $(31,558)$ | $(31,443)$ | $(19,420)$ | $(27,935)$ | 31,442 | (NA) | (NA) |
| 35860 | Measuring and dispensing pumps.............. | 121,017 | 115,025 | 106,004 | 102,252 | 100,987 | 88,217 | 80,846 | 95,488 |
| 3589- | Service industry machines, n.e.c. | 341,517 | 315,951 | 299,127 | 274,570 | 253,025 | 221,987 | (NA) | (NA) |
| 35891 | Comenercial cooking and food warming equipment ${ }^{6}$. | 106,965 | 97,534 | 95,464 | 86,469 | 79,476 | 73,169 | 44,088 |  |
| 35892 | Service industry machines, and parts...... | 196,701 | 198,742 | 187,185 | 172,361 | 158,413 | 136,086 | 140,389 | 127,383 |
| 35893 | Commercial and industrial vacuum <br> cleaners, including attachments and parts | 18,996 | 19,675 | 16,478 | 15,740 | 15,136 | 12,732 | (NA) | (NA) |
| 35890 | Service industry machines, n.e.c., n.s.k.. | 18,855 | - |  | - | - | - | - | - |
| 35990 | Carburetors, pistons and other machine shop products....................................... | 1,605,915 | 1,426,247 | 1,266,468 | 1,252,106 | 1,270,189 | 1,117,684 | (NA) | (NA) |

[^213]
# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 


#### Abstract

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are


listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.

| Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AUTOMATIC MERCHANDISING MACHINES (35811) <br> United States, total..... | $1963{ }^{1}$ | COMMERCIAL REFRIGERATION EQUIPMENT (35853)-Con. | $1963{ }^{2}$ | OTHER REFRIGERATION AND AIR-CONDITIONING EQUIPMENT, INCLUDING SODA FOUNTATN AND BEER DISPENSING EQUIPMENT (35857)-Continued | $1963{ }^{2}$ |  |
|  | 164,338 | Middle Atlantic............. New York. $\qquad$ | $\begin{aligned} & 59,712 \\ & 17,645 \end{aligned}$ |  |  |  |
| Northeast.. | 36,932 | New Jersey. | 22,290 |  |  |  |
| New York. Pennsylvania | 3,625 4,120 | Pennsylvania.............. | 19,777 | East North Central......... Ohio.................... |  | 81,513 22,998 |
| East North Central........... | 48,907 | East North Central.... | 82,884 | Indiana. |  | 15,196 |
| East North Centrat............ | 2,961 | Ohio.... | 22,520 | Illinois. |  | 13,094 |
| Indiana... | 2,645 | Indiana.. | 20,369 | Mi chigan. |  | 22,985 |
| Illinois | 28,624 | Illinois. | 6,975 20,008 | Wisconsin. |  | 7,240 |
| West North Central.............. Iowa. | 48,112 2,661 | Wisconsin..................... | 13,012 | West North Central......... Missouri.............. |  | 29,268 14,932 |
|  |  | West North Central.. | 49,481 |  |  |  |
| South. <br> Texas. $\qquad$ | 17,114 2,797 | Iowa......................... | 2,546 26,856 | South Atlantic........... Virginia............ |  | 16,499 4,810 |
| West. | 13,273 | South Atlantic............... Maryland $\qquad$ | 16,2704,989 | North Carolina. |  | 8,050 |
| COIN-OPERATED MECHANISMS AND PARTS FOR AUTOMATIC MERCHANDISING MACHINES (35812) |  |  |  | East South Central......... |  | 10,781 |
|  |  | East South Central......... | 3,851 | West South Central......... |  |  |
|  |  | West South Central......... | 16,840 | Arkansas................. Texas................ |  | 2,351 33,731 |
| United States, total..... | 32,757 | West. ....................... Washingto. | 21,960 3,045 | West. |  | 28,182 |
| Northeast. <br> New York. $\qquad$ | $\begin{aligned} & 6,824 \\ & 4,715 \end{aligned}$ | Oregon..........................California............... | 1,158 |  |  |  |
|  |  |  | 16,693 | MEASURING AND DISPENSING PUMPS (35860) | $1963{ }^{1}$ | 1958 |
| East North Central............. Illinois. | $\begin{aligned} & 9,908 \\ & 4,927 \end{aligned}$ | COMPRESSORS AND COMPRESSOR UNITS, ALL REFRIGERANTS(35854) |  | United States, total... | 121,017 | 88,217 |
| West North Central............ | $13,721$ |  |  | Northeast................... | 31,220 | 15,994 |
| South. <br> West. | $1,273$ | United States, total... | 269,359 | New York. $\qquad$ <br> Pennsylvania. | 2,461 |  |
|  |  |  |  |  |  |  |
| HEAT TRANSFER EQUIPMENT (35851) |  | Northeast.................. | 31,690 | East North Central. | 48,987 | 36,841 |
| United States, total..... | 1,158,793 | East North Central........... Ohio. | $\begin{array}{r} 244,933 \\ 93,832 \end{array}$ | Ohio <br> West North Central | 14,461 | 9,169 |
| New England. $\qquad$ Massachusetts $\qquad$ | $\begin{aligned} & 6,734 \\ & 4,162 \end{aligned}$ |  | $\begin{array}{r} 12,736 \\ 4,212 \end{array}$ |  | 18,573 | 14,339 |
|  |  | South and West California. $\qquad$ |  | South........................ | 19,297 | ${ }^{(2)}$ |
| Middle Atlantic <br> New York. $\qquad$ <br> New Jersey. $\qquad$ <br> Pennsylvania. | $\begin{array}{r} 340,417 \\ 259,209 \\ 19,476 \\ 61,732 \end{array}$ | CONDENSING UNITS, ALL REFRIGERANTS (35855) |  | COMMERCIAL COOKING AND FOODWARMING EQUIPMENT (35891) | 2,940 | ,952 |
|  |  |  | 73,538 |  | $1963{ }^{1}$ |  |
|  |  |  |  |  |  |  |  |
|  |  | United States, total... |  | United States, total... |  | 106,965 |
| East North Central............. Ohio. <br> Indiana. <br> Illinois. <br> Michigan. <br> Wisconsin. | 453,510 163,351 <br> 110,790 <br> 38,126 <br> 82,692 <br> 58,551 |  | 18,885 6,794 |  |  | 10,452 |
|  |  | Northeast $\qquad$ <br> New York. $\qquad$ |  | Middle Atlantic............. |  |  |
|  |  |  |  |  |  | 19,949 |
|  |  |  | 6,794 | New York................. |  | 8,193 |
|  |  | North Central................. Michigan. | $\begin{aligned} & 45,834 \\ & 21,089 \end{aligned}$ | New Jersey................... Pennsylvania. |  | 18,7443,012 |
| West North Central Minnisota. $\qquad$ Missouri. $\qquad$ | $\begin{array}{r} 91,269 \\ 40,410 \\ 9,300 \end{array}$ |  |  | Pennsylvania............... |  |  |
|  |  | South. <br> Texas | 7,1183,133 | East North Central.......... Illinois. |  | $\begin{aligned} & 42,683 \\ & 30,894 \end{aligned}$ |
|  |  |  |  |  |  |  |
| South Atlantic <br> Georgia <br> Florida $\qquad$ | $\begin{array}{r} 35,928 \\ 4,125 \\ 2,398 \end{array}$ |  | 1,701 | West North Central........... Missouri. |  | $\begin{aligned} & 8,332 \\ & 6,742 \end{aligned}$ |
|  |  | West......................... |  |  |  |  |
| East South Central........... | 86,040 | OTHER REFRIGERATION AND AIR-CONDITIONING EQUIPMENT, INCLIDING SODA FOUNTAIN AND BEER DISFENSING EQUIPMENT (35857) |  | South. ...................... |  | 11,287 |
| West South Central........... | $\begin{aligned} & 83,308 \\ & 65,311 \end{aligned}$ |  |  |  |  |  |
| Texas....................... . |  |  |  |  |  | $\begin{aligned} & 14,262 \\ & 12,547 \end{aligned}$ |
| Mountain................. | $\begin{aligned} & 11,417 \\ & 50,170 \end{aligned}$ | United States, total... | 302,530 |  |  |  |
| Pacific... |  |  |  | SERVICE INDUSTRY MACHINES,AND PARTS (35892) |  |  |
| COMMERCIAL REFRIGERATION EQUIPMENT (35853) |  | New England.................... Connecticut | $16,270$ |  |  |  |
|  | 253,711 | Middle Atlantic $\qquad$ <br> New York. $\qquad$ <br> New Jersey. $\qquad$ <br> Pennsylvania. $\qquad$ |  | United States, total... |  | 196,701 |
| United States, total..... |  |  | $\begin{aligned} & 78,296 \\ & 33,150 \end{aligned}$ | New England. . . . . . . . . . . . . |  | 7,584 |
| New England.................. | 2,713 |  | 22,007 | Massachusetts............ |  | 5,127 |
| Massachusetts............... | 2,713 |  | 23,139 | Connecticut.............. |  | 2,361 |

See footnotes at end of table.

## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued

| Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments | Product class and geographic area | Value of shipments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Y | $1963{ }^{1}$ | SERVICE INDUSTRY MACHINES, | $1963{ }^{1}$ | COMMERCIAL AND INDUSTRIAL | $1963{ }^{1}$ |
| Middle Atlantic. | 38,730 | West North Central......... | 26,615 | ATTACHMENTS AND PARTS (35893) |  |
| New York.. | 8,767 | Minnesota | 18,074 |  |  |
| New Jersey.................. | 9,582 |  |  | United States, total... | 18,996 |
| Pernsylvania............... | 20,381 | South. <br> Florida. | $\begin{aligned} & 7,547 \\ & 1,713 \end{aligned}$ | Northeast. | 6,230 |
| East North Central........... | 103,652 |  |  | New Jersey. . . | 1,430 |
| Ohio......................... | 35,477 2,760 | Mountain..................... | 2,686 | North Central.. |  |
| Indiana....... . . . . . . . . . . . | 2,760 41,750 | Colorado................. | 2,516 | Ohio......... | 1,461 |
| Michigan....................... | 14,569 | Pacific..................... | 9,887 | Illinois. | 3,974 |
| Wisconsin. | 9,096 | California............... | 9,469 | South and West.. | 3,358 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. (Z) Less than $\$ 1$ million reported.
${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 35811, Massachusetts, Connecticut, New Jersey, Michigan, Wisconsin, Minnesota, Missouri, Maryland, West Virginia, Tennessee, California; 35812, Wisconsin, Missouri, California; 35851, Connecticut, Iowa, Kansas, Maryland, Virginia, North Carolina, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Oklahoma, Texas, Arizona, Utah, California; 35853, Minnesota, Kansas, South Carolina, Georgia, Tennessee, Alabama, Mississippi, Arkansas, Texas; 35854, Connecticut, New York, New Jersey, Pennsylvania, Indiana, Illinois, Michigan, Wisconsin, Kentucky; 35855, Connecticut, New Jersey, Pennsylvania, Ohio, Indiana, Wisconsin, Missouri, Georgia, California; 35857, Massachusetts, Rhode Island, Minnesota, Kansas, Maryland, Florida, Kentucky, Tennessee, Oklahoma, Arizona, California; 35860 , Vermont, Massachusetts, New Jersey, Indiana, Illinois, Michigan, Minnesota, Iowa, Missouri, Maryland, Tennessee, Texas, Colorado, California; 35891, New Hampshire, Vermont, Massachusetts, Ohio, Indiana, Maryland, Kentucky, Louisiana, Oregon; 35892, Connecticut, Iowa, Missouri, Kansas, North Carolina, Kentucky; 35893, Massachusetts, Connecticut, Michigan, Minnesota, South Carolina, California.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

## table 7A. Materials by Kind: 1963 and 1958



[^214]
## table 7A. Materials by Kind: 1963 and 1958-Continued



[^215]
## table 7A. Materials by Kind: 1963 and 1958-Continued



[^216]
## TABLE 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost <br> $(\$ 1,000)$ | Quantity | Delivered cost <br> $(\$ 1,000)$ |
|  |  |  | INDUSTRY 3589.-SERVICE INDUSTRY MACHINES, N.E.C.-Con. |  |  |  |
|  | Castings (rough and semifinished): ${ }^{4}$ |  |  |  |  |  |
| 332011 | Iron (gray and malleable) | Short tons...... | 10,118 | 4,262 | 6,253 | 2,591 |
| 332300 | Steel........ | ...do. | 1,642 | 736 | 612 | 360 |
| 336100 | Aluminum and aluminum-base alloy | 1,000 lbs....... | 5,730 | 4,226 | 2,030 | 1,616 |
| 336200 | Copper and copper-base alloy. | ...do........... | 1,278 | 1,016 | 1,218 | 849 |
|  | Electric motors and generators: ${ }^{4}$ |  |  |  |  |  |
| 362110 | Fractional horsepower electric motors (under 1 hp .) timing motors, synchronous and subsynchronous. | Number. . . . . . . . . | 68,161 | 1,116 | 57,001 | 694 |
| 362115 | Other fractional horsepower electric motors (excluding timing motors). | ..do. | 244,293 | 3,439 | 123,203 | 2,400 |
| 3621.20 | Integral horsepower motors and generators (1 hp. and over)....... | . .do. | 35,113 | 2,303 | 34,229 | 2,045 |
| 970099 | All other materials and components, parts, containers, and supplies consumed. $\qquad$ |  | (X) | 85,788 | (X) | 53,985 |
| 976000 | Materials, containers, and supplies, n.s.k. ${ }^{2}$......................... | ................... | (X) | 27,032 | (X) | 16,490 |
|  |  |  | INDUSTRY 3599.-MISCELLANEOUS MACHINERY |  |  |  |
|  | Materials, parts, containers, and supplies, total. |  | (X) | 528,661 | (X) | 427,424 |
|  | Mill shapes and forms (except castings): Carbon steel: |  |  |  |  |  |
| 331011 | Bars and bar shape | Short tons. | 103,349 | 22,256 | 77,276 | 14,522 |
| 331012 | Sheet and strip. | . .do. | 61,301 | 10,672 | 36,873 | 8,168 |
| 331013 | Plates...... | .do | 36,974 | 6,317 | 32,623 | 5,44'7 |
| 331015 | Structural shapes. | do | 23,395 | 4,186 | 19,742 | 2,922 |
| 331017 | Wire and wire products. | do | 5,206 | 2,723 | 4,813 | 1,936 |
| 331019 | All other carbon steel mill shapes and forms | .do | 30,958 | 7,190 | 11,921 | 3,634 |
|  | Alloy steel (except stainless): |  |  |  |  |  |
| 331021 | Bars and bar shapes. | . .do | 23,795 | 6,363 | 22,187 | 6,384 |
| 331029 | All other alloy steel mill shapes and forms | .do | 10,124 | 6,079 | 4,448 | 2,235 |
| 331031 | Stainless steel. | ...do............ | 12,039 | 1'7,782 | 11,125 | 13,149 |
|  | Copper and copper-base alloy: |  |  |  |  |  |
| 335728 335790 | Bare wire (for electrical conduction)................................. | 1,000 lbs....... | 137 | 105 | 472 | 297 |
| 335790 | Insulated wire and cable........................................... | 1,000 lbs. copper content. | 196 | 264 | 732 | 540 |
| 335102 | Rod, bar, and mechanical wire, including extruded and/or drawn shapes. | 1,000 lbs....... | 6,142 | 3,223 |  |  |
| 335123 | Plate, sheet, and strip (including military cups and discs).... | ...do. | 3,178 | 2,089 | 27,796 | 13,366 |
| 335127 | Pipe and tube.................................................................... | .do. | 6,011 |  |  |  |
|  | Aluminum and aluminum-base alloy: |  |  |  |  |  |
| 335202 | Sheet, plate, and foil... | ...do............ | 5,512 | 3,483 | 6,719 | 5,583 |
| 335205 | Extruded shapes, including rod, bar, pipe, tube, etc............ | do | 6,711 | 5,136 |  |  |
| 335209 | All other aluminum mill shapes and forms (wire, rolled rod, and bar, powder, welded tubing, etc.). | ..do. | 11,942 | 6,008 | 8,183 | 5,518 |
|  | Castings (rough and semifinished): ${ }^{4}$ |  |  |  |  |  |
| 332011 | Iron (gray and malleable). | Short tons...... | 54,955 | 22,099 | 45,036 | 17,939 |
| 332300 | Steel....... | ...do............ | 16,340 | 9,568 | 13,977 | 9,078 |
| 336100 | Aluminum and aluminum-base alloy | 1,000 lbs....... | 23,016 | 15,326 | 22,885 | 12,887 |
| 336200 | Copper and copper-base alloy... | ...do............ | 2,760 | 2,389 | 5,254 | 2,844 |
| 970099 | All other materials and components, parts, containers, and supplies consumed. |  | (X) | 181,272 | (X) | 172,372 |
| 976000 | Materials, containers, supplies, n.s.k. |  | (x) | $190,584$ | (X) | 128,603 |
| Standard Notes: - Represents zero. <br> (D) Withheld to avoid disclosing figures for individual companies. <br> (NA) Not available. <br> (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. <br> ${ }^{1}$ No data are available for the quantities of castings, electric motors and generators, iron and steel forgings, and gasoline engines produced and consumed in finished products in the same plant except for industry 3585 which produced for such consumption 5,477 short tons of iron castings in 1958. <br> ${ }^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms." <br> ${ }^{3}$ Includes extensive duplication because the products of some establishments in the industry are consumed as materials by other establishments in the same industry. <br> Footnotes continued on next page. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

## TABLE 7A. Materials by Kind: 1963 and 1958-Continued

Footnotes for Table 7A-35G-Continued
${ }^{4}$ In addition the following quantities were produced and consumed into products at the same establishment:

| Code | Item | Unit of measure | INDUSTRY |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 3586 | 3589 | 3599 |  |
|  |  |  | 1963 | 1963 | 1963 | 1958 |
|  | Castings (rough and semifinished): |  |  |  |  |  |
| 332011 | Iron (gray and malleable)...................................................... | Short tons.. | (NA) | 2,002 | 7,723 | 7,628 |
| 332300 | Steel........................................................... . | ...do....... | (NA) | - | 931 | (NA) |
| 336100 | Aluminum and aluminum-base alloy.......................... | 1,000 lbs... | (D) | (D) | 2,905 | (NA) |
| 336200 | Copper and copper-base alloy.................................. | ...do....... | (D) | (D) | 3,230 | 1,045 |
|  | Electric motors and generators: <br> Fractional horsepower electric motors (under 1 hp.): |  |  |  |  |  |
| 362110 | Timing motors, synchronous and subsynchronous........... | Number....... | - | (D) | (NA) | (NA) |
| 362115 | Other fractional horsepower electric motors (excluding timing motors). | ...do....... | - | 8,666 | (NA) | (NA) |
| 362120 | Integral horsepower motors and generators (1 hp.and over) | ...do....... | - | (D) | (NA) | (NA) |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
${ }^{5}$ Data for 1958 does not include materials consumed by establishments primarily producing industrial and conmercial vacuum cleaners. Such establishments consumed $\$ 5,506$ thousand of materials, parts, containers, and supplies.

## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

|  | Automatic vending machines (SIC 3581) | Commercial laundry equipment (SIC 3582) | Refrigeration machinery (SIC 3585) | Measuring and dispensing pumps (SIC 3586) | Service industry machines, n.e.c. (SIC 3589) | Miscellaneous machinery (SIC 3599) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. | 1,993 | 799 | 11,681 | 847 | 1,979 | 22,970 |
| Total cost of purchased fuels................................do.... | 946 | 337 | 4,613 | 341 | 845 | 7,935 |
| Bituminous coal, lignite, and anthracite: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons. <br> Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. | 21 220 | (S) | $\begin{aligned} & 114 \\ & 857 \end{aligned}$ | (S) | 4 40 | 33 287 |
| Coke and breeze: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons. . <br> Cost. $. \$ 1,000 .$ | (S) | - | (S) | - | - | 6 146 |
| Fuel oil (distillate and residual): <br> Quantity............................ 1,000 barrels of 42 gallons. <br> Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 24 106 | (S) | 234 818 | 46 160 | 81 341 | 398 1,616 |
| ```Gas (natural, manufactured, still, blast furnace, and coke oven):```  ```Cost. t. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .$1,000. . ``` | 628 | (S) | 4,854 2,515 | 235 130 | 459 365 | 4,602 2,961 |
| Other fuels..................................................do.... | (s) | (s) | (S) | (S) | 99 | 2,925 |
| Electric energy: Purchased: |  |  |  |  |  |  |
| Quantity....................................................... . . . . . . . . . . . . . cost. $\qquad$ . .......... $\$ 1,000$. | 68 1,047 | 27 462 | 539 7,068 | 31 506 | 58 1,134 | $\begin{array}{r} 826 \\ 15,035 \end{array}$ |
| Generated less sold...........................million kw. -hrs.. | - | (S) | - | - | - | (s) |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.......... $1,000 \mathrm{hp}$. | 42 | 25 | 340 | 29 | 42 | 857 |
| Prime movers, total............................................. . . . . | 2 | 5 | 36 | (2) | 1 | 43 |
| Driving generators. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do <br> Not driving generators.......................................................... | 2 | 3 2 | 5 31 | (2) | (2) | 13 30 |
| Electric motors, total.........................................do.... | 40 | 23 | 304 | 29 | 40 | 816 |
| Driven by purchased energy..................................................... Driven by energy generated at establishment......................... | 40 - | 19 | 304 | 29 | 40 | 815 |
| Aggregate horsepower per 100 production workers.................... | 443 | 578 | 760 | 731 | 423 | 749 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. (Z) Less than 500 horsepower.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

# TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Appendix A for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

|  | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3581- | AUTOMATIC VENDING MACHINES |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. | 158 | 11,672 | 64,791 | 8,442 | 16,790 | 40,427 | 121,365 | 116,908 | 238,000 | 3,479 |
|  | $90 \%$ or more specialization.. $75-89 \%$ specialiration. | 128 | 7,194 | 38,989 | 5,003 880 | 9,757 | 22,792 | 69,107 | 71,550 | 139,798 | 2,474 |
| 35811 | Automatic merchandising machines (primary product class of estab.) Establishments with-- | 79 | 9,068 | 51;919 | 6,564 | 13,104 | 32,264 | 99,275 | 101,087 | 200,111 | 2,484 |
|  | $90^{\prime \prime}$ or more specialization.... <br> 75-89\% specialization.......... | 46 | $\begin{aligned} & 4,006 \\ & 1,584 \end{aligned}$ | $\begin{array}{r} 23,106 \\ 8,262 \end{array}$ | $\begin{aligned} & 2,714 \\ & 1,205 \end{aligned}$ | $\begin{aligned} & 5,193 \\ & 2,458 \end{aligned}$ | $\begin{array}{r} 12,744 \\ 5,592 \end{array}$ | $\begin{aligned} & 43,540 \\ & 14,595 \end{aligned}$ | $\begin{aligned} & 51,418 \\ & 12,591 \end{aligned}$ | $\begin{aligned} & 94,078 \\ & 27,532 \end{aligned}$ | $\begin{array}{r} 1,626 \\ 210 \end{array}$ |
| 38512 | ```Coin-operated mechanisms and parts for automatic merchan- dising machines (primary product class of estab.).................``` | 22 | 1,863 | 10124 | 1,335 | 2,666 | 6,302 | 16,757 | 11,965 | 28,655 | 522 |
| 3585- | REFRIGERATION MACHINERY |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................. <br> Establishments with-- | 698 | 72,330 | 432,583 | 50,676 | 101,231 | 268,304 | 892,686 | 1,059,887 | 1,928,001 | 33,471 |
|  | $90 \%$ or more specialization.. 75-89\% specialization....... | $\begin{array}{r} 567 \\ 46 \end{array}$ | $\begin{aligned} & 47,223 \\ & 10,653 \end{aligned}$ | $\begin{array}{r} 281,183 \\ 63,043 \end{array}$ | $\begin{array}{r} 33,790 \\ 7,385 \end{array}$ | $\begin{aligned} & 67,656 \\ & 14,786 \end{aligned}$ | $\begin{array}{r} 176,841 \\ 39,301 \end{array}$ | $\begin{aligned} & 570,350 \\ & 131,519 \end{aligned}$ | $\begin{aligned} & 745,187 \\ & 157,305 \end{aligned}$ | $\begin{array}{r} 1,298,796 \\ 284,699 \end{array}$ | $\begin{array}{r} 20,171 \\ 6,197 \end{array}$ |
| 35851 | Heat transfer equipment (primary product class of estab.).......... Establishments with-- | 134 | 38,334 | 241,868 | 26,200 | 52,957 | 145,640 | 542,789 | 608,500 | 1,129,031 | 20,629 |
|  | $90 \%$ or more specialization.... 75-89\% specialization......... | $\begin{aligned} & 68 \\ & 27 \end{aligned}$ | $\begin{array}{r} 7,946 \\ 12,351 \end{array}$ | $\begin{aligned} & 49,177 \\ & 79,924 \end{aligned}$ | $\begin{aligned} & 5,990 \\ & 8,270 \end{aligned}$ | $\begin{aligned} & 12,259 \\ & 16,683 \end{aligned}$ | $\begin{aligned} & 30,955 \\ & 47,706 \end{aligned}$ | $\begin{aligned} & 104,871 \\ & 186,088 \end{aligned}$ | $\begin{aligned} & 143,800 \\ & 242,016 \end{aligned}$ | $\begin{aligned} & 243,613 \\ & 418,982 \end{aligned}$ | $\begin{aligned} & 3,426 \\ & 7,641 \end{aligned}$ |
| 35853 | Commercial refrigeration equipment (primary product class of estab.). Establishments with-- | 164 | 13,789 | 79,727 | 9,418 | 18,844 | 47,307 | 126,830 | 149,102 | 275,225 | 5,001 |
|  | $90 \%$ or more specialization.... 75-89\% specialization.......... | $\begin{array}{r} 102 \\ 30 \end{array}$ | $\begin{aligned} & 5,308 \\ & 4,197 \end{aligned}$ | $\begin{aligned} & 28,808 \\ & 27,071 \end{aligned}$ | $\begin{aligned} & 3,998 \\ & 2,556 \end{aligned}$ | $\begin{aligned} & 7,837 \\ & 5,167 \end{aligned}$ | $\begin{aligned} & 17,887 \\ & 14,769 \end{aligned}$ | $\begin{aligned} & 50,315 \\ & 41,401 \end{aligned}$ | $\begin{aligned} & 59,918 \\ & 46,595 \end{aligned}$ | $\begin{array}{r} 108,125 \\ 89,530 \end{array}$ | $\begin{aligned} & 2,124 \\ & 1,028 \end{aligned}$ |
| 35854 | Compressors and compressor units, all refrigerants (primary product class of estab.).......... | 14 | 6,329 | 38,241 | 5,223 | 9,901 | 29,533 | 63,999 | 147,421 | 210,922 | 1,840 |
| 35855 | Condensing units, all refrigerants (primary product class of estab.) Establishments with-90\% or more specialization.... | 10 6 | 323 183 | 1,743 1,088 | 257 153 | 507 296 | 1,203 798 | 3,081 1,681 | 5,047 2,107 | 8,228 3,840 | 453 (D) |
| 35857 | Other refrigeration and air-conditioning equipment, including soda fountain and beer dispensing equipment (primary product class of estab.).................... Establishments with-$90 \%$ or more specialization.... | 203 155 | 9,554 4,619 | 51,791 25,860 | 6,770 3,050 | 13,565 6,069 | 31,241 13,861 | 108,360 55,466 | 106,938 54,639 | 216,508 112,869 | 3,243 1,515 |
| 3586 - | MEASURING AND DISPENSING PUMPS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry... | 43 | 6,768 | 41,732 | 4,499 | 8,913 | 23,155 | 91,713 | 71,213 | 159,487 | 2,604 |
|  | 90\% or more specialization.. | 31 | 2,332 | 14,300 | 1,646 | 3,277 | 7,976 | 28,626 | 28,783 | 56,948 | 1,277 |
| 3589- | SERVICE INDUSTRY MACHINES, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.... | 506 | 15,257 | 96,834 | 9,524 | 19,423 | 51,279 | 192,379 | 185,121 | 378,300 | 5,278 |
|  | $90 \%$ or more specialization.. 75-89\% specialization....... | $\begin{array}{r} 432 \\ 15 \end{array}$ | $\begin{array}{r} 9,508 \\ 918 \end{array}$ | $\begin{array}{r} 59,719 \\ 5,713 \end{array}$ | $\begin{array}{r} 5,943 \\ 605 \end{array}$ | $\begin{array}{r} 12,250 \\ 1,233 \end{array}$ | $\begin{aligned} & 31,172 \\ & 3,059 \end{aligned}$ | $\begin{array}{r} 128,522 \\ 9,063 \end{array}$ | $\begin{array}{r} 123,778 \\ 9,189 \end{array}$ | $\begin{array}{r} 250,256 \\ 18,440 \end{array}$ | $\begin{array}{r} 3,451 \\ \quad 159 \end{array}$ |
| 35891 | Commercial cooking and food warming equipment (primary product class of estab.).......... Establishgnents with-- | 108 | 5,675 | 35,424 | 4,011 | 8,072 | 21,835 | 68,426 | 58,335 | 126,797 | 1,587 |
|  | $90 \%$ or more specialization.... 75-89\% specialization.......... | 81 7 | $\begin{array}{r} 2,874 \\ 273 \end{array}$ | $\begin{array}{r} 17,629 \\ 1,682 \end{array}$ | $\begin{array}{r} 2,088 \\ 199 \end{array}$ | $\begin{array}{r} 4,219 \\ 409 \end{array}$ | $\begin{array}{r} 11,283 \\ 1,102 \end{array}$ | $\begin{array}{r} 34,831 \\ 3,087 \end{array}$ | $\begin{array}{r} 31,459 \\ 3,200 \end{array}$ | $\begin{array}{r} 65,770 \\ 6,380 \end{array}$ | $\begin{array}{r} 544 \\ 50 \end{array}$ |

See footnotes at end of table.
table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3589- | SERVICE INDUSTRY MACHINES, N.E.C.--Continued |  |  |  |  |  |  |  |  |  |  |
| 35892 | ```Service industry machines and parts (primary product class of estab.).............................. Establishments with--``` | 234 | 7,336 | 47,732 | 4,037 | 8,245 | 21,399 | 100,261 | 101,480 | 202,851 | 3,002 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | $\begin{array}{r} 188 \\ 17 \end{array}$ | $\begin{array}{r} 4,473 \\ 901 \end{array}$ | $\begin{array}{r} 28,782 \\ 6,641 \end{array}$ | $\begin{array}{r} 2,545 \\ 442 \end{array}$ | $\begin{array}{r} 5,294 \\ 866 \end{array}$ | $\begin{array}{r} 13,559 \\ 2,168 \end{array}$ | $\begin{aligned} & 67,218 \\ & 11,284 \end{aligned}$ | $\begin{aligned} & 62,865 \\ & 12,107 \end{aligned}$ | $\begin{array}{r} 129,257 \\ 23,093 \end{array}$ | $\begin{array}{r} 1,875 \\ 363 \end{array}$ |
| 35893 | Commercial and industrial vacuum cleaners, including attachments and parts (primary products class of estab.).............................. Establishments with-- | 19 | 637 | 4,072 | 428 | 898 | 1,975 | 6,879 | 8,589 | 15,398 | 169 |
|  | $90 \%$ or more specialization.. | 8 | 133 | 862 | 79 | 158 | 395 | 1,692 | 1,929 | 3,614 | 37 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963



See footnotes at end of table.

# table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963-Continued 

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{gathered} 20 \text { or } \\ \text { more } \end{gathered}$ |  | 1 to 4 | 5 to 19 | $20 \text { or }$ more |
| INDUSTRY 3599.--MISCELJANEOUS MACHINERY |  |  |  |  |  |  |  |  |
| Ferrous foundry................................. <br> Nonferrous die casting.......................................... <br> Forging-presses, hammers, or upsetters (excluding <br> manufacture of nuts, bolts, ete.). <br> Electroplating and other plating. <br> Heat treating of metals. <br> Automatic screw machines department. <br> Machine shop.... $\qquad$ <br> Tool and die shop. <br> Foundry pattern shop. <br> Plate or structural fabrication............................... <br> Stamping, blanking and forming of metals.............. <br> Painting, lacquering and enameling on metals......... | 44 | 18 | 12 | 14 | 951 | 25 | 105 | 821 |
|  | 41 | 24 | 10 | 7 | 670 | 37 | 104 | 529 |
|  | 20 | 14 | 2 |  | 200 | (D) | (D) | 156 |
|  | 39 | 29 | 8 | 2 | 179 | 42 | (D) | (D) |
|  | 76 | 53 | 18 | 5 | 412 | 94 | 148 | 170 |
|  | 133 | 110 | 19 | 4 | 424 | 150 | 161 | 113 |
|  | 293 | 212 | 72 | 9 | 1,302 | 375 | 632 | 295 |
|  | 3,308 | 969 | 1,724 | 615 | 47,775 | 1,668 | 16,651 | 29,456 |
|  | 499 | 312 | 154 | 33 | 3,339 | 542 | 1,387 | 1,410 |
|  | 54 | 48 | 5 | 1 | 147 | 71 | (D) | (D) |
|  | 431 | 264 | 145 | 22 | 2,316 | 425 | 1,213 | 678 |
|  | 444 | 328 | 99 | 17 | 2,035 | 458 | 885 | 692 |
|  | 299 | 273 | 25 | 1 | 542 | 332 | (D) | (D) |

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The sigmificance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

| Item | Industry |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3581 | 3582 | 3585 | 3586 | 3589 | 3599 |
| Total number of establishments in the indust | 158 | 115 | 698 | 43 | 506 | 12,090 |
| Number of establishments which reported one or more of the specified operations.. Percent of industry production workers in these establishments................ | $\begin{array}{r} 61 \\ 85-90 \end{array}$ | 57 $85-90$ | 351 $90-95$ | $\begin{array}{r} 32 \\ 95-100 \end{array}$ | 182 $75-80$ | $\begin{aligned} & 3,834 \\ & 70-75 \end{aligned}$ |
| Number of establishments which reported "none" of the operations apply............. Percent of industry production workers in these establishments................. | $\begin{array}{r} 10 \\ 0-5 \end{array}$ | $\begin{array}{r} 5 \\ 0-5 \end{array}$ | $\begin{array}{r} 33 \\ 0-5 \end{array}$ | 1 $0-5$ | 29 $0-5$ | 251 $0-5$ |
| Percent of industry production workers in establishments which completed metalworking operations inquiry. | 85-90 | 85-90 | 90-95 | 95-100 | 80-85 | 70-75 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishnent.

# Electrical Machinery 

36A Electrical transmission, distribution, and industrial apparatus

36B Household appliances
36C Electric lighting and wiring equipment
36D Communication equipment, including radio and TV, and e lectron components and accessories
36E Miscellaneous electrical machinery, equipment and supplies

This major group covers establishments primarily engaged in manufacturing machinery, apparatus and supplies for the generation, storage, transmission, transformation, and utilization of electrical energy.

A number of products which are sometimes considered "as belonging" in electrical equipment are classified in other major groups in the 1957 edition of the Standard Industrial Classification Manual in use for 1963. For example, machinery or equipment powered by built-in or detachable electric motors, such as machine tools and other metalworking equipment, commercial laundry and dry cleaning equipment, industrial vacuum cleaners, and office and store machines are classified in Major Group 35, Machinery, Except Electrical. Establishments primarily engaged in producing glass insulators, glass blanks for bulbs, and porcelain electrical supplies are classified in Major Group 32; those producing electric furnaces and ovens, turbogenerators and gas welding apparatus in Major Group 35; and those making automatic temperature controls in Major Group 38.

Industries included in Major Group 36 are typically defined in terms of products and may include both electrical and electronic equipment. Industry groups 365,366 , and 367 include the bulk of electronic equipment in this major group, i.e., radios, television sets, electron tubes, etc., but they also encompass some communications equipment other than electronic. Both electrical and electronic testing equipment are included in industry 3611, Electric Measuring Instruments. Most of the other industries in

Major Group 36 include products generally defined as electrical rather thanelectronic. Electronic components are frequently produced and consumed at the same location by establishments classifed in this major group. Thus, there are (1) plants, solely engaged in producing electronic components, (2) plants producing electronic components and assembling them into finished products, and (3) plants which assemble components produced elsewhere either in other plants of the same company or by other companies. Other types of componentsand equipment in Major Group 36 such as motors, generators, and motor-generator sets are not uncommonly produced for incorporation into other products made in the same plant.

Products included in Major Group 36 consist of equipment and apparatus for industrial or commercial use as well as goods for household consumption. For example, group 364 includes such consumer durable goods as electric lamps, lighting fixtures, and wiring devices and supplies, as well as similar products for commercial or industrial use. Group 363 consists of household electric appliances such as ranges, ovens, water heaters, fans and small electric appliances, household refrigerators and freezers, household laundry equipment, sewing machines, and vacuum cleaners.

Data on selected materials consumed (principally the metal items) by each of the 4-digit industries are shown in the respective table 7A's. The number of establishments engaged in some of the more important metalworking operations and the number of employees work-
ing in each operation are shown in table 9 for the 4 -digit industries. The materials and metalworking operations shown in tables 7A and 9 do not represent, of course, a complete list or, for many industries in this group, even the most important ones. There are a number of significant activities such as assembly, subassembly, welding, etc., which are not covered in all instances. Although the production processes in this area adhere to a general pattern of metalworking and fabricating operations (e.g., machine shop, tool and die room, etc.), there are substantial variations in the numbers and types of processes performed by an individual establishment as well as from industry
to industry. Within many of these industries establishments typically purchase mill shapes and castings and carry out the entire fabricating of the metal until it emerges as a finished product. In other industries, however, such as radio and television receiving sets, establishments may be primarily engaged in assembling component parts products by other companies or other plants of the same company. Also, not all industries consume significant amounts of metals or engage in metalworking operations, e.g., Carbon and Graphite Products (industry 3624), Electric Lamps (industry 364 ), Phonograph Records (industry 3652), and Batteries (industries 369 and 3692).

## Electrical Machinery: Major Group 36

Value Added by Manufacture by State: 1963


## table 1. General Statistics: 1963 and Earlier Years



Standard Notes: - Represents Zero. (D) individual companies. $\quad$ (NA) Not available. (D) (X). Not applicable
${ }^{1}$ The figures for 1939 through 2963 include data for employees of manufacturing estab-
lishments who are engaged in distribution and construction work. The extent to which
data for such employees are included in the figures for earlier years is not known.
For the period 1954 to 1963, figures represent adjusted value added by manuf acture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the value or 1 inished products and work-in-process inventories between the beginning and end value of products (excluding resales of supplies, fue , ectric energy and contract work; no adjustrent is made for chan supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products
${ }^{3}$ The total value of shipmen
digit) includes extensive duplicand cost of materials for industry groups (2-and 3the same industry classification. For a more complete explanation, see Introduction.

The figures for 1958 to 1963 include expenditures for plants under construction and
${ }^{5}$ Data for 1947, 1954, and later years, exclude establishments primarily engaged in the manufacture of automatic temperature controls, whereas data for 1949 to 1953 include these establishments.
${ }^{6}$ In addition to data for operating establishments, figures for employment and payroll for manufacturing central administrative offices and auxiliary units are shown for the years 1949 to 1953 in the annual survey of manuractures volumes. Data for these units
are not available for the years 1955 to 1957, 1959 to 1962, and prior to 1949.
${ }^{7}$ Figures for 1958 to 1963 , for operating manufacturing establishments are not strictly comparable with prior years due to revisions of the Standard Industrial Classification
system. Prior to 1958, data excludes establishments primarily engaged in the manuracture of household ranges and ovens; household refrigerators and home and farm freezers, household laundry equipment; household vacuum cleaners; sewing machines; water heaters, except electric; and other household appliances. Establishnents primarily engaged i
the manufacture of hearing aids; high frequency, induction, and dielectric heating the manufacture of hearing aids; high frequency, induction, and dielectric heating
apparatus; comercial food warming equipment; industrial electric heating units and deapparatus; connercial food warming equipment; industrial electric heating units and
vices; and insulated wire and cable made from purchased wire, are included in data vices; and insu
prior to 1958.
${ }_{8}{ }^{7}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete estimates are published in the annual survey of manufactures volumes for this period esta for 1939 and facture of electric (ary) shavers. ufacture of electric (dry) shavers.

Figures for 1937 and earlier years include data for establishments primarily engaged dictating machines and electric industrialbo-generators and water-wheel generator sets, basis comparable with earlier years was $\$ 1,000$ million.
${ }^{11}$ The figures for 1933 and earlier years include data for establishments primarily engaged in the manufacture of certain types of beauty and barber-shop equipment classified for later years in the "Miscellaneous manufactures" industries.
ligures for 1925 and earlier years include data for establishments primarily engaged in the manufacture of certain types of mechanical refrigerators, classified for later years in the machinery (except electrical) industries
${ }^{13}$ The figures for 1899 and 1904 include data for establishments primarily engaged in the manufacture of signs and advertising novelties, classified for later years in the "Miscellaneous manufactures" industries.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{Code} \& \multirow[b]{3}{*}{Industry group and geographic area} \& \multicolumn{9}{|c|}{1963} \& \multicolumn{4}{|c|}{1958} \\
\hline \& \& \multicolumn{2}{|l|}{Establishments} \& \multicolumn{2}{|r|}{All employees} \& \multicolumn{3}{|c|}{Production workers} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)} \& \multirow[t]{2}{*}{\[
\begin{gathered}
\text { Capital } \\
\text { expendi. } \\
\text { tures, } \\
\text { new } \\
(\$ 1,000) \\
\hline
\end{gathered}
\]} \& \multirow[b]{2}{*}{\begin{tabular}{l}
All employees \\
(number)
\end{tabular}} \& \multicolumn{3}{|l|}{\multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)}} \\
\hline \& \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& With 20 employees or more (number) \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& Payroll \& Total \& Man-hours
\[
(1,000)
\] \& \[
\begin{aligned}
\& \text { Wages } \\
\& (\$ 1,000)
\end{aligned}
\] \& \& \& \& \& \& \\
\hline \multirow[t]{61}{*}{36} \& ELECTRICAL MACHINERY, TOTAL. . . \& 9948 \& 4722 \& 511819 \& 9284279 \& 049357 \& 2090531 \& 5405786 \& 17010665 \& 701947 \& 1140807 \& \& 624 \& 264 \\
\hline \& NORTHEAST \& 4058 \& 1964 \& 582032 \& 3646251 \& 393518 \& 779159 \& 2057730 \& 6131016 \& 240317 \& 467130 \& \& 167 \& 435 \\
\hline \& NEW ENGLAND . . . . . . . . . \& 977
13 \& 518
8 \& 161306
2036 \& 927672
8028 \& 110258
1655 \& \(\begin{array}{rr}218 \& 651 \\ 3 \& 395\end{array}\) \& 528529
5617 \& 1654469
10724

10 \& $\begin{array}{r}60781 \\ 508 \\ \hline\end{array}$ \& 121514
862 \& \& \& <br>
\hline \& NEW MAMPSHIRE. \& 61 \& 35 \& 11508 \& 58862 \& 8840 \& 17441 \& 38735 \& 100912 \& 4020 \& 7726 \& \& \& 546 <br>
\hline \& VERMONT . . . \& 8 \& 6 \& 1871 \& 10174 \& 1451 \& 2888 \& 6678 \& 19939 \& 928 \& 1397 \& \& \& <br>
\hline \& MASSACHUSETTS. \& 529 \& 275 \& 96183 \& 572522
30 \& 63235 \& 125907
9 \& 316566 \& 985805 \& 36684
1
1 \& 76377
3 \& \& \& <br>
\hline \& RHODE ISLANO :
CONNECTICUT. \& 45
321 \& 29
165 \& 6777
$42 \quad 931$ \& 30350
247736 \& 5152
29925 \& $\begin{array}{r}9828 \\ 59 \\ \hline 9\end{array}$ \& 17669
143264 \& 61622
475467 \& 17207
17434 \& 3465
31687 \& \& \& <br>
\hline \& mioole atlantic \& 3081 \& 1446 \& 420726 \& 2718579 \& 283400 \& 560508 \& 1529201 \& 4476547 \& 179536 \& 345616 \& \& 122 \& <br>
\hline \& NEW YORK. \& 1611 \& 716 \& 185978 \& 1225235 \& 117660 \& 232683 \& 628932 \& 1959554 \& 75774 \& 144442 \& \& \& <br>
\hline \& NEW JERSEY \& 861 \& 394 \& 127738 \& 848065 \& 89200 \& $\begin{array}{lll}176 & 612\end{array}$ \& 504571 \& 1
1 1314683 \& 45315 \& 104934 \& \& \& <br>
\hline \& PENNSYLVANIA \& 609 \& 336 \& 107010 \& 645279 \& 76540 \& 151213 \& 395698 \& 1190613 \& 58447 \& 96240 \& \& 927 \& <br>
\hline \& NORTH CENTRAL \& 2651 \& 1454 \& 529593 \& 3126914 \& 393840 \& 782618 \& 2038256 \& 6238207 \& 236563 \& 467084 \& \& 389 \& 240 <br>
\hline \& EAST NORTH CENTRAL. \& 2222 \& 1226 \& 458480 \& 2725402 \& 343806 \& 681809 \& 1797056 \& 5443666 \& 207930 \& 415193 \& \& 928 \& <br>
\hline \& OHIO • • • - \& 495 \& 281 \& 117182 \& 734707 \& 86128 \& 173039 \& 485812 \& 1547622

+125703 \& | 51757 |
| :--- |
| 43 |
| 101 | \& $\begin{array}{r}107818 \\ 74 \\ \hline 1593\end{array}$ \& \& \& <br>

\hline \& INOIANA. \& 231 \& 133 \& 91105 \& 550254 \& 73382 \& 146942 \& 402451 \& 1125703 \& 43501
74 \& 74953 \& \& 673 \& 927 <br>
\hline \& 1LLINOIS \& 929 \& 530 \& 168200 \& 932048 \& 125346 \& 244306 \& 593376 \& 1797715 \& 74171 \& 159623 \& \& \& <br>
\hline \& MICHIGAN. \& 355 \& 158 \& 32231 \& 193759 \& 25267 \& 51624 \& 135396 \& 376278 \& 13418 \& 27016 \& \& \& <br>
\hline \& WISCONSIN. \& 212 \& 124 \& 49762 \& 314634 \& 33683 \& 65898 \& 180021 \& 596348 \& 25083 \& 45721 \& \& \& 476 <br>
\hline \& WEST NORTH CENTRAL. \& 429 \& 228 \& 71113 \& 401512 \& 50034 \& 100809 \& 241200 \& 794541 \& 28633 \& 51891 \& \& \& 289 <br>
\hline \& MINNESOTA. . . \& 152 \& 79 \& 18953 \& 121748 \& 12201 \& 24473 \& 63055 \& 225256 \& 7632 \& 10787 \& \& \& 108 <br>
\hline \& IOWA . \& 56 \& 35 \& 19635 \& 107380 \& 12896 \& 25918 \& 61772 \& 252644 \& ${ }_{6}^{6} 320$ \& 14765 \& \& \& 748 <br>
\hline \& MISSOUR1 • - . \& 148 \& 86 \& 24081 \& 128983 \& 18610 \& 37657 \& 87929 \& $\begin{array}{r}227391 \\ \hline 101\end{array}$ \& 10809 \& 21492 \& \& \& 586 <br>
\hline \& SOUTH DAKOTA . - \& 4 \& (D) \& 5101 \& (D) \& (D) \& 7101 \& (0) \& (D) \& (D) \& (D) \& \& \& <br>
\hline \& NEBRASKA . \& 28 \& 11 \& 5348 \& 28983 \& 3891 \& 7756 \& 18653 \& 64379 \& 2635 \& 3349
1 \& \& \& 796 <br>
\hline \& KANSAS - \& 41 \& (0) \& (0) \& (0) \& (0) \& (D) \& (0) \& (D) \& (0) \& 1457 \& \& \& <br>
\hline \& SOUTH - \& 1159 \& 524 \& 189588 \& 1064650 \& 134105 \& 269900 \& 608289 \& 2250503 \& 96461 \& 104166 \& \& 115 \& 504 <br>
\hline \& SOUTH ATLANTIC. \& 561 \& 264 \& 98233 \& 585691 \& 63904 \& 128890 \& 303291 \& 1104020 \& 48636 \& 54304 \& \& 548 \& 049 <br>
\hline \& DELAWARE . \& 11 \& 6 \& 539 \& 2717 \& 439 \& 834 \& 1811 \& $8 \quad 399$ \& 1
1
1
0
3 \& (D) \& \& \& <br>
\hline \& MARYLAND : . . \& 108 \& 49 \& 26871 \& 187297 \& 14960 \& 30162 \& 84714 \& 312625 \& 8317 \& 20140 \& \& 187 \& 494 <br>
\hline \& OISTRICT OF COLUMBIA \& 14 \& 4 \& 153 \& 738 \& 103 \& 213 \& 430
777 \& 1064 \& [ 73 \& (D) \& \& \& (0) <br>
\hline \& VIRGINIA ${ }^{\text {a }}$ - . . \& 55 \& 32 \& \& 97299 \& \& \& 50777 \& 180664 \& 5
4
4 53 \& 5960 \& \& 69 \& <br>
\hline \& WEST VIrginia. - \& 20 \& 13 \& 4470 \& 25138 \& 3770 \& 7806 \& 19382 \& 62427 \& 4698 \& 3516 \& \& \& <br>
\hline \& NORTH CAROLINA. \& 83 \& 48 \& 23195 \& 117975 \& 16464 \& 33418 \& 70301 \& 279179 \& 13109 \& 13846 \& \& \& 130 <br>
\hline \& SOUTH CAROLINA \& 19 \& 13 \& 5612 \& 20742 \& 4447 \& 8
7
497 \& 13573 \& $\begin{array}{lll}33 & 007 \\ 73 & 308\end{array}$ \& 3087 \& 1715 \& \& \& 337 <br>
\hline \& GEORGIA. - - \& 55 \& 26 \& 5359 \& 29404 \& 3852 \& 7926 \& 18196 \& 73308 \& 1896 \& 3808 \& \& \& 313 <br>
\hline \& FLORIDA. \& 196 \& 73 \& 15125 \& 104381 \& 8726 \& 18081 \& 44107 \& 153347 \& 10435 \& 5046 \& \& \& 536 <br>
\hline \& EAST SOUTH CENTRAL. \& 220 \& 134 \& 48201 \& 238915 \& 39507 \& 78069 \& 172060 \& 667574 \& 24758 \& 34606 \& \& 423 \& 934 <br>
\hline \& KENTUCKY - \& 61 \& 39 \& 21319 \& 120282 \& 17889 \& 35257 \& 89072 \& 350172 \& 10083 \& 17132 \& \& 238 \& 268 <br>
\hline \& TENNESSEE: \& 92 \& 56 \& 17530 \& 179550 \& 13939 \& 27798 \& 54979 \& 230442 \& 8692 \& 10708 \& \& \& 949 <br>
\hline \& ALABAMA. - \& 34 \& 15 \& 3793 \& 19515 \& 2961 \& \& 13299 \& 37

4927 \& | 1 |
| :--- | :--- | 813 \& 3766 \& \& \& <br>

\hline \& MISSISSIPPI. \& 33 \& 24 \& 5559 \& 19568 \& 4718 \& 8808 \& 14710 \& 49433 \& 4170 \& 3000 \& \& \& <br>
\hline \& WEST SOUTH CENTRAL. \& 378 \& \& 43154 \& 240044 \& 30694 \& 62941 \& 132938 \& 478909 \& 23067 \& 15257 \& \& 143 \& 521 <br>
\hline \& ARKANSAS . . \& 35 \& 21 \& 7599 \& 29216 \& 6596 \& 12948 \& 22636 \& 79169 \& 3206 \& 2914 \& \& \& 214 <br>
\hline \& LOUISIANA. . \& 30 \& 4 \& 262 \& 1190 \& 202 \& 408 \& 783 \& 2391 \& 108 \& 158 \& \& \& <br>
\hline \& OKLAHOMA . . \& 52 \& 18 \& 9489 \& 57626 \& 6293 \& 12458 \& 23884 \& 105802 \& 3506 \& 2161 \& \& \& 088 <br>
\hline \& TEXAS. . . . \& 261 \& 83 \& 25804 \& 152012 \& 17603 \& 37127 \& 85635 \& 291547 \& 16247 \& 10024 \& \& \& <br>
\hline \& WEST• \& 2086 \& 786 \& 211472 \& 1450680 \& 126850 \& 257192 \& 710400 \& 2424392 \& 128466 \& 102859 \& \& 959 \& 701 <br>
\hline \& MOUNTAIN. \& 164 \& 56 \& 15021 \& 86193 \& 10094 \& 20660 \& 48070 \& 147024 \& 20831 \& 5339 \& \& \& 539 <br>
\hline \& IOAHO. . . . \& 2 \& $(0)$ \& (0) \& (0) \& (0) \& (0) \& (0) \& (0) \& (0) \& (0) \& \& \& (0) <br>
\hline \& WYOMING. \& 2 \& (D) \& (0) \& (0) \& (0) \& (0) \& (0) \& (0) \& (D) \& 101 \& \& \& (0) <br>
\hline \& COLORAOO. \& 67 \& 25 \& 3486 \& 18768 \& 2429 \& \& 10580 \& 43322 \& (0) \& 1907 \& \& \& <br>

\hline \& NEW MEXICO \& 14 \& 5 \& 378 \& 1938 \& +292 \& 528 \& 1242 \& | 3 |
| :--- | 1117 \& 297 \& (D) \& \& \& (D) <br>

\hline \& Arizona. . \& 51 \& 14 \& 9131 \& 55876 \& 5742 \& 11767 \& 28731 \& 86431 \& (0) \& 2362 \& \& \& <br>
\hline \& UTAH • - \& 17 \& 8 \& 1672 \& 8154 \& 1349 \& 3027 \& 6490 \& 12161 \& 329 \& 593 \& \& \& 300 <br>
\hline \& nevaia . . . . \& 11 \& \& 267 \& 1225 \& 222 \& 417 \& 844 \& 1636 \& 124 \& (D) \& \& \& (0) <br>
\hline \& PACIFIC . - \& 1922 \& 730 \& 196451 \& 1364487 \& 116756 \& 236532 \& 662330 \& 2277368 \& 107635 \& 97520 \& \& 915 \& 162 <br>

\hline \& WASHINGTON \& 69 \& 22 \& 2693 \& 17036 \& 1718 \& 3236 \& 8279 \& 29673 \& | 1 |
| :--- | 187 \& 1242 \& \& \& 240 <br>

\hline \& OREGON. \& 64 \& 20 \& 5759 \& 33295 \& 3682 \& 6546 \& 17815 \& 55381 \& 3163 \& 2467 \& \& \& 960 <br>
\hline \& CALIFORNIA . \& 1781 \& 688 \& 187965 \& 1313998 \& 111328 \& 226697 \& 636113 \& 2192114 \& 103263 \& 93811 \& \& 873 \& 912 <br>
\hline \& ALASKA . - \& \& (0) \& (0) \& (0) \& (0) \& (0) \& (0) \& (0) \& (0) \& (0) \& \& \& (0) <br>
\hline \& hawall . . . . \& 6 \& (0) \& (D) \& (0) \& (0) \& (0) \& (0) \& (0) \& (0) \& (0) \& \& \& (0) <br>
\hline \multirow[t]{8}{*}{361} \& ELECTRIC OLSTRIBUTION PROOUCTS•TOTAL \& 1137 \& 522 \& 132125 \& 822019 \& 91840 \& 183688 \& 484186 \& 1534661 \& 50548 \& 134395 \& \& 338 \& 652 <br>
\hline \& NORTHEAST \& 426 \& 190 \& 58246 \& 382899 \& 39315 \& 78396 \& 222361 \& 664841 \& 21284 \& 66048 \& \& 666 \& 671 <br>
\hline \& NEW ENGLANO - \& 108 \& 50 \& 16299 \& 103225 \& 10590 \& 21447 \& 55375 \& 200321 \& 7089 \& 19917 \& \& 19 \& 286 <br>
\hline \& NEW HAMPSHIRE. \& 15 \& 9 \& 2827 \& 15099 \& 2091 \& 4177 \& 9365 \& 39044 \& 1247 \& (0) \& \& \& <br>
\hline \& MASSACHUSETTS. . . . . . \& 54 \& 23 \& 9840 \& 68000 \& 5953 \& 12211 \& 34281 \& 124257 \& 4678 \& 13541 \& \& \& 391 <br>
\hline \& mioole atlantic \& 318 \& 140 \& 41947 \& 279674 \& 28725 \& 56949 \& 166986 \& 464520 \& 14195 \& 46131 \& \& 474 \& 403 <br>
\hline \& NEW YORK . . . . \& 134 \& 62 \& 7323 \& 42084 \& $\begin{array}{ll}5 & 181 \\ 7 & 512\end{array}$ \& 9961 \& 24705 \& 71
11219 \& 2306 \& 7612 \& \& \& 790 <br>
\hline \& NEW JERSEY . . . . . . . . \& 116
68 \& 46
32 \& 10264

24360 \& | 62011 |
| :--- |
| 75 |
| 579 | \& $\begin{array}{lll}7 & 512 \\ 16 & 032\end{array}$ \& 14742

32246 \& 38934
103347 \& $\begin{array}{ll}112 & 439 \\ 281 & 062\end{array}$ \& 3690
8199 \& 12568
25951 \& \& 3101 \& 568
045 <br>
\hline
\end{tabular}

[^217]TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{Code} \& \multirow[b]{3}{*}{Industry group and geographic area} \& \multicolumn{9}{|c|}{1963} \& \multicolumn{2}{|c|}{1958} \\
\hline \& \& \multicolumn{2}{|l|}{Establishments} \& \multicolumn{2}{|l|}{All employees} \& \multicolumn{3}{|c|}{Production workers} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)} \& \multirow[t]{2}{*}{Capital expenditures, new
\[
(\$ 1,000)
\]} \& \multirow[b]{2}{*}{\[
\begin{gathered}
\text { All } \\
\text { employees } \\
\text { (number) } \\
\hline
\end{gathered}
\]} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted (\$1,000)} \\
\hline \& \& Total
(number) \& With 20 employees or more (number) \& Total
(number) \& \begin{tabular}{l}
Payroll \\
\((\$ 1,000)\)
\end{tabular} \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& Man-hours
\((1,000)\) \& \[
\begin{gathered}
\text { Wages } \\
(\$ 1,000)
\end{gathered}
\] \& \& \& \& \\
\hline \multirow[t]{19}{*}{361} \& ELECTRIC DISTRIBUTION PRODUCTS-CONT. NORTH CENTRAL . . . . . . . . . . \& 305 \& 161 \& 38826 \& 225247 \& 28479 \& 56766 \& 140242 \& 422116 \& 15384 \& 40035 \& 364894 \\
\hline \& EAST NORTH CENTRAL. \& 261 \& 137
35 \& 32348 \& 192152 \& \& 46430
8881 \& 117630
21596 \& 367349
78769 \& \(\begin{array}{r}13897 \\ 1925 \\ \hline\end{array}\) \& \(\begin{array}{r}101 \\ 5774 \\ \hline\end{array}\) \& 101
53666 \\
\hline \&  \& \begin{tabular}{l}
61 \\
24 \\
\hline
\end{tabular} \& 35
12
12 \& \(\begin{array}{ll}6 \& 060 \\ 4 \& 234\end{array}\) \& 35191
25464 \& \(\begin{array}{ll}4 \& 408 \\ 3 \& 043\end{array}\) \& 8881
5881 \& 21596
15470 \& 787869
50134 \& \begin{tabular}{l}
13925 \\
2845 \\
\hline
\end{tabular} \& 5774
\(6 \quad 191\) \& 53666
47904 \\
\hline \& illinois: \& 103 \& 53 \& 15153 \& 86011 \& 11342 \& 22568 \& 55196 \& 161674 \& 6122 \& (0) \& (0) \\
\hline \& MICHIGAN. \& 45 \& 20 \& 2564
4 \& 16737 \& 1855 \& 3698
5 \& 10134 \& \begin{tabular}{l}
29 \\
46 \\
\hline 611
\end{tabular} \& -937 \& 3
3
3 \& 32977
36703 \\
\hline \& WISCONSIN. \& 28 \& 17 \& 4337 \& 28749 \& 2821 \& 5462 \& 15234 \& 46811 \& 2068 \& 3353 \& 36703 \\
\hline \& WEST NORTH CENTRAL. \& 44
15 \& 24
11 \& 6478
4476 \& 33095
23662 \& 5010
3452 \& \(\begin{array}{r}10336 \\ 7 \\ \hline\end{array}\) \& 22612
16
268 \& \(\begin{array}{ll}54 \& 767 \\ 26 \& 377\end{array}\) \& 1487
1
1 \& \(\begin{array}{r}101 \\ 5004 \\ \hline\end{array}\) \& (D)
\(47 \quad 572\) \\
\hline \& SOUTH \& 143 \& 64 \& 13467 \& 71553 \& 9813 \& 19951 \& 43179 \& 176497 \& 3783 \& 9121 \& 101207 \\
\hline \&  \& 17 \& 4 \& \begin{tabular}{l}
2449 \\
\hline 147
\end{tabular} \& 2565
10902 \& 568
1571
1 \& 3286 \& 1
6
6 \& 41021 \& \begin{tabular}{l}
251 \\
416 \\
\hline
\end{tabular} \& \& 4925
24600 \\
\hline \&  \& 11
9 \& 10
4 \& 3490
309 \& 20308
1434 \& 13366
240

240 \& 4941
489 \& 11696
11880 \& 46854
2638 \& 1063
101 \& 1
2701
749 \& $\begin{array}{r}30 \\ 5068 \\ 5 \\ \hline 24\end{array}$ <br>
\hline \& EAST SOUTH CENTRAL. \& 26 \& 13 \& 3252 \& 16116 \& 2578 \& 4952 \& 10864 \& 42962 \& 414 \& 1608 \& 20200 <br>
\hline \& KENTUCKY . . . \& 7 \& 6 \& 2292 \& 11474 \& 1857 \& 3502 \& 7802 \& 31297 \& 176 \& 951 \& 13846 <br>
\hline \& alasama. \& \& 3 \& 404 \& 2557 \& - 259 \& 507 \& 1503 \& 7235 \& 75 \& $(0)$ \& (0) <br>
\hline \& MISSISSIPPI. \& 5 \& 3 \& 466 \& 1759 \& 397 \& 828 \& 1321 \& 3957 \& \& \& (0) <br>
\hline \& WEST SOUTH CENTRAL. \& 59
48 \& 22
18 \& 2614
16606 \& 15391
10054 \& 1760

1142 \& $\begin{array}{ll}3 & 681 \\ 2 & 382\end{array}$ \& $$
\begin{array}{ll}
8 & 867 \\
6 & 184
\end{array}
$$ \& 29652

20297 \& $\begin{array}{ll}1 & 246 \\ 1 & 063\end{array}$ \& 1386

101 \& | 15 |
| :---: |
| 84 |
| (0) | <br>

\hline \& WEST. \& 263 \& 107 \& 21512 \& 142258 \& 14117 \& 28356 \& 77914 \& 267632 \& 10092 \& 19191 \& 205862 <br>
\hline \& mountain. \& 26 \& 11 \& 1986 \& 11796 \& 1238 \& 2513 \& 5802 \& 29908 \& 2103 \& 852 \& 9417 <br>
\hline \& PACIFIC WASHINGTON: \& 237

8 \& $$
\begin{gathered}
96 \\
3
\end{gathered}
$$ \& 19526 \& 130462

3207 \& $\begin{array}{r}12879 \\ \hline 258\end{array}$ \& | 25843 |
| :--- |
| 540 |
| 507 | \& 72112

1

1 \& $\begin{array}{r}237724 \\ 7395 \\ \hline 18514\end{array}$ \& \[
$$
\begin{array}{ll}
7 & 989 \\
& (0)
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
18339 \\
101
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
196445 \\
101
\end{array}
$$
\] <br>

\hline \& CALIFORNIA. \& 215 \& \& 14026 \& $$
98192
$$ \& 9488 \& 19777 \& 55374 \& 184514 \& \& \& \[

167669
\] <br>

\hline \multirow[t]{34}{*}{362} \& ELECTRIC INOUSTRIAL APPARATUS, TOTAL \& 1244 \& 586 \& 160953 \& 1004907 \& 116890 \& 236294 \& 640570 \& 1889181 \& 72031 \& 156332 \& 1447753 <br>
\hline \& NORTHEAST \& 401 \& 181 \& 46490 \& 308049 \& 32751 \& 67334 \& 187622 \& 558034 \& 19880 \& 49207 \& 454195 <br>
\hline \& NEW ENGLANO \& 96 \& 40 \& \& 32982 \& 4131 \& \& 19463 \& 61025 \& 1496 \& 6374 \& 49173 <br>
\hline \& MASSACHUSETTS. \& 42 \& 20
15 \& 2
2 \& 10
10
20 \& $\begin{array}{r}1 \\ \hline\end{array}$ \& 2797

$4 \quad 632$ \& | 1 |
| ---: |
| 1 |
| 11867 | \& 17770

39346 \& 491
704 \& 2184
3788 \& 15639
31 <br>

\hline \& CONNECTICUT. \& 43 \& \& 3402 \& $$
20041
$$ \& 2264 \& \& 11867 \& 39346 \& 704 \& 3788 \& 31139 <br>

\hline \& MIdole atlantic \& 305 \& 141 \& 40465 \& 275067 \& 28620 \& 59053 \& 168159 \& 497009 \& 18384 \& 42833 \& 405022 <br>

\hline \& NEW YORK. \& 145 \& 58 \& 22278 \& 164072 \& 16479 \& $\begin{array}{ll}34 & 077 \\ 7 & 170\end{array}$ \& 103994 \& 277161 \& | 9554 |
| :--- |
| 1576 | \& 24685 \& 242741 <br>

\hline \& NEW JERSEY PENNSYLVANIA \& 77
83 \& 36
47 \& 52750
12437 \& 33745
77250 \& 16509
3563
8 \& 7170
17806 \& 17646
46519 \& 50
169783 \& 1776
7054 \& 7000
11
148 \& 51
11078 <br>
\hline \& PENNSYLVANIA . . . \& 83 \& 47 \& 12437 \& 77250 \& 8632 \& \& 46519 \& 169783 \& \& 11148 \& 110304 <br>
\hline \& NORTH CENTRAL \& 499 \& 278 \& 89469 \& 563013 \& 65970 \& 132584 \& 370525 \& 1037005 \& 40824 \& 89386 \& 808523 <br>
\hline \& EAST NORTH CENTRAL. \& \& 246 \& \& \& \& 118983 \& \& \& 36622 \& 78687 \& 722724 <br>
\hline \& OHIO..... \& 114 \& 68 \& 30596 \& 207890 \& 21960 \& 45515 \& 137195 \& 374202 \& 15530 \& 32661 \& 310082 <br>
\hline \& Indiana. \& 40 \& 24 \& 11590 \& -65945 \& 21
8
7 \& 17148 \& +44592 \& 124376 \& 2564
4
1 \& 10028 \& 91377 <br>
\hline \& ILLINOIS. \& 123 \& 65 \& 10028 \& 53584 \& 7505 \& 15115 \& 34301 \& 110421 \& 4252 \& 10343 \& 92844 <br>
\hline \& MICHIGAN. - \& 97 \& 54 \& 7533 \& 47056 \& 5689 \& 11802 \& 29798 \& 73160 \& 1972 \& 5001 \& 41113 <br>
\hline \& WISCONSIN. - \& 56 \& 35 \& 20648 \& 134003 \& 15116 \& 29403 \& 87487 \& 272310 \& 12304 \& 20654 \& 187308 <br>
\hline \& WEST NORTH CENTRAL. \& 69 \& 32 \& 9074 \& 54535 \& 6755 \& 13601 \& 37152 \& 82536 \& 4202 \& 10699 \& 85799 <br>
\hline \& MINNESOTA. \& 33 \& 16 \& 3360 \& 21635 \& 2341 \& 4778 \& \& 39113 \& 1310 \& 2979 \& 29496 <br>
\hline \& missouri . \& 26 \& 14 \& 5403 \& 31269 \& 4185 \& 8422 \& 22954 \& 40693 \& 2845 \& 7263 \& 52812 <br>
\hline \& SOUTH \& 126 \& 60 \& 16653 \& 83878 \& 12420 \& 24939 \& 52567 \& 207383 \& 7826 \& 10165 \& 119585 <br>
\hline \& SOUTH ATLANTIC. \& \& \& \& 52383 \& \& \& \& \& \& \& <br>
\hline \& MARYLANO
NORTH CAROLINA \& 11
7 \& 6

4 \& $$
\begin{array}{ll}
1 & 086 \\
2 & 073
\end{array}
$$ \& 5436

9848 \& $$
\begin{array}{r}
816 \\
1373
\end{array}
$$ \& 12

1
3
3 \& 3459
6668 \& 10938
27967 \& 189
822 \& 778
101 \& 5842
101 <br>
\hline \& NORTH CAROLINA . \& \& 4 \& \& \& \& \& \& 27267 \& 822 \& $(0)$ \& <br>
\hline \& EAST SOUTH CENTRAL. \& 22 \& 15 \& \& \& \& 5878 \& 11477 \& \& \& \& 22334 <br>
\hline \& TENNESSEE. \& 10 \& 7 \& 2319 \& 10289 \& 2064 \& 4109 \& 8342 \& 39003 \& 982 \& (0) \& (0) <br>
\hline \& WEST SOUTH CENTRAL. \& 49 \& 20 \& 3888 \& 17155 \& 3281 \& 6597 \& 12331 \& 38111 \& 1555 \& 1522 \& 14597 <br>
\hline \& OKLAHOMA . \& 8 \& 4 \& \& 2687 \& \& 706

983 \& 1440 \& $$
3458
$$ \& 136

313 \& (0) \& <br>
\hline \& texas. . . \& 28 \& \& 692 \& 4091 \& 485 \& 983 \& \& \& \& (0) \& <br>
\hline \& WEST. \& 219 \& 68 \& 8530 \& 51641 \& 5836 \& 11837 \& 31204 \& 87606 \& 3489 \& 7574 \& 65450 <br>
\hline \& MOUNTAIN. ${ }^{\text {a }}$ \& 24 \& 5 \& 1061 \& 4320 \& 835 \& 1572 \& 2924 \& 9076 \& 101 \& 814 \& 4413 <br>
\hline \& COLORADO \& 11 \& 3 \& 877 \& 3606 \& 692 \& 1324 \& 2427 \& 7847 \& 438 \& 759 \& 4014
108 <br>
\hline \& ARIZONA. \& 6 \& 1 \& 117 \& 391 \& 94 \& 156 \& 295 \& 702 \& 18 \& 21 \& 108 <br>
\hline \& PACIFIC. . . \& 195 \& 63 \& \& 47321 \& \& 10265 \& 28280 \& 78530 \& (10) \& 6760 \& 61037 <br>
\hline \&  \& 10
173 \& 4
57 \& 147
7254 \& 1
1
46018 \& 95
4856 \& 186
9988 \& 550
27520 \&  \& 85
2918 \& 178
$6 \quad 555$ \& 1
1
5871
927 <br>
\hline
\end{tabular}

[^218]TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{Code} \& \multirow[b]{3}{*}{Industry group and geographic area} \& \multicolumn{9}{|c|}{1963} \& \multicolumn{2}{|r|}{1958} \\
\hline \& \& \multicolumn{2}{|l|}{Establishments} \& \multicolumn{2}{|c|}{All employees} \& \multicolumn{3}{|c|}{Production workers} \& \multirow[t]{2}{*}{Value added by manutacture, adjusted
\[
(\$ 1,000)
\]} \& \multirow[t]{2}{*}{Capital expenditures, new \((\$ 1,000)\)} \& \multirow[b]{2}{*}{\[
\begin{gathered}
\text { All } \\
\text { employees } \\
\text { (number) } \\
\hline
\end{gathered}
\]} \& \multirow[t]{2}{*}{Value added by manufacture, adjusted \((\$ 1,000)\)} \\
\hline \& \& \[
\begin{gathered}
\text { Total } \\
\text { (number) }
\end{gathered}
\] \& With 20 employees or more (number) \& \begin{tabular}{l}
Total \\
(number)
\end{tabular} \& \[
\begin{aligned}
\& \text { Payroll } \\
\& (\$ 1,000)
\end{aligned}
\] \& \[
\begin{gathered}
\text { Total } \\
\text { (number) }
\end{gathered}
\] \& Man-hours
\((1,000)\) \& \[
\begin{aligned}
\& \text { Wages } \\
\& (\$ 1,000)
\end{aligned}
\] \& \& \& \& \\
\hline \multirow[t]{23}{*}{363} \& HOUSEHOLO APPLIANCES, TOTAL. \& 700 \& 339 \& 145855 \& 863963 \& 116147 \& 229001 \& 613844 \& 2097915 \& 71252 \& 142951 \& 1548808 \\
\hline \& NORTHEAST \& 241 \& 96 \& 24886 \& 139714 \& 19076 \& 37860 \& 92048 \& 326939 \& 9401 \& 26553 \& 235324 \\
\hline \& NEW ENGLANO
CONNECTICUT: \& 50
19 \& 27
16 \& 9506
7949 \& 53681
44674 \& 7159
5993 \& 14
12
12985 \& 34846
29230 \& \(\begin{array}{lll}161 \& 237 \\ 140 \& 715\end{array}\) \& \(\begin{array}{ll}4 \& 841 \\ 3 \& 156\end{array}\) \& 8
8
6
6
773 \& 94751
83508 \\
\hline \& MIDDLE ATLANTIC \& 191 \& 69 \& 15380 \& 86033 \& 11917 \& 23442 \& 57202 \& 165702 \& 4560 \& 18344 \& 140573 \\
\hline \& NEW YORK NEW JERSEY: \& 140
26 \& 51 \& \& \(\begin{array}{ll}35 \& 702 \\ 26 \& 051\end{array}\) \& \& 11
5654
5650 \& 24128
17981 \& \begin{tabular}{l}
71303 \\
38127 \\
\hline 8
\end{tabular} \& 1913
906 \& 7189
5959 \& \\
\hline \&  \& 26
25 \& 5
13 \& 3781
4361 \& 26
24
281
280 \& 2777
3408 \& 5650
6558 \& 17981
15093 \& 38127
56272 \& 1906
1741 \& 5959
5196 \& 35695
49320 \\
\hline \& NORTH CENTRAL \& 249 \& 141 \& 88114 \& 551961 \& 70358 \& 138310 \& 399735 \& 1303872 \& 44118 \& 88401 \& 951196 \\
\hline \& EAST North central. \& 209 \& 118 \& 79387 \& 505690 \& 62801 \& 123150 \& 362371 \& 1168777 \& 40536 \& 77211 \& 830740 \\
\hline \& OHIO . . . . \& 39 \& 26 \& 32127 \& 220018 \& 25147 \& 49722 \& 156977 \& 536031 \& 17634 \& 29859 \& 394390 \\
\hline \& INOIANA. \& 20 \& 11 \& 9 287 \& 56897 \& 7687 \& 14982 \& 43231 \& \begin{tabular}{l}
151 \\
293 \\
293 \\
\hline 180
\end{tabular} \& 4713
9538 \& 8666
23518 \& 66134
229224 \\
\hline \& ILLINOIS. \& 78 \& 47 \& 24
7
7 568 \& 144991
46761 \& 19157 \& 36618
12523 \& 102908
35175 \& 293830
109675 \& \& 23518
8868 \& 229224
75606 \\
\hline \& MICHIGAN: \& 41
31 \& 17
17 \& 7568
6379 \& \begin{tabular}{l}
46761 \\
37 \\
\hline 183
\end{tabular} \& 6130
4680 \& 12523
9305 \& 35175
24080 \& 109675
77967 \& 5358
3293 \& \begin{tabular}{l}
8368 \\
6800 \\
\hline 11
\end{tabular} \& 75
65
686 \\
\hline \& WEST NORTH CENTRAL. \& 40 \& 23 \& \begin{tabular}{l}
8727 \\
3 \\
\hline
\end{tabular} \& 46271 \& 7557 \& 15160 \& 37364 \& 135095 \& 3582
1535 \& 11190 \& 120456 \\
\hline \& IONA . . . . . \& 10 \& 7 \& 3573 \& 21031 \& 3181 \& 6355 \& 17997 \& 84707 \& 1635 \& 5015 \& 70226 \\
\hline \& SOUTH. \& 113 \& 65 \& 25634 \& 126878 \& 21545 \& 42503 \& 94181 \& 366736 \& 13705 \& 20831 \& 267506 \\
\hline \& SOUTH ATLANT \& 36 \& 17 \& 3444 \& 13244 \& 2966 \& 5948 \& 10123 \& 30527 \& 2443 \& 2829 \& 26378 \\
\hline \& EAST SOUTH CENTRAL.
TENNESSEE. . \& 48
28 \& 36
21 \& 19042
\(6 \quad 322\) \& 100759
25608 \& \(\begin{array}{rr}16 \& 001 \\ 5 \& 357\end{array}\) \& 31597
10878 \& 74980
18842 \& 308213
63616 \& 10550
2923 \& \(\begin{array}{r}16 \\ \hline\end{array}\) \& \(\begin{array}{r}235 \\ 60 \\ 60 \\ \hline\end{array}\) \\
\hline \& WEST SOUTH CENTRAL. \& 29 \& 12 \& 3148 \& 12875 \& 2578 \& 4958 \& 9098 \& 27996 \& 712 \& 1011 \& 5836 \\
\hline \& wEST. \& 98 \& 38 \& 7259 \& 45594 \& 5196 \& 10384 \& 28008 \& 105748 \& 4028 \& 7166 \& 94782 \\
\hline \& mountain. \& 6 \& - \& 25 \& 90 \& 20 \& 37 \& 63 \& 158 \& 8 \& (0) \& (0) \\
\hline \& PACIFIC. \({ }^{\text {a }}\) \& 92 \& 38 \& 7234 \& 45504 \& 5176 \& 10347 \& 27945 \& 105590 \& 4020 \& (0) \& (0) \\
\hline \& WASHINGTON \& 9 \& 4 \& 325
146 \& 11679 \& 255 \& 472 \& 1211
445 \& 2991
2622 \& 126
10 \& (10) \& (0) \\
\hline \& \(\underset{\text { CALIFORNIA }}{\text { Re }}\). \& 76 \& 31 \& 146
6763 \& 738
43087 \& 113
4808 \& 9 202 \& 1445
26289 \& 2622
99977 \& 10
3884 \& 101
6726 \& 182
925 \\
\hline \multirow[t]{26}{*}{364} \& Lighting ano wiring devices, total \& 1951 \& 813 \& 132984 \& 709630 \& 104508 \& 206705 \& 487642 \& 1559630 \& 62104 \& 124218 \& 1183319 \\
\hline \& NORTHEAST \& 937 \& 402 \& \[
\begin{array}{ll}
66 \& 566 \\
65 \& 566
\end{array}
\] \& 339653 \& 52588 \& 102869 \& 234404 \& 708065 \& 24980 \& 62233 \& 557801 \\
\hline \& NEW ENGLANO
CONNECTICUT. \& 172
63 \& 85
31 \& 20189
7495 \& 100146
41534 \& 16101
5800 \& \begin{tabular}{l}
31477 \\
11 \\
\hline 1
\end{tabular} \& 74291
28581 \& \[
\begin{array}{rr}
208 \& 085 \\
80 \& 689
\end{array}
\] \& 7991
2474 \& 19
8
8 617 \& \(\begin{array}{r}175 \\ 75898 \\ \hline 589\end{array}\) \\
\hline \& midole atlantic \& 765 \& 317 \& 46377 \& 239507 \& 36487 \& 71392 \& 163113 \& 499980 \& 16989 \& 43169 \& 381863 \\
\hline \& NEW YORK . \& 448 \& 153 \& 19015 \& 97718 \& 14666 \& 28433 \& 64670 \& 179575 \& 6193 \& 18382 \& 144183 \\
\hline \& NEW JERSEY \& 164 \& 71
93 \& 14
14
13 \& 77597
64 \& 11
1181
10 \& 22238
20 \& 52785
45658 \& 157379
163026 \& 5582
51214 \& 12391
12396 \& 107033
130647 \\
\hline \& PENNSYLVANIA \& 153 \& 93 \& 13114 \& 64192 \& 10640 \& 20721 \& 45658 \& 163026 \& 5214 \& 12396 \& 130647 \\
\hline \& North central \& 497 \& 244 \& 44585 \& 255895 \& 34081 \& 68256 \& 171981 \& 570629 \& 21797 \& 41935 \& 407358 \\
\hline \& East north central. \& 424 \& 208 \& 39585 \& 227105 \& 30397 \& 60766 \& 154490 \& 501292 \& 18720 \& 38002 \& 371074 \\
\hline \& OHIO. . \& 115 \& 62 \& 13636 \& 77138 \& 10816 \& 21224 \& 54754 \& 201706 \& 4997 \& 12399 \& 141700 \\
\hline \& INOIANA. \& 32 \& 13 \& 6574
16160 \& \begin{tabular}{l}
44967 \\
\hline 87
\end{tabular} \& 5290 \& 11
23
2349 \& 33793
54624 \& \(\begin{array}{r}89 \\ 180 \\ \hline 175\end{array}\) \& 5598
7
7 \& 5886
17281 \& 54016
154955 \\
\hline \& ILLINOIS \& 204 \& 107 \& 16160 \& 87370 \& 11948 \& 23449 \& 54624 \& 180479 \& 7052 \& 17281 \& 154955 \\
\hline \& WEST NORTH CENTR \& 73 \& \& 5000 \& \& 3684 \& 7490 \& 17491 \& 69337 \& 3077 \& 3933 \& 36284 \\
\hline \& MinNesota. \& 18 \& 7 \& 617 \& 3499 \& 513 \& 1131 \& 2616 \& 14049 \& 1
+131 \& 193 \& \({ }^{1} 919\) \\
\hline \& MISSOURI . \& 46 \& 26 \& 4263 \& 24765 \& 3073 \& 6177 \& 14517 \& 54042 \& 1885 \& 3618 \& 33671 \\
\hline \& SOUTH. \& 161 \& 61 \& 13169 \& 65662 \& 11081 \& 22480 \& 49358 \& 182274 \& 11220 \& 9830 \& 121077 \\
\hline \& SOUTH ATLANTIC. \& 78 \& 25 \& \& 29538 \& 4603 \& 9585 \& 22050 \& 80694 \& 5979 \& 3849 \& 54659 \\
\hline \& WEST VIRGINIA.
FLORIOA. \& \(\begin{array}{r}5 \\ 28 \\ \hline\end{array}\) \& 4
7 \& 5541
2977 \& 14593
1558 \& 4262
296 \& 4765
607 \& \(\begin{array}{rr}12 \& 114 \\ 1 \& 033\end{array}\) \& 36785
3049 \& 101
83 \& 2165

10) \& 36851
101 <br>
\hline \& FLorioa, . - . \& 28 \& \& \& 1558 \& \& 607 \& \& 3049 \& 83 \& (0) \& <br>
\hline \& EAST SOUTH CENTRAL. \& 27 \& 21 \& 5910 \& 27966 \& 5043 \& 10052 \& 21443 \& 77020 \& 3552 \& 5024 \& 55341 <br>
\hline \&  \& 13
5 \& 9
5 \& 23370
1384 \& 10587
$6 \quad 166$ \& 1990
1
1 \& 3982
2422 \& 7887
4876 \& 27869
22342 \& 1831
+715 \& 5101

$1 \quad 127$ \& $$
\begin{gathered}
101 \\
15074
\end{gathered}
$$ <br>

\hline \& wEST SOUTH CENTRAL. \& 56 \& 15 \& 1736 \& 8158 \& 1435 \& 2843 \& 5865 \& 24560 \& 1689 \& 957 \& 11077 <br>
\hline \& WEST. \& 357 \& 107 \& 8772 \& 48874 \& 6845 \& 13278 \& 32230 \& 100739 \& 4162 \& 10220 \& 97083 <br>
\hline \& MOUNTAIN.
COLORADO \& 19

10 \& $$
\begin{aligned}
& 3 \\
& 2
\end{aligned}
$$ \& \[

$$
\begin{aligned}
& 227 \\
& 163
\end{aligned}
$$
\] \& 1266

947 \& 182

131 \& $$
\begin{aligned}
& 357 \\
& 257
\end{aligned}
$$ \& 751

563 \& $$
\begin{aligned}
& 2376 \\
& 1 \quad 735
\end{aligned}
$$ \& \[

$$
\begin{aligned}
& 324 \\
& \text { (D) }
\end{aligned}
$$
\] \& 139

(0) \& $\begin{array}{rr}1 & 377 \\ \text { (D) }\end{array}$ <br>
\hline \& PACIFIC ${ }^{\text {co }}$ \& 338 \& 104 \& ${ }^{8} 545$ \& 47608
44652 \& 6663
6190 \& 12921

12137 \& | 31 |
| :--- |
| 179 |
| 2944 | \& 183

983
92554 \& $\begin{array}{ll}3 & 838 \\ 3 & 605\end{array}$ \& 10
9
9665 \& 95706
91846 <br>
\hline \& California . . . . . . . . . \& 321 \& 100 \& 7943 \& 44652 \& 6190 \& \& \& \& \& \& <br>
\hline
\end{tabular}

[^219]table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


[^220]TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


[^221]table 3. Detailed Statistics: 1963

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline Item \& Electrical machin-
ery (SIC 36 ) \& Electric distribution products (SIC 361) \& Electric industrial apparatus (SIC 362) \& Household appliances (SIC 363) \& Lighting and wiring devices (SIC 364 ) \& Radio and TV receiving equipment (SIC 365) \& Communication equipment (SIC 366 \& Electronic components (SIC 367) \& Electrical products, n.e.c. (SIC 369) <br>
\hline establishments, total . . . . . . . . . number. \& 9948 \& 1137 \& 1244 \& 700 \& 1951 \& 515 \& \& \& <br>
\hline WITH 1 TO 19 EMPLOYEES. . . . . . . . . . DO. \& 5226 \& 615 \& 658 \& 361 \& 1138 \& 277 \& 1222
531

3 \& 2291
$1 \quad 141$ \& 888
505 <br>
\hline WITH 20 TO 99 EMPLOYEES . . . . . . . . . DO. \& 2630 \& 296 \& 306 \& 159 \& 547 \& 121 \& 344 \& 1 624 \& 505 <br>
\hline With 100 employees or more. . . . . . . . do. \& 2092 \& 226 \& 280 \& 180 \& 266 \& 117 \& 347 \& 526 \& 233
150 <br>
\hline PROPRIETORS AND WORKING PARTNERS. . . . . . DO. \& 2491 \& 267 \& 220 \& 150 \& 643 \& 123 \& 189 \& \& <br>

\hline all employees (average for the year). . DO. \& 1511819 \& 132125 \& 160953 \& 145855 \& 132984 \& 901818 \& 476849 \& | 289 |
| :--- |
| 85 |
| 27 | \& 334

83708 <br>
\hline Payroll (all employees), total for year $\$ 1,000$. \& 9284279 \& 822019 \& 1004907 \& 863963 \& 709630 \& 453905 \& 3394593 \& 1535747 \& 83708
494515 <br>
\hline Production workers: \& \& \& \& \& \& \& \& \& <br>
\hline average for the year. . . . . . . . . number. \& 1049357 \& 91840 \& 116890 \& 116147 \& 104508 \& 74104 \& 269681 \& 210906 \& 65281 <br>
\hline MARCH . . . . . . . . . . . . . . . . . Do. \& 1047935 \& 91226 \& 117066 \& 112434 \& 103186 \& 66639 \& 282028 \& 210774 \& 64582 <br>
\hline MaY . . . . . . . . . . . . . . . . . . Do. \& 1036830 \& 91204 \& 117489 \& 112365 \& 102040 \& 69472 \& 267940 \& 211066 \& 65254 <br>
\hline august. . . . . . . . . . . . . . . . . Do. \& 1047495 \& 92263 \& 115689 \& 116245 \& 105273 \& 78635 \& 265395 \& 210462 \& 63533 <br>
\hline november. . . . . . . . . . . . . . . . do. \& 1065456 \& 92731 \& 117317 \& 123545 \& 107736 \& 81663 \& 263370 \& 211330 \& 67764 <br>
\hline MAN-HDURS . . . . . . . . . . . . . .1,000. \& 2090531 \& 183688 \& 236294 \& 229001 \& 206705 \& 143485 \& 541828 \& 417151 \& 132379 <br>
\hline January-march . . . . . . . . . . . . . do. \& 528263 \& 45956 \& 59529 \& 56634 \& 50504 \& 32149 \& 144445 \& 105798 \& 33248 <br>
\hline APRIL-JUNE. . . . . . . . . . . . . . . DO. \& 528992 \& 46600 \& 60189 \& 56521 \& 51918 \& 34496 \& 139303 \& 106670 \& 33295 <br>
\hline JULY-SEPTEMBER. . . . . . . . . . . . . DD. \& 499507
533 \& 44625 \& $\begin{array}{lll}56 & 583 \\ 59\end{array}$ \& 54895 \& 49934 \& 37322 \& 125384 \& 99802 \& 30962 <br>
\hline october-december. . . . . . . . . . . . Do. \& 533854 \& 46507 \& 59996 \& 60967 \& 54349 \& 39518 \& 132696 \& 104881 \& 34940 <br>
\hline WAGES \& 5405786 \& 484186 \& $640 \quad 570$ \& 613844 \& 487642 \& 322263 \& 1589412 \& 920686 \& 347183 <br>
\hline COST OF MATERIALS, ETC., TOTAL ${ }^{1}$ - . . . . . DO. \& 12942644 \& 1034627 \& 1276219 \& 2089219 \& 1268752 \& 1443499 \& 3527069 \& 1403403 \& 899856 <br>
\hline MATERIALS, PARTS, CONTA INERS, AND
SUPPLIES CONSUMED. . . . . . . . . . . do. \& 11708631 \& 942108 \& 1172504 \& 1915685 \& 1151629 \& 1384512 \& 3123719 \& 1210358 \& 808116 <br>
\hline cost of resales . . . . . . . . . . . . . do. \& 711479 \& 62285 \& 44968 \& 127363 \& 76389 \& 36384 \& 186139 \& 106195 \& 71756 <br>
\hline fuels consumed. . . . . . . . . . . . . . Do. \& 70926 \& 5525 \& 12900 \& 14513 \& 9133 \& 3252 \& 10921 \& ${ }_{9} 462$ \& 5220 <br>
\hline electric energy: PURCHASED: \& \& \& \& \& \& \& \& \& <br>
\hline QUANTITY. . . . . . . . .million kw. -hrs. \& 12792 \& 1086 \& 2427 \& 1772 \& 1005 \& 472 \& 2720 \& 2355 \& 955 <br>
\hline cost. . . . . . . . . . . . . . . \$1,000. \& 147178 \& 12473 \& 23071 \& 20151 \& 13911 \& 6161 \& 31985 \& 29063 \& 10363 <br>
\hline generated less sold . . . .million kw. -hrs. \& 16433 \& 2439 \& - 2399 \& 2375 \& (D) \& (0) \& (D) \& 2833 \& 1339 <br>
\hline CONTRACT WORK . . . . . . . . . . . . \$1,C00 \& 304423 \& 12230 \& 22763 \& 11507 \& 17702 \& 13190 \& 174305 \& 48325 \& 4401 <br>
\hline value of shipments (including resales), TDTAL ${ }^{1}$. . . . . . . . . . . . . Do. \& \& 2565859 \& 3153942 \& \& \& \& \& \& <br>

\hline value of resales. . . . . . . . . . . . . do. \& 297958 \& - 82500 \& 66 320 \& $$
167423
$$ \& 98217 \& 44978 \& 217868 \& \[

139673

\] \& \[

$$
\begin{aligned}
& 946 \\
& 1162 \\
& 110
\end{aligned}
$$
\] <br>

\hline value added by manufacture, adjusted. . . . do. \& 17010665 \& 1534661 \& 1889181 \& 2097915 \& 1559630 \& 1037342 \& 5341463 \& 2508117 \& 042356 <br>
\hline MANUFACTURERS' INVENTORIES: \& \& \& \& \& \& \& \& \& <br>
\hline BEGINIING OF YEAR, total. . . . . . . . . do. \& $\begin{array}{llll}5 & 148 \\ 1 & 799\end{array}$ \& 520475 \& 593094 \& 625091 \& 417766 \& 335241 \& 1724531 \& 665241 \& 267360 <br>

\hline FINISHED PRODUCTS . . . . . . . . . . . DO. \& 1 | 1 | 358 |
| :--- | :--- | \& 135312 \& 156190 \& 315062 \& 189796 \& 136383 \& 167402 \& 172368 \& 86179 <br>

\hline WORK-IN-PROCESS . . . . . . . . . . . . DD. \& 2437313 \& 224476 \& 255816 \& 150460 \& 104785 \& 90899 \& 1224657 \& 292376 \& 93844 <br>
\hline Materials, SUPPLIES, fuel, etc. . . . . do. \& 1352794 \& 160687 \& 181088 \& 159569 \& 123185 \& 107959 \& 332472 \& 200497 \& 87337 <br>
\hline end of year, total. . . . . . . . . . . . do. \& 5239708 \& 526724 \& 590188 \& 716085 \& 421910 \& 401233 \& 1663346 \& 660914 \& 259308 <br>
\hline FINISHED PRODUCTS . . . . . . . . . . . DO. \& 1453815 \& 133788 \& 154460 \& 366539 \& 187629 \& 182566 \& 170451 \& 174376 \& 84006 <br>
\hline WORK-IN-PROCESS MATERIALS SUPPLIES, FUEL, .jTC. . . . DO. \& 2
2 63976 \& 229544 \& 266471 \& 167711 \& 107272 \& 94642 \& 1214057 \& 292116 \& 91163 <br>
\hline Materials, SUPPLIES, fuel, etc. . . . . DO. \& 1322924 \& 163392 \& 169257 \& 181835 \& 127016 \& 124025 \& - 278838 \& 194422 \& 84139 <br>
\hline Expenditures for plant and eouipment, total do. \& 750251 \& 52836 \& $80 \quad 344$ \& 79276 \& 66247 \& 40064 \& 206780 \& 185342 \& 39362 <br>
\hline NEW, TOTAL. . . . . . . . . . . . . . . DC. \& 701947 \& 50548 \& 72031 \& 71252 \& 62104 \& 39215 \& 193861 \& 175943 \& 36993 <br>
\hline NEW STRUCTURES AND ADDItions to plant . do. \& 176031 \& 12570 \& 14944 \& 14026 \& 15292 \& 14756 \& 49495 \& 46467 \& 8481 <br>
\hline new machinery and eouipment . . . . . . do. \& 525916 \& 37978 \& 57087 \& 57226 \& 46812 \& 24459 \& 144366 \& 129476 \& 28512 <br>
\hline used plant and eduipment . . . . . . . . . do \& 48304 \& 2288 \& 8 313 \& 8024 \& 4143 \& 849 \& 12919 \& 9399 \& 2369 <br>
\hline Selected operating ratids: \& \& \& \& \& \& \& \& \& <br>
\hline PAYROLL/TOTAL EMPLOYMENT. . . . - . \& 6141 \& 6222 \& 6243 \& 5923 \& 5336 \& 5053 \& 7119 \& 5323 \& 5908 <br>
\hline PRODUCTION WORKERS/TOTAL EMP LOYMENT \& . 69 \& . 70 \& . 73 \& . 80 \& . 79 \& . 82 \& . 57 \& . 73 \& . 78 <br>
\hline MAN-HOURS/PRDDUCTION WORKERS. . . . . . . - \& 1992 \& 2000 \& 2022 \& 1972 \& 1978 \& 1936 \& 2009 \& 1978 \& 2028 <br>
\hline PRODUCTION WORKER WAGES/MAN-HOURS
COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF \& 2.59 \& 2.64 \& 2.71 \& 2.68 \& 2.36 \& 2.25 \& 2.93 \& 2.21 \& 2.62 <br>
\hline SHIPMENTS . . . . . . . . . . . . . . \& . 74 \& . 72 \& . 72 \& . 72 \& . 70 \& . 78 \& . 78 \& . 75 \& . 72 <br>
\hline COST Of MATERIALS/TOTAL VALUE OF Shipments. \& 43 \& . 40 \& . 40 \& . 51 \& .45 \& . 59 \& . 40 \& . 36 \& . 46 <br>
\hline ADJUSTED VaLue adoed/total emplorment. \& 11252 \& 11615 \& 11737 \& 14384 \& 11728 \& 11422 \& 11202 \& 8693 \& 12452 <br>
\hline Salaries and wages/adjusted value added . . . \& . 55 \& . 54 \& . 53 \& . 41 \& . 45 \& . 44 \& . 64 \& . 61 \& . 47 <br>
\hline
\end{tabular}

Standari liotes: - iepreserts zero. (D) Withheld to avoid disclosing figures for iníiviual companies. (NA) Not available. (x) Not applicable. ${ }^{1}$ The value of shipments ard cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same induetry. For a more complete explanation, see Introduction.
Hens-a $=$


## ELECTRICAL TRANSMISSION, DISTRIBUTION, AND INDUSTRIAL APPARATUS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3611-Electric Measuring lnstruments and Test Equipment<br>3612-Power, Distribution, and Specialty Transformers<br>3613-Switchgear and Switchboard Apparatus<br>3621-Motors and Generators<br>3622--lndustrial Controls<br>3623-Welding Apparatus<br>3624-Carbon and Graphite Products<br>3629-Electrical Industrial Apparatus, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

In addition to the 1963 Census of Manufactures product statistics shown in table 6A, detail as published in the 1963 Current Industrial Reports Series are also shown.

## 3611-ELECTRIC MEASURING INSTRUMENTS AND TEST EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing pocket, portable, panelboard, and graphic recording instruments for measuring electricity such as voltmeters, ammeters, watt meters, watthour meters, demand meters, and other meters and indicating instruments. This industry also includes establishments primarily engaged in manufacturing analyzers for testing the electrical characteristics of internal combustion engines, radio apparatus, etc. For a detailed list of products of industry 3611, refer to table 6A, product codes 3611110 to 3611385 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electric Measuring lnstruments lndustry totaled $\$ 749$ million. This amount included shipments of electric measuring instruments (primary products) valued at $\$ 588$ million, shipments of other products (secondary products) valued at $\$ 112$ million, and miscellaneous receipts (mainly resales) at $\$ 48$ million.

This industry's shipments of electric measuring instruments represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 74 percent. Secondary products shipped by this industry in 1963 consisted mainly of other electronic components and accessories, n.e.c. ( $\$ 18$ million), and electronic military, industrial, and commercial equipment, n.e.c. ( $\$ 10$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 45 percent of the total industry shipments are represented by plants specializing in product class 36112 , Test equipment for testing electrical, radio, and communication circuits and motors.

Shipments of electric measuring instruments by this industry represented 78 percent of all shipments of these products ( $\$ 756$ million) by all industries. In 1958 the coverage ratio was 81 percent. Other industries shipping electric measuring instruments consisted mainly of industry 3662, Radio, TV Communications Equipment, $\$ 33$ million; and industry 3821, Mechanical Measuring Devices, $\$ 22$ million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3611, e.g., 36111, Integrating instruments, electrical, 96 percent; 36113, Other electrical measuring instruments, 71 percent; and 36110 , Electrical measuring instruments, n.s.k., 97 percent.

## 3612—POWER, DISTRIBUTION, AND SPECIALTY TRANSFORMERS

This industry comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers. Establishments primarily engaged in manufacturing radio frequency or voice frequency transformers, coils, or chokes are classified in industry 3679, and resistor welding transformers in industry 3623. For a detailed list of products of industry 3612, refer to table 6A, product codes 3612111 to 3612384.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Transformers Industry totaled $\$ 723$ million. This amount included shipments or power, distribution, and specialty transformers (primary products) valued at $\$ 652$ million, shipments of other products (secondary products) valued at $\$ 58$ million, and miscellaneous receipts (mainly resales) at $\$ 12$ million.

This industry's shipments of transformers represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent. Secondary products shipped by this industry in 1963 consisted mainly of other electrical measuring instruments ( $\$ 10$ million), and coils, transformers, reactors, and chokes for electronic applications ( $\$ 4$ million).

Shipments of transformers by this industry represented 94 percent of all shipments of these products ( $\$ 692$ million) by all industries. In 1958 the coverage ratio was 93 percent. Other industries shipping transformers consisted mainly of industry 3642, Lighting Fixtures, $\$ 6$ million.

The production index for the primary products of the industry increased to 125 in 1963 from the 1958 level of 88 . The unit value index for 1963 was 89 compared to 114 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3613-SWITCHGEAR AND SWITCHBOARD APPARATUS

This industry comprises establishments primarily engaged in manufacturing switchgear and switchboard apparatus. Important products of this industry include power switches, circuit breakers, power switching equipment, and similar switchgear for general industrial application; switchboards and cubicles, control and metering panels, power fuse mountings, and similar switchboard apparatus and supplies. Establishments primarily engaged in manufacturing industrial controls are classified in industry 3622 , and those manufacturing current carrying wiring devices in industry 3643 . For a detailed list of products of industry 3613, refer to table 6A, product codes 3613111 to 3613493.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Switchgear and Switchboards lndustry totaled $\$ 1,094$ million. This amount included shipments of switchgear and switchboard apparatus (primary products) valued at $\$ 897$ million, shipments of other products (secondary products) valued at $\$ 136$ million, and miscellaneous receipts (mainly resales) at $\$ 61$ million.

This industry's shipments of switchgear and switchboard apparatus represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 80 percent. Secondary products shipped by this industry in 1963 consisted mainly of general industry power circuit devices and controls ( $\$ 67$ million), current carrying wiring devices, including lightning rods and electric conduit and conduit fittings (\$6 million each).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 46 percent of the total industry shipments are represented by plants specializing in product class 36131, Switchgear, including power switchgear assemblies and other switching and interrupting devices 2300 volts and over; and 29 percent in product class 36133 , Low voltage panelboards and distribution boards and switching and interrupting devices 750 volts and under.

Shipments of switchgear and switchboards by this industry represented 89 percent of all shipments of these products ( $\$ 1,008$ million) by all industries. In 1958 the coverage ratio was 90 percent. Other industries shipping switchgear and switchboard apparatus consisted mainly of industry 3622, Industrial Controls, $\$ 28$ million; and industry 3643 , Current Carrying Devices, \$10-\$20 million.

The production index for the primary products of the industry increased to 125 in 1963 from the 1958 level of 109 . The unit value index for 1963 was 112 compared to 113 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3621-MOTORS AND GENERATORS

This industry comprises establishments primarily engaged in manufacturing electric motors (except starting motors) and power generators; motor generator sets; railway motors and control equipment; and motors, generators, and control equipment for gasoline electric and oil electric busses and trucks. Establishments primarily engaged in manufacturing turbo-generators are classified in industry 3611 , and starting motors and battery charging generators for internal combustion engines in industry 3694. For a detailed list of products of industry 3621 , refer to table 6 A , product codes 3621101 to 3621611.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Motors and Generators lndustry totaled $\$ 1,710$ million. This amount included shipments of motors and generators (primary products) valued at $\$ 1,332$ million, shipments of other products (secondary products) valued at $\$ 308$ million, and miscellaneous receipts (mainly resales) at $\$ 70$ million.

This industry's shipments of motors and generators represented 81 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. Secondary products shipped by this industry in 1963 consisted mainly of speed changers, industrial high speed drivers, and gears ( $\$ 22$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 46 percent of the total industry shipments are represented by plants specializing in product class 36211, Fractional horsepower motors; and 32 percent in 36212, Integral horsepower motors and generators, except land transportation.

Shipments of motors and generators by this industry represented 84 percent of all shipments of these products ( $\$ 1,578$ million) by all industries. In 1958 the coverage ratio was 85 percent.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3621 , e.g., Fractional horsepower motors, 91 percent; lntegral horsepower motors and generators, except land transportation, 92 percent; Land transportation motors, generators, and control equipment and parts, and Prime moving generator sets, except steam or hydraulic turbines, combined, 40 percent; and Motor generators and other rotating equipment, 92 percent.

## 3622--INDUSTR1AL CONTROLS

This industry comprises establishments primarily engaged in manufacturing motor starters and controllers, control accessories, electronic controls, and other industrial controls. Establishments primarily engaged in manufacturing automatic temperature controls are classified in industry 3822. For a detailed list of products of industry 3622 , refer to table 6 A , product codes 3622012 to 3622099 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the lndustrial Controls lndustry totaled $\$ 649$ million. This amount included shipments of industrial controls (primary products) valued at $\$ 500$ million, shipments of other products (secondary products) valued at $\$ 129$ million, and miscellaneous receipts (mainly resales) at $\$ 19$ million.

This industry's shipments of industrial controls represented 79 percent of its total product shipments. The industry specialization ratio in 1958 also was 79 percent. Secondary products shipped by this industry in 1963 consisted mainly of resistors for electronic application ( $\$ 57$ million), and switchgear, including power switchgear assemblies and other switching and interrupting devices 2300 volts and over ( $\$ 23$ million).

Shipments of industrial controls by this industry represented 79 percent of all shipments of these products ( $\$ 633$ million) by all industries. In 1958 the coverage ratio was 70 percent. Other industries shipping industrial controls consisted mainly of industry

3613, Switchgear and Switchboards, $\$ 67$ million; and industry 3822, Automatic Temperature Controls, $\$ 13$ million.

## 3623-WELDING APPARATUS

This industry comprises establishments primarily engaged in manufacturing welding apparatus and accessories. Establishments which coat only and those which draw the wire and coat it are also included. Establishments primarily engaged in manufacturing gas welding apparatus are classified in industry 3548. For a detailed list of products of industry 3623 , refer to table 6A, product codes 3623111 to 3623381.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electric Welding Apparatus Industry totaled $\$ 330$ million. This amount included shipments of electric welding apparatus (primary products) valued at $\$ 288$ million, shipments of other products (secondary products) valued at $\$ 20$ million, and miscellaneous receipts (mainly resales) at $\$ 22$ million.

This industry's shipments of electric welding apparatus represented 93 percent of its total product shipments. The industry specialization ratio in 1958 also was 93 percent. Secondary products shipped by this industry in 1963 consisted mainly of essential oils, fireworks, and pyrotechnics and chemicals and chemical preparations, n.e.c. (\$5-\$10 million).

While the primary products of the industry represent more than one class of products, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 53 percent of the total industry shipments are represented by plants specializing in product class 36232, Arc welding electrodes, metal.

Shipments of electric welding apparatus by this industry represented 89 percent of all shipments of these products ( $\$ 325$ million) by all industries. In 1958 the coverage ratio was 92 percent. Other industries shipping electric welding apparatus consisted mainly of industry 3621, Motors and Generators, $\$ 5-\$ 10$ million.

The production index for the primary products of the industry increased to 154 in 1963 from the 1958 level of 113 . The unit value index for 1963 was 132 compared to 129 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3624-CARBON AND GRAPHITE PRODUCTS

This industry comprises establishments primarily engaged in manufacturing lighting carbons; carbon, graphite, and metal graphite brushes, and brush stock; carbon or graphite electrodes for thermal and electrolytic uses; and other carbon, graphite, and metal graphite products for use in the electrical industries. For a detailed list of products of industry 3624 , refer to table 6A, product codes 3624011 to 3624089.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Carbon and Graphite Products Industry totaled $\$ 227$ million. This amount included shipments of carbon and graphite products (primary products) valued at $\$ 209$ million, shipments of other products (secondary products) valued at $\$ 16$ million, and miscellaneous receipts (mainly resales) at $\$ 2$ million.

This industry's shipments of carbon and graphite products represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 97 percent. Secondary products shipped by this industry in 1963 consisted mainly of resistors for electronic applications ( $\$ 2-\$ 5$ million).

Shipments of carbon and, graphite products by this industry represented 96 percent of all shipments of these products ( $\$ 218$ million) by all industries. In 1958 the coverage ratio was 95 percent. Other industries shipping carbon and graphite products consisted mainly of industry 3621, Motors and Generators (over $\$ 2$ million); and industry 3694, Engine Electrical Equipment ( $\$ 2-\$ 5$ million).

## 3629—ELECTRICAL INDUSTRIAL APPARATUS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing industrial and commercial electric apparatus and equipment, n.e.c., such as blasting machines, fixed and variable capacitors and condensers, and rectifiers for industrial applications. Establishments primarily engaged in manufacturing fixed and variable capacitors and condensers for electronic end products are classified in industry 3679 and rectifiers for electronic end products in industry 3674. For a detailed list of products of industry 3629 , refer to table 6A, product codes 3629111 to 3629398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electric lndustrial Goods, N.E.C., Industry totaled $\$ 238$ million. This amount included shipments of electric industrial goods, n.e.c. (primary products) valued at $\$ 180$ million, shipments of other products (secondary products) valued at $\$ 46$ million, and miscellaneous receipts (mainly resales) at $\$ 12$ million.

This industry's shipments of electric industrial goods, n.e.c., represented 80 percent of its total product shipments. The industry specialization ratio in 1958 was 71 percent. Secondary products shipped by this industry in 1963 consisted mainly of coils, transformers, reactors, and chokes for electronic applications ( $\$ 2$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 22 percent of the total industry shipments are represented by plants specializing in product class 36291, Capacitors for industrial use (except for electronic applications); 26 percent in 36292, Rectifying apparatus; and 48 percent in 36293 , Other electrical equipment for industrial use.

Shipments of electric industrial goods, n.e.c., by this industry represented 72 percent of all shipments of these products ( $\$ 250$ million) by all industries. ln 1958 the coverage ratio was 73 percent. Other industries shipping electrical industrial goods, n.e.c., consisted mainly of industry 3622, lndustrial Controls, $\$ 4$ million.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3629 , e.g., product class 36292, Rectifying apparatus, 57 percent; and, product class 36293 , Other electrical equipment for industrial use, 80 percent.

ELECTRIC DISTRIBUTION PRODUCTS: SIC 361


# table 1. General Statistics: 1963 and Earlier Years 

| Year | Companies | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted <br> ( $\$ 1,000$ ) | Cost of materials | Value of shipments | Capital expenditures, new | Spe-cialization ratio (per- | Cov- <br> erage ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |


| 1963 | 536 | 560 | 209 | 4,4,715 | 273,645 | 30,109 | 59,905 | 149,616 | 505,309 | 245,417 | 749,220 | 19,207 | 84 | 78 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | $(59,512)$ | $(339,956)$ | $(42,605)$ | $(88,978)$ | (205,229) | $(588,690)$ | $(300,812)$ | $(879,561)$ | (22,642) | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | $(57,679)$ | $(335,864)$ | $(40,343)$ | $(82,459)$ | $(194,634)$ | $(558,020)$ | $(285,471)$ | (830, 937 ) | $(22,801)$ | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | $(51,847)$ | $(300,393)$ | $(36,823)$ | $(74,933)$ | $(179,339)$ | $(514,433)$ | $(278,032)$ | $(795,039)$ | ( 25,317$)$ | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | $(50,031)$ | $(281,527)$ | $(36,266)$ | $(74,150)$ | $(173,323)$ | $(509,865)$ | $(270,991)$ | $(770,613)$ | (22, 044) | (NA) | (NA) |
| 1958 | 476 | 492 | 200 | 46,923 | 254,833 | 31,702 | 63,646 | 147,165 | 419,396 | 235,188 | 673,522 | 19,421 | 74 | 81 |
| 1956 | (NA) | (NA) | (NA) | 38,743 | 187,849 | 28,105 | 55,396 | 114,736 | 340,714 | 151,652 | 467,406 | 13,122 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 34,767 | 160,868 | 25,216 | 49,738 | 95,677 | 272,856 | 126,187 | 386,738 | 11,168 | (NA) | (NA) |
| $1954{ }^{2}$. | 299 | 303 | 143 | 33,049 | 145,131 | 24,223 | 47,679 | 90,873 | 245,588 | 114,127 | 368,186 | 20,926 | 75 | 76 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 38,115 | 161,151 | 29,393 | 59,722 | 108,551 | 272,026 | 118,746 | 390,772 | (NA) | (NA) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (NA) | 30,545 | 121,926 | 23,646 | 48,436 | 85,246 | 202,182 | 96,824 | 299,006 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 25,414 | 98,880 | 19,635 | (NA) | 69,527 | 153,705 | 79,391 | 233,096 | (NA) | (NA) | (NA) |
| 19501 | (NA) | (NA) | (NA) | 19,143 | 65,544 | 14,263 | 28,642 | 43,357 | 113,314 | 52,530 | 165,844 | (NA) | (NA) | (NA) |
| 19491 | (NA) | (NA) | (NA) | 16,180 | 53,490 | 11,403 | 22,726 | 34,748 | 87,612 | 36,013 | 123,625 | (NA) | (NA) | (NA) |
| $1947{ }^{2}$. | 150 | 154 | 58 | 20,926 | 60,661 | 16,086 | 32,576 | 42,326 | 103,946 | 49,434 | 153,380 | (NA) | (NA) | (NA) |
| 19392. | (NA) | 59 | (NA) | 9,318 | 15,223 | 6,976 | (NA) | 9,881 | 29,693 | 12,104 | 41,797 | (NA) | (NA) | (NA) |
| $1937{ }^{2}$. | (NA) | 33 | (NA) | (NA) | (NA) | 6,935 | (NA) | 10,102 | 30,159 | 10,257 | 40,416 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3612. -TRANSFORMERS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 144 | 177 | 99 | 33,365 | 209,514 | 23,640 | 46,873 | 129,628 | 381,514 | 337,001 | 722,896 | 13,161 | 92 | 94 |
| $1962^{1}$ | (NA) | (NA) | (NA) | 35,075 | 215,228 | 24,590 | 49,078 | 133,946 | 400,762 | 345,850 | 740,359 | 22,594 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 34,857 | 207, 363 | 23,522 | 46,180 | 128,146 | 402, 251 | 303,768 | 708,099 | 40,524 | (NA) | (NA) |
| $1960^{1}$ | (NA) | (NA) | (NA) | 36,608 | 211,851 | 24,724 | 48,600 | 129,214 | 422,501 | 308,360 | 718,264 | 14,297 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 35,507 | 201,687 | 24,048 | 47,974 | 125,904 | 429,065 | 296,910 | 721,572 | 14,875 | (NA) | (NA) |
| 1958 | 157 | 175 | 82 | 34,601 | 186,361 | 22,578 | 45,112 | 108,592 | 364,212 | 256,870 | 642,267 | 13,816 | 94 | 93 |
| 1957 | (NA) | (NA) | (NA) | 48,075 | 242,191 | 34,165 | 69,964 | 156,732 | 499,091 | 357,542 | 861,960 | 15,997 | 89 | 94 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 46,725 | 228,908 | 34,579 | 69,767 | 154,283 | 451,468 | -365,312 | 785,126 | 24,429 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 40,066 | 190,907 | 28,493 | 59,412 | 124,764 | 380,977 | 295,897 | 664,751 | 17,131 | (NA) | (NA) |
| $1954{ }^{2}$ | 152 | 164 | 89 | 40,956 | 186,491 | 29,234 | 58,414 | 121,715 | 394,276 | 277,814 | 688,447 | 22,852 | 87 | 94 |
| 19531 | (NA) | (NA) | (NA) | 45,358 | 202,003 | 33,111 | 69,013 | 136,278 | 410,783 | 301,207 | 711,990 | (NA) | (NA) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (NA) | 37,374 | 165,643 | 26,623 | 55,266 | 110,766 | 357,832 | 253,355 | 610,968 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 37, 335 | 152,257 | 27,170 | (NA) | 101,992 | 328,311 | 227,862 | 556,173 | (NA) | (NA) | (NA) |
| 19501 | (NA) | (NA) | (NA) | 33,363 | 119,693 | 23,912 | 49,771 | 79,006 | 242,739 | 181,212 | 423,951 | (NA) | (NA) | (NA) |
| 19491 | (NA) | (NA) | (NA) | 34,218 | 120,696 | 24,618 | 50,496 | 79,795 | 232, 875 | 174,107 | 406,982 | (NA) | (NA) | (NA) |
| $1947{ }^{2}$ | 134 | 144 | 85 | 36,635 | 107,978 | 28,160 | 58,568 | 78,525 | 195,102 | 162,085 | 356,968 | (NA) | (NA) | (NA) |
| 1939 ². | (NA) | 47 | (NA) | (NA) | (NA) | 9,260 | (NA) | 14,064 | 38,898 | 32,711 | 71,609 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3613. - SWITCHGEAR AND SWITCHBOARDS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 338 | 400 | 214 | 54,045 | 338,860 | 38,091 | 76,910 | 204,942 | 647,838 | 452,209 | 1,093,743 | 18,180 | 87 | 89 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 59,650 | 356,347 | 43,369 | 84,111 | 211,967 | 654,760 | 458,480 | 1,108,404 | 16,618 | (x) | (x) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 57,138 | 336,346 | 41,099 | 80,988 | 197,817 | 606,624 | 430,446 | 1,039,332 | 15,575 | (X) | (x) |
| 19601 | (NA) | (NA) | (NA) | 57,427 | 325,925 | 41,860 | 82,869 | 194,487 | 636,584 | 421,957 | 1,038,760 | 24,368 | (X) | (x) |
| 19591 | (NA) | (NA) | (NA) | 57,132 | 319,349 | 41,726 | 82,472 | 190,224 | 638,834 | 429,478 | 1,047,620 | $(35,459)$ | (X) | (X) |
| $1958{ }^{3}$. | 339 | 402 | 203 | 52,871 | 283,152 | 36,263 | 72,769 | 170,453 | 555,044 | 375,977 | 962,558 | 17,820 | 80 | 90 |



| 421 | 427 | 118 | 32,990 |
| :---: | :---: | :---: | :---: |
| (NA) | (NA) | (NA) | 32,870 |
| (NA) | (NA) | (NA) | 31,635 |
| (NA) | (NA) | (NA) | 30,540 |
| (NA) | (NA) | (NA) | 28,227 |
| 205 | 216 | 75 | 27,150 |
| (NA) | 618 | 278 | 80,021 |
| (NA) | (NA) | (NA) | 91,465 |
| (NA) | (NA) | (NA) | 93,393 |
| (NA) | (NA) | (NA) | 79,383 |
| 389 | 452 | 246 | 79,314 |
| (NA) | (NA) | (NA) | 88,393 |
| (NA) | (NA) | (NA) | 77,685 |
| (NA) | (NA) | (NA) | 75, 044 |
| (NA) | (NA) | (NA) | 65,060 |
| (NA) | (NA) | (NA) | 67,115 |
| (NA) | 321 | (NA) | 67,461 |
| (NA) | 217 | (NA) | (NA) |


| 214,597 |
| ---: |
| 205,336 |
| 192,320 |
| 178,963 |
| 165,574 |
| 145,270 |
| 428,422 |
| 475,370 |
| 471,511 |
| 377,826 |
| 361,398 |
| 399,015 |
| 335,353 |
| 306,808 |
| 246,105 |
| 232,798 |
| 204,081 |
| (NA) |


| 22,772 | 44,898 | 125,418 | 450,507 |
| ---: | ---: | ---: | ---: |
| 21,814 | 43,923 | 117,850 | 414,800 |
| 20,301 | 40,301 | 105,951 | 388,190 |
| 19,991 | 39,547 | 101,445 | 373,243 |
| 19,190 | 38,744 | 97,893 | 349,843 |
| 17,311 | 33,660 | 81,769 | 281,890 |
| 53,574 | 106,429 | 252,222 | 836,934 |
| 62,811 | 126,654 | 291,826 | 972,549 |
| 66,482 | 136,594 | 298,665 | 947,136 |
|  |  |  |  |
| 56,078 | 113,437 | 235,697 | 711,250 |
| 56,183 | 111,372 | 228,245 | 687,308 |
| 64,038 | 133,277 | 258,917 | 775,972 |
| 55,947 | 11,929 | 221,536 | 714,300 |
| 54,806 | (NA) | 205,718 | 577,916 |
| 48,567 | 96,977 | 155,305 | 417,333 |
| 47,813 | 104,069 | 146,368 | 441,927 |
| 49,690 | (NA) | 137,747 | 358,431 |
| 14,747 | (NA) | 20,345 | 71,830 |


| 207,587 | 648,683 |
| ---: | ---: |
| 186,531 | 593,261 |
| 171,068 | 548,283 |
| 16,694 | 532,400 |
| 152,959 | 496,681 |
| 125,017 | 413,163 |
| 500,994 | $1,375,721$ |
| 54,089 | $1,509,511$ |
| 528,282 | $1,416,044$ |
|  | 394,488 |
| 396,238 | $1,082,307$ |
| $1,096,715$ |  |
| 414,938 | $1,220,910$ |
| 373,888 | $1,088,188$ |
| 383,200 | 961,116 |
| 29,774 | 709,107 |
| 218,867 | 660,794 |
| 220,717 | 579,148 |
| 39,4777 | 111,309 |


| 15,419 | 79 | 79 |
| ---: | ---: | ---: |
| 16,293 | $(X)$ | $(X)$ |
| 17,698 | $(X)$ | $(X)$ |
| 18,424 | $(X)$ | $(X)$ |
| 9,796 | $(X)$ | $(X)$ |
| 7,611 | 79 | 70 |
| 25,421 | $(\mathrm{NA})$ | $(\mathrm{NA})$ |
| 35,618 | (NA) | $(\mathrm{NA})$ |
| 36,835 | (NA) | $(\mathrm{NA})$ |
|  |  |  |
| 31,703 | $(\mathrm{NA})$ | $(\mathrm{NA})$ |
| 31,478 | 89 | 91 |
| (NA) | (NA) | $(\mathrm{NA})$ |
| (NA) | (NA) | (NA) |
| (NA) | (NA) | (NA) |
| (NA) | (NA) | (NA) |
| (NA) | (NA) | (NA) |
| (NA) | (NA) | (NA) |
| (NA) | (NA) | (NA) |

INDUSTRY 3621. -MOTORS AND GENERATORS

| 1963 | 316 | 384 | 4 | 94,170 | 583,225 | 68,693 | 140,174 | 378,790 | 993,207 | 189 | ,818 |  | 81 | + |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1962{ }^{1}$. | (NA) | (NA) | (NA) | 93,957 | 576,039 | 67,656 | 135,665 | 361,836 | 974,834 | 697,821 | 1,657,777 | 34,841 | (X) | (x) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 95,880 | 570,497 | 67,669 | 133, 259 | 349,174 | 933,140 | 640,946 | 1,567,328 | 29,417 | (x) | (x) |
| 19601 | (NA) | (NA) | (NA) | 101,653 | 581,876 | 72,324 | 141,440 | 358,916 | 966,574 | 676,106 | 1,647,803 | 37,204 | (x) | (x) |
| 19591 | (NA) | (NA) | (NA) | 99,621 | 557,603 | 71,272 | 142,823 | 350,341 | 975,821 | 663,812 | 1,614,704 | 31,948 | (X) | (X) |
| 1958 | 317 | 378 | 237 | 93,541 | 488,854 | 64,795 | 127,799 | 303,785 | 813,124 | 545,523 | 1,392,573 | 28,311 | 83 | 85 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 117, 268 | 592,251 | 83,318 | 163,120 | 380,583 | 1,030,290 | 687,356 | 1,705,431 | (s) | 84 | 88 |
| $1956{ }^{1}$. | (NA) | (NA) | (NA) | 122,875 | 601,048 | 91,421 | 180,797 | 403,014 | 1,026,739 | 722,083 | 1,706,006 | (S) | (NA) | (NA) |

See footnotes at end of table.
table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials | Value of shipments | Capital expenditures, new | Spe-cialization ratio (per- | Coverage ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payioll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |


| $1955{ }^{1}$. | (NA) | (NA) | (NA) | 113,256 | 522,257 | 83,444 | 166,648 | 351,013 | 858,160 | 593,879 | 1,397,038 | (S) | A) | (NA) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1954{ }^{2}$ | 266 | 309 | 217 | 112,003 | 494, 556 | 82,420 | 161,343 | 334,271 | 817,601 | 597,352 | 1,453,713 | 38,310 | 82 | 84 |
| 19531 | (NA) | (NA) | (NA) | 138,315 | 621,933 | 106,418 | (NA) | 445,310 | 1,075,379 | 737,234 | 1,812,613 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 132,307 | 576,136 | 100,060 | (NA) | 409,032 | 998,277 | 717,425 | 1,715,463 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 122,423 | 495,012 | 93,091 | (NA) | 345,462 | 827,837 | 632,537 | 1,460,374 | (NA) | (NA) | (NA) |
| 19501 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 19491 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| $1947{ }^{2}$. | 224 | 253 | (NA) | 125,300 | 368,461 | 100,966 | (NA) | 279,175 | 564,218 | 431,661 | 995,640 | (NA) | 81 | 92 |
| $1939{ }^{2}$. | (NA) | 132 | (NA) | (NA) | (NA) | 44,423 | (NA) | 67,376 | 159,954 | 104,242 | 264,196 | (NA) | (NA) | (NA) |


| $\begin{aligned} & 1963 \mathrm{i} . \\ & 1962^{\mathrm{i}} . \\ & 1961^{1} . \\ & 1960^{1} . \\ & 1959^{1} . \\ & 1958 . \\ & 1957^{\mathrm{i}} . \\ & 1956^{1} . \\ & 1955^{1} . \\ & 1954^{2} . \end{aligned}$ |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |



| 40 | 53 | 40 | 10,123 | 61,984 |
| ---: | ---: | ---: | ---: | ---: |
| (NA) | (NA) | (NA) | 9,706 | 56,489 |
| (NA) | (NA) | (NA) | 9,239 | 52,323 |
| (NA) | (NA) | (NA) | 9,602 | 52,756 |
| (NA) | (NA) | (NA) | 9,938 | 53,625 |
| 34 | 46 | 35 | 8,904 | 45,628 |
| (NA) | (NA) | (NA) | 9,908 | 49,877 |
| (NA) | (NA) | (NA) | 9,999 | 47,479 |
| (NA) | (NA) | (NA) | 8,701 | 38,184 |
| 43 | 53 | 31 | 8,297 | 35,976 |
| (NA) | (NA) | (NA) | 10,479 | 40,324 |
| (NA) | (NA) | (NA) | 10,251 | 37,809 |
| (NA) | (NA) | (NA) | 8,576 | 28,776 |
| (NA) | (NA) | (NA) | 7,494 | 22,742 |
| 36 | 44 | 25 | 7,818 | 22,028 |
| (NA) | 31 | (NA) | 4,053 | 6,675 |
| (NA) | 30 | (NA) | (NA) | (NA) |

INDUSTRY 3624.-CARBON AND GRAPHITE PRODUCTS

## table 1. General Statistics: 1963 and Earlier Years-Continued

## Footnotes for Table 1-36A-Continued

NOTE: See introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.
Standard Notes:

- Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }_{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishnents. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures show in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ Data for Alaska and Hawaii are not included.
${ }^{3}$ Industries 3613 and 3622 were single industry 3616 (old SIC) prior to 1958.
${ }^{4}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that the industry is not comparable. The 1957 and earlier figures are on the old SIC definition of the industry.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted ( $\$ 1,000$ ) |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3611.-ELECTRIC MEASURING INSTRUMENTS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 560 | 209 | 44,715 | 273,645 | 30,109 | 59,905 | 149,616 | 505,309 | 245,417 | 749,220 | 19,207 | 46,923 | 419,396 |
| Northeast.......... | 232 | 86 | 14,010 | 84,602 | 9,599 | 19,111 | 46,415 | 150,348 | 71,749 | 223,248 | 5,234 | 19,608 | 160,720 |
| Massachusetts.... | 35 | 11 | 2,520 | 17,913 | 1,398 | 2,836 | 7,309 | 31,642 | 14,257 | 46,097 | 922 | 5,240 | 49,541 |
| Connecticut... | 18 | 7 | 693 | 4,022 | 478 | 985 | 2,195 | 5,498 | 3,956 | 9,475 | 168 | 518 | 4,198 |
| New York. .... | 77 | 30 | 3,552 | 21,308 | 2,367 | 4,777 | 11,246 | 33,249 | 20,165 | 55,461 | 1,128 | 4,060 | 31,556 |
| Pennsylvania..... | 29 | 10 | 1,024 | 5,199 | 779 | 1,543 | 3,385 | 7,986 | 5,030 | 13,221 | 363 | 1,068 | 7,834 |
| North Central...... | 122 | 50 | 10,479 | 58,880 | 7,164 | 14,017 | 32,533 | 109,123 | 57,479 | 167,912 | 3,410 | 11,291 | 91,730 |
| Ohio.............. | 34 | 16 | 3,003 | 16,499 | 2,012 | 3,930 | 8,276 | 30,803 | 17,509 | 48,155 | 74.4 | 2,359 | 17,140 |
| Illinois.. | 34 | 14 | 4,640 | 27,247 | 3,143 | 6,215 | 15,935 | 50,629 | 26,34,4 | 79,086 | 1,524 | 4,638 | 39,032 |
| Wisconsin........ | 9 | 4 | 516 | 3,018 | 322 | 603 | 1,263 | 4,248 | 1,849 | 6,354 | 203 | 531 | 3,694 |
| South.. | 67 | 21 | 4,213 | 22,387 | 2,897 | 6,037 | 12,931 | 43,059 | 25,319 | 68,571 | 1,681 | 2,166 | 22,294 |
| West. Califormia...... | 139 | 52 | 16,013 | 107,776 | 10,449 | 20,740 | 57,737 | 202,779 | 90,870 | 289,489 | 8,882 | 13,858 | 144,652 |
|  | 119 | 41 | 9,177 | 67,776 | 6,265 | 13,068 | 37,552 | 129,719 | 57,688 | 186,946 | 3,596 | 11,354 | 113,597 |
|  | INDUSTRY 3612.-TRANSFORMERS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 177 | 99 | 33,365 | 209,514 | 23,640 | 46,873 | 129,628 | 381,514 | 337,001 | 722,896 | 13,161 | 34,601 | 364,212 |
| Northeast. | 55 | 29 | 16,468 | 113,444 | 11,060 | 22,474 | 67,199 | 175,173 | 141,138 | 319,214 | 6,235 | 18,973 | 202,533 |
| New York......... | 14 | 8 | 826 | 3,837 | 599 | 1,104 | 2,274 | 4,762 | 4,867 | 10,018 | 214 | 843 | 5,587 |
| Pennsylvania..... | 14 | 9 | 8,905 | 62,706 | 6,119 | 12,303 | 39,074 | 83,679 | 79,039 | 162,971 | 2,610 | 9,941 | 117,950 |
| North Central...... | 59 | 38 | 11,558 | 65,166 | 8,770 | 16,632 | 43,390 | 120,752 | 118,103 | 239,468 | 5,343 | 11,759 | 109,416 |
| Ohio.............. | 7 | 5 | 1,084 | 6,645 | 851 | 1,802 | 4,742 | 14,255 | 11,220 | 25,752 | 401 | 1,091 | 16,085 |
| Illinois. | 23 | 14 | 4,848 | 25,377 | 4,086 | 7,861 | 18,919 | 46,825 | 47,790 | 95,438 | 990 | 4,409 | 36,744 |
| Wisconsin........ | 10 | 7 | 1,518 | 9,680 | 964 | 1,826 | 5,297 | 15,641 | 10,037 | 24,754 | 698 | 1,348 | 13,354 |
| South Atlantic..... | 13 | 8 | 2,980 | 17,404 | 2,128 | 4,478 | 10,495 | 54,693 | 46,268 | 100,839 | 1,041 |  |  |
| East South Central. | 6 8 | 5 | 538 | 3;039 | 374 329 | 750 | 1,927 | 7,951 | 10,972 | 19,034 | 165 | \} 3,123 | 39,098 |
| West South Central. | 8 | 4 | 452 | 2,416 | 329 | 648 | 1,369 | 5,246 | 6,374 | 11,816 |  | ) |  |
| West $\qquad$ California....... | 36 | 15 | 1,369 | 8, 045 | 979 | 1,891 | 5,248 | 17,699 | 14,146 | 32,525 | 256 | 746 | 13,165 |
|  | 30 | 13 | 1,126 | 6,740 | 816 | 1,584 | 4,553 | 15,090 | 12,654 | 28,470 | 243 | 674 | 12,226 |
|  | INDUSTRY 3613.-SWITCHGEAR AND SWITCHBOARDS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 400 | 214 | 54,045 | 338,860 | 38,091 | 76,910 | 204,942 | 647,838 | 452,209 | 1,093,743 | 18,180 | 52,871 | 555,044 |
| New England........ | 33 | 20 | 5,197 | 28,163 | 3,609 | 6,998 | 16,165 | 52,519 | 42,880 | 96,067 | 1,524 | 5,296 | 43,316 |
| Connecticut...... | 13 | 8 | 2,515 | 14,429 | 1,688 | 3,359 | 8,215 | 28,544 | 27,204 | 56,959 | 811 | 2,405 | 23,356 |
| Midale Atlantic.... | 106 |  |  |  | 15,047 |  |  |  | 173,328 | 457,797 | 8,291 | 22,171 | 260,120 |
| New York. . . . . . . . | 43 | 24 | 2,945 | 16,939 | 2,215 | 4,080 | 11,185 | 33,008 | 26,024 | 59,973 | 964 | 2,709 | 25,653 |
| New Jersey....... | 38 | 18 | 5,195 | 32,077 | 3,698 | 7,333 | 20,509 | 64,396 | 31,158 | 96,449 | 2,101 | 4,520 | 50,206 |
| Pennsylvania..... | 25 | 13 | 14,431 | 107,674 | 9,134 | 18,400 | 60,888 | 189,397 | 116,146 | 301,375 | 5,226 | 14,942 | 184,261 |
| East North Central. | 105 | 59 | 12,798 | 79,567 | 9,306 |  |  | 150,857 | 98,479 |  | 6,093 | 13,537 | 132,269 |
| Ohio...... | 20 | 14 | 1,973 | 12,047 | 1,545 | 3,149 | 8,578 | 33,711 | 21,852 | 54,166 | 780 | 2,324 | 20,441 |
| Indiana... | 10 | 5 | 1,295 | 7,245 | 961 | 1,845 | 4,651 | 10,725 | 5,658 | 16,642 | 109 | 1,014 | 6,988 |
| Illinois. | 46 | 25 | 5,665 | 33,387 | 4,113 | 8,492 | 20,342 | 64,220 | 38,794 | 102,452 | 3,608 | 5,852 | 55,814 |
| Michigan. | 20 | 9 | 1,562 | 10,837 | 1,152 | 2,332 | 6,833 | 15,279 | 12,848 | 27,728 | 429 | 2,873 | 29,078 |
| Wisconsin. | 9 | 6 | 2,303 | 16,051 | 1,535 | 3,033 | 8,674 | 26,922 | 19,327 | 45,252 | 1,167 | 1,474 | 19,948 |
| West North Central. | 18 | 13 | 3,866 | 20,683 | 3,221 | 7,234 | 15,199 | 44,560 | 24,694 | 69,304 | 531 | 3,448 | 31,479 |
| Minnesota. . | 7 | 5 | 498 | 2,648 | 368 | 705 | 1,657 | 3,936 | 3,657 | 7,688 | 123 | ${ }^{2}$ ) | (2) |
| South.............. . | 49 | 26 | 5,284 | 26,307 | 4,085 | 8,038 | 16,457 | 65,548 | 51,617 | 116,199 | 775 | 3,832 | 39,815 |
| Maryland......... | 6 | 3 | 290 | 1,168 | 216 | 427 | 361 | 2,287 | 1,479 | 3,710 | 61 | (2) | (2) |
| Georgia........... | 6 | 6 | 1,291 | 6,987 | 871 | 1,795 | 3,929 | 14,306 | 15,020 | 29,254 | 122 | (2) | ${ }^{(2)}$ |
| Texas.. | 16 | 7 | 518 | 3,224 | 360 | 717 | 1,751 | 7,036 | 12,703 | 19,753 | 116 | 632 | 7,269 |
| Mountain........... | 11 | 4 | 287 | 1,540 | 219 | 446 | 1,016 | 4,166 | 3,878 | 7,854 | 60 |  |  |
| Pacific............. California........ | 78 | 37 | 4,042 |  |  |  |  |  |  | 100,282 | 906 | ¢ 4,587 | 48,045 |
|  | 66 | 32 | 3,723 | 23,676 | 2,407 | 5,125 | 13,269 | 38,450 | $50,425$ | 88,363 | 866 | 4,207 | 41,846 |
|  | INDUSTRY 3621. -MOTORS AND GENERATORS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 384 | 244 | 94,170 | 583,225 | 68,693 | 140,174 | 378,790 | 993,207 | 715,189 | 1,709,818 | 35,804 | 93,541 | 813,124 |
| New England........ | 18 | 13 | 2,982 | 17,102 | 2,050 | 4,149 | 10,790 | 29,841 | 23,775 | 54,700 | 633 | 3,209 | 25,089 |
| Connecticut...... | 9 | 6 | 1,944 | 12,279 | 1,301 | 2,678 | 7,765 | 23,810 | 20,316 | 44,657 | 405 | 2,212 | 19,048 |

See footnotes at end of table.
table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All empioyees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted$(\$ 1,000)$ |
|  | Total (number) | With 20 <br> employees or more (number) | Total <br> (number) | Payroll $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | Wages $(\$ 1,000)$ |  |  |  |  |  |  |
| Middle Atlantic.... <br> New York.......... <br> New Jersey........ <br> Pennsylvania..... | INDUSTRY 3621. -MOTORS AND GENERATORS-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 88 | 57 | 26,507 | 183,928 | 18,448 | 38,517 | 113,207 | 314,211 | 232,358 | 546,358 | 10,435 | 30,395 | 291,229 |
|  | 38 | 23 | 15,319 | 113,985 | 11,387 | 23,600 | 75,293 | 184,897 | 162,396 | 348,226 | 6,389 | 18,472 | 181,859 |
|  | 24 | 14 | 4,450 | 27,011 | 2,554 | 5,302 | 13,482 | 36,890 | 27,588 | 65,565 | 1,217 | 5,567 | 41,701 |
|  | 26 | 20 | 6,738 | 42,932 | 4,507 | 9,615 | 24,432 | 92,424 | 42,374 | 132,567 | 2,829 | 6,356 | 67,669 |
| East North Central. | 143 | 101 | 43,765 | 274,231 | 31,951 | 64,992 | 179,007 | 453,072 | 301,184 | 758,156 | 14,817 | 43,814 | 364,449 |
| Ohio.............. | 48 | 36 | 21,487 | 141,279 | 15,626 | 32,392 | 95,181 | 236,159 | 161,302 | 404,508 | 7,983 | 23,314 | 205,689 |
| Indiana.......... | 20 | 14 | 8,263 | 50,257 | 6,359 | 12,423 | 34,556 | 95,096 | 52,845 | 146,327 | 1,962 | 7,358 | 68,936 |
| Illinois......... | 34 | 22 | 3,698 | 20,450 | 2,783 | 5,617 | 13,750 | 31,892 | 25,146 | 60,620 | 1,940 | 3,226 | 27,505 |
| Michigan......... | 18 | 13 | 3,645 | 19,093 | 2,942 | 6,046 | 13,475 | 25,663 | 22,193 | 46,220 | 940 | 2,607 | 17,291 |
| Wisconsin........ | 23 | 16 | 6,672 | 43,152 | 4,241 | 8,514 | 22,045 | 64,262 | 39,698 | 100,481 | 1,992 | 7,309 | 45,028 |
| West North Central. | 22 | 15 | 7,233 | 43,819 | 5,564 | 11,223 | 31,471 | 62,125 | 56,140 | 117,128 | 3,806 | 8,970 | 771,078 |
| Minnesota......... | 9 | 6 | 2,320 | 15,701 | 1,615 | 3,307 | 9,780 | 26,999 | 17,903 | 44,707 | 1,064 | 2,129 | 21,946 |
| South Atlantic..... | 18 | 12 | 3,218 | 13,328 | 2,299 | 4,475 | 8,072 | 23,138 | 15,657 | 40,980 | 1,128 | 1,125 | 8,192 |
| Virginia......... | 5 | 4 | 751 | 3,042 | 603 | 1,230 | 2,040 | 6,225 | 6,169 | 11,949 | 114 | 196 | 1,142 |
| East South Central. | 10 | 8 | 2,380 | 8,636 | 2,205 | 4,381 | 7,315 | 29,405 | 23,324 | 50,402 | 1,767 | 539 | 4,183 |
| West South Central. | 20 | 12 | 2,857 | 11,150 | 2,589 | 5,185 | 9,298 | 30,924 | 23,067 | 52,607 | 1,189 | 1,143 | 12,500 |
| Arkansas......... | 10 | 8 | 2,630 | 10,033 | 2,408 | 4,811 | 8,470 | 27,459 | 20,507 | 46,714 | 1,074 | 1,124 | 12,331 |
| West............... | 65 | 26 | 5,228 | 31,031 | 3,587 | 7,252 | 19,630 | 50,491 | 39,684 | 89,487 | 2,029 | 4,346 | 36,404 |
|  | INDUSTRY 3622. -INDUSTRIAL CONTROLS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 427 | 118 | 32,990 | 214,597 | 22,772 | 44,898 | 125,418 | 450,507 | 207,587 | 648,683 | 15,419 | 27,150 | 281,890 |
| New England........ | 43 | 16 | 1,997 | 11,371 | 1,245 | 2,518 | 5,629 | 23,013 | 11,381 | 32,952 | 508 | 1,352 | 12,754 |
| Massachusetts.... | 20 | 10 | 993 | 5,494 | 647 | 1,252 | 2,745 | 10,616 | 5,753 | 16,441 | (D) | ${ }^{(2)}$ | $\left.{ }^{2}\right)$ |
| Connecticut...... | 20 | 4 | 994 | 5,826 | 591 | 1,250 | 2,849 | 12,349 | 5,576 | 16,396 | 280 | 637 | 6,453 |
| Middle Atlantic.... | 91 | 19 | 2,943 | 24,972 | 2,046 | 4,286 | 11,657 | 37,693 | 30,358 | 66,340 | 559 | 1,980 | 14,514 |
| New York......... | 46 | 8 | 1,775 | 17,585 | 1,380 | 2,957 | 8,440 | 25,123 | 20,349 | 44,750 | 257 | ${ }^{2}$ ) | ${ }^{(2)}$ |
| New Jersey....... | 25 | 7 | 523 | 2,646 | 399 | 782 | 1,819 | 3,887 | 4,076 | 8,183 | 148 | 177 | 1,191 |
| Pennsylvania..... | 20 | 4 | 645 | 4,741 | 267 | 547 | 1,398 | 8,683 | 5,933 | 13,407 | 154 | $\left(^{2}\right)$ | ${ }^{(2)}$ |
| East North Central. | 128 | 44 | 20,599 | 131,456 | 15,062 | 29,162 | 86,291 | 297,471 | 116,144 | 409,292 | 11,974 | 18,656 | 194,282 |
| Ohio............. | 31 | 9 | 2,432 | 16,907 | 1,411 | 2,767 | 8,652 | 30,177 | 18,433 | 48,270 | 470 | 2,508 | 23,432 |
| Illinois......... | 43 | 15 | 3,386 | 20,299 | 2,405 | 4,944 | 11,573 | 55,590 | 24,650 | 80,004 | 1,512 | 2,567 | 30,969 |
| Wisconsin........ | 19 | 8 | 12,635 | 81,606 | 9,893 | 18,876 | 60,021 | 191,548 | 58,925 | 247,826 | 9,619 | 12,143 | 131,010 |
| West North Central. | 20 | 5 | 983 | 6,150 | 546 | 1,109 | 2,723 | 9,083 | 6,211 | 14,815 | 133 | 598 | 6,295 |
| South.............. | 53 | 17 | 5,251 | 32,491 | 3,068 | 6,188 | 14,644 | 67,657 | 34,226 | 100,733 | 1,566 | 3,626 | 43,551 |
| West................. Califormia....... | 92 | 17 | 1,217 | 8,157 | 805 | 1,635 | 4,474 | 15,590 | 9,267 | 24,551 | 679 | 938 | 10,494 |
|  | 67 | 14 | 1,005 | 6,853 | 664 | 1,351 | 3,694 | 13,056 | 6,891 | 19,688 | 572 | 753 | 8,532 |
|  | INDUSTRY 3623.-EIECTRIC WEIDING APPARATUS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 149 | 75 | 9,629 | 72,113 | 6,565 | 14,075 | 44,617 | 162,411 | 168,553 | 330,227 | 5,364 | 9,895 | 112,709 |
| Northeast........... | 43 | 18 | 1,712 | 10,988 | 1,063 | 2,162 | 5,910 | 36,248 | 35,244 | 71,367 | 961 | 1,521 | 18,726 |
| New York. . . . . . . . | 12 | 5 | 379 | 2,730 | 207 | 439 | 1,074 | 10,972 | 8,533 | 19,647 | 284 | 347 | 3,684 |
| Pernsylvania..... | 13 | 8 | 1,059 | 6,584 | 698 | 1,395 | 3,998 | 20,839 | 24,240 | 44,118 | 625 | 837 | 11,212 |
| East North Central. | 67 | 42 | 6,357 | 51,189 | 4,425 | 9,735 | 32,952 | 105,183 | 105,645 | 210,465 | 3,834 | 6,506 | 76,953 |
| Ohio.............. | 11 | 7 | 2,915 | 27,041 | 2,030 | 4,517 | 17,786 | 60,359 | 61,684 | 122,187 | 2,560 | 3,168 | 42,459 |
| Michigan......... | 36 | 23 | 1,836 | 13,666 | 1,320 | 2,902 | 8,473 | 23,348 | 19,814 | 43,491 | 312 | 1,742 | 18,313 |
| Wisconsin........ | 9 | 6 | 908 | 7,258 | 623 | 1,336 | 4,073 | 13,521 | 18,262 | 31,742 | 627 | 878 | 9,546 |
| West North Central. | 12 | 4 | 320 | 1,935 | 204 | 421 | 978 | 4,087 | 4,062 | 7,791 | 129 | 529 | 4,698 |
| Missouri......... | 6 | 2 | 135 | 855 | 92 | 192 | 461 | 1,415 | 1,040 | 2,336 | 47 | ${ }^{2}$ ) | $\left({ }^{2}\right)$ |
| South................ <br> West................. | 9 | 3 | 546 | 3,444 | 427 | 886 | 2,387 | 7,790 | 14,832 | 22,835 | 159 | 530 | 4,882 |
|  | 17 | 7 | 694 | 4,557 | 446 | 871 | 2,390 | 9,103 | 8,770 | 17,769 | 281 | 809 | 7,450 |
|  | INDUSTRY 3624. -CARBON AND GRAPHITE PRODUCTS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total........... | 53 | 40 | 10,123 | 61,984 | 7,963 | 16,104 | 44,068 | 141,423 | 84,758 | 226,889 | 11,441 | 8,904 | 102,483 |
| Northeast........... | 27 | 18 | 5,099 | 30,624 | 3,988 | 8,133 | 21,635 | 55,264 | 37,982 | 93,250 | 5,292 | 4,744 | 44,036 |
| New York. . . . . . . | 12 | 8 | 2,505 | 16,589 | 1,836 | 3,866 | 11,193 | 30,999 | 24,881 | 56,425 | 2,018 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| Pernsylvania..... | 10 | 7 | 2,370 | 12,618 | 1,992 | 3,938 | 9,645 | 22,351 | 10,472 | 32,584 | 3,074 | 2,356 | 14,068 |
| North Central, South and West.... | 26 | 22 | 5,024 | 31,360 | 3,975 | 7,971 | 22,433 | 86,159 | 46,776 | 133,639 | 6,149 | 4,160 | 58,447 |

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3629.-ELECTRIC INDUSTRIAL GOODS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 231 | 109 | 14,041 | 72,988 | 10,897 | 21,043 | 47,677 | 141,633 | 100,132 | 238,325 | 4,003 | 16,842 | 137,547 |
| New England........ | 21 | 8 | 803 | 2,981 | 685 | 1,287 | 2,158 | 5,006 | 2,826 | 7,906 | 255 | 1,592 | 9,396 |
| Massachusetts.... | 8 | 3 | 224 | $\begin{array}{r}859 \\ \hline\end{array}$ | 189 | 339 530 | 673 847 | 1,464 | 995 893 | 2,414 | (D) | (2) 6 | 4,009 |
| Connec ticut...... | 7 | 2 | 343 | 1,269 | 291 | 530 | 847 |  | 893 |  | 6 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Midale Atlantic.... | 69 | 31 | 4,397 | 25,832 | 3,201 | 6,230 | 16,519 | 54,941 | 33,725 | 88,312 | 1,247 | 4,414 | 38,451 |
| New York.......... | 37 | 14 | 2,300 | 13,183 | 1,669 | 3,215 | 7,994 | 25,170 | 16,452 | 42,429 | 606 | 2,239 | 17,906 |
| New Jersey....... | 18 | 9 | 472 | 2,274 | 364 | 704 | 1,479 | 4,472 | 3,580 | 8,016 | 269 |  |  |
| Pennsylvania..... | 14 | 8 | 1,625 | 10,375 | 1,168 | 2,311 | 7,046 | 25,299 | 13,693 | 37,867 | 372 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| West North Central. | 14 | 7 | 538 | 2,631 | 441 | 848 | 1,980 | 7,221 | 5,303 | 12,161 | 134 |  | 3,728 |
| Minnesota........ | , | 5 | 429 | 2,096 | 359 | 699 | 1,622 | 6,192 | 4,124 | 9,911 | 120 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| All other divisions. | 127 | 72 | 8,308 | 41,544 | 6,570 | 12,678 | 27,020 | 74,465 | 58,278 | 129,946 | 2,367 | 10,234 | 85,972 |
| Illinois......... | 33 | 20 | 1,970 | 8,700 | 1,613 | 3,089 | 5,621 | 13,655 | 13,727 | 27,148 | 432 | ${ }^{2}$ ) | ${ }^{(2)}$ |
| Michigan......... | 10 | 4 | 276 | 1,395 | 228 | 435 | 862 | 2,729 | 1,570 | 4,287 | 129 | 211 | 1,082 |
| California....... | 34 | 12 | 1,102 | 6,381 | 778 | 1,663 | 3,759 | 9,713 | 7,505 | 17,099 | 422 | ${ }^{2}$ ) | ${ }^{(2)}$ |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. ( X ) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3611, Electric Measuring Instruments: New England-New Hampshire, 10 ( $1,000-2,499$ ); Vermont, 1 (1-19); Middle Atlantic -New Jersey, 62 (3, 723); East North Central-Indiana, 9 (883); Michigan, 19 (660); West North Central-Minnesota, 6 (500-999); Iowa, 5 (20-99); Missouri, 1 (100-249); Nebraska, l (l-19); Kansas, 4 (20-99); South Atlantic-Maryland, 9 (100-249); Virginia, 4 (20-99); North Carolina, 2 (500-999); South Carolina, 1 (500-999); Georgia, 2 (250-499); Florida, 5 (20-99); East South Central-Kentucky, l (1-19); Tennessee, 5 (20-99); Alabama, 4 (20-99); Mississippi, 1 (250-499); West South Central-Louisiana, 2 (1-19); Oklahoma, 6 (500-999); Texas, 25 (500-999); Mountain-Colorado, 10 (1,677); Arizona, 1 (1-19); Utah, 1 (1-19); Nevada, 1 (1-19); Pacific-Washington, 2 (250-499); Oregon, 5 (4,812).
SIC 3612, Transformers: New England-New Hampshire, 1 (1-19); Massachusetts, 5 (5,208); Rhode Island, 1 (1-19); Connecticut, 4 (100-249); Middle Atlantic-New Jersey, 16 ( 1,346 ); East North Central-Indiana, 4 (2,031); Michigan, 6 (342); West North Central-Minnesota, 2 (1-19); Missouri, 7 (1,000-2,499); South Atlantic-Maryland, 2 (1-19); Virginia, 2 (250-499); West Virginia, 1 (20-99); North Carolina, 2 (500-999); South Carolina 1 (1-19); Georgia, 3 (1,000-2,499); Florida, 2 (100-249); East South Central-Kentucky, l (20-99); Alabama, 2 (250-499); Mississippi, 3 (100-249); West South Central-Arkansas, 1 (100-249); Texas, 7 (100-249); Mountain-Colorado, 1 (1-19); Arizona, 1 (1-19); Pacific-0regon, 4 (100-249).
SIC 3613, Switchgear and Switchboards: New England-New Hampshire, 4 (250-499); Vermont, 1 (20-99); Massachusetts, 14 (2,112); Rhode Island, 1 (100-249); West North Central-Iowa, 3 (500-999); Missouri, 7 ( 2,503 ); Kansas, 1 (1-19); South Atlantic-Delaware, 1 (1-19); Virginia, 2 (20-99); West Virginia, 1 (1-19); North Carolina, 4(500-999);Florida, 2 (20-99); East South Central-Kentucky, 5 (1,000-2,499); Tennessee, 1 (1-19); Alabama, 2 (20-99); Mississippi, 1 (1-19); West South Central-Arkansas, 1 (100-249); Louisiana, 1 (1-19); Mountain-Colorado, 5 (100-249); New Mexico, 1 (1-19); Arizona, 2 (1-19); Utah, 2 (100-249); Nevada, 2 (1-19); Pacific -Washington, 6 (100-249); Oregon, 5 (100-249); Hawaii, 1 (1-19).
SIC 3621, Motors and Generators: New England-New Hampshire, 2 (250-499); Massachusetts, 7 (500-999); West North Central-Iowa, 3 (100-249); Missouri, 8 (4,667); Nebraska, 2 (20-99); South Atlantic-Maryland, 2 (250-499); West Virginia, 1 (20-99); North Carolina, 2 (1,000-2,499); South Carolina, 2 (1,000-2,499); Florida, 6 (20-99); East South Central-Kentucky, 2 (500-999); Tennessee, 7 (1, 640); Mississippi, 1 (100-249); West South Central-Louisiana, 2 (20-99); Oklahoma, 2 (100-249); Texas, 6 (20-99); Mountain-Colorado, 5' (683); New Mexico, 1 (1-19); Arizona, 3 (1-19); Nevada, 1 (1-19); Pacific-0regon, 1 (20-99); California, 54 (4,507).
SIC 3622, Industrial Controls: New England-New Hampshire, 1 (1-19); Rhode Island, 2 (1-19); East North Central-Indiana, 3 (1,057); Michigan, 29 (1,089); West North Central-Minnesota, 7 (250-499); Iowa, 1 (1-19); Missouri, 4 (500-999); Nebraska, 1 (1-19); South Atlantic-Maryland, 6 (250-499); District of Columbia, 2 (20-99); Virginia, 2 (2,500-4,999); West Virginia, 1 (1-19); North Carolina, 2 (250-499); Georgia, 2 (20-99); Florida, 1 (20-99); East South Central-Kentucky, 2 (20-99); Tennessee, 2 (1-19); Alabama, 1 (1-19); Mississippi, 1 (1-19); West South CentralOklahoma, 2 (250-499); Texas, 15 (250-499); Mountain-Colorado, 3 (1-19); Arizona, 2 (20-99); Utah, 2 (20-99); Nevada, 1 (1-19); Pacific Washington, 5 (20-99); Oregon, 9 (20-99).
SIC 3623, Electric Welding Apparatus: New England-Massachusetts, 6 (20-99); Connecticut, 5 (100-249); Middle Atlantic-New Jersey, 7 (100-249); East North Central-Indiana, l (1-19); Illinois, 10 (500-999); West North Central—Minnesota, 6 (100-249); Kansas, 1 (20-99); South AtlanticMaryland, 2 (250-499); Virginia, l (1-19); West Virginia, l (1-19); Florida, l (1-19); East South Central-Alabama, l (20-99); West South Cen-tral-Arkansas, 1 (1-19); Oklahoma, 2 (20-99); Mountain-Colorado, 2 (100-249); Pacific—Washington, 1 (20-99); Oregon, l (1-19); California, 13 (509).
SIC 3624, Carbon and Graphite Products: New England-Massachusetts, 1 (20-99); Connecticut, 2 (1-19); Middle Atlantic-New Jersey, 2 (100-249); East North Central-Ohio, 8 (1,939); Illinois, 3 (250-499); Michigan, 3 (687); Wisconsin, 2 (100-249); South Atlantic-West Virginia, 2 (100-249); North Carolina, 1 (500-999); East South Central-Tennessee, l (500-999); Alabama, l (20-99); Pacific-California, 5 (131).
SIC 3629, Electric Industrial Goods, N.E.C.: New England-Maine, 1 (100-249); New Hampshire, 2 (20-99); Rhode Island, 3 (20-99); East North Central-Ohio, 16 (1,823); Indiana, 14 (1,000-2,499); Wisconsin, 3 (250-499); West North Central-Missouri, 3 (20-99); Nebraska, 2 (1-19); South Atlantic-Virginia, 2 (20-99); West Virginia, 2 (100-249); Georgia, 2 (1-19); Florida, 1 (1-19); East South Central-Kentucky, 1 (20-99); Mississippi, 1 (20-99); West South Central-Oklahoma, 1 (1-19); Texas, I (250-499); Mountain-Wyoming, 1 (20-99); Colorado, 1 (1-19); Arizona, $\frac{1}{2}$ (20-99); Nevada, 1 (1-19); Pacific-Washington, 2 (20-99).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958
report showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963


Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Witiheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable.
The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of prinary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963


[^222]TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963-Continued

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{gathered} 5 \text { to } 9 \\ \text { employees } \end{gathered}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 1,000 \text { to } \\ & 2,499 \\ & \text { employees } \end{aligned}$ | $\begin{gathered} 2,500 \\ \text { employees } \\ \text { and over } \end{gathered}$ |
|  | INDUSTRY 3624.-CARBON AND GRAPHITE PRODUCTS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 53 | 4 | 4 | 5 | 12 | 6 | 7 | 6 | 9 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do... | 10,123 | 166 | (D) | 65 371 | 398 2,422 | 428 2,833 | 961 4,502 | 2,138 12,908 | 6,101 | - | - |
| Payroll.................. \$1,000.. Value added, adjusted......do... | 61,984 141,423 | $\frac{166}{228}$ | (D) | 371 | 2,422 | 2,833 5,146 | 4,502 | 12,988 25,898 | 38,782 98,749 | - | - |
| Value added, adjusted.......do.... | 226,889 | $\frac{228}{446}$ | (D) | 861 | 5,886 | 7,617 | 10,989 | 46,678 | 154,412 | - | - |
| Capital expenditures, new...do.... | 11,441 | 7 | (D) | 25 | 340 | 451 | 286 | 1,061 | 9,271 | - | - |
|  | INDUSTRY 3629.-ELECTRIC INDUSTRIAL GOODS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments............number. . | 231 | 51 | 27 | 44 | 48 | 27 | 23 | 6 | 3 | 2 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total..................... do.... | 14,041 | 90 | 185 | 626 | 1,544 | 1,928 | 3,373 | 2,024 | 4,271 | (D) | - |
| Payroll.................. $\$ 1,000$. . | 72,988 | 459 | 952 | 3,286 | 7,522 | 8,958 | 15,799 | 9,296 | 26,716 | (D) | - |
| Value added, adjusted.......do.... | 141,633 | 1,037 | 1,539 | 5,976 | 13,643 | 14,354 | 31,017 | 14,582 | 59.485 | (D) | - |
| Value of shipments..........do.... | 238,325 | 1,645 | 2,548 | 10,898 | 23,772 | 26,318 | 52,482 | 24,018 | 96,644 | (D) | - |
| Capital expenditures, new...do.... | 4,003 | 54 | 106 | 130 | 657 | 472 | 707 | 474 | 1,403 | (D) | - |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.
${ }^{1}$ Includes capital expenditures of approximately $\$ 1-\$ 2$ million for plants under construction but not in operation.
${ }^{2}$ Includes capital expenditures of approximately $\$ 100-\$ 200$ thousand for plants under construction but not in operation.


# TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958 

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| $\begin{aligned} & \text { Ind } \\ & \text { code } \end{aligned}$ | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> $(\$ 1,000)$ | Primary products <br> $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product <br> special- ization <br> ratio <br> Col. B <br> Col. B+C (percent) | Total, made in all industries ( $\$ 1,000$ ) | Made industry industry <br> ( $\$ 1,000$ ) | Made in other industries <br> $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | I |
| 3611 | Electric measuring instruments... ${ }_{1958 \text {.. }}$. | $\begin{aligned} & 749,220 \\ & 673,522 \end{aligned}$ | $\begin{aligned} & 588,425 \\ & 474,548 \end{aligned}$ | $\begin{aligned} & 112,438 \\ & 163,387 \end{aligned}$ | $\begin{aligned} & 48,357 \\ & 35,587 \end{aligned}$ | 84 74 | $\begin{aligned} & 755,620 \\ & 587,755 \end{aligned}$ | $\begin{aligned} & 588,425 \\ & 474,548 \end{aligned}$ | $\begin{aligned} & 167,195 \\ & 113,207 \end{aligned}$ | 78 81 |
| 3612 | Transformers.................... ${ }^{1963 . .}$ 1958.. | $\begin{aligned} & 722,896 \\ & 642,267 \end{aligned}$ | $\begin{aligned} & 652,468 \\ & 596,412 \end{aligned}$ | $\begin{aligned} & 58,386 \\ & 37,662 \end{aligned}$ | $\begin{array}{r} 12,042 \\ 8,193 \end{array}$ | 92 94 | $\begin{aligned} & 692,204 \\ & 638,307 \end{aligned}$ | $\begin{aligned} & 652,468 \\ & 596,412 \end{aligned}$ | $\begin{aligned} & 39,736 \\ & 41,895 \end{aligned}$ | $\begin{aligned} & 94 \\ & 93 \end{aligned}$ |
| 3613 | Switchgear and switchboards...... $1963 .$. | 1,093,743 | $\begin{aligned} & 897,002 \\ & 797,912 \end{aligned}$ | $\begin{aligned} & 135,562 \\ & 116,216 \end{aligned}$ | $\begin{aligned} & 61,179 \\ & 48,430 \end{aligned}$ | 87 80 | $\begin{array}{r} 1,008,480 \\ 891,371 \end{array}$ | $\begin{aligned} & 897,002 \\ & 797,912 \end{aligned}$ | $\begin{array}{r} 111,478 \\ 93,459 \end{array}$ | 89 90 |
| 3621 | Motors and generators........... 1963. . ${ }_{\text {1958.. }}$ | $\begin{aligned} & 1,709,818 \\ & 1,392,573 \end{aligned}$ | $\begin{aligned} & 1,331,864 \\ & 1,104,285 \end{aligned}$ | $\begin{aligned} & 307,611 \\ & 232,189 \end{aligned}$ | $\begin{aligned} & 70,343 \\ & 56,099 \end{aligned}$ | 81 83 | $\begin{aligned} & 1,578,186 \\ & 1,291,390 \end{aligned}$ | $\begin{aligned} & 1,331,864 \\ & 1,104,285 \end{aligned}$ | $\begin{aligned} & 246,322 \\ & 187,105 \end{aligned}$ | 84 85 |
| 3622 | Industrial controls. . . . . . . . . . ${ }_{\text {1963.. }}^{1968 .}$ | $\begin{aligned} & 648,683 \\ & 413,163 \end{aligned}$ | $\begin{aligned} & 500,116 \\ & 314,741 \end{aligned}$ | $\begin{array}{r} 129,102 \\ 81,536 \end{array}$ | $\begin{aligned} & 19,465 \\ & 16,886 \end{aligned}$ | $\begin{aligned} & 79 \\ & 79 \end{aligned}$ | $\begin{aligned} & 633,2744 \\ & 447,297 \end{aligned}$ | $\begin{aligned} & 500,116 \\ & 314,71 \end{aligned}$ | $\begin{aligned} & 133,158 \\ & 132,556 \end{aligned}$ | 79 70 |
| 3623 | Electric welding apparatus....... 1963.. | $\begin{aligned} & 330,227 \\ & 247,739 \end{aligned}$ | $\begin{aligned} & 287,709 \\ & 215,185 \end{aligned}$ | $\begin{aligned} & 20,402 \\ & 15,298 \end{aligned}$ | $\begin{aligned} & 22,116 \\ & 17,256 \end{aligned}$ | 93 93 | $\begin{aligned} & 324,895 \\ & 233,235 \end{aligned}$ | $\begin{aligned} & 287,709 \\ & 215,185 \end{aligned}$ | $\begin{aligned} & 37,186 \\ & 18,050 \end{aligned}$ | 89 92 |
| 3624 | Carbon and graphite products..... ${ }_{1958 .}{ }^{1963 .}$. | $\begin{aligned} & 226,889 \\ & 154,925 \end{aligned}$ | $\begin{aligned} & 208,671 \\ & 149,467 \end{aligned}$ | $\begin{array}{r} 16,047 \\ 4,452 \end{array}$ | $\begin{aligned} & 2,171 \\ & 1,006 \end{aligned}$ | $\begin{aligned} & 93 \\ & 97 \end{aligned}$ | $\begin{aligned} & 217,817 \\ & 156,818 \end{aligned}$ | $\begin{aligned} & 208,671 \\ & 149,467 \end{aligned}$ | $\begin{aligned} & 9,146 \\ & 7,351 \end{aligned}$ | 96 95 |
| 3629 | Electric industrial goods, n.e.c.1963.. ${ }_{\text {1958. }}$ | $\begin{aligned} & 238,325 \\ & 228,929 \end{aligned}$ | $\begin{aligned} & 180,350 \\ & 155,951 \end{aligned}$ | $\begin{aligned} & 45,913 \\ & 63,291 \end{aligned}$ | $\begin{array}{r} 12,062 \\ 9,687 \end{array}$ | $\begin{aligned} & 80 \\ & 71 \end{aligned}$ | $\begin{aligned} & 250,494 \\ & 23,073 \end{aligned}$ | $\begin{aligned} & 180,350 \\ & 155,951 \end{aligned}$ | $\begin{aligned} & 70,124 \\ & 57,122 \end{aligned}$ | 72 73 |

Note: See Introduction for an explanation of terms used.
Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.

## TABLE 5B. Industry-Product Analysis—Shipments by Product Class aṇd Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

| Prod. <br> class <br> code | Class of products and miscellaneous receipts | All industries | Electric measuring instruments (SIC 3611) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
|  | ELECTRIC MEASURING INSTRUNENTS INDUSTRY |  |  |  |
|  | Total shipments and receipts of the industry | (X) | 749,220 | (x) |
|  | Primary products. | 755,620 | 588,425 | 167,195 |
| 36111 | Integrating instruments, electrical | 93,250 | 89,630 | 3,620 |
| 36112 | Test equipment for testing electrical, radio, and communication circuits, and motor | 433,407 | 340,204 | 103,203 |
| 36113 | Other electrical measuring instruments. | 204, 728 | 144,771 | 59,957 |
| 36110 | Electrical measuring instruments, n.s.k............................................................. | 14,235 | 13,820 | 415 |
|  | Secondary products. | (X) | 112,438 | (x) |
| 36220 | Ceneral industry power circuit devices and controls............................................... | (X) | 4,256 | (x) |
| 36513 | Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories. | (X) | 2,362 | (x) |
| 36626 | Electronic military, industrial, and carmercial equipment, n.e.c.......... | (X) | 10,318 | (X) |
| 36795 | Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks). | (X) | 18,375 | (X) |
| 38112 | Laboratory and scientific instruments. ............................................................. | (x) | 9,330 | (x) |
| 38213 | Industrial process instruments....... | (X) | 5,651 | (x) |
| 38216 | Other mechanical measuring and controlling instruments.......................................... | (X) | 2,013 | (X) |
|  | All other secondary product | (X) | 60,133 | (X) |
| 35711 |  | (X) | (over 2) | (X) |
| 36622 | Rectifying apparatus..................................................... | (X) | $(2-5)$ $(2-5)$ | (X) |
| 36625 | Electronic search and detection apparatus, including radar, infrared and sonar | (X) | (10-20) | (x) |
| 36794 | Coils, transformers, reactors, and chokes for electronic applications. | (X) | (2-5) | (x) |
| 36930 | X-ray equipment, including X-ray tubes and electro-therapeutic apparatus. | (X) | (5-10) | (X) |
| 38311 | Aircraft, flight, nautical, and navigational instruments and automatic pilots | (X) | (2-5) | (X) |
|  | Optical instruments and lenses, except sighting and fire control equipment.... | (X) | (over 2) | (X) |
|  | Miscellaneous receipts. | (X) | 48,357 | (x) |
|  | Resales.. | (x) | 25,827 | (x) |
|  | Contract work. | (x) | 3,403 | (x) |
|  | Receipts for research and developmental work | (X) | 3,043 | (x) |
|  | Receipts for repair work. | (X) | 6,085 | (X) |
|  | All other scrap and refuse. | (x) | 184 | (x) |
|  | All other miscellaneous receipts | (X) | 9,815 | (X) |
| 36112 |  |  |  |  |
|  | 1941 Sighting and fire control equipment. | (X) | (X) | (10-20) |
|  | 3636 Sewing machines.. | (X) | (X) | (over 2) |
|  | 3651 Radio and TV receiving sets. | (X) | (x) | 4,059 |
|  | 3661 Telephone; telegraph apparatus. | (X) | (X) | (over 2) |
|  | 3662 Radio, TV communications equipment | (X) | (X) | 30,760 |
|  | 3679 Electronic components, n.e.c.. | (x) | (X) | 4,599 |
|  | 3821 Mechanical measuring devices. | (x) | (x) | 4,932 |
|  | 3861 Photographic equipment. | (X) | (x) | 2,059 |
| 36113 | 3612 Transformers.. | (x) | (x) | 10,173 |
|  | 3613 Switchgear and switchboards. | (x) | (x) | (over 2) |
|  | 3662 Radio, TV communications equipment............................................................ | (X) | (X) | 2,348 |
|  | 3679 Electronic components, n.e.c....................................................................... | (x) | (x) | 9,662 |
|  | 3821 Mechanical measuring devices........................................................................... | (X) | (X) | 16,991 $(5-10)$ |
|  | 3822 Automatic temperature control |  |  |  |

[^223]TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

| Prod. class code | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Switchgear and switchboards (SIC 3613) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
| 36131 | SWITCHGEAR AND SWITCHBOARDS INDUSTRY-Continued |  |  |  |
|  | Listing of other industries with over $\$ 2$ million shipments of each primary product class: 1999 Ordnance and accessories, n.e.c............................................................................. | (X) | (x) | (over 2) |
|  | 3612 Transformers..... | (X) | (x) | (5-10) |
|  | 3622 Industrial controls. | (X) | (x) | 22,752 |
|  | 3629 Electric industrial goods, n.e.c. | (X) | (x) | (2-5) |
|  | 3643 Current carrying devices.. | (x) | (X) | (2-5) |
|  | 3614 Noncurrent carrying devices. | (x) | (X) | (5-10) |
|  | 3661 Telephone; telegraph apparatus.............................................................. | (X) | (X) | (over 2) |
|  | 3679 Electronic components, n.e.c............................................................... |  |  | 3,691 |
| 36132 | 3629 Electric industrial goods, n.e.c | (X) | (X) | (2-5) |
|  | 3822 Automatic temperature controls................................................................ | (X) | (X) | (2-5) |
| 36133 | 3621 Motors and generators. | (x) | (X) | 2,955 |
|  | 3622 Industrial controls.. | (X) | (x) | 5,220 |
|  | 3643 Current carrying devices.... | (X) | (X) | 7,040 |
|  | 3662 Radio, TV communications equipment............................................................ | (X) | (x) | 5,032 |
| 36134 | 3643 Noncurrent carrying device | (X) | (X) | (over 2) |
|  |  | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Motors and generators (SIC 3621) | Other industries |
|  | MOTORS AND GENERATORS INDUSTRY |  |  |  |
|  | Total receipts and shipments of the indus | (x) | 1,709,818 | (x) |
|  | Primary products. | 1,578,186 | 1,331,864 | 246,322 |
| 36211 | Fractional horsepower motors.......................................................................... | 620,265 380,244 | 565,744 350,450 | 54,521 |
| 36212 | Integral horsepower motors and generators, except land transportation............................... Land transportation motors, generators, and control equipment and parts............................ | 380,244 89,823 | ) $\begin{array}{r}350,450 \\ 777,859\end{array}$ | 29,794 |
| 36214 | Prime mover generator sets, except steam or hydrauiic turbine...................................... | 104,633 | \} 77,859 | 116,597 |
| 36215 | Motor generator sets and other rotating equipment. ............... | 246,226 | 225,390 | 20,836 |
| 36216 | Parts and supplies for motors, generators, and motor generator sets, except land transportation | 127,593 | 103,137 | 24,456 |
| 36210 | Motors and generators, n.s.k........................................................................... | 9,402 | 9,284 | 118 |
|  | Secondary products................................................................................................ | (x) | 307,611 | (x) |
| 35611 | Industrial pumps, except hydraulic fluid power..... | (x) | 6,944 | (x) |
| $\begin{aligned} & 35662 \\ & 36133 \end{aligned}$ | Speed changers, industrial high speed drives, and gears......................................... | (X) | 21,568 | (x) |
|  | Low voltage panelboards and distribution boards and switching and interrupting devices 750 volts and under. | (X) | 2,955 | (x) |
| 36220 | General industry power circuit devices and controls................................................. | (X) | 4,887 | (X) |
| 36343 |  | (x) | 3,124 | (X) |
| 38111 | Aircraft, flight, nautical, and navagational instruments and automatic pilots................... | (X) | 6,827 | ( X ) |
|  | Other secondary products. | (x) | 261,306 | (x) |
| 19291 | Ammunition over 30 mm (or 1.18 inches and over), n.e.c. | (X) | (over 2) | (x) |
| 33577 | Magnet wire......... . | (x) | (20-50) | (x) |
| 34331 | Oil burners, residential and industrial, (sold separately), except parts | (x) | (over 2) | (x) |
| 34332 | Warm air furnaces (except floor and wali), except parts........................................ | (x) | (over 2) | (x) |
| 35111 | Steam, gas, and hydraulic turbine generator sets units and parts.............................. | (X) | (over 2) | (x) |
| 35112 | Steam, gas, and hydraulic turbine and parts; steam engines and parts......................... | (X) | (10-20) | (x) |
| 35191 | Gasoline engines, except outboard, aricraft, and automotive engines........................... | (X) | (2-5) | (X) |
| 35195 | Outboard motors. | (X) | (over 2 ) | (X) |
| 35361 35532 | Hoists. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . <br> Woodworking machinery (designed primarily for home workshops, garages, and service shops) | (X) | (2-5) | ( X ) |
| 35532 | Woodworking machinery (designed primarily for home workshops, garages, and service shops) (excluding power-driven hand tools) | (x) | (over 2) | (x) |
| 35616 | Parts and attachments for pumps, air and gas compressors, and pumping equipment.... | (X) | (5-10) | (x) |
| 35641 | Industrial fans and blowers......... | (X) | (5-10) | (X) |
| 35690 | General industry machinery, n.e.c............................................................... | (X) | (10-20) | (X) |
| 36123 | Power regulators, boosters, and reactors, other transformers and transformer parts........... . Arc welding machines, components, and accessories, except electrodes.................... | (x) | $(2-5)$ $(5-10)$ | (X) |
| 36231 |  | (X) | $(5-10)$ (over 2) | (X) |
| 36292 | Rectifying apparatus.................... | (x) | (2-5) | (x) |
| 36293 | Other electrical equipment for industrial use. | (X) | (5-10) | (X) |
| 36341 | Electric fans, except industrial types..................... | (X) | (2-5) | (X) |
| 36626 | Electronic, military, industrial, and commercial equipment, n.e.c | (X) | (2-5) | (X) |
| 36942 | Battery charging generators.......................................................................... | (X) | (10-20) | (X) |
| 36943 | Cranking motors...................................................................................... | (X) | (2-5) | (X) |
| 36945 | Other complete electrical equipment for internal combustion engines.......................... | (X) | (2-5) | (X) |
| 37175 | Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers..................................................................................................... | (x) | (over 2) | (X) |

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

| Prod. class code | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Motors and generators (SIC 3621) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
|  | MOTORS AND GENERATORS INDUSTRY-Continued |  |  |  |
|  | Secondary products-Continued |  |  |  |
|  | Other secondary products-Continued |  |  |  |
| 37224 | Aircraft engine parts and accessories...................................................... | (x) | (over 2) | ( X ) |
| $\begin{aligned} & 37291 \\ & 37293 \end{aligned}$ |  | (X) | $(10-29)$ $(2-5)$ | (X) |
|  | Miscellaneous receip | (X) | 70,343 | (X) |
|  | Contract work. | (x) | 5,425 | ( X ) |
|  | Resales.... | (X) | 34,777 | (X) |
|  | Iron and steel scrap...... | (X) | 4,433 | (X) |
|  | Copper and copper-base alloy scrap.. | (X) | 1,916 | (X) |
|  | All other scrap and refuse. | (x) | 1,149 | (X) |
|  | Receipts for repair work... | (x) | 13,987 | (x) |
|  | Other miscellaneous receipts.... | (X) | 8,292 | (X) |
|  | Listing of other industries with over \$2 million shipments of each primary product class: |  |  |  |
| 36211 | 3548 Metalworking machinery, n.e.c. | (X) | (X) | 6,808 |
|  | 3679 Electronic components, n.e.c. | (x) | (X) | 4,696 |
|  | 3821 Mechanical measuring devices. | (x) | (X) | (over 2) |
|  | 3871 Watches and clocks........................................................................... | (X) | (X) | 7,231 |
| 36212 | 1999 Ordnance and accessories, n.e.c. | (x) | (x) | (over 2) |
|  | 3511 Steam engines and turbines.................................................................... | (X) | (X) | (over 2) |
| $\begin{aligned} & 36213 \\ & \text { and } \end{aligned}$ | 3519 Internal combustion engines. | (x) | (X) | 38,023 |
|  | 3532 Mining machinery and equipment............................................................ | (X) | (X) | (over 2 ) |
|  | 3561 Pumps and compressors.... | (X) | (X) | (2-5) |
|  | 3613 Switchgear and switchboards. | (X) | (X) | (over 2) |
|  | 3642 Lighting fixtures..... | (x) | (X) | (over 2) |
|  | 3741 Locomotives and parts.......................................................................... | (X) | (X) | (over 2) |
| 36215 | 3511 Steam engines and turbines. | ( X ) | (X) | (over 2) |
|  | 3662 Radio, TV communication equipment............................................................ | (X) |  | 4,688 |
|  | 3811 Scientific instruments..... | (X) | (X) | $(2-5)$ |
|  | 3822 Automatic temperature controls....................................................................... | (X) | (X) |  |
| 36216 | 3351 Copper rolling and drawing................................................................... | (X) | (X) | (2-5) |
|  | 3511 Steam engines and turbines. | (X) | (X) | (2-5) |
|  | 3623 Electric welding apparatus...................................................................... | (X) | (X) | (over 2) |
|  | 3694 Engines electrical equipment............................ | (X) | (X) | $\begin{array}{r} \text { (over } 2) \\ (2-5) \end{array}$ |
|  |  | All industries | Industrial controls (SIC 3622) | Other industries |
|  |  |  |  |  |
|  |  | (x) | 648,683 | ( X ) |
| 36220 | General industrial power circuit devices and controls............................................ | 633,274 | 500,116 | 133,158 |
|  | Secondary products...................................................................................... | (X) | 129,102 | (x) |
| 36131 | Switchgear, including power switchgear assemblies and other switching and interrupting devices 2300 volts and over. | (x) | 22,752 | (x) |
| 36133 | Low voltage panelboards and distribution boards and switching and interrupting devices 750 volts and under. Other electrical equipment for industrial use.................................................................. Resistors for electronic applications. | (x) | 5,220 | (x) |
| 36293 |  | (x) | 3,575 | (x) |
| 36793 |  |  | 57,201 | (X) |
|  | Other secondary products............................................................................. | (X) | 40,354 | (x) |
| 35552 | Other printing trades machinery, including parts and attachments. | (x) | (over 2) | ( x ) |
| 36430 | Current carrying wiring devices, including lightning rods.................................... | (X) | (5-10) | (X) |
| 36945 | Other complete electrical equipment for internal combustion engines......................... | (X) | (5-10) | (X) |
| 38220 | Automatic temperature controls..................................................................... | (X) | (2-5) | (X) |

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

| Prod. class code | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Industrial controls (SIC 3622) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
| 36220 | Miscellaneous receipts. . .-............................................. | (x) | 19,465 | (X) |
|  | Contract work. | (x) | 990 | (X) |
|  | Resales............ . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | 9,133 9,342 | (X) |
|  | Listing of other industries with over \$2 million shipments of industrial controls: 1999 Ordnance and accessories, n.e.c....................................................... | (x) | (X) | (over 2) |
|  | 3494 Valves and pipe fittings... | (x) | (x) | (5-10) |
|  | 3611 Electric measuring instruments | (x) | (X) | 4,256 |
|  | 3613 Switchgear and switchboards... | (x) | (X) | 66,679 |
|  | 3621 Motors and generators.... | (x) | (X) | 4,887 |
|  | 3643 Current carrying devices. | (x) | (X) | (10-20) |
|  | 3661 Telephone; telegraph apparatus. | (x) | (X) | (over 2) |
|  | 3662 Radio, TV communications equipment | (x) | (X) | 5,540 |
|  | 3679 Electronic components, n.e.c.. | (x) | (x) | 2,410 |
|  | 3822 Automatic temperature controls. | (X) | (X) | 13,375 |
|  |  | All industries | Electric welding apparatus (SIC 3623) | Other industries |
|  | ELECTRIC WELDING APPARATUS INDUSTRY |  |  |  |
|  | Total shipments and receipts of the industry | (x) | 330,227 | ( x ) |
|  | Primary products...................................................................................... | 324,895 | 287,709 | 37,186 |
| 36231 | Arc welding machines, components, and accessories, except electrodes....................... | 104,508 | 87,259 | 17,249 |
| 36232 | Arc welding electrodes, metal.................................................................... | 148,328 | 139,499 | 8,829 |
| 36230 | Resistance welders, components, accessories, and electrodes.................................... | 68,300 | 57,192 | 11,108 |
|  | Electric welding apparatus, n.s.k....................................................................... | 3,759 | 3,759 |  |
|  | Secondary products.. | (x) | 20,402 | (X) |
| $\begin{aligned} & 28993 \\ & 36216 \end{aligned}$ | Essential oils, fireworks, and pyrotechnics, and chemicals and chemical preparations, n.e.c.. Parts and supplies for motors, generators, and motor generator sets, except land | (x) | (5-10) | (x) |
|  | transportation................................................................................................ | (x) | (over 2) | (X) |
|  |  | (x) | 22,116 | (x) |
|  | Contract work. <br> Resales. <br> Other miscellaneous receipts. | (X) (X) (X) | 1,546 16,640 3,930 | (X) (X) (X) |
| 36231 | Listing of other industries with over $\$ 2$ million shipments of each primary product class: 3621 Motors and generators. | (X) | (x) |  |
|  | 3723 Aircraft propellors................................................................................. | (X) | (X) | (over 2) |
| 36232 | 3312 Blast furnaces and steel mills. <br> 3351 Copper rolling and drawing. | (X) | (X) | (over 2) |
|  |  |  |  | (over 2) |
| 36233 | 3694 Engine electrical equipment. <br> 3717 Motor vehicles and parts. | $\begin{aligned} & (\mathrm{x}) \\ & (\mathrm{x}) \end{aligned}$ | $\begin{aligned} & (\mathrm{x}) \\ & (\mathrm{X}) \end{aligned}$ | $\begin{aligned} & \text { (over 2) } \\ & \text { (over 2) } \end{aligned}$ |
|  |  | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Carbon and graphite products (SIC 3624) | Other industries |
| 36240 | CARBON AND GRAPHITE PRODUCTS INDUSTRY |  |  |  |
|  | Total shipments and receipts of the industry. | (X) | 226,889 | (x) |
|  | Primary products. | 217,817 | 208,671 | 9,146 |
|  | Carbon and graphite products. | 217,817 | 208,671 | 9,146 |
|  | Secondary products.... | (X) | 16,047 | (X) |
| 32970 35990 | Nonclay refractories, except dead-burned magnesia................................................ | (x) | (over 2) | (x) |
| 36793. |  | (x) | (over 2) | (x) |
|  | resistors for electranic applications. | (X) | (2-5) | (X) |

table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

| Prod. class code | Class of products and miscellaneoos receipts | All industries | Carbon and graphite products (SIC 3624) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
| 36240 | CARBON AND GRAPHTTE PRODUCTS INDUSTRY-Continued <br> Miscellaneous receipts. <br> Contract work. <br> Resales. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . <br> Other miscellaneous receipts. <br> Listing of other industries with over $\$ 2$ million shipments carbon and graphite products: <br> 3621 Motors and generators. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . <br> 3694 Engine electrical equipment.............................................................................................. |  |  |  |
|  |  | (X) | 2,171 | (X) |
|  |  | (X) | 198 | (X) |
|  |  | (X) | 1,870 | (X) |
|  |  | (X) | 103 | (X) |
|  |  | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | (X) | $\begin{array}{r} (\text { over } 2) \\ (2-5) \end{array}$ |
|  |  | All industries | Electric industrial goods, п.e.c. (SIC 3629) | Other industires |
|  | ELECTRIC INDUSTRIAL GOODS, N.E.C., INDUSTRY |  |  |  |
|  | Total shipments and receipts of the industry | (X) | 238,325 | (X) |
|  | Primary products | 250,474 | 180,350 | 70,124 |
| 36291 | Capacitors for industrial use (except for electronic applications). | 51,430 | 38,951 | 12,479 |
| 36292 | Rectifying apparatus. | 86,898 | 49,956 | 36,942 |
| 32693 | Other electrical equipment for industrial use | 103,681 | 83,127 | 20,554 |
| 36290 | Electric industrial goods, n.s.k. | 8,465 | 8,316 | 149 |
| 36794 | Secondary products | (X) | 45,913 | (X) |
|  | Coils, transformers, reactors, and chokes for electronic applications........................... | (X) | 2,132 | (X) |
|  | All other secondary products. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | 43,781 | (X) |
| 36131 | Switchgear, including power switchgear assemblies and other switching and interrupting devices, 2,300 volts and over. | (X) | (2-5) | (X) |
| 36132 | Circuit breakers. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | (2-5) | (X) |
| 36311 | Electric household ranges and ovens and surface cooking unit equipment and parts (except small appliances). | (X) | (over 2) | (X) |
| 36344 | Parts and attachments for small household electric appliances.................................. | (X) | (over 2) | (X) |
| 36430 | Current carrying wiring devices, including lightning rods........................................ | (X) | (2-5) | (X) |
| 36792 | Capacitors for electronic applications. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | (2-5) | (X) |
|  | Miscellaneous receipts. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | 12,062 | (X) |
|  | Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | 490 | (X) |
|  | Resales........... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | 3,900 | (X) |
|  | Other miscellaneous receipts. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | 7,672 | (X) |
| 36291 | Listing of other industries with over $\$ 2$ million shipments of each primary product class: |  |  |  |
|  |  | (X) | (X) | $\begin{array}{r} (\text { over } 2) \\ (5-10) \end{array}$ |
| 36292 | 3611 Electric measuring instmments. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | (X) | (2-5) |
|  | 3612 Transformers. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | (X) | (5-10) |
|  | 3613 Switchgear and switchboards. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | (X) | (over 2) |
|  | 3621 Motors and generators............................................................................................. | (X) | (X) | $(2-5)$ |
|  | 3661 Telephone; telegraph apparatus....................................................................... | (X) | (X) | (over 2) |
| 36293 | 3621 Motors and generators. | (X) | (X) | (5-10) |
|  |  | (X) | (X) | 3,575 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

# TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958 



See footnotes at end of table.

## table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958



TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All
Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


[^224]
## TABLE 6A-2. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| Product code | Product | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 36111 -- | Integrating instruments, electrical, total <br> A.c. watt-hour meters: Single phase: | (X) | 89,219 | (X) | 88,809 |
| $\begin{aligned} & 3611110 \\ & 3611112 \end{aligned}$ |  | 2,762, 273 | 42, 349 |  |  |
| 3611113 |  | (X) | (1) | 2,620,000 | 41,051 |
| 3611114 | Switchboard types. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | (1) | ) |  |
| 3611115 | Polyphase. | 235,038 | 8,363 | 174,000 | 8,094 |
| 3611133 | Combined watt-hour and demand meters, single phase and polyphase, and combined watt-hour and time switch meters. | 173,765 | 12,511 | 168,000 | 9,278 |
| 3617141 | Demand meters (including kw. and kv. -a.)..................................... | 22,931 | 2,733 | 69,000 | 1,821 |
| 3617151 | Other electrical integrating meters, including d.c. watt-hour meters, ampere-hour meters, and other miscellaneous integrating instruments not included in the above classifications. | 50,634 | 13,228 | (X) | 12,124 |
| 3611161 | Parts for integrating meters, electrical type (including meter mounting and test equipment), sold separately. | (X) | 20,035 | (x) | 14,593 |
| 3611100 | Integrating instruments, electrical,n.s.k................................... | - | - | (x) | 1,848 |
| 36112 -- | Test, measuring, and analyzing equipment for electronic and electrical circuits and equipment, total. | (X) | 427,248 | (X) | 341,883 |
|  | Voltage, current, and resistance measuring equipment (except multimeters): Electronic: |  |  | ) |  |
| 3611220 | Digital. |  | 26,390 18,889 |  |  |
| 3611221 | Analog. | (X) | 18,889 |  |  |
| 3611222 | Electrical (service-type equipment) | (X) | 3,821 |  |  |
| 3611223 | Multimeters: Electronic. | (X) | 7,794 |  |  |
| 3611224 | Electrical. | (X) | 2,714 | \} (x) | 22,389 |
|  | Power and energy measuring equipment: Electronic: |  |  |  |  |
| $\begin{aligned} & 3611225 \\ & 3611226 \end{aligned}$ | Analog. . Digital. | (X) | 3,753 |  |  |
| 3611227 | Electrical power measuring equipment. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | 1,814 |  |  |
|  | Frequency measuring equipment: Frequency meters, electronic: |  |  | ) |  |
| $\begin{aligned} & 3611267 \\ & 3611268 \end{aligned}$ | 890 Megacycles and above. Other | 5,526 16,765 | 1,839 17,733 | \} (x) | 18,391 |
| 3611269 | Frequency meters, electrical and mechanical. | 47,901 | 3,524 |  |  |
|  | Waveform measuring and/or analyzing equipment: Oscilloscopes and plug-in accessories: |  |  |  |  |
| $\begin{aligned} & 3611212 \\ & 3611213 \end{aligned}$ | Under 10 mc. .................................. | (X) (X) | $\begin{aligned} & 16,164 \\ & 53,864 \end{aligned}$ | $\} \quad(x)$ | 34,901 |
| $\begin{aligned} & 3611214 \\ & 3611216 \end{aligned}$ | Oscillographs (low frequency). Other waveform measuring and analyzing equipment. | (X) | 15,500 | (X) | 7,488 |
|  | Signal generating equipment: |  |  |  |  |
| 3611256 | Audio.. | (X) | 11,540 | \} (x) |  |
| 3611258 | RF (over 20 kc , to 890 megacycles). | (X) | 16,484 | $\} \quad(X)$ | 31,605 |
| 3611259 | Microwave ( 890 megacycles and above)........................................ |  | 11,136 |  |  |
| 3611239 | Analyzers for testing characteristics of internal combustion engines... | (X) | 27,479 | (X) | 14,042 |

[^225]
## TABLE 6A-2. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958



See footnotes at end of table

TABLE 6A-2. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


Source: Current Industrial Reports Series M38B, "Selected Instruments and Related Products."
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified.
n.s.k. Not specified by kind.
${ }^{1}$ Included with 3611151 to avoid disclosing operations of individual companies.

TABLE 6A-3. Switchgear, Switchboard Apparatus and Relays--Quantity and Value of Shipments: 1963 and 1958


[^226]
## TABLE 6A-4. Motors and Generators: 1963 and 1958



# TABLE 6A-4. Motors and Generators: 1963 and 1958--Continued 



36212 --

3621201
Integral horsepower motors and generators, other than for land transportation equipment (for a.c. and d.c. motors, 200 hp . and below, the horsepower shown is for open type frame at a speed of 1,800 r.p.m. Motors at other speeds and enclosures have been converted to equivalent ratings at 1,800 r.p.m.), total ${ }^{1}$.
Integral horsepower motors (excluding cranking motors for internal combustion engines; propulsion motors for land transportation; motors mounted on the same shaft as arc welding generators; and hermetics): Aircraft and space motors (including a.c. and d.c. but excluding generators) all integral hp. ratings.

Alternating current:
Single phase, all hp. ratings.
Polyphase-induction:
1-5 hp....
21-50 hp.
$51-125 \mathrm{hp}$.
126-200 hp
$201-500 \mathrm{hp} .$.
Over 500 hp .
Synchronous motors:
$450 \mathrm{r} . \mathrm{p} . \mathrm{m}$. or below (all hp. ratings).
Above 450 r.p.m. (all hp. ratings).
Direct current motors and generators (excluding all arc welding generators, battery charging generators for internal combustion engines and generators used as an integral part of land transportation equipment):
3621241
3621242
3621243
3621246
3621247
3621248
l-5 hp. (3/4-4 kw.)
5.1-20 hp. (4.1-15 kw.)
$21-50 \mathrm{hp}$. ( $16-40 \mathrm{kw}$.).
51-200 hp. (41-150 kw.)
201-500 hp. (151-400 kw.) Over 500 hp . (over 400 kw .).


See footnotes at end of table.

## TABLE 6A-4. Motors and Generators: 1963 and 1958--Continued



See footnotes at end of table.

## TABLE 6A-4. Motors and Generators 1963 and 1958-Continued



[^227]TABLE 6A-A. Motors and Generators: 1963 and 1958 -Continued


Source: Current Industrial Reports Series M35H, "Motors and Generators."

- Represents zero.
n.s.k. Not specified by kind.
${ }^{1}$ Excludes parts and supplies, except as indicated.
${ }^{2}$ Railway motors, generators, and control equipment are included under code 3621398, "Other electrical apparatus for land transportation equipment.


# TABLE 6A-5. .Motors and Generators--Total and Commercial Shipments: 1963 and 1958 



# TABLE 6A-5. Motors and Generators--Total and Commercial Shipments: 1963 and 1958--Continued 



[^228]
# TABLE 6A-6. Industrial Controls--Value of Shipments: 1963 and 1958 



[^229]
## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  | Product code | Product and year | Indexes ( 1954 = 100) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |  |  | Production | Unit value |
| 361-- | Electric distribution products... $\begin{array}{r}1963 . . \\ 1958 . .\end{array}$ | $\left(\begin{array}{l}1 \\ (1) \\ \\ \end{array}\right.$ | $(1)$ $(1)$ | 362-- | Electric industrial apparatus... $\begin{array}{r}\text { 1963.. } \\ 1958 . .\end{array}$ | $\left(\begin{array}{l}1 \\ (1) \\ \hline 1\end{array}\right.$ | $(1)$ $(1)$ |
| $3611-$ | Electrical measuring instruments...... 1963.. | ( ${ }^{1}$ ) | ( ${ }^{1}$ ) | 3621- | Motors and generators. . . . . . . . . . . . . . 1963. 1958. | $\left(\begin{array}{l}4 \\ (4) \\ (4)\end{array}\right.$ | $(4)$ $(4)$ |
| 36111 | Integrating instruments electrical.1963.. | 111 | 115 | 36212 | Integral horsepower motors and generators. . . . . . . . . . . . . . . . . . . . . . . 1963. . | 88 | 105 |
| 36113 | Other electrical measuring instruments. . . . . . . . . . . . . . . . . . . . . . . . . . . . 1963. . | 182 | 146 125 | 36214 | $\begin{array}{rr}\text { Prime mover generator sets, ex- } & 1958 . . \\ \text { cept steam or hydraulic turbine... } 1963 . . \\ & 1958 . \text {. }\end{array}$ | 85 102 62 | 124 107 123 |
| 3612- | Power, distribution, and speciality transformers ${ }^{2}$............................. 1963.. | 125 88 | 89 114 | 3622- | Industrial controls ..................... 1963. . | $(1)$ $(1)$ | $(1)$ $(1)$ |
| 36121 | Speciality transformers and flourescent ballasts, except parts........1963.. | 140 | 107 | $3623-$ 36231 | Electric welding apparatus.............1963.. 1958.. | 154 113 | 132 129 |
| 36122 | Power and distribution transformers except parts............................ $1963 .$. | 99 119 85 | 120 83 113 | 36231 | Arc welding machines components, and accessories, except electrodes............................... $1963 .$. | 236 146 160 | 121 |
|  |  |  |  | 36232 | Arc welding electrodes, metal......1963.. | 160 | 128 |
| 3613- | Switchgear and switchboard apparatus ${ }^{3}$.................................. 1963.. 1958. | $\begin{aligned} & 125 \\ & 109 \end{aligned}$ | 112 | 36233 | Resistance welders, components accessories, and electrodes........1963.. $1958 .$. | 126 88 68 | 128 153 137 |
| 36132 36133 | Circuit breakers......................... 1963.. | 125 108 | $\begin{aligned} & 106 \\ & 118 \end{aligned}$ | 3624- | Carbon and graphite products.........1963.. | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ | (1) $(1)$ |
| 36133 | tribution boards and other switching and interrupting devices 750 volt and under........................... 1963. | 155 | 121 | 3629- | Electrical industrial apparatus, n.e.c...................................... . 1963.. | $\left(\begin{array}{l}1 \\ (1) \\ \\ \end{array}\right.$ | (1) $(1)$ |
| 36134 | Fuses and fuse equipment under <br> 2300 volts (except power distribu- <br> tion cutouts)............................1963.. 1958. . | $\begin{aligned} & 126 \\ & 102 \end{aligned}$ | $\begin{aligned} & 129 \\ & 112 \end{aligned}$ | 36291 | Capacitors for industrial use (except for electronic applicators )..................................... 1963.. $1958 .$. | $\begin{aligned} & 84 \\ & 80 \end{aligned}$ | 96 111 |

n.e.c. Not elsewhere classified.
${ }_{2}^{1}$ Not shown because comparable quantity or price data were not available for a significant portion of these products.
${ }^{2}$ Adjusted to include product class 36123 (power regulators, boosters, and reactors, other transformers and transformer parts).
${ }^{3}$ Adjusted to include product class 36131 (switchgear including power switchgear assemblies and other switching and interrupting devices 2,300 volts and over).
${ }^{4}$ Not shown pending further review of the data covering fractional horsepower motors (product class 362ll).
table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963
(In thousands of dollars)

| Code | Product class | 1963 | $1962^{1}$ | $1961{ }^{1}$ | $1960^{1}$ | 1959 | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3611- | Electrical measuring instruments. | 721,741 | 888,735 | 797,413 | 795,931 | 719,132 | 587,755 | 347,154 | 157,453 |
| 36111 | Integrating instrument electrical. | 289,219 | 94,583 | 96,423 | 100,540 | 104,011 | 88,809 | 73,091 | 63,650 |
| 36112 | Testing equipment for testing electrical, radio, and communication circuits and motors | ${ }^{2} 427,248$ | ${ }^{2} 466,071$ | ${ }^{2} 414,442$ | 426,358 | 403,086 | 341,883 | 190,023 | 54,805 |
| 36113 | Other electrical measuring equipment........ | 2191,039 | 262,336 | 221,042 | 198,864 | 188,248 | 140,053 | 84,040 | 38,998 |
| 36110 | Electrical measuring instruments, n .s | 14,235 | $(65,745)$ | $(65,506)$ | $(70,169)$ | $(23,787)$ | 17,010 | - |  |
| 3612- | Transformers. | 692,204 | 670,078 | 690,018 | 724,857 | 706,829 | 638,307 | 628,917 | 324,078 |
| 36121 | Specialty transformers and flourescent ballasts, except parts......................... | 163,008 | 203,528 | 189,682 | 177,046 | 172,441 | 130,023 | 109,554 | 80,672 |
| 36122 | Power and distribution transformers, except parts. | 434,476 | 388,927 | 417,685 | 449,925 | 449,479 | 421,727 | 441,089 | 205,943 |
| 36123 | Power regulators, boosters, and reactors, other transformers, and transformers parts. | 90,282 | 68,885 | 74,666 | 92,366 | 90,141 | 80,982 | 78,274 | 37,463 |
| 36120 | Transformers, n.s.k.......................... | 4,438 | $(8,738)$ | $(7,985)$ | $(5,520)$ | (S) | 5,576 |  | - |
| 3613- | Switchgear and switchboards. | 940,126 | 932,948 | 869,818 | 898,758 | 917,104 | 891,371 | (NA) | (NA) |
| 36131 | Switchgear, including power switchgear assemblies and other switching and interrupting devices, 2,300 volts and over...... | ${ }^{3} 406,628$ | ${ }^{3} 397,765$ | ${ }^{3} 364,076$ | 377,448 | 402,163 | 419,932 |  |  |
| 36132 | Circuit breakers.... | ${ }^{3} 210,353$ | 3201,391 | ${ }^{3} 195,446$ | 192,183 | 190,805 | 200,990 | (NA) | (NA) |
| 36133 | Low voltage panel-boards and distribution boards and switching and interrupting devices 750 volts and under.................... | ${ }^{3} 267,987$ | ${ }^{3} 253,789$ | ${ }^{3} 240,897$ | 244,517 | 243,840 | 224,223 | (NA) | (NA) |
| 36134 | Fuses and fuse equipment under 2,300 volts (except power distribution cut outs)........ | ${ }^{3} 38,877$ | ${ }^{3} 40,102$ | ${ }^{3} 37,180$ | 52,446 | 52,649 | 30,675 | (NA) | (NA) |
| 36130 | Switchgear and switchboards, n.s.k............ | 16,281 | $(39,901)$ | $(32,219)$ | $(32,164)$ | $(27,647)$ | 15,551 | (NA) | (NA) |
| 3621- | Motors and generators | 1,520,203 | 1,529,561 | 1,443,815 | 1,508,325 | 1,423,468 | 1,291,390 | 1,338,459 | 753,776 |
| 36211 | Fractional horsepower motors. | ${ }^{4} 538,438$ | 4544, 394 | 4501,834 | 4502,034 | 551,091 | 435,820 | 422,695 | 310,823 |
| 36212 | Integral horsepower motors and generators, except land transportation..................... | 4363,497 | 4371,224 | 4363,784 | 4397,088 | 435,454 | 430,458 | 410,620 | 258,705 |
| 36213 | Land transportation motors, generators, and control equipment and parts................... | 489,468 | 479,641 | 457,946 | 471,107 | 66,439 | 52,367 | 81,403 | 69,532 |
| 36214 | Prime mover generator sets, except steam or hydraulic turbine. | ${ }^{4} 102,694$ | 486,153 | 484,943 | 482,797 | 71,656 | 73,865 | 96,335 | (NA) |
| 36215 | Motor generator sets and other rotating equipment. | 4239,111 | $4{ }^{4} 225,152$ | 4214,780 | ${ }^{4} 226,878$ | 151,559 | 164,057 | 238,580 | 35,979 |
| 36216 | Parts and supplies for motors, generators, and motor generator sets, except land transportation. $\qquad$ | 127,593 | 170,002 | 161,225 | 166,743 | 147,269 | 108,881 | 88,826 | 78,737 |
| 36210 | Motors and generators, n.s.k................. | 9,402 | (S) | (S) | (S) | (S) | 25,942 | (NA) | (NA) |
| 36220 | General industry power circuit devices and controls. $\qquad$ | 3594,913 | 2577, 573 | 2543,352 | 567, 165 | 516,220 | 447,297 | 333,858 | 171,232 |
| 3623- | Electric welaing apparatus..................... | 324,895 | 285,873 | 252,545 | 275,680 | 279,131 | 233,235 | 160,025 | 105,971 |
| 36231 | Arc welding machines, components, and accessories, except electrodes............... | 104,508 | 93,798 | 68,924 | 78,022 | 76,903 | 65,797 | 36,694 | 32,110 |
| 36232 | Arc welding electrodes, metal................ | 148,328 | 143,517 | 132,079 | 133,055 | 144,036 | 116,438 | 72,255 | 43,987 |
| 36233 | Resistance welders, components, accessories and electrodes. $\qquad$ | 68,300 | 43,324 | 46,944 | 54,782 | 51,303 | 47,760 | 51,076 | 29,874 |
| 36230 | Electric welding apparatus, n.s.k. | 3,759 | 5,234 | 4,598 | 9,821 | 6,889 | 3,240 | - | - |
| 36240 | Carbon and graphite products. | 217,817 | 193,837 | 184, 162 | 187,098 | 194,552 | 156,818 | 114,519 | 63,350 |
| 3629- | Electric industrial goods, n.e.c. | 250,474 | 315,220 | 295,298 | 290,011 | 271,904 | 213,073 | 171,863 | 86,013 |
| 36291 | Capacitors for industrial use (except for electronic applications)....................... | 51,430 | 80,219 | 74,172 | 73,888 | 73,620 | 57,122 | 64,161 | 34,026 |
| 36292 | Rectifying apparatus.................. | 86,898 | 79,175 | 81,996 | 88,611 | 86,909 | 73,072 | 59,343 | 20,501 |
| 36293 | Other electrical equipment for industrial use.. | 103,681 | 143,433 | 125,344 | 112,784 | 104,648 | 77,064 | 48,357 | 31,486 |
| 36290 | Electrical industrial goods, n.e.c., n.s.k.. | 8,465 | $(12,393)$ | $(13,786)$ | $(14,728)$ | $(6,727)$ | 5,815 | - | - |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimite or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errols associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data

[^230]
# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1 .


[^231]
## TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FRACTIONAL HORSEPOWER MOTORS(36211) | $1963{ }^{1}$ | 1958 | MOTOR-GENERATOR SETS AND OTHER ROTATING EQUIPMENT (36215)--Continued | $1963^{1}$ | 1958 | ARC WELDING MACHINES, COMPONENTS, AND ACCESSORIES, EXCEPT ELECTRODES (36231) | $1963{ }^{1}$ | 1958 |
|  | 65 | 435,820 |  |  |  |  |  |  |
| United States, |  | 435,020 | Middle Atlantic. | 71,436 | 84,068 | United States, total. | 104,508 | 65,797 |
| New England. | 15,841 | 15,604 | New York. ..... | 22,532 | 15,700 |  |  | 65,77 |
| Massachusetts | 6,988 | 7,595 | New Jersey. | 6,226 | 27,555 | Northeast. | 19,869 | 12,462 |
|  |  |  | Pennsylvania.. | 42,678 | 40,813 | New York | 5,113 | ( ${ }^{\text {) }}$ |
| Middle Atlantic. | 124,154 | 66,937 |  |  |  |  |  |  |
| New York... | 102,449 | 55,240 9,189 | East North Central. | 125,356 60,439 | 57,972 29,892 |  | 69,275 1,062 | ${ }^{(2)}$ |
| New Jersey... | 15,239 6,466 | 9,189 2,508 | Ohio.... | 60,439 7,513 | 29,892 4,724 | Illinois................. | 1,062 10,742 | $(2)$ 6,122 |
| Pennsylvania. | 6,466 | 2,508 | Illinois | 7,513 | 4,724 | Michigan................. | 10,742 | 6,122 |
| East North Central. | 328,448 | 274,256 | West North Central. | 5,875 | ) | West North Central......... | 8,123 | ${ }^{2}$ ) |
| Ohio. | 114,985 | 136,126 | Minnesota.. | 2,911 | 18,757 | Missouri.................. | 3,963 | 2,600 |
| Indiana.. | 98,497 49,017 | 69,796 36,269 |  |  |  |  |  |  |
| Illinois. | 49,017 | 36,269 12,634 | South and West.............. California............. | 36,311 10,949 |  | South and West............. California........... | 7,241 1,683 | 4,435 |
| Michigan..................... Wisconsin............. | 41,713 24,236 | 12,634 19,431 | California................. | 10,949 | 8,696 | California............... | 1,683 | (2) |
|  |  |  | PARTS AND SUPPLIES FOR |  |  | ARC WELDING ELECTRODES, |  |  |
| West North Central... | 31,485 | 37,076 | MOTORS, GENERATORS, AND |  |  | METAL (36232) |  |  |
| Missouri.. | 28,266 | 33,939 | MOTOR-GENERATOR SETS, EXCEPT LAND TRANSPORTATION |  |  | United States, total... | 148,238 | 116,438 |
| South Atlantic............... | 17,680 |  | (36216) |  |  | Northeast. | 48,667 | 29,659 |
| East South Central........... | 37,426 | 28,161 | United States, total... | 127,593 | 108,881 | Pennsylvania. | 33,129 | 20,488 |
| West South Central | 45,022 |  | New England. | 6,918 | 4,707 | North Central. | 72,360 | 65,634 |
| Arkansas..... | 45,022 | 19,238 | Connecticut | 4,156 | 3,624 | Ohio...................... | 51,614 1,513 | $\begin{array}{r} 45,023 \\ (Z) \end{array}$ |
| West <br> INTEGRAL HORSEPOWER MOTORS AND GENERATORS, EXCEPT LAND TRANSPORTATION (36212) | 20,209 | 13,786 | Middle Atlantic. $\qquad$ <br> New York. $\qquad$ <br> New Jersey.. $\qquad$ <br> Pennsylvania................. |  | $\begin{array}{r} 40,033 \\ 19,899 \\ 4,671 \\ 15,463 \end{array}$ | South and West............. |  |  |
|  |  |  |  |  |  |  | 27,211 | 21,145 |
|  |  |  |  |  |  | RESISTANCE WELDERS, COMPONENTS, ACCESSORIES AND ELECTRODES (36233) | $1963{ }^{1}$ |  |
|  |  |  |  |  |  |  |  |  |
| United States, | 380,244 | 430,458 | East North Central Ohio. Indiana. Illinois Michigan. Wisconsin. | 51,68434,1614,868 | 51, 619 31,281 |  | 68,300 |  |
|  |  |  |  |  | (2) | United States, total... |  |  |
| Northeast... | 173,318 | 217,089 |  | 4,868 2,222 | (2) |  |  |  |
| New Jersey. | 8,991 | ${ }^{2}$ ) |  | $\begin{aligned} & 4,779 \\ & 5,654 \end{aligned}$ | 3,499 | Northeas | 8,673 |  |
|  |  |  |  |  | 3,416 |  |  |  |
| East North Central <br> Ohio.. $\qquad$ <br> Michigan. $\qquad$ <br> Wisconsin. $\qquad$ | -73,533 | 145,720 |  |  | 4,730 | North Central............... |  | 57,490 |
|  |  |  |  | $\begin{aligned} & 4,822 \\ & 7,909 \end{aligned}$ |  | Ohio..................... |  |  |
|  | $\begin{array}{r} 4,742 \\ 45,092 \end{array}$ | $(2)$ 32,859 |  |  | ${ }^{2}$ ) | Michigan.................. | 10,99829,893 |  |
|  |  | 32,859 | South. ............................ | $\begin{aligned} & 7,254 \\ & 6,822 \end{aligned}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 3,375 \end{array}$ | Wisconsin................. . | 1,762 |  |
| West North Central............. Missouri. | $\begin{aligned} & 32,600 \\ & 17,678 \end{aligned}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 25,897 \end{array}$ | California. $\qquad$ <br> GENERAT TNDUSTBY POWER |  |  | South and West............. | 2,137 |  |
|  |  |  |  |  |  |  |  |  |
| South <br> West | $\begin{array}{r} 6,000 \\ 27,042 \end{array}$ |  | CIRCUIT DEVICES AND CONTROLS (36220) |  |  | CARBON AND GRAPHITE PRODUCTS (36240) |  |  |
|  |  | $\begin{aligned} & (2) \\ & \left(^{2}\right) \end{aligned}$ |  |  |  |  |  |  |
| PRIME MOVER GENERATOR SETS, EXCEPT STEAM OR HYDRAULIC TURBINE (36214) | $1963{ }^{1}$ |  | United States, total.... New England. Connecticut | 633,274 | 447,297 | United States, total... | 217,817 |  |
|  |  |  | $\begin{aligned} & 46,518 \\ & 26,159 \end{aligned}$ | $\begin{aligned} & 28,789 \\ & 18,545 \end{aligned}$ |  |  |  |
|  |  |  |  |  | New England. |  | 1,469 |
| United States, total.. | 104,633 |  | Middle Atlantic............... <br> New York. <br> New Jersey. $\qquad$ <br> Pennsylvania. $\qquad$ | $\begin{array}{r} 107,852 \\ 48,740 \\ 25,810 \\ 33,302 \end{array}$ | $\begin{array}{r} 78,892 \\ 42,587 \\ 7,333 \\ 28,972 \end{array}$ | Middle Atlantic.............. New York. | $\begin{aligned} & 87,906 \\ & 53,144 \end{aligned}$ |  |
| Northeast. . . . . . . . . . . . . . | 18,926 |  |  |  |  |  |  |  |
| East North Central. | $\begin{array}{r} 57,658 \\ 5,879 \end{array}$ |  |  |  |  |  |  |  |
| Ohio............ |  |  | East North Central. ......... | 328,562 | 237,362 | North Central and South.... Illinois. $\qquad$ | 125,813 |  |
| Illinois. | 24,838 |  | Ohio. <br> Indiana. <br> Illinois. <br> Michigan. <br> Wisconsin | $\begin{array}{r} 54,294 \\ 9,109 \\ 84,125 \\ 23,622 \\ 157,412 \end{array}$ | 46,0397,260 |  | 3,486 |  |
| Michigan. |  |  |  |  |  |  |  |  |  |
| Wisconsin | 24,678 |  |  |  | 55,8079,068119,188 | Pacific........................ California. |  |  |
| West North Central. |  |  |  |  |  |  | 2,629 |  |
| South........... | $\begin{array}{r} 18,949 \\ 5,270 \end{array}$ |  |  |  |  |  |  | 1958 |
| Pacific. | $\begin{aligned} & 3,830 \\ & 3,830 \end{aligned}$ |  | West North Central............ Minnesota. | $\begin{array}{r} 11,581 \\ 7,960 \end{array}$ | $\begin{aligned} & 9,554 \\ & 6,801 \end{aligned}$ | CAPACITORS FOR INDUSTRTAL USE (EXCEPT FOR ELECTRONIC APPLICATIONS) (36291) | $1963{ }^{1}$ |  |
| Califor |  |  |  |  |  |  |  |  |
| MOTOR-GENERATOR SETS AND | $1963{ }^{\text { }}$ | 1958 |  | South. <br> Texas | $\begin{array}{r} 96,765 \\ 7,631 \end{array}$ |  | 66,412 ${ }_{\left(2^{2}\right)}$ |  |  |
| (36215) |  |  | Mount | 2,364 | 1,116 | United States, total... | 51,430 | 57,122 |
| United States, total.. | $\begin{array}{r} 246,226 \\ 7,248 \end{array}$ | $\begin{array}{r} 164,057 \\ 3,260 \end{array}$ |  | $\begin{array}{r} 39,632 \\ 3,685 \\ 35,090 \end{array}$ | $\begin{array}{r} 25,172 \\ 3,188 \\ 21,691 \end{array}$ |  | $\begin{array}{r} 17,575 \\ 33,855 \end{array}$ | $\begin{aligned} & 18,324 \\ & 38,798 \end{aligned}$ |
| New England. |  |  |  |  |  | East North Central.......... <br> All other divisions........ |  |  |

TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RECTIFYTNG APPARATUS (36292) | 19631 | 1958 | RECTIFYING APPARATUS (36292)--Continued | $1963{ }^{1}$ | 1958 | OTHER ELECTRICAL EQUIPMENT FOR INDUSTRIAL USE (36293)--Continued | $1963^{1}$ | 1958 |
| United States, total..... | 86,898 | 73,072 | South <br> West $\qquad$ | $\begin{aligned} & 4,742 \\ & 8,089 \end{aligned}$ | \} 11,589 |  |  |  |
|  |  |  |  |  |  | Middle Atlantic $\qquad$ <br> New York. $\qquad$ <br> New Jersey. $\qquad$ <br> Pennsylvania. $\qquad$ | 3,010 | 3,748 |
| New England.................. | 1,858 | (2) |  |  |  |  | 6,368 | 3,800 |
|  |  |  |  |  |  |  | 20,695 | 10,312 |
| Middle Atlantic................ <br> Pennsylvania. | $\begin{aligned} & 35,138 \\ & 24,963 \end{aligned}$ | $\left({ }^{2}\right)$ 13,247 | OTHER ELECTRICAL EQUIPMENT FOR INDUSTRIAL USE (36293) |  |  | East North Central. |  | ${ }^{(2)}$ |
| Pennsylvania................... | 24,963 | 13,247 |  |  |  | Ohio............. | 17,094 | 12,341 |
|  |  |  |  |  |  | Indiana................... | 12,186 | 6,116 |
| East North Central. | 30,878 | 27,262 |  |  |  | Illinois. | 13,995 | 11,669 |
| Ohio.......................... | 15,711 | 11,507 | United States, total.... | 103,681 | 77,064 | Michigan. | 4,376 | ${ }^{(2)}$ |
| Illinois.................... | 10,646 | 8,288 |  |  |  | Wisconsin. ................ | 3,451 | ${ }^{(2)}$ |
|  |  |  | New England. Connecticut. |  |  | West North Central. | 2,613 | ${ }^{2}$ ) |
| West North Central. | 6,193 | 7,117 |  | 7,123 | 9,723 | South. |  |  |
| Missouri.......... | 1,736 | 1,654 |  | 3,752 | 4,060 | West. | 10,732 | 11,818 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. (Z) Less than \$1 million reported.
${ }^{1}$ For the specified product classes, shipments of $\$ 1$ million or more were reported for the States listed, but the exact figures are withheld to avoid disclosure of individual company figures: 36111, New Hampshire, New York, Ohio, Indiana, Illinois, North Carolina, South Carolina, Texas, Oregon, and Califormia; 36112, New Hampshire, Connecticut, Indiana, Wisconsin, Iowa, Missouri, Georgia, Mississippi, Oklahoma, Colorado, Washington, and Oregon; 36113, Indiana, Míchigan, Minnesota, Oklahoma, Colorado, and California; 36121, Massachusetts, New Jersey, Pennsylvania, Indiana, Wisconsin, North Carolina, Mississippi, Oregon, and California; 36122, Massachusetts, Pennsylvania, Ohio, Indiana, Michigan, Missouri, Virginia, North Carolina, Georgia, Florida, Alabama, Mississippi, Arkansas, Oregon, and California; 36123, Massachusetts, Connecticut, Pennsylvania, Indiana, Missouri, West Virginia, Georgia, Alabama, and California; 36131, Massachusetts, Indiana, Michigan, Minnesota, Iowa, North Carolina, Georgia, Arkansas, Texas, and Oregon; 36132, Massachusetts, Connecticut, New York, New Jersey, Ohio, Michigan, Iowa, and Maryland; 36133 , New Hampshire, Connecticut, Indiana, Wisconsin, Míssouri, North Carolina, Kentucky, Texas, Colorado, Utah, and Washington; 36134 , Massachusetts, Rhode Island, New York, Illinois, Minnesota, Missouri, and Arkansas; 36211, New Hampshire, Connecticut, Minnesota, Maryland, Virginia, North Carolina, South Carolina, Kentucky, Tennessee, Colorado, and Califormia; 36212, Connecticut, New York, Pennsylvania, Indiana, Illinois, Minnesota, Virginia, Georgia, Arkansas, and California; 36214, Connecticut, New York, New Jersey, Pennsylvania, Minnesota, Iowa, Missouri, Virginia, South Carolina, and Louisiana; 36215, Connecticut, Indiana, Michigan, Wisconsin, Missouri, North Carolina, Kentucky, and Colorado; 36216, Massachusetts, Minnesota, Kentucky, and Oklahoma; 36220, Massachusetts, Missouri, Maryland, Virginia, North Carolina, Georgia, Kentucky, Oklahoma, and Colorado; 36231, Connecticut, New Jersey, Pennsylvania, Ohio, Wisconsin, Minnesota, Kansas, Texas, and Colorado; 36232, New York, New Jersey, Indiana, Wisconsin, Minnesota, Maryland, Álabama, and California; 36233, New York, Indiana, Illinois, and California; 36240, Massachusetts, New Jersey, Pennsylvania, Ohio, Michigan, Wisconsin, West Virginia, North Carolina, and Tennessee; 36291, Massachusetts, New York, New Jersey, Ohio, Indiana, Illinois, Wisconsin, and South Carolina; 36292, Massachusetts, New York, New Jersey, Indiana, Minnesota, North Carolina, Texas, and California; 36293, Maine, Massachusetts, Minnesota, and Missouri.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported, but exact figures are withheld to avoid disclosure of individual company fligures.

## table 7A. Materials by Kind: 1963 and 1958



[^232]table 7A. Materials by Kind: 1963 and 1958-Continued


See footnotes at end of table.
table 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost <br> $(\$ 1,000)$ | Quantity | Delivered cost |
|  | Materials, parts, containers and supplies-Continued Castings (rough and semifinished): |  | INDUSTRY 3621.-MOTORS AND GENERATORS-Continued |  |  |  |
|  |  |  |  |  |  |  |
| 332011 | Iron (gray and malleable)............................. | Short tons....... | 92,032 | 29,470 | 63,707 | 21,535 |
| 332300 | Steel........... | ...do............. | 4,041 | 3,086 | 4,916 | 3,443 |
| 336100 | Aluminum and aluminum-base alloy................................... | 1,000 lbs........ | 20,941 | 14,384 | 11,225 | 7,681 |
| 336200 | Copper and copper-base alloy........................................ | ...do............ | 2,428 | 2,167 | 1,184 | 980 |
| 339100 | Iron and steel forgings | Short tons....... | 6,915 | 3,985 | 3,038 | 2,883 |
| 351901 | Engines: <br> Diesel and semidiesel | Number | 2,744 | 5,111 | 819 |  |
| 351901 | Gasoline and other carburetor......................................................................... | Number ............ | 2,744 | 2,915 | 12,755 | 2,432 |
| 362120 | Integral horsepower electric motors and generators. | Thousands........ | 10 | 6,101 | 11 | 10,467 |
|  | Bearings: |  |  |  |  |  |
| $\begin{aligned} & 356218 \\ & 356228 \end{aligned}$ | Roller |  | (X) | 19,029 1,825 | (X) | 12,157 |
| 367010 | Electron tubes, except X-ray. | 1,000 units...... | 204 | 1,635 | (NA) | (NA) |
| $\begin{aligned} & 367408 \\ & 970099 \end{aligned}$ | Solid state semiconductors.... | ...do............. | 1,138 | 2,081 | (NA) | (NA) |
|  | All other materials, components, parts, containers, and supplies consumed. |  | (X) | 264,684 | (X) | 230,850 |
| 976000 | Materials, parts, supplies, and containers, n.s.k. |  | (X) | ${ }^{133,645}$ | (X) | 9,265 |
|  |  |  | INDUSTRY 3622.-INDUSTRIAL CONTROLS |  |  |  |
|  | Materials, parts, containers, and supplies, total.............. |  | (X) | 195,509 | (X) | 113,401 |
|  | Mill shapes and forms (except castings): <br> Carbon steel: |  |  |  |  |  |
| 331011 | Bars and bar shapes.. | Short tons....... | 8,743 | 1,810 | 2,706 | 618 |
| 331012 | Sheet and strip..................................................... | ...do............ | 29,788 | 5,613 | 18,756 | 3,446 |
| 331013 | Plates................................................................ | ...do............ | 1,055 | 210 | 4,177 | 472 |
| 331015 | Structural shapes.................................................... . | ...do............. | 2,543 | 608 | 490 358 | $\begin{array}{r}90 \\ \hline 17\end{array}$ |
| 331019 | All other carbon steel mill shapes and forms................... | ..do. | 3,092 | 742 | 358 | 117 |
| 331020 | Alloy steel (except stainless). | ...do............. | 1,662 | 488 | 2,882 | 1,281 |
| 331031 | Stainless steel................. | .do | 1,339 | 1,905 | 785 | 887 |
| 335728 | Copper and copper-base alloy: <br> Bare wire (for electrical conduction only) | 1,000 lbs........ | 3,195 | 1,510 | 2,133 | 1,248 |
| 335790 | Insulated wire and cable.......................................... | 1, (coop lbs.......... | 5,367 | 3,761 | 3,102 | 2,169 |
| 335102 | Rod, bar, and mechanical wir | 1,000 lbs........ | 4,099 | 2,388 |  |  |
| 335123 335127 |  | ...do............ | 4,007 385 | 2,547 238 | 7,780 | 4,491 |
| 335127 | Pipe and tube.................................................................. | ...do............. | 385 |  |  |  |
|  | Aluminum and aluminum-base alloy: |  |  |  |  |  |
| 335202 | Sheet, plate and foil............................................ | ...do............ | 618 |  | 304 | 121 |
| $\begin{aligned} & 335205 \\ & 335209 \end{aligned}$ | Extruded shapes (including extruded rod, bar, pipe tube, etc.). | ...do............ | 398 | 224 | 191 | 122 |
|  | bar)................................................................. | ...do............. | 381 | 193 |  |  |
|  | Castings (rough and semifinished): |  |  |  |  |  |
| 332300 |  | Short tons....... | 3,108 | 2,189 | 3,650 | 1,450 |
| 336100 | Aluminum and aluminum-base alloy................................... | 1,000 lbs........ | 2,587 | 1,122 | 1,808 | 1,116 |
| 336200 | Copper and copper-base alloy........................................... | ...do............. | 958 | 837 | 377 | 262 |
|  | Industrial electrical control equipment: |  |  |  |  |  |
| 362200 362209 | Purchased from other companies..................................... Received from other plants of your company.................... |  | (X) | 230,684 ${ }^{2} 16,749$ | (X) | $\begin{aligned} & 2 \\ & { }^{2} 3,634 \\ & 27,756 \end{aligned}$ |
|  |  |  |  |  |  |  |
| 282130 | Thermoplastic resins.............................................................. | 1,000 lbs......... | 487 8,720 | 281 1,827 | (NA) | (NA) (NA) |
| $\begin{aligned} & 282140 \\ & 970099 \end{aligned}$ | Thermosetting resins | ...do............. | 8,720 | 1,827 | (NA) | (NA) |
|  | All other materials and components, parts, containers, and supplies consumed. |  | (x) | 92,278 | (x) | 66,352 |
| 976000 | Materials, containers, supplies, n .s.k.................................... |  | (X) | ${ }^{1} 26,948$ | (X) | 17,769 |
|  |  |  | INDUSTRY 3623.-ELECTRIC WELDING APPARATUS |  |  |  |
|  | Materials, parts, containers, and supplies, total............... |  | (x) | 150,549 | (X) | 122,036 |
|  | Mill shapes and forms (except castings): <br> Carbon steel: |  |  |  |  |  |
| 331011 | Bars and bar shapes................................................ | Short tons....... | 9,998 | 2,403 | 8,987 | 2,008 |
| 331012 | Sheet and strip........................................................ . . | ...do............. | 22,756 | 5,036 | 17,012 | 3,539 |
| 331017 | Wire and wire products............................................ . | ...d | 236,169 | 36,183 | 185,753 | 35,706 |
| 331015 | Structural shapes.................................................. | . . .do............ | 2,203 13,948 | 642 2,757 | 18,914 | 2,509 |
| 331019 | All other carbon steel mill shapes and forms.................... | . .do............ | 13,948 | 2,757 | 18, | 2,509 |
| 331020 | Alloy steel (except stainless). | ...do............ | 6,175 | 4,569 | 5,419 | 1,855 |
| 331031 | Stainless steel........ | ..do............. | 8,830 | 12,718 | 3,004 | 6,009 |

See footnotes at end of table.

## ELECTRICAL TRANSMISSION, DISTRIBUTION, AND INDUSTRIAL APPARATUS

table 7A. Materials by Kind: 1963 and 1958-Continued


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Represents (a) total cost of materials for small establishments reporting on "Short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."
${ }^{2}$ An indeterminate amount of materials other than industrial electrical control equipment are included.
${ }^{3}$ Comparable data for 1958 not available.

## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Electric measuring instruments (SIC 3611) | Transformers (SIC 3612) | Switchgear and switchboards (SIC 3613) | Motors and generators (SIC 3621) | Industrial controls (SIC 3622) | Electric welding apparatus (SIC 3623) | Carbon and graphite products (SIC3624) | Electric industrial goods, п.e.c. (SIC 3629) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. | 5,453 | 8,224 | 6,676 | 15,475 | 4,243 | 2,323 | 9,731 | 2,755 |
| Total cost of purchased fuels...............................d. ${ }_{\text {do. }}$ | 1,506 | 2,265 | 2,204 | 5,605 | 1,285 | 963 | 3,452 | 760 |
| Bituminous coal, lignite, and anthracite: <br> Quantity $\qquad$ 1,000 short tons.. | (S) | 118 | 19 | 131 | (s) | 11 | 49 | (s) |
| Cost...................................................... $\$ 1,000 .$. | (S) | 882 | 147 | 997 | (S) | 89 | 343 | (S) |
| Coke and breeze: <br> Quantity. 1,000 short tons. | (s) | - | (S) | (s) | - | - | (S) | - |
| Cost...................................................... ${ }^{\text {. }}$.,000. . | (S) | - | (S) | (S) | - | - | (S) | - |
| Fuel oil (distillate and residual): <br> Quantity........................... 1,000 barrels of 42 gallons.. | 168 | 95 | 247 | 181 | 93 | 32 | (s) | 80 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 601 | 305 | 835 | 669 | 388 | 128 | (S) | 290 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |  |  |
| Quantity..........................................million cu.ft.. | 947 | 1,826 | 1,322 | 3,609 | 1,117 | 1,008 | 4,972 | 464 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1$,000. . | 614 | 962 | 916 | 2,156 | 706 | 642 | 2,595 | 264 |
| Other fuels..................................................... ${ }^{\text {. }}$ do. . . . | 232 | 116 | 298 | 1,782 | 121 | 104 | 88 | 134 |
| Electric energy: |  |  |  |  |  |  |  |  |
| Purchased: <br> Quantity. .million kw. -hrs.. | 288 | 597 | 319 | 832 | 216 | 88 | 1,035 | 156 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 3,947 | 5,959 | 4,472 | 9,870 | 2,958 | 1,360 | 6,279 | 1,995 |
| Generated less sold..............................million kw. -hrs.. | - | (S) | (s) | 45 | - | (S) | - | - |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total........., $000 \mathrm{hp.}$. | 80 | 428 | 134 | 502 | 59 | 51 | 146 | 97 |
| Prime movers, total............................................do.... . | 1 | 96 | 12 | 44 | 2 | 2 | 22 | 1 |
| Driving generators............................................ . . . . . . | (z) | 92 | 7 | 23 | 1 | 1 | 7 | 1 |
| Not driving generators.......................................do.... | 1 | 4 | 5 | 21 | 1 | 1 | 15 | (Z) |
| Electric motors, total......................................... . ${ }^{\text {do.... }}$ | 78 | 336 | 130 | 497 | 57 | 49 | 124 | 96 |
| Driven by purchased energy................................do.... | 78 | 331 | 123 | 458 | 57 | 49 | 124 | 96 |
| Driven by energy generated at establishment.............do.... | - | 4 | 8 | 39 | - | (Z) | - | - |
| Aggregate horsepower per 100 production workers.................... | 188 | 1,741 | 309 | 742 | 270 | 783 | 2,013 | 621 |

Note: Detail may not add to totals because of independent rounding. Figures ror fuess and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
(Z) Less than 500 horsepower.
n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

# TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry special ization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


[^233]
## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued



See footnotes at end of table.

## table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 -Continued

| Industry <br> or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | ```Value added by manufacture, adjusted ($1,000)``` | Cost of materials $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3623- | ELECTRIC WELDING APPARATUS Continued |  |  |  |  |  |  |  |  |  |  |
| 36231 | Arc welding machines, components, and accessories, except electrodes (primary product class of estab.). Establishments with90\% or more specialization.... | 37 25 | 2,749 1,446 | 17,785 9,520 | 1,908 1,022 | 4,169 2,113 | 10,883 5,583 | 42,708 22,916 | 39,673 18,997 | 81,935 40,952 | $\begin{array}{r} 1,037 \\ 379 \end{array}$ |
| 36232 | Arc welding electrodes, metal (primary product class of estab.).... | 28 | 3,525 | 31,054 | 2,423 | 5,005 | 19,749 | 76,493 | 98,587 | 175,033 | 2,884 |
| 36233 | Resistance welders, components, accessories and electrodes (primary product class of estab.)........... Establishments with- | 48 | 3,171 | 22,089 | 2,110 | 4,633 | 13,310 | 40,911 | 28,383 | 68,955 | 1,183 |
|  | $90 \%$ or more specialization.... 75-89\% specialization.......... | $\begin{array}{r} 32 \\ 7 \end{array}$ | 1,707 783 | 11,047 6,099 | 1,104 523 | $\begin{aligned} & 2,431 \\ & 1,081 \end{aligned}$ | $\begin{aligned} & 7,023 \\ & 3,388 \end{aligned}$ | $\begin{aligned} & 22,106 \\ & 10,560 \end{aligned}$ | $\begin{array}{r} 16,909 \\ 5,554 \end{array}$ | $\begin{aligned} & 38,911 \\ & 15,797 \end{aligned}$ | $\begin{aligned} & 563 \\ & 540 \end{aligned}$ |
| 3624- | CARBON AND GRAPHITE PRODUCTS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry $\qquad$ <br> Establishments with - | 53 | 10,123 | 61,984 | 7,963 | 16,104 | 44,068 | 141,423 | 84,758 | 226,889 | 11,441 |
|  | 90\% or more specialization.. | 43 | 8,181 | 49,314 | 6,451 | 13,005 | 35,777 | 120,385 | 72,931 | 194,006 | 9,956 |
| 3629- | ELECTRIC INDUSTRIAL GOODS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 231 | 14,041 | 72,988 | 10,897 | 21,043 | 47,677 | 141,633 | 100,132 | 238,325 | 4,003 |
|  | 90\% or more specialization. . 75-89\% specialization....... | $\begin{array}{r} 186 \\ 11 \end{array}$ | $\begin{aligned} & 7,940 \\ & 1,898 \end{aligned}$ | $\begin{aligned} & 38,295 \\ & 11,081 \end{aligned}$ | $\begin{aligned} & 6,350 \\ & 1,294 \end{aligned}$ | $\begin{array}{r} 12,244 \\ 2,556 \end{array}$ | $\begin{array}{r} 25,552 \\ 6,315 \end{array}$ | $\begin{aligned} & 66,578 \\ & 21,222 \end{aligned}$ | $\begin{aligned} & 48,391 \\ & 14,056 \end{aligned}$ | $\begin{array}{r} 113,407 \\ 35,902 \end{array}$ | $\begin{array}{r} 2,230 \\ 604 \end{array}$ |
| 36292 | Rectifying apparatus (primary product class of estab.).......... Establishments with90\% | 45 33 | 3,705 | 19,893 | 2,873 | $5,643$ | 12,769 | 37,810 | 26,277 | 62,097 <br> 37 | 719 |
| 36293 | Other electrical equipment for industrial use (primary product class of estab.). $\qquad$ Establishments with- | 96 | 7,230 | 36,145 | 5,739 | 11,168 | 24,367 | 68,352 | 47,118 | 114,169 | 2,228 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | $\begin{array}{r} 73 \\ 7 \end{array}$ | $\begin{array}{r} 4,665 \\ 277 \end{array}$ | $\begin{array}{r} 21,824 \\ 1,197 \end{array}$ | 3,817 171 | $\begin{array}{r}7,360 \\ 372 \\ \hline\end{array}$ | $\begin{array}{r} 14,612 \\ 657 \end{array}$ | $\begin{array}{r} 37,614 \\ 1,822 \end{array}$ | $\begin{array}{r} 26,573 \\ 1,069 \end{array}$ | $\begin{array}{r} 63,810 \\ 2,913 \end{array}$ | 1,327 117 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified.

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{2}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $20 \text { or }$ more |  | 1 to 4 | 5 to 19 | $20 \text { or }$ more |
|  | INDUSTRY 3611.-ELECTRIC MEASURING INSTRUMENTS |  |  |  |  |  |  |  |
| Nonferrous die casting. | 7 | 3 | 2 | 2 | 93 | 9 | (D) | (D) |
| Electroplating and other plating.................... | 38 | 27 | 7 | 4 | 227 | 47 | 64 | 116 |
| Heat treating of metals.......... | 24 | 19 | 5 | - | 78 | 28 | 50 | - |
| Automatic screw machine department. | 28 | 17 | 7 | 4 | 279 | 23 | 70 | 186 |
| Machine shop.......... | 138 | 59 | 46 | 33 | 2,320 | 102 | 478 | 1,740 |
| Tool and die shop.................................... | 55 | 33 | 15 | 7 | 546 | 55 | 148 | 343 |
| Foundry pattern shop.................................. | 3 | 3 | - | - | 5 | 5 | - | - |
| Stamping, blanking and forming of metals........... | 88 | 50 | 25 | 13 | 906 | 88 | 266 | 542 |
| Painting, lacquering and enameling on metals....... | 90 | 68 | 20 | 2 | 340 | 99 | (D) | (D) |
| Plastics molding...................................... | 29 | 17 | 7 | 5 | 271 | 33 | 68 | 170 |
| Assembly of product................................. | 2 | - | 1 | 1 | (D) | - | (D) | (D) |
| Shipping department, including packing and crating. | 2 | 2 | - | - | (D) | (D) | - | - |
| housing, etc. | 2 | 1 | 1 | - | (D) | (D) | (D) | - |
|  | INDUSTRY 3612.-TRANSFORMERS |  |  |  |  |  |  |  |
| Heat treating of metals. | 27 | 15 | 10 | 2 | 187 | 39 | (D) | (D) |
| Machine shop........................ . . . . . . . . . . . . . . . | 36 | 17 | 5 | 14 | 1,080 | 32 | 50 | 998 |
| Tool and die shop.. | 20 | 5 | 10 | 5 | 321 | 11 | 109 | 201 |
| Plate or structural fabrication.. | 19 | - | 5 | 14 | 2,220 | - | 46 | 2,174 |
| Stamping, blanking and forming of metals. | 55 | 16 | 19 | 20 | 1,681 | 31 | 199 | 1,452 |
| Painting, lacquering and enameling on metals....... | 70 | 46 | 15 | 9 | 511 | 79 | 153 | 279 |
|  | INDUSIRY 3613.-SWITCHGEAR AND SWITCHBOARDS |  |  |  |  |  |  |  |
| Nonferrous foundry (except die casting)............. | 2 | - | - | 2 | (D) | - | - | (D) |
| Electroplating and other plating..................... | 70 | 49 | 15 | 6 | 438 | 91 | 153 | 194 |
| Heat treating of metals............................ | 27 | 21 | 5 | 1 | 95 | 38 | (D) | (D) |
| Automatic screw machine department.................. | 25 | 8 | 11 | 6 | 381 | 18 | 106 | 257 |
| Machine shop......................................... | 98 | 44 | 29 | 25 | 2,396 | 105 | 272 | 2,019 |
| Tool and die shop................................... | 79 | 30 | 34 | 15 | 1,031 | 64 | 328 | 639 |
| Foundry pattern shop................................ | 4 | 2 | 2 | - | 17 | (D) | (D) | - |
| Plate or structural fabrication..................... | 43 | 15 | 14 | 14 | 1,513 | 30 | 124 | 1,359 |
| Stamping, blanking and forming of metals........... | 140 | 40 | 53 | 47 | 3,210 | 100 | 490 | 2,620 |
| Painting, lacquering and enameling on metals....... | 139 | 103 | 32 | 4 | 608 | 180 | 281 | 147 |
| Plastics molding....................................... | 30 | 12 | 10 | 8 | 652 | 26 | 112 | 514 |
|  | INDUSIRY 3621.-MOTORS AND GENERATORS |  |  |  |  |  |  |  |
| Ferrous foundry........................................ |  |  | 1 |  | (D) | - | (D) | (D) |
| Nonferrous foundry (except die casting)............. | 13 | 8 | 3 | 2 | 94 | 14 | (D) | (D) |
| Nonferrous die casting............................... | 60 | 27 | 29 | 4 | 614 | 79 | 315 | 220 |
| Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, ete.)...... | 7 | 2 | 4 | 1 | 54 | (D) | (D) | (D) |
| Electroplating and other plating....................... | 39 | 20 | 17 | 2 | 238 | (D) | 159 | (D) |
| Galvanizing and other hot dip coating.................. | 10 | 7 | 3 | - | 32 | 10 | 22 |  |
| Heat treating of metals | 58 | 36 | 20 | 2 | 348 | (D) | 185 | (D) |
| Automatic screw machine department................... | 61 | 25 | 28 | 8 | 721 | 65 | 271 | 385 |
| Machine shop. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 172 | 43 | 44 | 87 | 8,793 | 92 | 476 | 8,225 |
| Tool and die shop..... | 118 | 43 | 45 | 30 | 1,829 | 90 | 413 | 1,326 |
| Foundry pattern shop.. | 14 | 11 | 3 | - | 51 | 25 | 26 | - |
| Plate or structural fabrication. | 33 | 14 | 8 | 11 | 1,088 | 33 | 84 | 971 |
| Stamping, blanking and forming of metals........... | 129 | 43 | 45 | 41 | 2,504 | 91 | 486 | 1,927 |
| Painting, lacquering and enameling on metals....... | 125 | 82 | 33 | 10 | 761 | 172 | 318 | 271 |
|  | INDUSTRY 3622.-INDUSTRIAL CONTROLS |  |  |  |  |  |  |  |
| Electroplating and other plating................... | 14 | 9 | 4 | 1 | 111 | 20 | (D) | (D) |
| Heat treating of metals............................... | 10 | 6 | 3 | 1 | 68 | 11 | (D) | (D) |
| Automatic screw machine department................... | 18 | 12 | 4 | 2 | 163 | 22 | (D) | (D) |
|  | 95 | 46 | 33 | 16 | 2,042 | 71 | 294 | 1,677 |
| Tool and die shop.................................... | 29 | 18 | 5 | 6 | 547 | 31 | 57 | 459 |
| Plate or structural fabrication..................... | 20 | 8 | 9 | 3 | 180 | 14 | 68 | 98 |
| Stamping, blanking and forming of metals........... | 69 | 36 | 23 | 10 | 1,474 | 61 | 170 | 1,243 |
| Painting, lacquering and enameling on metals........ | 74 | 64 | 8 | 2 | 276 | 99 | (D) | (D) |
| Plastics molding ....................................... . | 11 | 7 | - | 4 | 295 | 13 | - | 282 |

See footnotes at end of table.

## TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963-Continued

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | 20 or more |
|  | INDUSTRY 3623.-ELECTRIC WEIDING APPARATUS |  |  |  |  |  |  |  |
| Machine shop. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 61 | 20 | 22 | 19 | 1,244 | 51 | 255 | 938 |
| Tool and die shop..................................... | 17 | 9 | 5 | 3 | 211 | 18 | 56 | 137 |
| Plate or structural fabrication..................... | 22 | 12 | 5 | 5 | 255 | 27 | 51 | 177 |
| Stamping, blanking and forming of metals........... | 22 | 16 | 3 | 3 | 194 | 31 | 35 | 128 |
| Painting, lacquering and enameling on metals....... | 30 | 28 | 2 | - | 67 | (D) | (D) | - |
|  | INDUSTRY 3624.-CARBON AND GRAPHITE PRODUCTS |  |  |  |  |  |  |  |
| Machine shop.. | 19 | 3 | 11 | 5 | 278 | 7 | 92 | 179 |
| Tool and die shop.................... | 7 | 2 | 3 | 2 | 67 | (D) | 17 | (D) |
| Stamping, blanking and forming of metals. | 8 | 5 | 2 | 1 | 107 | 10 | (D) | (D) |
| Painting, lacquering and enameling on metal........ | 1 | 1 | - | - | (D) | (D) | - |  |
|  | INDUSTRY 3629.-ELECTRIC INDUSTRIAL GOODS, N.E.C. |  |  |  |  |  |  |  |
| Electroplating and other plating........................ | 1 |  | 1 | - |  | - | (D) | - |
| Automatic screw machine department..................... | 3 | 2 | 1 | - | 12 | (D) | (D) | - |
| Machine shop. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 57 | 29 | 21 | 7 | 496 | 50 | 169 | 277 |
| Tool and die shop............. | 23 | 17 | 5 | 1 | 102 | 38 | (D) | (D) |
| Plate or structural fabrication........ | 1 | - | 1 | - | (D) | - | (D) | - |
| Stamping, blanking and forming of metals........... | 38 | 20 | 15 | 3 | 265 | 38 | 115 | 112 |
| Painting, lacquering and enameling on metals....... | 35 | 28 | 6 | 1 | 160 | 55 | (D) | (D) |
| Assembly of product......................................... | 2 | - | 1 | 1 | (D) | (D) | (D) | (D) |
| Shipping department, including packing and crating. All other operations such as maintenance, ware- | 1 | 1 | - | - | (D) | (D) | - | - |
| housing, etc........................................... . | 2 | 1 | 1 | - | (D) | (D) | (D) | - |

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

| Item | INDUSTRY |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3611 | 3612 | 3613 | 3621 | 3622 | 3623 | 3624 | 3629 |
| Total number of establishments in the industry.................... | 560 | 177 | 400 | 384 | 339 | 149 | 53 | 231 |
| Number of establishments which reported one or more of the specified operations. | 200 | 82 | 213 | 222 | 189 | 68 | 26 | 80 |
| Percent of industry production workers in these establishments. | 85-90 | 80-85 | 85-90 | 95-100 | 60-65 | 75-80 | 75-80 | 60-65 |
| Number of establishments which reported "none" of the operations apply. | 28 | 27 | 39 | 24 | 36 | 21 | 16 | 40 |
| Percent of industry production workers in these establishments. | 0-5 | 0-5 | 0-5 | 0-5 | 0-5 | 10-15 | 20-25 | 20-25 |
| Percent of industry production workers in establishments which completed the metalworking operations inquiry. | 85-90 | 85-90 | 90-95 | 95-100 | 60-65 | 85-90 | 95-100 | 85-90 |

${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment
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## HOUSEHOLD APPLIANCES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3631-Household Cooking Equipment<br>3632-Household Refrigerators and Home and Farm Freezers<br>3633--Household Laundry Equipment<br>3634-Electric Housewares and Fans<br>3635-Household Vacuum Cleaners<br>3636-Sewing Machines<br>3639-Household Appliances, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3631-HOUSEHOLD COOKING EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing household cooking equipment, such as stoves, ranges and ovens. Establishments primarily engaged in manufacturing household cooking appliances, such as hot plates, grills, percolators, and toasters are classified in industry 3634. Establishments primarily engaged in manufacturing commercial cooking equipment are classified in industry 3589. For a detailed list of products of industry 3631, refer to table 6A, product codes 3631111 to 3631298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Household Cooking Equipment Industry totaled $\$ 473$ million. This amount included shipments of household cooking equipment (primary products) valued at $\$ 384$ million, shipments of other products (secondary products) valued at $\$ 60$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 30$ million.

This industry's shipments of household cooking equipment represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent.

Secondary products shipped by this industry in 1963 include other household appliances and parts ( $\$ 6$ million), and domestic heating stoves (except electric) ( $\$ 5$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 62 percent of the total industry shipments are represented by plants specializing in household ovens and ranges, equipment and parts, except electric; and 38 percent in electric household ranges and ovens.

Shipments of household cooking equipment by this industry represented 72 percent of all shipments of these products ( $\$ 537$ million) by all industries. In 1958 the coverage ratio was also 72 percent. Other industries shipping household cooking equipment include industry 3433, Heating Equipment, Except Electric, $\$ 10$ million; and industry 3633, Household Laundry Equipment, over $\$ 4$ million.

The production index for the primary products of the industry increased to 114 in 1963 from the 1958 level of 90 . The unit value index for 1963 was 104 compared to 107 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3632-HOUSEHOLD REFRIGERATORS AND HOME AND FARM FREEZERS

This industry comprises establishments primarily engaged in manufacturing household refrigerators and home and farm freezers. Establishments primarily engaged in manufacturing commercial and industrial refrigeration equipment, packaged room coolers, and dehumidifiers are classified in industry 3585. For a detailed list of products of industry 3632 , refer to table 6A, product codes 3632111 to 3632229.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Household Refrigerators lndustry totaled $\$ 1,307$ million. This amount included shipments of household refrigerators and freezers (primary products) valued at $\$ 831$ million, shipments of other products (secondary products) valued at $\$ 432$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 44$ million.

This industry's shipments of household refrigerators represented 66 percent of its total product shipments. The industry specialization ratio in 1958 was 74 percent. Secondary products shipped by this industry in 1963 include heat transfer equipment ( $\$ 148$ million), and compressors and compressor units, all refrigerants ( $\$ 54$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 93 percent of the total industry shipments are represented by plants specializing in household refrigerators; and 7 percent in home and farm freezers.

Shipments of household refrigerators by this industry represented 99 percent of all shipments of these products ( $\$ 832$ million) by all industries. In 1958 the coverage ratio was 98 percent.

The production index for the primary products of the industry increased to 156 in 1963 from the 1958 level of 112 . The unit value index for 1963 was 72 compared to 87 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3633-HOUSEHOLD LAUNDRY EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing laundry equipment such as washing machines, wringers, driers, and ironers for household use. Establishments primarily engaged in manufacturing commercial laundry equipment are classified in industry 3582. Although the SIC classifies coin-operated washing machines in industry 3582, data for these machines are included in the 1963 Census of Manufactures in industry 3633 as in 1958. For a detailed list of products of industry 3633, refer to table 6A, product codes 3633131 to 3633298 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Household Laundry Equipment Industry totaled $\$ 760$ million. This amount included shipments of household laundry equipment (primary products) valued at $\$ 664$ million, shipments of other products (secondary products) valued at $\$ 79$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 17$ million.

This industry's shipments of household laundry equipment represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 consisted mainly of commercial laundry, dry cleaning, and pressing machinery and equipment ( $\$ 7$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 97 percent of the total industry shipments are represented by plants specializing in household mechanical washing machines, dryers, and washer-dryer combinations; and 3 percent in other household laundry equipment and parts.

Shipments of household laundry equipment by this industry represented 87 percent of all shipments of these products ( $\$ 766$ million) by all industries. ln 1958 the coverage ratio was 91 percent. Other industries shipping household laundry equipment include industry 3632, Household Refrigerators, over $\$ 50$ million.

The production index for the primary products of the industry increased to 134 in 1963 from the 1958 level of 117 . The unit value index for 1963 was 96 compared to 103 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3634-ELECTRIC HOUSEWARES AND FANS

This industry comprises establishments primarily engaged in manufacturing electric housewares for heating, cooking, and other purposes; and electric fans. lmportant products of this industry include electric air heaters, bed covering, blenders, broilers, deep fat fryers, flat irons, food mixers, hot plates, percolators and coffee makers, roasters, toasters, desk and bracket fans, and hassock or floor fans. For a detailed list of products of industry 3634 , refer to table 6 A , product codes 3634111 to 3634431 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electric Housewares and Fans Industry totaled $\$ 850$ million. This amount included shipments of electric housewares and fans (primary products) valued at $\$ 658$ million, shipments of other products (secondary products) valued at $\$ 101$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 91$ million.

This industry's shipments of electric housewares and fans represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 24 percent of the total industry shipments are represented by plants specializing in electric fans, except industrial type; and 74 percent in other small household electric appliances except parts and electric razors.

Shipments of electric housewares and fans by this industry represented 81 percent of all shipments of these products ( $\$ 810$ million) by all industries. In 1958 the coverage ratio was 82 percent. Other industries shipping electric housewares and fans include industry 3461, Metal Stampings $\$ 31$ million; and industry 3631, Household Cooking Equipment, over $\$ 6$ million.

The production index for the primary products of the industry increased to 189 in 1963 from the 1958 level of 108. The unit value index for 1963 was 86 compared to 101 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3635-HOUSEHOLD VACUUM CLEANERS

This industry comprises establishments primarily engaged in manufacturing vacuum cleaners for household use. Establishments primarily engaged in manufacturing vacuum cleaners for industrial use are classified in industry 3584. For a detailed list of products of industry 3635, refer to table 6A, product codes 3635011 to 3635071.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Household Vacuum Cleaners Industry totaled $\$ 175$ million. This amount included shipments of household vacuum cleaners (primary products) valued at $\$ 146$ million, shipments of other products (secondary products) valued at $\$ 23$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 6$ million.

This industry's shipments of household vacuum cleaners represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent.

Shipments of household vacuum cleaners by this industry represented 80 percent of all shipments of these products ( $\$ 183$ million) by all industries. In 1958 the coverage ratio was 83 percent. Other industries shipping household vacuum cleaners include industry 3639, Household Appliances, N.E.C., over $\$ 10$ million; and industry 3634, Electric Housewares and Fans, over $\$ 2$ million.

The production index for the primary products of the industry increased to 145 in 1963 from the 1958 level of 119 . The unit value index for 1963 was 93 compared to 96 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3636-SEWING MACHINES

This industry comprises establishments primarily engaged in manufacturing sewing machines for domestic and industrial use. For a detailed list of products of industry 3636, refer to table 6A, product codes 3636011 to 3636081.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Sewing Machines lndustry totaled $\$ 117$ million. This amount included shipments of sewing machines (primary products) valued at $\$ 101$ million.

This industry's shipments of sewing machines represented 90 to 95 percent of its total product shipments. The industry specialization ratio in 1958 was 97 percent.

Shipments of sewing machines by this industry represented 96 percent of all shipments of these products ( $\$ 105$ million) by all industries. ln 1958 the coverage ratio was 94 percent.

The production index for the primary products of the industry decreased to 76 in 1963 from the 1958 level of 78 . The unit value index for 1963 was 128 compared to 117 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3639-HOUSEHOLD APPLIANCES NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing household appliances, n.e.c., such as hot water heaters, dishwashers, and food waste disposal units. For a detailed list of products of industry 3639, refer to table 6A, product codes 3639111 to 3639391 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Household Appliances, N.E.C., Industry totaled $\$ 435$ million. This amount included shipments of household appliances, n.e.c. (primary products) valued at $\$ 327$ million, shipments of other products (secondary products) valued at $\$ 90$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 18$ million.

This industry's shipments of household appliances, n.e.c., represented 79 percent of its total product shipments. The industry specialization ratio in 1958 was also 79 percent. Secondary products shipped by this industry in 1963 include other heating equipment (except electric) and parts for nonelectric heating equipment ( $\$ 13$ million), and household vacuum cleaners, including parts and attachments, over ( $\$ 10$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 48 percent of the total industry shipments are represented by plants specializing in household water heaters, except electric.

Shipments of household appliances, n.e.c., by this industry represented 79 percent of all shipments of these products ( $\$ 415$ million) by all industries. $\ln 1958$ the coverage ratio was 83 percent.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3639 , e.g., water heaters, electric, 87 percent; water heaters, except electric, 93 percent; and other household appliances and parts, 67 percent.

The production index for the primary products of the industry increased to 195 in 1963 from the 1958 level of 140 . The unit value index for 1963 was 83 compared to 95 in 1958. Both indexes were computed on a basis of $1954=100$.


## table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3631. - HOUSEHOLD COOKING EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 77 | 83 | 53 | 19,191 | 111,266 | 15,149 | 30,356 | 75,580 | 230,285 | 253,530 | 473,453 | 8,216 | 87 | 72 |
|  | (NA) | (NA) | (NA) | 18,787 | 102,704 | 14,158 | 27,216 | 66,463 | 192,219 | 216,962 | 411,859 | 4,736 | (NA) | ( NA$)$ |
|  | (NA) | (NA) | (NA) | 18,882 | 102,103 | 14,184 | 27,904 | 65,878 | 184,862 | 218,070 | 401,412 | 3,728 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 20,127 | 104,139 | 15,031 | 29,197 | 63,084 | 186,191 | 219,697 | 407,253 | 6,970 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 18,979 | 96,746 | 14,979 | 29,971 | 66,146 | 194,260 | 216,927 | 411,370 | 6,163 | (NA) | (NA) |
|  | 64 | 69 | 55 | 18,152 | 89,239 | 14,101 | 28,160 | 60,331 | 181,091 | 184,950 | 364,852 | 4,002 | 88 | 72 |
|  | INDUSTRY 3632. - HOUSEHOLD REFRIGERATORS |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 31 | 34 | 25 | 43, 065 | 279,977 | 35,232 | 69,978 | 212,228 | 631,269 | 696,141 | 1,306,539 | 21,765 | 66 | 99 |
|  | (NA) | (NA) | (NA) | 42,110 | 259,054 | 34, 849 | 73,040 | 199,392 | 570,432 | 661,374 | 1,205,186 | 13,333 | (NA) | ( NA) |
|  | (NA) | (NA) | (NA) | 41,714 | 253,579 | 33,855 | 66,812 | 192,422 | 470, 067 | 621,963 | 1,101,562 | 13,757 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 47,137 | 265,108 | 38,835 | 73,899 | 202,905 | 525,537 | 660,740 | 1,156,781 | 16,023 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 47,016 | 253,554 | 38,972 | 77,429 | 195,100 | 537,346 | 672,934 | 1,199,406 | (12,541) | (NA) | (NA) |
|  | 25 | 26 | 26 | 41,493 | 221,439 | 33,177 | 65,592 | 167,352 | 433,369 | 537,586 | 1,002,302 | 9,870 | 74 | 98 |
|  | INDUSTRY 3633. -HOUSEHOLD IAUNDRY EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 31 | 39 | 28 | 18,343 | 115,387 | 14,738 | 28,827 | 85,865 | 353,863 | 416,015 | 760,161 | 9,217 | 89 | 87 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 21,091 | 131,584 | 15,584 | 30,648 | 88,528 | 346,398 | 414,837 | 755,743 | 6,419 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 21,480 | 126,735 | 15,594 | 30,438 | 83,620 | 313,836 | 395,675 | 715,361 | 7,070 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 23,362 | 131,831 | 17,258 | 32,925 | 88,885 | 279,150 | 433,400 | 722,983 | 10,690 | (NA) | (NA) |
| 19591 | (NA) | (NA) | (NA) | 25,906 | 142,060 | 19,380 | 37,521 | 96,586 | 347, 376 | 488,709 | 835,786 | 11,125 | (NA) | (NA) |
| $1958{ }^{2}$ | 33 | 39 | 33 | 24,597 | 134, 263 | 18,021 | 35,751 | 89,586 | 324,480 | 427,180 | 738,920 | 7,219 | 91 | 91 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 21,901 | 105,674 | 16,395 | 31,365 | 72,728 | 238,290 | 395,604 | 629,176 | 12,090 | 95 | 85 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 25,271 | 118,898 | 19,758 | 38,228 | 86,778 | 271,198 | 453,107 | 708,747 | 20,954 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 23,819 | 108,247 | 18,948 | 36,626 | 78,469 | 241,594 | 387,983 | $\mathrm{r}_{5}^{628,284}$ | 15,239 | (NA) | (NA) |
| 1954. | 48 | 56 | 39 | 22,105 | 98,556 | 16,710 | 32,497 | 68,066 | 190,686 | 331,882 | 541,346 | 18,569 | 93 | 81 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 27,441 | 12C,019 | 20,986 | (NA) | 85,349 | 213,374 | 355,667 | 569,041 | ( NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 25,086 | 103,913 | 19,267 | (NA) | 71,203 | 195,012 | 286,654 | 481,668 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 23,442 | 91,977 | 17,927 | (NA) | 62,792 59 593 | 173,318 | 290,940 | 464,260 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 22,797 | 82,186 | 17,887 | (NA) | 59,593 | 165,761 | 266,535 | 432,298 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 18,556 28,403 | 63;535 | 14,095 23,651 | (NA) 48,647 | 43,498 65,596 | 119,968 | 181,229 | 301,199 | (NA) | (NA) 90 | (NA) 91 |
| 1947. | 59 | 65 | (NA) | 28,403 9,610 | 85,596 | 23,651 7 | 48,647 | 65,596 | 161,791 25,236 | 280,539 36,365 | 442,297 61,601 | (NA) | 90 (NA) | (NA) |
| 1939. | (NA) | 42 | (NA) | 9,610 10,575 | 13,890 14,250 | 7,466 9,302 | (NA) | 9,277 11,675 | 25,236 28,681 | 36,365 | 61,601 69,889 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 40 | (NA) | 10,575 | 14, 250 | 9,302 | (NA) | 11,675 | 28,681 25,384 | 41,208 37,041 | 69,889 62,425 | (NA) | (NA) | (NA) |
| 1933........... | (NA) | 41 | (NA) | 10,271 8,240 | 12,605 8,528 | 8,742 6,956 | (NA) | 9,852 | 25,384 20,181 | 37,041 24,361 | 62,425 44,542 | (NA) | (NA) | (NA) |
|  | (NA) | 41 | (NA) | 8,240 | 8,528 | 6,956 | (NA) | 6,363 | 20,181 | 24,361 | 44,542 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3634. -ELECTRIC HOUSEWARES AND FANS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 286 | 312 | 136 | 38,801 | 188,257 | 31,053 | 59,567 | 126,912 | 463,845 | 394,578 | 850,281 | 17,009 | 87 | 81 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 35,006 | 170,608 | 27,922 | 52,166 | 112,907 | 403,992 | 355,715 | 740,524 | 10,679 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 31,789 | 151,653 | 25,308 | 47,744 | 99,992 | 359,976 | 310, 274 | 677, 054 | 8,688 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 32,334 | 152,561 | 25,833 | 49,101 | 101,544 | 355,716 | 293,010 | 628,566 | 11,193 | (NA) | (NA) |
| 19591........ | (NA) | (NA) | (NA) | 30,226 | 139,094 | 23,815 | 45,929 | 93,074 | 335,014 | 261,030 | 596,219 | 10,688 | (NA) | (NA) |
| 1958²......... | 289 | 311 | 105 | 29,150 | 128,850 | 22,477 | 42,804 | 84,557 | 301,033 | 245,105 | 559,090 | 9,985 | 86 | 82 |
|  | INDUSTRY 3635. -HOUSEHOLD VACUUM CLEANERS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 34 | 34 | 13 | 5,682 | 35,524 | 4,235 | 8,208 | 22,670 | 116,137 | 65,315 | 175,357 | 5,739 | 87 | 80 |
| $1962{ }^{2}$ | (NA) | (NA) | (NA) | 5,553 | 33,439 | 4,016 | 7,807 | 20,692 | 107.518 | 59,682 | 163,580 | 4,232 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 5,672 | 33,303 | 3,980 | 7,619 | 19,728 | 90,237 | 58,007 | 150,803 | 2,803 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 5,739 | 33,634 | 4,057 | 7,894 | 20,312 | 94,'148 | 62,431 | 154,421 | 2,280 | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 5,872 | 33,590 | 4,221 | 8,498 | 20,748 | 90,233 | 65,463 | 153,692 | 4,184 | (NA) | (NA) |
| 1958 (new SIC). | 27 | 27 | 14 | 5,330 | 29,863 | 3,750 | 7,454 | 17,956 | 84,180 | 55,359 | 142,020 | 2,217 | 93 | 83 |
| 1958 (old SIC) ${ }^{3}$. | (NA) | 46 | 21 | 5,871 | 32,720 | 4,116 | 8,188 | 19,370 | 89,409 | 62,220 | 153,870 | 2,240 | (NA) | (NA) |
| $1957^{1} \ldots . . .$ | (NA) | (NA) | (NA) | 6,967 | 38,098 | 5,147 | 9,806 | 24,497 | 103,851 | 67,891 | 171,756 | 2,576 | (NA) | (NA) |
| 1956²......... | (NA) | (NA) | (NA) | 8,899 | 46,023 | 6,828 | 13,302 | 30,408 | 120,036 | 89,554 | 205,217 | (NA) | (NA) | (NA) |
| $1955^{1}$. | (NA) | (NA) | (NA) | 8,430 | 40,491 | 6,562 | 12,194 | 26,770 | 106,520 | 84,581 | 187,970 | (NA) | (NA) | (NA) |
| 1954. | 37 | 39 | 21 | 8,383 | 38,867 | 6,408 | 12,717 | 26,903 | 89,877 | 66,057 | 160,512 | 2,094 | 80 | 88 |
| 19531 | (NA) | (NA) | (NA) | 10,517 | 47,543 | 8,014 | 16,440 | 33,365 | 107,419 | 77,082 | 184,501 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 11,242 | 49,165 | 8,683 | 18,374 | 35,500 | 98,365 | 83,643 | 181,958 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 11,702 | 47,329 | 9,014 | (NA) | 33,393 | 86,097 | 81,100 | 167,147 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 11,254 | 42,735 | 8,702 | 17,464 | 30,297 | 101,309 | 73,027 | 174,286 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 10,656 | 37,711 | 7,982 | 15,859 | 26,398 | 75,994 | 73,960 | 149,904 | (NA) | (NA) | (NA) |
| 1947.......... | 34 | 34 | 20 | 14,880 | 44,797 | 12,232 | 24,434 | 35,266 | 91,047 | 74,994 | 160,184 | (NA) | (NA) | (NA) |
| 1939.......... | (NA) | 21 | (NA) | (NA) | (NA) | 3,886 | (NA) | 5,288 | 33,113 | 9,132 | 42,245 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3636. -SEWING MACHINES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 83 | 86 | 17 | 7,646 | 51,962 | 5,844 | 12,136 | 36,303 | 98,328 | 30,567 | 117,157 | 2,568 | 90-95 | 96 |
| $1962{ }^{1}$. | (NA) | (NA) | (NA) | 6,793 | 44,702 | 4,538 | 10,141 | 29,098 | 81,537 | 48,333 | 120,327 | 1,536 | (NA) | (NA) |
| $1961{ }^{1}$. | (NA) | (NA) | (NA) | 9,921 | 58,926 | 6,703 | 13,791 | 38,008 | 89,730 | 50,068 | 136,765 | 3,511 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 10,373 | 62,407 | 7,132 | 15,748 | 41,168 | 87,526 | 50,267 | 134, 925 | 4,262 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 9,771 | 53,524 | 7,109 | 13,904 | 34,834 | 72, 248 | 49,412 | 128,647 | (S) | (NA) | (NA) |
| 1958. |  |  |  | 9,607 | 48,314 | 7,004 | 13,343 | 32,782 | 61,991 | 4,4,597 | 109,314 | 5,380 | 97 | 94 |
| 1957¹...... | (NA) | (NA) | (NA) | 11,745 | 55,748 | 8,828 | 17,072 | 40,241 | 84,494 | 36,453 | 121,786 | 4,360 | 91 | 97 |

See footnotes at end of table.

## table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Cov- <br> erage <br> ratio <br> (per- <br> cent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3636. -SEWING MACHINES-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 1956^{1} . \\ & 1955^{1} . \\ & 1954 . \\ & 1953^{\mathrm{i}} \\ & 1952^{1} . \\ & 1951^{1} . \\ & 1950^{1} . \end{aligned}$ | (NA) | (NA) | (NA) | 13,296 | 64,094 | 10,049 | 19,649 | 45,881 | 89,176 | 46,167 | 127, 156 | 3,668 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 13,880 | 59,412 | 10,799 | 19,929 | 43,663 | 77,896 | 47,030 | 129,736 | 2,381 | (NA) | (NA) |
|  | 78 | 82 | 28 | 12,414 | 56,552 | 9,443 | 19,142 | 40,697 | 70,339 | 38,796 | 114,185 | 3,045 | 91 | 94 |
|  | (NA) | (NA) | (NA) | 15,963 | 69,114 | 12,611 | 24,773 | 49,508 | 84,454 | 51,531 | 135,985 | (NA) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 17,381 | 71,487 | 14,152 | 27,021 | 53,764 | 98,836 | 41,024 | 139,860 | (NA) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 19,190 | 78,627 | 16,075 | (NA) | 61,457 | 105,131 | 46,475 | 151,606 | (NA) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 19,429 | 72,386 | 16,453 | 33,238 | 57,964 | 105,346 | 63,382 | 168,728 | (NA) | (NA) | (NA) |
| $\begin{aligned} & 19491 . \\ & 1947 . \\ & 1939 . \\ & 1937 . \\ & 1935 . \\ & 1933 . \end{aligned}$ | (NA) | (NA) | (NA) | 15,325 | 53,335 | 12,666 | 27,518 | 41,271 | 79,240 | 47,694 | 126,934 | (NA) | (NA) | (NA) |
|  | 69 | 70 | (NA) | 15,305 | 48,484 | 12,647 | 26,095 | 37,926 | 68,681 | 28,880 | 97,011 | (NA) | 95 | 94 |
|  | (NA) | 39 | (NA) | 9,568 | 14,895 | 7,840 | (NA) | 11,157 | 21,096 | 8,611 | 29,707 | (NA) | (NA) | (NA) |
|  | (NA) | 36 | (NA) | 10,195 | 16,243 | 9,019 | (NA) | 13,551 | 25,833 | 9,003 | 34,836 | (NA) | (NA) | (NA) |
|  | (NA) | 39 | (NA) | 8,699 | 11,574 | 7,509 | (NA) | 9,053 | 16,603 | 6,032 | 22,635 | (NA) | (NA) | (NA) |
|  | (NA) | 30 | (NA) | 7,136 | 7,590 | 6,313 | (NA) | 6,034 | 10,064 | 2,862 | 12,926 | (NA) | (NA) | (NA) |
| $\begin{aligned} & 1963 . \\ & 1962^{1} . \\ & 1961^{1} . \\ & 1960^{1} . \\ & 1959^{1} . \\ & 1958^{2} . \end{aligned}$ | INDUSTRY 3639. -HOUSEHOLD APPLIANCES, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 102 | 112 | 67 | 13,127 | 81,590 | 9,896 | 19,929 | 54,286 | 204,188 | 233,073 | 435,458 | 6,738 | 79 | 79 |
|  | (NA) | (NA) | (NA) | 13,168 | 79,532 | 9,798 | 19,565 | 52,889 | 172,287 | 241,732 | 412,638 | 7,532 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 12,219 | 73,317 | 8,625 | 17,414 | 46,583 | 140,968 | 209,730 | 353,219 | $(5,624)$ | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 12,460 | 73,598 | 8,869 | 17,603 | 44,842 | 143,146 | 206,457 | 348,470 | 8,298 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 14,359 | 81,506 | 10,021 | 19,003 | 49,190 | 161,668 | 235,366 | 398,977 | (S) | (NA) | (NA) |
|  | 86 | 94 | 71 | 14,622 | 79,658 | 10,102 | 19,985 | 47,367 | 162,664 | 212,004 | 378,758 | 4,365 | 79 | 83 |

[^234]Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard exror of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishnents canvassed in the annual survey of manu-
 lishunents. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The
 data.
${ }^{2}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Accordingly, the data for 1963 and 1958 are not comparable with those for earlier years.
${ }^{3}$ A minor revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that the industry is not strictly comparable. The 1957 and earlier figures are on the old SIC derinition of the industry which included industrial vacuum cleaners and parts.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | $\begin{gathered} \text { Total } \\ \text { (number) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \\ \hline \end{gathered}$ | Wages <br> (\$1,000) |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3631. -HOUSEHOLD COOKING EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 83 | 53 | 19,191 | 111,266 | 15,149 | 30,356 | 75,580 | 230,285 | 253,530 | 473,453 | 8,216 | 18,152 | 181,091 |
| Northeast. . . . ....... Pennsylvania..... |  | 12 5 | $\begin{aligned} & 3,010 \\ & 1,470 \end{aligned}$ | $\begin{array}{r} 17,050 \\ 8,620 \end{array}$ | 2,429 1,093 | $\begin{aligned} & 4,923 \\ & 2,169 \end{aligned}$ | 4,709 | 29,365 14,782 | 15,360 | 29,629 | (D) | 3,019 | $\begin{array}{r} 20,140 \\ \left({ }^{2}\right) \end{array}$ |
| North Central...... . Illinois.......... | 31 18 | 19 12 | 8,306 5,214 | 49,178 30,139 | 6,561 4,489 | 12,643 8,492 | 34,385 23,663 | 93,767 57,595 | 104,448 69,059 | 196,284 125,608 | 2,192 1,203 | 8,887 5,628 | $\begin{aligned} & 90,176 \\ & 56,719 \end{aligned}$ |
| South... | 21 | 11 | 5,472 | 29,385 | 4,455 | 9,320 | 20,895 | 79,583 | 84,096 | 159,275 | 3,991 | 4,245 | 51,561 |
| $\begin{aligned} & \text { Pacific.............. } \\ & \text { Califormia....... } \end{aligned}$ | 15 | 11 | 2,403 | 15,653 | 1,704 | 3,470 | 9,005 | 27,570 | 29,972 | 55,934 | 1,090 | 2,001 | 19,214 |
|  | 15 | 11 | 2,403 | 15,653 | 1,704 | 3,470 | 9,005 | 27,570 | 29,972 | 55,934 | 1,090 | 2,001 | 19,214 |
|  | INDUSTRY 3632.-HOUSEHOLD REFRIGERATORS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 34 | 25 | 43,065 | 279,977 | 35,232 | 69,978 | 212,228 | 631,269 | 696,141 | 1,306,539 | 21,765 | 41,493 | 433,369 |
| East North Central. Michigan. . . . . . . . Wisconsin......... | 1973 | $\begin{array}{r} 17 \\ 6 \\ 3 \end{array}$ | $\begin{array}{r} 34,130 \\ 4,939 \\ 521 \end{array}$ | $\begin{array}{r} 226,342 \\ 29,729 \\ 2,989 \end{array}$ | $\begin{array}{r} 27,883 \\ 4,028 \\ 410 \end{array}$ | $\begin{array}{r} 55,579 \\ 8,303 \\ 865 \\ \\ 14,399 \end{array}$ | $\begin{array}{r} 172,159 \\ 22,547 \\ 2,079 \\ 40,069 \end{array}$ | $\begin{array}{r} 498,188 \\ 55,894 \\ 5,372 \\ 133,081 \end{array}$ | $\begin{array}{r} 536,686 \\ 87,845 \\ 7,056 \\ 159,455 \end{array}$ | $\begin{array}{r} 1,020,635 \\ 142,205 \\ 12,298 \\ 285,904 \end{array}$ | $\begin{array}{r} 18,511 \\ 3,960 \\ 103 \\ 3,254 \end{array}$ | $\begin{array}{r} 32,068 \\ 4,696 \\ 1,165 \\ 9,425 \end{array}$ | $\begin{array}{r} 311,460 \\ 37,092 \\ 9,523 \\ 121,909 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All other divisions | 15 | 8 | 8,935 | 53,635 | 7,349 |  |  |  |  |  |  |  |  |
|  | INDUSTRY 3633.-HOUSEHOLD LAUNDRY EQUTPMENT |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 39 | 28 | 18,343 | 115,387 | $\begin{array}{r} 14,738 \\ 10,122 \\ 4,616 \end{array}$ | $\begin{array}{r} 28,827 \\ 19,377 \\ 9,450 \end{array}$ | $\begin{aligned} & 85,865 \\ & 58,586 \\ & 27,279 \end{aligned}$ | $\begin{aligned} & 353,863 \\ & 220,255 \\ & 133,608 \end{aligned}$ | $\begin{aligned} & 416,015 \\ & 307,205 \\ & 108,810 \end{aligned}$ | $\begin{aligned} & 760,161 \\ & 518,195 \\ & 241,966 \end{aligned}$ | $\begin{aligned} & 9,217 \\ & 6,400 \\ & 2,817 \end{aligned}$ | $\begin{aligned} & 24,597 \\ & 13,904 \\ & 10,693 \end{aligned}$ | $\begin{aligned} & 324,480 \\ & 181,451 \\ & 143,029 \end{aligned}$ |
| East North Central. <br> All other divisions | 22 | 18 | $\begin{array}{r} 12,764 \\ 5,579 \end{array}$ | $\begin{aligned} & 80,406 \\ & 34,981 \end{aligned}$ |  |  |  |  |  |  |  |  |  |
|  | 17 | 10 |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3634. -ELECTRIC HOUSEWARES AND FANS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 312 | 136 | 38,801 | 188,257 | 31,053 | 59,567 | 126,912 | 463,845 | 394, 578 | 850,281 | 17,009 | 29,150 | 301,033 |
| New England......... Massachusetts.... | $\begin{aligned} & 28 \\ & 11 \end{aligned}$ | 16 5 | $\begin{array}{r} 5,403 \\ 269 \end{array}$ | $\begin{array}{r} 27,261 \\ 1,1,30 \end{array}$ | $\begin{array}{r} 4,162 \\ 211 \end{array}$ | $\begin{array}{r} 8,198 \\ 382 \end{array}$ | $\begin{array}{r} 17,847 \\ 792 \end{array}$ | $\begin{array}{r} 90,583 \\ 1,052 \end{array}$ | $\begin{array}{r} 49,090 \\ 1,534 \end{array}$ | $137,13 / 4$ 4,150 | 2,416 30 | 4,613 ${ }_{(2)}$ | 57, ${ }^{(222}$ |
| Middle Atlantic.... New York.......... | $\begin{aligned} & 93 \\ & 66 \end{aligned}$ | 36 30 | $\begin{aligned} & 6,498 \\ & 4,220 \end{aligned}$ | $\begin{aligned} & 31,233 \\ & 19,025 \end{aligned}$ | $\begin{aligned} & 5,243 \\ & 3,438 \end{aligned}$ | $\begin{array}{r} 10,060 \\ 6,556 \end{array}$ | $\begin{aligned} & 20,929 \\ & 12,858 \end{aligned}$ | $\begin{aligned} & 81,287 \\ & 44,283 \end{aligned}$ | $\begin{aligned} & 60,699 \\ & 38,569 \end{aligned}$ | $\begin{array}{r} 141,274 \\ 82,622 \end{array}$ | $\begin{array}{r} 2,188 \\ 949 \end{array}$ | $\begin{aligned} & 5,422 \\ & 3,489 \end{aligned}$ | 56,849 29,943 |
| East North Central. Illinois.......... Wisconsin........ | $\begin{aligned} & 75 \\ & 31 \end{aligned}$ | $\begin{array}{r} 31 \\ 16 \\ 4 \end{array}$ | $\begin{array}{r} 12,676 \\ 7,022 \\ 2,330 \end{array}$ | $\begin{aligned} & 75,728 \\ & 43,917 \\ & 12,950 \end{aligned}$ | $\begin{aligned} & 9,360 \\ & 5,228 \\ & 1,647 \end{aligned}$ | $\begin{array}{r} 17,793 \\ 9,919 \\ 3,180 \end{array}$ | $\begin{array}{r} 46,488 \\ 26,993 \\ 7,945 \end{array}$ | $\begin{array}{r} 157,884 \\ 97,193 \\ 23,391 \end{array}$ | $\begin{array}{r} 142,396 \\ 89,355 \\ 16,579 \end{array}$ | $\begin{array}{r} 298,883 \\ 183,913 \\ 41,693 \end{array}$ | $\begin{aligned} & 5,220 \\ & 2,873 \\ & 1,052 \end{aligned}$ | $\begin{array}{r} 11,767 \\ 7,549 \\ 2,043 \end{array}$ | $\begin{gathered} 114,274 \\ 73,860 \\ 17,661 \end{gathered}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West North Central. Missouri.......... | 188 | $\begin{aligned} & 9 \\ & 7 \end{aligned}$ | $\begin{aligned} & 2,833 \\ & 2,676 \end{aligned}$ | $\begin{aligned} & 11,460 \\ & 10,842 \end{aligned}$ | $\begin{aligned} & 2,559 \\ & 2,432 \end{aligned}$ | $\begin{aligned} & 5,214 \\ & 4,960 \end{aligned}$ | $\begin{aligned} & 9,544 \\ & 9,094 \end{aligned}$ | $\begin{aligned} & 23,868 \\ & 22,977 \end{aligned}$ | $\begin{aligned} & 26,765 \\ & 25,947 \end{aligned}$ | $\begin{aligned} & 50,631 \\ & 48,938 \end{aligned}$ | $\begin{aligned} & 797 \\ & 762 \end{aligned}$ | $\begin{aligned} & 2,214 \\ & 2,094 \end{aligned}$ | $\begin{aligned} & 14,724 \\ & 14,088 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South Atlantic..... North Carolina... | 2510 | 145 | $\begin{aligned} & 3,195 \\ & 2,064 \end{aligned}$ | $\begin{array}{r} 12,101 \\ 7,823 \end{array}$ | $\begin{aligned} & 2,774 \\ & 1,820 \end{aligned}$ | $\begin{aligned} & 5,522 \\ & 3,615 \end{aligned}$ | 9,351 | 27,658 | 34,605 | 61,892 | (D) | ${ }^{2}$ ) | ${ }^{2}$ ) |
|  |  |  |  |  |  |  | 6,279 | 17,851 | 21,053 | 38,726 | 1,338 | 1,061 | 11,169 |
| East South Central. Tennessee. . . . . . . . | 168 | 136 | $\begin{aligned} & 5,443 \\ & 2,425 \end{aligned}$ | $\begin{array}{r} 17,205 \\ 8,256 \end{array}$ | 4,659 | 8,320 | 12,786 | 41,750 | 58,721 | 95,554 | (D) | $\left(^{2}\right)$ | ${ }^{2}$ ) |
|  |  |  |  |  | 2,140 | 3,988 | 6,374 | 25,698 | 25,626 | 48,944 | 800 | 530 | 4,997 |
| West South Central. | 13 | 6 | 1,211 | 4,123 | 1,080 | 2,125 | 3,477 | 5,090 | 6,799 | 13,022 | (D) | ${ }^{2}$ ) | ${ }^{2}$ ) |
| West............... | 4.4 | 11 | 1,542 | 9,146 | 1,216 | 2,335 | 6,490 | 35,725 | 15,503 | 51,891 | 658 | $\left({ }^{2}\right)$ | (2) |
| California | 34 | 8 | 1,387 | 8,557 | 1,085 | 2,102 | 6,042 | 34,721 | 14,119 | 49,479 | 617 |  | ${ }^{2}$ ) |
|  |  |  |  |  |  | TRY 363 | -HOUSEHO | VACJUM CI | ANERS |  |  |  |  |
| Total.. | 34 | 13 | 5,682 | 35,524 | 4,235 | 8,208 | 22,670 | 116,137 | 65,315 | 175,357 | 5,739 | 5,330 | 84,180 |
| North Central...... | 16 | 7 | 4,233 | 26,617 | 3,095 | 6,053 | 16,624 | 83,924 | 50,171 | 128,164 | 5,175 | 3,962 | 59,660 |
| A11 other divisions New York. . . . . . . . . | 18 6 | 6 1 | 1,449 105 | 8,907 442 | 1,140 91 | 2,155 182 | 6,046 299 | 32,213 | 15,144 | $\begin{array}{r} 47,193 \\ 1,447 \end{array}$ | 564 15 | 1,368 | $\begin{array}{r} 24,520 \\ (2) \end{array}$ |
|  |  |  |  |  |  | INDUST | 3636. -S | Ing MACHIN |  |  |  |  |  |
| Total.......... | 86 | 17 | 7,646 | 51,962 | 5,844 | 12,136 | 36,303 | 98,328 | 30,567 | 117,157 | 2,568 | 9,607 | 61,991 |
| Middle Atlantic.... | 55 | 8 | 4,246 | 28,962 | 3,170 | 6,459 | 20,125 | 43,726 | 16,929 | 55,126 | 990 | 5,912 | 32,225 |
| All other divisions | 31 | 9 | 3,400 | 23,000 | 2,674 | 5,677 | 16,178 | 54,602 | 13,638 | 62,031 | 1,570 | 3,695 | 29,766 |

## tABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | $\begin{gathered} \text { Capital } \\ \text { expend- } \\ \text { itures, } \\ \text { new } \\ (\$ 1,000) \end{gathered}$ | All employees (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (numbet) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \\ \hline \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \\ \hline \end{gathered}$ | Wages $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3639.-HOUSEHOLD APPLIANCES, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.. | 112 | 67 | 13,127 | 81,590 | 9,896 | 19,929 | 54,286 | 204,188 | 233,073 | 435,458 | 6,738 | 14,622 | 162,664 |
| New England. | 4 | 3 | 752 | 3,861 | 502 | 1,007 | 2,184 | 10,001 | 9,286 | 18,753 | (D) |  |  |
| New York. | 9 | 5 | 257 | 1,529 | 195 | 387 | 981 | 2,962 | 3,408 | 6,463 | 87 |  |  |
| East North Central. | 41 | 24 | 5,762 | 37,766 | 4,440 | 9,024 | 26,072 | 86,489 | 98,155 | 184,499 | 2,233 | (2) | ${ }^{2}$ ) |
| Ohio.............. | 9 | 5 | 266 | 1,376 | 190 | 391 | 842 | 6,681 | 5,164 | 11,879 | 50 |  | 6,761 |
| Indiana.. | 6 | 4 | 818 3,319 | 5,250 | 630 | 1,291 | 3,508 15,891 | 13,710 39,795 | 13,131 55,384 | 27,054 95,436 | 97 1,161 | $(2)$ $(2)$ | $(2)$ $(2)$ |
| Illinois. | 13 | 8 | 3,319 | 22,014 | 2,605 | 5,277 | 15,891 | 39,795 | 55,384 | 95,436 | 1,161 | (2) | $\left.{ }^{2}\right)$ |
| West North Central. | 4 | 3 | 133 | 788 | 98 | 200 | 488 | 1,619 | 1,568 | 3,211 | 23 | ${ }^{(2)}$ | ${ }^{2}$ ) |
| South.............. | 23 | 15 | 2,347 | 13,887 | 1,913 | 3,899 | 9,600 | 54,675 | 48,101 | 100,699 | 939 | 2,597 | 31,931 |
| West............... | 25 | 13 | 3,062 | 19,165 | 2,106 | 4,245 | 11,797 | 38,831 | 58,739 | 97,352 | 2,147 | 3,461 | 42,577 |
| California....... | 17 | 10 | 2,749 | 17,418 | 1,869 | 3,802 | 10,572 | 34,311 | 54,833 | 89,032 | 2,050 | 3,134 | 40,849 | Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not ${ }^{2}{ }_{1}{ }_{1}$ n.e.c.e. Not elsewhere classified.

${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3631, Household Cooking Equipment: New England-Massachusetts, 2 (20-99); Connecticut, l (100-249); Middle Atlantic-New York, 7 (1,338); East North Central-Ohio, 4 (1,000-2,499); Indiana, 1 (1-19); Michigan, 5 (1-19); Wisconsin, 2 (1, 000-2,499); West North Central-Missouri, 1 (20-99); South Atlantic-District of Columbia, l (1-19); East South Central-Kentucky, 2 (1,000-2,499); Tennessee, 10 (3,143); Alabama, 1 (1-19); Mississippi, 1 (100-249); West South Central-0klahoma, 3 (20-99); Texas, 3 (1-19).
SIC 3632, Household Refrigerators: New England-Massachusetts, 1 (1-19); Middle Atlantic-New York, 3 (100-249); East North Central-0hio, 2 (10,000 and over); Indiana, 4 ( $5,000-9,999$ ); Illinois, 3 ( 2,968 ); West North Central-Minnesota, 4 ( 2,105 ); Iowa, 1 ( $500-999$ ); Missouri, 1 (1-19); East South Central-Kentucky, 1 (2,500-4,999); West South Central-Arkansas, 1 (1,000-2,499); Texas, 1 (100-249); Pacific-California, 2 (1-19).
SIC 3633, Household Laundry Equipment: Middle Atlantic -New York, 4 (250-499); Pennsylvania, 1 ( 2504499 ); East North Central-Ohio, 5 ( 6,486 ); Indiana, 1 (1-19); Illinois, 4 (2,882); Michigan, 6 (1,916); Wisconsin, 6 (1,000-2,499); West North Central-Minnesota, 1 (20-99); Iowa, 6 (2,599); Nebraska, 1 (1-19); East South Central-Kentucky, 1 (1,000-2,499); Pacific-Oregon, 1 (1-19); Califormia, 2 (1-19).
SIC 3634, Electric Housewares and Fans: New England-Maine, 1 (1-19); New Hampshire, 1 (1-19); Rhode Island, 1 (1-19); Connecticut, 14 (5, 130); Middle Atlantic -New Jersey, 18 (219); Pennsylvania, 9 (2,059); East North Central-Ohio, 9 (2,377); Indiana, 8 (765); Michigan, 16 (182); West North Central-Minnesota, 7 (152); Iowa, 1 (1-19); Kansas 2 (1-19); South Atlantic-Delaware, 1 (100-249); Maryland, 2 (250-499); Virginia, 1 (20-99); West Virginia, 1 (20-99); South Carolina, 3 (458); Georgia, 2 (20-99); Florida, 5 (20-99); East South Central-Kentucky, 2 (500-999); Mississippi, 6 (1,000-2,499); West South Central—Arkansas, 3 (500-999); Louisiana, 3 (20-99); Oklahoma, l (1-19); Texas, 6 (359); Mountain Colorado, 2 (1-19); Arizona, 1 (1-19); Pacific-Washington, 4 (20-99); Oregon, 3 (20-99).
SIC 3635, Household Vacuum Cleaners: New England-Connecticut, l (1,000-2,499); Middle Atlantic-New Jersey, l (1-19); Pennsylvania, l (20-99); East North Central-Ohio, 10 (3,155); Illinois, 3 (1,054); Michigan, 1 (1-19); Wisconsin, 1 (1-19); West North Central-Iowa, 1 (1-19); South Atlantic-Florida, l (1-19); West South Central-Oklahoma, 2 (20-99); Mountain-Colorado, 1 (1-19); Pacific-Oregon, 1 (20-99); Califormia, 4 (188).
SIC 3636, Sewing Machines: New England-Maine, 2 (1-19); New Hampshire, 1 (1-19); Massachusetts, 8 (454); Connecticut, 2 (1,000-2,499); Middle Atlantic-New York, 45 (704); New Jersey, 6 (2,500-4,999); Pennsylvania, 4 (1-19); East North Central-Illinois, 5 (1,201); Michigan, l (1-19); West North Central-Minnesota, 2 (20-99); South Atlantic-Maryland, l (20-99); North Carolina, 1 (1-19); Florida, 1 (1-19); East South CentralTennessee, l (1-19); Alabama, l (1-19); Mississippi, l (1-19); West South Central-Texas, 1 (1-19); Mountain-Arizona, 1 (1-19); PacificCaliformia, 2 (1-19).
SIC 3639, Houschold Appliances, N.E.C.: New England-Massachusetts, 2 (500-999); Rhode Island, 1 (100-249); Connecticut, 1 (20-99); Middle Atlantic-New Jersey, 1 (1-19); Pennsylvania, 4 (250-499); East North Central-Michigan, 5 (504); Wisconsin, 8 (855); West North Central-Iowa, 1 (20-99); Missouri, 1 (20-99); Nebraska, 1 (20-99); Kansas, 1 (1-19); South Atlantic-Maryland, 1 (100-249); Georgia, 1 (20-99); Florida, 4 (20-99); East South Central-Kentucky, 2 (1,000-2,499); Tennessee, 9 (500-999); Mississippi, 1 (1-19); West South Central-Oklahoma, 1 (20-99); Texas, 4 (284); Mountain-Colorado, 1 (1-19); Pacific-Washington, 5 (227); Oregon, 2 (20-99).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

|  |
| :---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introcuction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies
(NA) Not available
(X) Not applicable.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.
${ }^{3}$ In addition respondents were requested to report total production workers for each month. This information is as follows: January, 33,689;
February, 33,564; March, 34,078; April, 34,625; May, 35,652; June, 35,957; July, 34,407; August, 34,021; September, 35,766; October, 35,995; November, 37,177; December, 37,634; The average number of production workers for the year based on a 12 month average was 35,214 . This average differs from that shown in this table, table 1, 2, and 8 because they are based on a four month average.

## table 4. Selected Statistics, by Employment Size of Establishments: 1963



[^235]
## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio <br> Col. B <br> $\overline{\mathrm{Col} . \mathrm{B}+\mathrm{C}}$ <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3631 | Household cooking equipment........ $1963 .$. | $\begin{aligned} & 473,453 \\ & 364,852 \end{aligned}$ | $\begin{aligned} & 383,784 \\ & 311,789 \end{aligned}$ | $\begin{aligned} & 59,736 \\ & 40,629 \end{aligned}$ | $\begin{aligned} & 29,933 \\ & 12,434 \end{aligned}$ | $\begin{aligned} & 87 \\ & 88 \end{aligned}$ | $\begin{aligned} & 536,748 \\ & 433,123 \end{aligned}$ | $\begin{aligned} & 383,784 \\ & 311,789 \end{aligned}$ | $\begin{aligned} & 152,964 \\ & 121,334 \end{aligned}$ | $\begin{aligned} & 72 \\ & 72 \end{aligned}$ |
| 3632 | Household refrigerators............ $1963 .$. | 1,306,539 1,002,302 | 830,894 719,684 | 431,700 256,148 | $\begin{aligned} & 43,945 \\ & 26,470 \end{aligned}$ | $\begin{aligned} & 66 \\ & 74 \end{aligned}$ | 831,821 729,170 | $\begin{aligned} & 830,894 \\ & 719,684 \end{aligned}$ | $\begin{array}{r} 927 \\ 9,486 \end{array}$ | $\begin{aligned} & 99 \\ & 98 \end{aligned}$ |
| 3633 | Household laundry equipment......... 1963.. 1958. | 760,161 738,920 | $\begin{aligned} & 663,509 \\ & 654,088 \end{aligned}$ | $\begin{aligned} & 79,244 \\ & 66,082 \end{aligned}$ | $\begin{aligned} & 17,408 \\ & 18,750 \end{aligned}$ | $\begin{aligned} & 89 \\ & 91 \end{aligned}$ | $\begin{aligned} & 766,068 \\ & 719,574 \end{aligned}$ | $\begin{aligned} & 663,509 \\ & 654,088 \end{aligned}$ | $\begin{array}{r} 102,559 \\ 65,486 \end{array}$ | $\begin{aligned} & 87 \\ & 91 \end{aligned}$ |
| 3634 | Electric housewares and fans....... 1963.. 1958 | $\begin{aligned} & 850,281 \\ & 559,090 \end{aligned}$ | $\begin{aligned} & 658,289 \\ & 446,635 \end{aligned}$ | $\begin{array}{r} 100,951 \\ 71,173 \end{array}$ | $\begin{aligned} & 91,041 \\ & 41,282 \end{aligned}$ | $\begin{aligned} & 87 \\ & 86 \end{aligned}$ | $\begin{aligned} & 809,950 \\ & 543,790 \end{aligned}$ | 658,289 446,635 | $\begin{array}{r} 151,661 \\ 97,155 \end{array}$ | $\begin{aligned} & 81 \\ & 82 \end{aligned}$ |
| 3635 | Household vacuum cleaners.......... $1963 .$. | $\begin{aligned} & 175,357 \\ & 142,020 \end{aligned}$ | $\begin{aligned} & 146,312 \\ & 129,021 \end{aligned}$ | $\begin{array}{r} 22,628 \\ 9,325 \end{array}$ | $\begin{aligned} & 6,417 \\ & 3,674 \end{aligned}$ | $\begin{aligned} & 87 \\ & 93 \end{aligned}$ | $\begin{aligned} & 183,138 \\ & 155,571 \end{aligned}$ | $\begin{aligned} & 146,312 \\ & 129,021 \end{aligned}$ | $\begin{aligned} & 36,836 \\ & 26,550 \end{aligned}$ | $\begin{aligned} & 80 \\ & 83 \end{aligned}$ |
| 3636 | Sewing machines. . . . . . . . . . . . . . . . . . . 1963. 1958. | $\begin{aligned} & 117,157 \\ & 109,314 \end{aligned}$ | $\begin{array}{r} 100,720 \\ 92,010 \end{array}$ | $\begin{array}{r} \text { (D) } \\ 2,786 \end{array}$ | $\begin{array}{r} \text { (D) } \\ 14,518 \end{array}$ | $\begin{array}{r} 90-95 \\ 97 \end{array}$ | $\begin{array}{r} 104,713 \\ 97,725 \end{array}$ | $\begin{array}{r} 100,720 \\ 92,010 \end{array}$ | $\begin{aligned} & 3,993 \\ & 5,715 \end{aligned}$ | $\begin{aligned} & 96 \\ & 94 \end{aligned}$ |
| 3639 | Household appliances, n.e.c......... 1963.. 1958.. | $\begin{aligned} & 435,458 \\ & 378,758 \end{aligned}$ | $\begin{aligned} & 326,919 \\ & 284,117 \end{aligned}$ | $\begin{aligned} & 90,174 \\ & 73,883 \end{aligned}$ | $\begin{aligned} & 18,365 \\ & 20,758 \end{aligned}$ | $\begin{aligned} & 79 \\ & 79 \end{aligned}$ | $\begin{aligned} & 414,602 \\ & 341,482 \end{aligned}$ | $\begin{aligned} & 326,919 \\ & 284,117 \end{aligned}$ | $\begin{aligned} & 87,683 \\ & 57,365 \end{aligned}$ | $\begin{aligned} & 79 \\ & 83 \end{aligned}$ |

Note: See Introduction for an explanation of terns used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
n.e.c. Not elsewhere classified.

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" colunin shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shoments of the speciffed industry divided among (a) products classified in the industry (primary nroducts). (b) products classified in other industries (secondary products). and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


[^236]TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{\text {V }}$ Value of electric razors and dry shavers shipped by other industries is included with shipments of the electric housewares and fans industry to avoid disclosure of operations of individual companies.
table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


[^237]
## TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



See footnotes at end of table.

# TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 



See footnotes at end of table.

## table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



TABLE 6A-2. Domestic Cooking Appliances (Except Electric)-Quantity and Value of Shipments: 1963 and 1958

| Product code | Product | Shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity (number of units) | Value $(\$ 1,000)$ |
| 36312 pt. | DOMESTIC-COOKING APPLIANCES (EXCEPT ELECTRIC). <br> Cooking stoves and ranges: <br> Gas: <br> Standard type, free standing: | (X) | 219,497 | (X) | 196,863 |
| $\begin{aligned} & 3631211 \\ & 3631213 \end{aligned}$ | Over $32^{\prime \prime}$ cooking top and oven. <br> Over $24^{\prime \prime}$ to $32^{\prime \prime}$ cooking top and oven. | 461,696 747,197 316,118 | 49,146 79,224 20,286 | \} $1,546,682$ | 146,057 |
|  | Apartment ranges (24" cooking top and under)............................. |  |  | ) |  |
| 3631217 3631279 | Standard type, for built-in installation (built-in or stack-on overbroiler unit). | 331,674 | 32,030 |  |  |
| 3631219 | Surface cooking tops, one or more burners (quantity in number of top units) <br> Nonstandard types: | 324,658 | 14,056 | \} 234,232 | 35,542 |
| $\begin{aligned} & 3631221 \\ & 3631223 \end{aligned}$ | Wall hung. Slide-in or drop-in (including as one unit or drop-in cooking surface with a slide-in oven) | 108,257 | 11,837 | $\{$ |  |
| 3631225 | Bungalow ranges: Gas and coal.. | 3,360 | 642 | 4,329 | 594 |
| 3631227 | All other.. | 14,731 | 2,315 | 35,832 | 5,121 |
| 3631235 | Coal and wood: <br> Ranges. | 19,020 | 1,171 | 29,974 | 1,950 |
| 3631237 | Cook stoves...... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 13,351 | 386 | 14,734 | 361 |
| 3631245 | Combination ranges (including ranges equipped with conversion burmers): Gas and oil. |  |  |  |  |
| 3631247 | Gas and coal...................................................................... | 735 | 111 | \{\} 1,452 | 281 |
| 3631249 | All other (including ranges equipped with conversion burners)........... |  |  | 2,986 | 495 |
| 3631224 | Gas hot plates................................................................. | 62,413 | 415 | 51,976 | 352 |
| 3631253 | Kerosene, gasoline, fuel, oil, and miscellaneous: <br> Kerosene ranges. |  |  | $\int(\mathrm{D})$ |  |
| 3631255 | Kerosene cookstoves................................................................... | 767,860 | 7,938 | \{ (D) | (D) |
| 3631259 | Miscellaneous cooking appliances ${ }^{1}$.......................................... . |  |  | 749,244 | 6,110 |

Source: Current Industrial Reports Series M34N "Heating and Cooking Equipment, Except Electric."
Standard Notes: - Represents zero
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
${ }^{1}$ Includes needle valve, gasoline pressure, camp stoves, cabin stoves, pocket stoves, etc.

# TABLE 6A-3. Electric Housewares and Fans-Quantity and Value of Shipments: 1963 and 1958 



See footnotes at end of table.

TABLE 6A-3. Electric Housewares and Fans-Quantity and Value of Shipments: 1963 and 1958-Continued

| Product code | Product | Shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity $\text { ( } 1,000 \text { units) }$ | $\begin{gathered} \text { Value } \\ (\$ 1,000) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Quantity } \\ \text { (1,000 units) } \end{gathered}$ | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ |
| 36343 -- | Small household electric appliances (except water heaters)-Continued Miscellaneous electric appliances-Continued |  |  |  |  |
| 3634324 | Oven and roasters (with or without broiler attachments)................. | 301 | 3,833 |  |  |
| 3634391 | Flectric tooth brushes ...................................................... | 1,239 | 11, 247 |  |  |
| 3634392 | Air purifiers (portable).................................................. | (5) | ${ }^{5}$ ) |  |  |
| 3634393 | Can openers (single-purpose units; combination purpose units such as can opener combination with knife sharpener, etc.). | 3,189 | $25,401$ |  |  |
| 3634394 | Hair dryers: <br> With bonnets. $\qquad$ | 7,565 | 84,589 | \} (x) | 30,232 |
| 3634395 | Without bonnets................................................................... | 7 50 | -251 |  |  |
| 3634396 | Humidifiers (portable)......................................................... | 382 | 3,809 |  |  |
| 3634397 | Knife sharpeners................................................................. . . | 319 | 1,967 |  |  |
| 3634398 | Other electric appliances (curling irons, vibrators, hand and face dryers, etc.). | (X) | ${ }^{2} 22,218$ |  |  |
| 3634300 | Small household appliances, n.s.k. | - | - | (X) | 9,270 |

Source: Current Industrial Reports Series M36E "Electric Housewares and Fans."
Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
applicable, n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Includes nonautomatic coffeemakers, separate data for which are not available.
${ }_{3}^{2}$ Includes automatic saucepans, separate data for which are not available.
${ }^{3}$ Electric warm-air furnaces and unit heaters are included in industry 3699 Electrical Machinery, N.E.C.
${ }_{5}{ }^{4}$ Excludes nonautomatic coffeemakers and automatic saucepans.
${ }^{5}$ Portable air purifiers are included with "Other electric appliances" (3634398) in order to avoid disclosing figures of individual companies.

## TABLE 6A-4. Water Heaters (Except Electric)-Quantity and Value of Shipments: 1963 and 1958

| Product code | Product | Shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Number of units | $\begin{aligned} & \hline \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Number of units | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 36392 pt . | WATER HEATERS (EXCEPT ELECTRIC), TOTAL. $\qquad$ Water heaters: <br> Direct-fired water heaters: <br> Gas: | (X) | 143,318 | (X) | 162,178 |
| $\begin{array}{ll} 36392 & 11 \\ 36392 & 13 \end{array}$ | Underfired storage Sidearm. | $3,041,876$ 18,565 | 127,537 918 | $2,874,422$ 39,883 | $\begin{array}{r} 142,905 \\ 1,841 \end{array}$ |
| $\begin{aligned} & 3639223 \\ & 3639225 \end{aligned}$ | Oil: <br> Underfired storage <br> Sidearm | 18,817 | 2,598 | $\left\{\begin{array}{r}30,658 \\ 826\end{array}\right.$ | 3,289 23 |
| $\begin{gathered} 36392 \\ 33 \end{gathered}$ | Coal and wood tank heaters, cast-.iron and steel $\qquad$ <br> Indirect water heaters: | 520 | 47 | 3,295 | 134 |
| $\begin{aligned} & 3639241 \\ & 3639243 \end{aligned}$ | Storage, cast or coil-type (less tank): <br> 20 G.P.H. and less. <br> 21 G.P.H. and over. | 17,489 | 558 | $\left\{\begin{array}{r}4,620 \\ 23,898\end{array}\right.$ | $\begin{array}{r} 43 \\ 1,325 \end{array}$ |
| $\begin{aligned} & 3639251 \\ & 3639255 \end{aligned}$ | Tanks (with or without generator coils) <br> Instantaneous. | 2,902 180,453 | 2,372 8,544 | $\begin{array}{r} 4,400 \\ 134,927 \end{array}$ | $\begin{aligned} & 3,015 \\ & 8,831 \end{aligned}$ |
| 3639253 | Generator coils and tank collar (sold without tank).............................. | 3,968 | 744 | 5,416 | 772 |

Source: Current Industrial Reports Series M34N "Heating and Cooking Equipment, Except Electric."
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes ( 1954 = 100) |  | Product code | Product and year | Indexes ( $1954=100)$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |  |  | Production | Unit value |
| 363-- | Household appliances.............. $1963 .$. | 150 | 87 98 | 363-- | Household appliances-Continued |  |  |
| 3631- | Household cooking equipment. . . . . . . . . $1963 .$. | 114 90 | 104 | 3634- | Electrical housewares and fans ${ }^{2} \ldots . . .1963 .$. | 189 108 | 86 101 |
| 36311 | Electric household ranges and ovens surface cooking equipment and parts, excluding small appliances..1963.. 1958. | 118 86 | 104 | 36341 | Fans; electric (except industrial type)............................................... $1958 .$. | 135 85 | 86 103 |
|  |  |  |  | 36342 | Electric razors and dry shavers.....1963.. | 97 | 102 |
| 36312 | Household ovens and ranges, equipment, and parts (except electric). $\begin{array}{r}\text { 1963.. } \\ 1958 . .\end{array}$ | 112 95 | 103 | 36343 |  | 123 213 103 | 82 86 104 |
| 3632- | Household refrigerators and home and farm freezers............................... $1963 .$. | 156112 | $\begin{aligned} & 72 \\ & 87 \end{aligned}$ | $3635-$ $3636-$ | Vacuum cleaners, household.............. $1963 .$. 1958.. | $\begin{aligned} & 145 \\ & 119 \end{aligned}$ | 93 96 |
| 36321 |  |  |  | 3636- | Sewing machines......................... $1963 .$. | 76 | 128 |
| 36321 | Household refrigerators..............1963.. $1958 .$. | 110 | 88 |  |  |  | 117 |
| 36322 | Home and farm freezers..............1963.. $1958 .$. | 159 | 68 86 | 3639- | Household appliances, n.e.c........... $1963 .$. | $\begin{aligned} & 195 \\ & 140 \end{aligned}$ | 83 95 |
| 3633- | Household laundry equipment. . . . . . . . . $1963 .$. | $\begin{aligned} & 134 \\ & 117 \end{aligned}$ | 96 103 | 36391 | Water heater, electric.............. 1963.. $1958 .$. | 168 130 | 76 90 |
| 36331 | Household mechanical washing machines, dryers, and washer-dryercombinations ${ }^{1}$. . . . . . . . . . . . . . . . . . . . . $1963 .$. |  |  | 36392 |  | 122 | 85 100 |
|  |  |  |  | $36393$ | Other household type appliances and parts. $\qquad$ | 117 | $\begin{array}{r} 100 \\ 79 \end{array}$ |
|  |  | $118$ | 103 |  |  | 204 | 87 |

n.e.c. Not elsewhere classified.
${ }^{1}$ Adjusted to include product class 36332, Other household laundry equipment and parts.
${ }^{2}$ Adjusted to include product class 36344 , Parts and attachments.
table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962{ }^{1}$ | $1961{ }^{2}$ | $1960{ }^{1}$ | $1959{ }^{\text {² }}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3631- | Household cooking equipment. | 536,748 | 484,785 | 467,074 | 468,551 | 501,453 | 433,123 | 360,069 | 399,373 |
| 36311 | Electric household ranges and ovens and surface cooking unit equipment and parts (except small appliances)..................... | 282,083 | 260,671 | 242,276 | 240,313 | 255,913 | 203,748 | 164,110 | 132,235 |
| 36312 36310 | Household ovens and ranges, equipment and parts, except electric......................... Household cooking equipment, | 253,568 1,097 | , 224,114 | 224,798 | 228,238 | 245,540 | 229,375 | 195,956 | 267, 138 |
| 3632- | Household refrigeratiors. | 831,821 | 777,882 | 754,360 | 805,040 | 881,266 | 729,170 | 745,444 | 622,197 |
| 36321 | Household refrigerators. | 687,887 | 631,156 | 612,612 | 624,398 | 676,616 | 551,164 | 573,074 | 521,572 |
| $\begin{aligned} & 36322 \\ & 36320 \end{aligned}$ | Home and farm freezers....................... Household refrigerators, $\mathrm{n} . \mathrm{s.k} . . . . . . . .$. | 143,132 | \} 146,726 | 141,748 | 180,642 | 204,650 | 178,006 | 172,370 | 100,625 |
| 3633- | Household laundry equipment. | 766,068 | 692,565 | 660,376 | 695,007 | 802,453 | 719,574 | 596,349 | 433,851 |
| 36331 | Household mechanical washing machines, dryers, and washer-dryer combinations..... | 698,765 | 645,301 | 613,360 | 650,497 | 755,785 | 672,213 | 533,711 | 352, 131 |
| 36332 | Other household laundry equipment and parts | 66,839 | 45,727 | 45,486 | 42,960 | 45,764 | 46,498 | 62,638 | 81,720 |
| 36330 | Household laundry equipment, n.s.k......... | 464 | $(1,537)$ | $(1,530)$ | $(1,550)$ | (904) | 863 |  |  |
| 3634- | Electric housewares and fans | 2800,492 | ${ }^{2} 718,657$ | ${ }^{2} 635,113$ | 598,323 | 581,951 | 543,790 | 563,931 | ( NA ) |
| 36341 | Electric fans, except industrial type...... | ${ }^{3} 102,112$ | 384,177 | 369,749 | 76,165 | 68,064 | 77,053 | 88,359 | 48,656 |
| 36342 | Electric razors and dry shavers............. | 353,376 | ${ }^{3} 48,300$ | 355,639 | 48.518 | 54,537 | 54,091 | 53,809 | 22,009 |
| 36343 | Other small household electric appliances.. | 3553,063 | 3496,824 | 3424,819 | 393,995 | 378,373 | 336,160 | 307,713 | (NA) |
| 36344 | Parts and attachments for small household electric appliances.............................. | 81,521 | 78,339 | 76,114 | 70,930 | 71,679 | 55,858 | 110,940 | 40,729 |
| 36340 | Electric housewares and fans, n.s.k........ | 10,420 | $(11,012)$ | $(8,792)$ | $(8,715)$ | $(9,298)$ | 20,628 | 3,110 | 6,605 |
| 36350 | Household vacuum cleaners, including parts and attachments..................................... | 183,138 | 174,001 | 157,257 | 161,309 | 162,207 | 155,571 | 138,774 | 145,435 |
| 36360 | Sewing machines and parts, except cases and cabinets sold seperately........................... | 104,713 | 121,154 | 136,123 | 129,898 | 126,227 | 97,725 | 107,492 | 97,182 |
| 3639- | Household appliances, n.e.c................... | ${ }^{2} 415,749$ | ${ }^{2} 380,200$ | ${ }^{2} 348,817$ | ${ }^{2} 350,004$ | ${ }^{2} 372,881$ | 351,719 | 4268,594 | (NA) |
| 36391 | Household water heaters, electric.......... | 61,408 | 52,333 | 49,477 | 50,416 | 53,848 | 56,849 | 48,214 | 59,352 |
| 36392 | Household water heaters, except electric ${ }^{3}$.. | 143,318 | 145,000 | 134,900 | 154,112 | 176,102 | 163,775 | 138,364 | 113,669 |
| 36393 | Other household appliances and parts....... | 208,149 | 182,867 | 164,440 | 145,476 | 142,931 | 131,095 | 482,016 | (NA) |
| 36390 | Household appliances, n.e.c., n.s.k........ | 2,874 | - | - | - | - | - | - | ( NA ) |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ These figures represent estinates derived from a representative sample of manufacturing establishnents canvassed in the annual survey of manufacturcs. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishaents. The standard errors associated with these estimates are published in the annual survey of manuractures volumics for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ Excludes parts and accessories for electric water heaters.
${ }^{3}$ These 4-digit totals represent the sum of 5 -digit product class data obtained from census of manufactures or the Annual Survey of Manufactures and Current Industrial Reports.
${ }^{4}$ The source for these data are listed below:
\(\left.$$
\begin{array}{c|c}\hline \begin{array}{c}\text { Product } \\
\text { class }\end{array} & \text { Current Industrial Report } \\
\hline \begin{array}{c}36341\end{array} & \text { N36E Electric Housewares and Fans } \\
\begin{array}{l}36342\end{array}
$$ \& <br>

\hline 36343\end{array}\right)\) M34N Heating and Cooking Equipment |  |
| :---: |

# TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.


[^238]TABLE 7A. Materials by Kind: 1963 and 1958


## table 7A. Materials by Kind: 1963 and 1958-Continued



[^239]
## table 7A. Materials by Kind: 1963 and 1958-Continued



See footnotes at end of table.

## table 7A. Materials by Kind: 1963 and 1958-Continued



See footnotes at end of table.

## TABLE 7A. Materials by Kind: 1963 and 1958-Continued



## Standard Notes: - Represents zero.

(D) Withheld to avoid disclosing figures for individual conpanies.
(NA) Not available.
(x) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ In addition, in 1963 establishnents in industry 3631 produced 6,062 short tons of iron castings for incorporation into other items produced at the same establishment. The camparable figure in 1958 was 7,105 short tons.
${ }^{2}$ Represents estimates published in Mc58(1)-7 (Supplement), "Selected Materials Consumed," from data collected in a supplemental survey on Form MA-131, "Consumption of Materials, Parts, Containers, and Supplies During 1958." This survey was limited to large establishments in selected chemical, machinery and equipment industries and resulted in estimates which are subject to greater error than are the figures on materials consumption collected as a regular part of the census of manufactures.
${ }^{3}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."
${ }^{4}$ Includes bars and bar shapes; quantity, 9,418 short tons and value $\$ 2,076$ thousand.
${ }^{5}$ In addition, in 1963 establishments in industry 3634 produced 8,388 thousand all other fractional horsepower electric motors for incorporation into items produced at the same establishment. The comparable figure for 1958 was 5,527 thousand.
${ }^{6}$ In addition, in 1963, establishments in industry 3635 produced 2,536 thousand fractional horsepower electric motors produced and incorporated into items at the same establishment. The comparable figure for 1958 was 1,619 thousand.

## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Household cooking equipment (SIC 3631) | Household refrigerators (SIC 3632) | Household laundry equipment (SIC 3633) | Electric housewares and fans (SIC 3634) | Household vaculum cleaners (SIC 3635) | Sewing machines (SIC 3636) | Household appliances, п.e.c. <br> (SIC 3639) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000$. . | 4,418 | 11,833 | 6,280 | 5,251 | 1,013 | 1,302 | 4,318 |
| Total cost of purchased fuels | 2,104 | 4,871 | 2,757 | 1,969 | 355 | 457 | 2,203 |
| Bituminous coal, lignite, and anthracite: <br> Quantity............................................. . ., 000 short tons.. | 48 | 273 | 85 | (s) | (S) | (s) | 25 |
| Cost................................................ . . . . $\$ 1,000 .$. | 377 | 1,838 | 591 | (s) | (S) | (S) | 143 |
| Coke and breeze: <br> Quantity. <br> .1,000 short tons.. |  | - | - | - | - | - |  |
| Fuel oil (distillate and residual): |  |  |  |  |  |  |  |
| Quantity.......................1,000 barrels of 42 g gallons.. | 86 | 106 | 69 | 233 | (s) | 109 |  |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 299 | 288 | 266 | 848 | (S) | 297 | 296 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |  |
| Quantity.........................................million cu.ft.. | 1,931 | 3,786 | 3,587 | 1,314 | 349 | (S) | 2,895 |
| Cost..................................................... $\$ 1,000 .$. | 1,076 | 2,111 | 1,823 | 830 | 199 | (S) | 1,592 |
|  | 203 | 634 | 77 | 134 | (S) | (s) | 172 |
| Electric energy: |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |
| Quantity......................................million kw. -hrs.. | 237 | 690 | 308. | 216 | 49 | 63 | 154 |
| Cost. ................................................... . $\$ 1,000 .$. | 2,314 | 6,962 | 3,523 | 3,282 | 658 | 845 | 2,115 |
| Generated less sold............................million kw. -hrs.. | (S) |  | (s) | - | - | - | - |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.........1,000 hp.. | 120 | 222 | 132 | 106 | 22 | 32 | 72 |
| Prime movers, total............................................ . . . ${ }_{\text {do. }}$ | 13 | 13 | 20 | 4 | 2 | (z) | 5 |
|  | 1 | (z) | 2 | 1 | (z) | - | , |
| Not driving generators...................................... . . . ${ }^{\text {do. }}$ | 12 | 13 | 18 | 3 | 2 | (z) | 4 |
| Electric motors, total........................................ do. | 108 | 208 | 112 | 102 | 20 | 32 | 67 |
| Driven by purchased energy. . . . . . . . . . . . . . . . . . . . . . . . do. | 108 | 208 | 111 | 102 | 20 | 32 | 67 |
| Driven by energy generated at establishment..............do. | (Z) |  | 1 | - | - | - | - |
| Aggregate horsepower per 100 production workers. | 848 | 637 | 847 | 380 | 548 | 705 | 735 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power
 fore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors
 "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

# TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primiary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


See footnotes at end of table.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| $\begin{gathered} \text { Industry } \\ \text { or } \\ \text { product } \\ \text { class } \\ \text { code } \end{gathered}$ | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3639- | HOUSEHOLD APPLIANCES, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. | 112 | 13,127 | 81,590 | 9,896 | 19,929 | 54,286 | 204,188 | 233, 073 | 435,458 | 6,738 |
|  | 90\% or more specialization... 75-89\% specialization......... | $\begin{aligned} & 75 \\ & 13 \end{aligned}$ | $\begin{aligned} & 4,891 \\ & 2,480 \end{aligned}$ | $\begin{aligned} & 30,695 \\ & 15,023 \end{aligned}$ | $\begin{aligned} & 3,604 \\ & 1,908 \end{aligned}$ | $\begin{aligned} & 7,300 \\ & 3,653 \end{aligned}$ | $\begin{aligned} & 19,527 \\ & 10,032 \end{aligned}$ | $\begin{aligned} & 96,191 \\ & 27,684 \end{aligned}$ | $\begin{aligned} & 97,569 \\ & 33,325 \end{aligned}$ | $\begin{array}{r} 192,106 \\ 60,759 \end{array}$ | $\begin{aligned} & 2,485 \\ & 1,349 \end{aligned}$ |
| 36391 | Household water heaters, electric <br> (primary product class of estab.) | 26 | 1,254 | 6,319 | 985 | 2,011 | 4, 188 | 19,901 | 17,078 | 36,974 | 459 |
|  | 90\% or more specialization.. | 13 | 276 | 1,413 | 208 | 423 | 913 | 3,690 | 5,309 | 9,025 | 51 |
| 36392 | Household water heaters, except electric (primary product class of estab.)................................. Establishments with- | 35 | 6,853 | 44,495 | 5,235 | 10,726 | 30,563 | 88,135 | 121,918 | 209,369 | 3,079 |
|  | 90\% or more specialization..... | 13 | 437 |  |  |  |  |  |  |  |  |
|  | 75-89\% spec ialization. ......... | 7 | 973 | $5,217$ | $769$ | 1,455 | 3,326 | $8,370$ | $13,379$ | $21,239$ | $346$ |
| 36393 | Other household appliances and parts (primary product class of estab.). Establishments with- | 30 | 4,863 | 29,995 | 3,544 | 6,954 | 18,915 | 93,381 | 91,977 | 185,200 | 3,159 |
|  | 90\% or more specialization..... <br> 75-89\% specialization. .......... | 19 4 | 2,313 219 | $\begin{array}{r} 15,459 \\ 1,027 \end{array}$ | 1,561 153 | 3,120 284 | $\begin{array}{r} 8,874 \\ 528 \end{array}$ | $\begin{gathered} 51,584 \\ 2,683 \end{gathered}$ | $\begin{array}{r} 52,066 \\ 2,370 \end{array}$ | $\begin{array}{r} 103,331 \\ 5,194 \end{array}$ | $1, \frac{712}{68}$ |

[^240]
## TABLE 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963



See footnotes at end of table.

# table 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963-Continued 

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  | Man-hours worked by production workers in the speci-fied operation $(1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{gathered} 20 \text { or } \\ \text { more } \end{gathered}$ |  | 1 to 4 | 5 to 19 | $\begin{gathered} 20 \text { or } \\ \text { more } \end{gathered}$ |  |
| Total, all operations........................... | INDUSTRY 3634.-EIECTRIC HOUSEWARES AND PARTS |  |  |  |  |  |  |  |  |
|  | (x) | (x) | (x) | (X) | 25,398 | (X) | (X) | (x) | 49,844 |
| Nonferrous foundry (except die casting). <br> Nonferrous die casting. <br> Forging--presses, hanmers, or upsetters (excluding manufacture of nuts, bolts, etc.). Electroplating and other plating. Galvanizing and other hot dip coating. Heat treating of metals. <br> Automatic screw machine department. Machine shop. <br> Tool and die shop. <br> Foundry pattern shop. <br> Plate or structural fabrication. <br> Stamping, blanking and forming of metais. <br> Painting, lacquering and enameling on metals. Plastics molding. <br> Assembly of product.. <br>  <br> All other operations such as maintenance, warehousing, etc.. |  | $\frac{1}{4}$ | 244 | 14 | 84263 | (D) | (D)30 | (D)222 | 166506 |
|  | 12 |  |  |  |  |  |  |  |  |
|  | $\begin{array}{r}2 \\ 36 \\ \hline\end{array}$ |  |  |  | 263 | 11 30 <br> (D) - |  | (D) | 64 |
|  |  |  | $\begin{array}{r}16 \\ 1 \\ \hline\end{array}$ | 12 | 681 | 18 | 189 |  | 1,459 |
|  | ${ }_{14}^{2}$ | - | 1 5 | 1 | 42 | - | (D) | (D) | 1,90 |
|  | 10 | 2 | 5 3 | 5 | 212 | (D) | (D) | 181 | 136 421 |
|  | 35 | 18 | 19 |  | 1,437 |  | 117 | 1,296 |  |
|  | 49 |  | 2211 | 12 9 | 590 | 30 <br> 37 | 235 | (D) |  |
|  | 1 | 2 |  | 9 | (D) | ${ }^{37}$ | (D) |  | 1,202 |
|  |  |  | 1 | , | 2,156 | (D) | 163 | 1,951 | (D) |
|  | 52 | $\begin{aligned} & 22 \\ & 20 \end{aligned}$ | 25 | 39 | ${ }_{471}$ | 42 39 | 212 | ${ }^{2} 220$ | 4,252 |
|  | 20 |  |  | 9 |  |  |  | 14,076 |  |
|  | 100 | 14 | $\stackrel{18}{26}$ | 68 | 14,275 | 22 79 | 177 |  |  |
|  | $\begin{aligned} & 81 \\ & 67 \end{aligned}$ |  | 26 |  | 888 | 79 | 252 | 557 | $\begin{gathered} 27,678 \\ 1,783 \end{gathered}$ |
|  |  |  | 14 | 34 | 3,668 | 39 | 148 | 3,481 | 7,117 |
|  | Industry 3635. -HOUSEHOLD VACIUM CLEANERS |  |  |  |  |  |  |  |  |
| Total, all operations. <br> Nonferrous die casting. <br> Electroplating and other plating. <br> Heat treating of metals. <br> Automatic screw machine department. <br> Machine shop <br> Tool and die shop. <br> Foundry pattern shop. <br> Stamping, blanking and forming of metals. <br> Painting, lacquering and enameling on metals. Plastics molding. <br> Assembly of product. <br> Shipping department, including packing and crating.... <br> All other operations such as maintenance, warehousing, ete. | (x) | (x) | (x) | (X) | 3,907 | (x) | (X) | (x) | 7,686 |
|  |  | - | 2 | 2 <br> 2 | (D) |  |  | (D) | (D) |
|  |  |  |  |  | 81 |  | ${ }^{\text {(D) }}$ |  | 152 |
|  |  | $\begin{aligned} & 3 \\ & - \\ & 4 \end{aligned}$ | 3 | - | 34 | - |  |  | 18 68 68 |
|  | 8 | 4 |  |  |  |  | 34 | 260 | 68 509 |
|  | 7 | 4 | - | 3 | 174 | 10 |  | (D) | (D) |
|  |  | 1 | $\overline{2}$ | 1 | (D) | (D) |  |  |  |
|  | 10 | 4 |  | 4 | 233 | (D) | (D) |  | 457 |
|  |  | 4 | $-$ | 2 | (109 | (D) | (D) | (D) | (D) |
|  | 11 | 1 2 | $\overline{3}$ | 2 |  | (D) | (D) ${ }^{-}$ | ( ${ }_{\text {(D) }}^{1,427}$ | (D) |
|  | 11 | 5 |  |  |  | 9 | (D) | ${ }^{\text {(D) }}$ | 188 |
|  | 9 | 2 | 2 | 5 | 1,256 | (D) | (D) | 1,227 | 2,495 |
|  |  |  | INDUS | 3636. - | Ewing ma | HINES |  |  |  |
| Total, all operations. | (x) | (x) | (x) | (x) | 5,076 | (x) | (x) | (x) | 10,246 |
| Ferrous foundry.. | 3 |  | 1 | 2 | (D) |  | (D) | (D) |  |
| Nonferrous die casting............................ | 2 |  |  | 2 | (D) |  | ( | (D) | (D) |
| Forging--presses, hanmers, or upsetters (excluding manufacture of nuts, bolts, etc.)....................... |  |  |  | 2 | (D) |  |  | (D) | (D) |
| Electroplating and other plating....................... | 4 | 1 | 1 | , | 63 |  |  | (D) | (D) |
| Heat treating of metals........... | 7 | 3 | , | 3 | 80 |  | (D) | (D) | 163 |
| Automatic screw machine department. | 7 | 2 | 2 | 3 | 236 | (D) |  | 218 | 5 482 |
| Machine shop....... | 21 6 | 7 | 6 4 |  | 2,510 | 17 |  | 2,425 | 5,118 |
| Tool and die shop.................... | 6 2 | - | 4 | 2 1 |  |  |  |  |  |
| Foundry pattern shop. <br> Stamping, blanking and forming of metals..................... |  | 1 5 | $\overline{1}$ | 1 | (D) <br> 48 | (D) |  | (D) | (D) 74 |
| Painting, lacquering and enameling on metais........... | 6 | 4 | 2 | $-$ | 21 | (D) | (D) |  | 42 |
| Plastics molding........... | 1 | 1 | - | - | (D) |  |  | - | (D) |
| Assembly of product................................... | 13 | 5 | 3 | 5 | 734 | ${ }^{9}$ | 29 | ${ }^{696}$ | 1,490 |
| Shipping department, including packing and crating... All other operations such as maintenance, ware- | 10 | 7 | 2 | 1 | 67 | 13 | (D) | (D) | 148 |
| housing, etc............................. |  |  | 2 | 5 | 670 | - | (D) | (D) | 1,381 |
|  |  |  | INDUSTRY | -HOUSE | OLD APPL | ances, |  |  |  |
| Total, all operations............................ | (X) | (x) | (x) | (x) | 8,228 | (X) | (x) | (x) | 17,053 |
| Nonferrous die casting.......................... | 2 | 2 | - | - | (D) | (D) | - | - | (D) |
| Forging--presses, harmers, or upsetters (excluding manufacture of nuts, bolts, etc.)....................... |  | 1 |  |  | (D) | (D) |  |  | (D) |
| Electroplating and other plating....................... |  | 1 | - | 1 | (D) | (D) | 5 | (D) | (D) |
| Galvanizing and other hot dip coating................ |  | 3 |  | - |  |  | 25 |  | 64 |
| Heat treating of metals............. |  |  | $\overline{-}$ | - | 7 | 7 |  | - | 14 |
| Automatic screw machine department. | 7 | 5 | 2 | - | 29 | (D) | (D) | - | 55 |
| Machine shop....... | 26 | 12 | 8 | 5 | 345 |  | 102 | ${ }_{\text {(D) }}$ | 704 287 |
| Tool and die shop..................... |  | 12 | 8 1 | $\stackrel{2}{-1}$ | $1 \begin{aligned} & 147 \\ & \text { (D) }\end{aligned}$ | 25 | (D) | (D) | 287 10 |

See footnotes at end of table.

## table 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963-Continued

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  | Man-hours worked by production workers in the specified operation $(1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | $20 \text { or }$ more |  |
| Plate or structural fabrication. <br> Stamping, blanking and forming of metals. <br> Painting, lacquering and enameling on metals. <br> Plastics molding.. <br> Assembly of product. <br> Shipping department, including packing and crating... <br> All other operations such as maintenance, warehousing, etc. | INDUSTRY 3639.-HOUSEHOLD APPLIANCES, N.E.C.-Continued |  |  |  |  |  |  |  |  |
|  |  | 213 | 417 | 1 | $\begin{array}{r} 102 \\ 1,059 \end{array}$ | (D) | (D) | (D) | 207 |
|  | 45 |  |  | 15 |  |  | 172 | 860 | 2,226 |
|  | 48 | 13 30 | 8 | 10 | 632 |  | 69 | 515 | 1,483 |
|  | 5 | 3 | 1 | 1 | (D)4,124 |  |  | (D) | (D) |
|  | 55 | 9 | 18 | 28 |  | (D) | (D) | 3,902 | 8,356685 |
|  | 51 | 31 | 15 | 5 | 337 | 53 | 129 | 155 |  |
|  | 39 | 14 | 9 | 16 | 1,324 | 21 | 112 | 1,191 | 2,795 |

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

| Item | Industry |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3631 | 3632 | 3633 | 3634 | 3635 | 3636 | 3639 |
| Total number of establishments in the industry. | 83 | 34. | 39 | 312 | 34 | 86 | 112 |
| Number of establishments which reported one or more of the specified operations | 47 | 24 | 29 | 122 | 16 | 26 | 68 |
| Percent of industry production workers in these establishments. | 80-85 | 90-95 | 95-100 | 80-85 | 90-95 | 85-90 | 80-85 |
| Number of establishments which reported "none" of the operations apply. | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Percent of industry production workers in these establishments. | 0 | 0 | 0-5 | 0 | 0 | 0 | 0 |
| Percent of industry production workers in establishments which completed the metalworking operations inquiry | 80-85 | 90-95 | 95-100 | 80-85 | 90-95 | 85-90 | 80-85 |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.


## ELECTRIC LIGHTING AND WIRING EQUIPMENT

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

## SIC Code and Title

3641-Electric Lamps<br>3642-Lighting Fixtures<br>3643-Current Carrying Wiring Devices<br>3644-Noncurrent Carrying Wiring Devices

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables $1-4$ ) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table $5 A$ which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3641 -ELECTRIC LAMPS

This industry comprises establishments primarily engaged in manufacturing electric bulbs, tubes, and related light sources. Important products of this industry include incandescent filament lamps, vapor and fluorescent lamps, photoflash and photoflood lamps, electrotherapeutic lamp units for ultra-violet and infra-red radiation, and other electric light sources. Establishments primarily engaged in manufacturing glass blanks for bulbs are classified in industry 3229 ; and lamp components, such as supports, filaments, lead-in wires and cold cathode fluorescent lamp electrodes in industry 3699. For a detailed list of products of industry 3641 , refer to table 6 A , product codes 3641021 to 3641063 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electric Lamps Industry totaled $\$ 575$ million. This amount included shipments of electric lamps (primary products) valued at $\$ 523$ million, shipments of other products (secondary products) valued at $\$ 30$ million, and miscellaneous receipts (mainly resales) at $\$ 22$ million.

This industry's shipments of electric lamps represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent. Secondary products shipped by this industry in 1963 consisted mainly of other special industry machinery and equipment, and lamp bulb components.

Shipments of electric lamps by this industry represented 96 percent of all shipments of these products ( $\$ 546$ million) by all industries. In 1958 the coverage ratio was 98 percent.

The production index for the primary products of the industry increased to 153 in 1963 from the 1958 level of 116. The unit value index for 1963 was 111 compared to 110 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3642-LIGHTING F1XTURES

This industry comprises establishments primarily engaged in manufacturing lighting fixtures and equipment of any type, including electric and gas lighting fixtures; carbide, kerosene, and gasoline lamps; and metal reflectors and fittings. Establishments primarily engaged in producing glassware for lighting fixtures are classified in Major Group 32; and electric light bulbs, tubes, and related light sources in industry 3641. For a detailed list of products of industry 3642, refer to table 6A, product codes 3642110 to 3642761 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Lighting Fixtures Industry totaled $\$ 1,159$ million. This amount included shipments of lighting fixtures (primary products) valued at $\$ 1,039$ million, shipments of other products (secondary products) valued at $\$ 84$ million, and miscellaneous receipts (mainly resales), at $\$ 36$ million.

This industry's shipments of lighting fixtures represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included specialty transformers and fluorescent ballasts ( $\$ 6$ million) and current-carrying wiring devices ( $\$ 4$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 28 percent of the total industry shipments are represented by plants specializing in product class 36422; 15 percent each in product classes 36421 and 36427; and 14 percent in product class 36424 .

Shipments of lighting fixtures by this industry represented 93 percent of all shipments of these products ( $\$ 1,116$ million) by all industries. In 1958 the coverage ratio was 94 percent. Another industry shipping lighting fixtures was industry 3644, Noncurrent Carrying Wiring Devices, $\$ 11$ million.

## 3643-CURRENT CARRYING WIRING DEVICES

This industry comprises establishments primarily engaged in manufacturing currentcarrying wiring devices. Important products of this industry include attachment plugs and caps, convenience outlets, lamp sockets and receptacles, snap switches, conductor connectors, overhead trolley line material, rail bonds for both propulsion and signal circuits, lightning arrestors, and other lightning protective equipment. For a detailed list of products of industry 3643, refer to table 6A, product codes 3643001 to 3643098.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been changed from the classification system used in 1958. The change in the composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due to the reclassification of electronic connectors into industry 3679, Electronic Components, N.E.C. In 1958 electronic connectors were included in this industry.

Value of shipments and other receipts of the Current Carrying Devices Industry totaled $\$ 616$ million. This amount included shipments of current carrying devices (primary products) valued at $\$ 464$ million, shipments of other products (secondary products) valued at $\$ 117$ million, and miscellaneous receipts (mainly resales), at $\$ 35$ million.

This industry's shipments of current carrying devices represented 80 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 included other electronic components, n.e.c. ( $\$ 17$ million), and appliance wire and cord (made from purchased materials) ( $\$ 13$ million).

Shipments of current carrying devices by this industry represented 83 percent of all shipments of these products ( $\$ 562$ million) by all industries. $\ln 1958$ the coverage ratio was 79 percent. Other industries shipping current carrying devices included industry 3644, Noncurrent Carrying Devices, $\$ 24$ million; and industry 3679, Electronic Components, N.E.C., $\$ 11$ million.

The production index for the primary products of the industry increased to 191 in 1963 from the 1958 level of 169 . The unit value index for 1963 was 116 compared to 106 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3644--NONCURRENT CARRYING WIRING DEVICES

This industry comprises establishments primarily engaged in manufacturing noncurrent carrying wiring devices. Important products of this industry include conduits and fittings, electrical insulators and insulation materials, except porcelain insulators (industry 3624) and glass insulators (industy 3229); outlet, switch and fuse boxes; and pole line hardware. For a detailed list of products of industry 3644, refer to table 6A, product codes 3644111 to 3644323 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Noncurrent Carrying Devices lndustry totaled $\$ 479$ million. This amount included shipments of noncurrent carrying devices (primary products) valued at $\$ 352$ million, shipments of other products (secondary products) valued at $\$ 103$ million, and miscellaneous receipts (mainly resales), at $\$ 24$ million.

This industry's shipments of noncurrent carrying devices represented 77 percent of its total product shipments. The industry specialization ratio in 1958 was 78 percent. Secondary products shipped by this industry in 1963 included current carrying devices ( $\$ 24$ million) and outdoor lighting equipment ( $\$ 11$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 50 percent of the total industry shipments are represented by plants specializing in product class 36442 .

Shipments of noncurrent carrying devices by this industry represented 80 percent of all shipments of these products ( $\$ 439$ million) by all industries. $\ln 1958$ the coverage ratio was 89 percent. Other industries shipping noncurrent carrying devices included industry 3317, Steel Pipe and Tube, $\$ 10$ million; industry 3352, Aluminum Rolling and Drawing, $\$ 12$ million; and industry 3643, Current Carrying Devices, $\$ 11$ million.
The production index for the primary products of the industry increased to 186 in 1963 from the 1958 level of 107 . The unit value index for 1963 was 99 compared to 112 in 1958. Both indexes were computed on a basis of $1954=100$.


## table 1. General Statistics: 1963 and Earlier Years

| Year | Companies <br> (number) | Establistiments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3641.-ELECTRIC LAMPS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 54 | 81 | 50 | 23,404 | 122,721 | 20,461 | 40,256 | 99,476 | 362,235 | 207,016 | 574,522 | 17,040 | 95 | 96 |
| 1962. | (NA) | ( NA ) | (NA) | 22,579 | 116,350 | 18,827 | 38,820 | 92,593 | 367,055 | 184,852 | 544,880 | 12,694 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 21,569 | 107,675 | 17,595 | 35,982 | 84,018 | 336,172 | 168,031 | 513,186 | 10,738 | (NA) | (NA) |
| 19601. | (NA) | (NA) | (NA) | 23,921 | 114,068 | 19,707 | 39,453 | 89,938 | 355,694 | 169,186 | 517,419 | 10,465 | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 22,849 | 109,866 | 18,789 | 39,622 | 87,232 | 339,166 | 165,841 | 497,282 | 10,613 | (NA) | (NA) |
| 1958 | 35 | 66 | 52 | 21,495 | 95,298 | 18,236 | 35,119 | 73,625 | 270,498 | 136,158 | 417,516 | 8,276 | 94 | 98 |
| 19571 | (NA) | (NA) | (NA) | 24,731 | 102,731 | 21,478 | 42,469 | 82,016 | 297,911 | 145,000 | 435,280 | 11,000 | 93 | 100 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 24,001 | 95,763 | 20,941 | 41,450 | 77,167 | 289,874 | 136,869 | 411,628 | 12,518 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 22,017 | 83,214 | 19,137 | 37,541 | 66,410 | 264,300 | 119,334 | 381,522 | 8,807 | (NA) | (NA) |
| 1954.......... | 35 | 66 | 53 | 21,963 | 78,921 | 19,172 | 36,750 | 63,205 | 216,230 | 111,505 | 330,864 | 8,288 | ${ }^{94}$ | ${ }^{99}$ |
| $1953{ }^{1} . . . . . . .$. | (NA) | (NA) | (NA) | 21,207 20,276 | 73,886 65,310 | 18,966 17,417 | 37,018 34,087 | 61,511 | 204,559 | 115,975 88,852 | 320,534 254,202 | 9,644 7 7,980 | (NA) | (NA) |
| $19521^{1}$ | (NA) | (NA) | (NA) | 20,276 24,955 | 65,310 76,078 | 17,417 22,023 | 34,087 42,269 | 50,885 62,899 | 165,350 | 88,852 113,340 | 254,202 310,051 | 7,980 | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 21,679 | 61,588 | 18,888 | 37,614 | 49,480 | 165,170 | 91,966 | 257,136 | 7,730 | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 19,468 | 52,587 | 17,263 | 33,465 | 43,201 | 132,042 | 78,205 | 210,248 | 9,197 | (NA) | (NA) |
| 1947. | 35 | 62 | 52 | 23,842 | 57,914 | 21,550 | 42,090 | 48,891 | 120,344 | 82,904 | 203,248 | 11,318 | 94 | 100 |
| 1939. | (NA) | 55 | (NA) | 11,587 | 15,309 | 9,622 | (NA) | 10,689 | 56,257 | 28,571 | 84,828 | (NA) | (NA) | (NA) |
| $1937{ }^{2}$. | (NA) | 41 | (NA) | (NA) | (NA) | 8,984 | (NA) | 10,163 | 56,348 | 26,190 | 82,538 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3642.-LIGHTING FIXTURES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963.......... | 1,203 | 1,239 | 480 | 53,866 | 288,148 | 42,052 | 83,284 | 193,464 | 587,834 | 578,062 | 1,159,497 | 23,072 | 93 | 93 |
| 1962 ${ }^{1}$.......... | (NA) | (NA) | (NA) | 51,914 | 272,202 | 41,112 | 80,132 | 180,250 | 548,710 | 566,879 | 1,107,262 | 15,176 | (NA) | (NA) |
| $1961{ }^{1}$. | (NA) | (NA) | (NA) | 49,768 | 249,070 | 39,313 | 75,728 | 165,029 | 476,797 | 506,678 | 984,193 | 12,178 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 51,775 | 249,249 | 40,971 | 80,627 | 167,247 | 467,989 | 516,254 | 978,015 | 15,194 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 51,182 | 244,438 | 40,489 | 79,998 | 162,814 | 452,280 | 497,644 | 946,059 | 15,029 | (NA) | (NA) |
| 1958. | 1,154 | 1,181 | 431 | 47,309 | 215,829 | 36,443 | 71,605 | 143,786 | 397,378 | 419,912 | 826,595 | 14,415 | 91 | 94 |
| 1957 | (NA) | (NA) | (NA) | 53,690 | 227,295 | 42,680 | 84,724 | 159,736 | 403,533 | 409,833 | 811,665 | 15,602 | 89 | 92 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 54,827 | 220,090 | 44,393 | 88,378 | 158,733 | 382,401 | 404,351 | 786,082 | 13,836 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 55,099 | 213,910 | 45,541 | 86,701 | 157,482 | 381,303 | 394,817 | 759,958 | 23,030 | (NA) | (NA) |
| 1954. | 1,211 | 1,228 | 381 | 45,078 | 181,951 | 36,361 | 73,660 | 128,759 | 324,651 | 332,815 | 660,073 | 14,217 | 90 | 90 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 54,484 | 215,190 | 44,745 | 90,847 | 158,973 | 383,513 | 376,540 | 760,053 | 17,076 | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 47,969 | 177,984 | 38,849 | 79,211 | 127,369 | 325,758 | 304,302 | 630,060 | 7,840 | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 47,782 | 170,682 | 39,377 | 80,246 | 124,450 | 305,083 | 339,333 | 644,416 | 16,398 | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 46,281 | 157,398 | 37,276 | 77,249 | 109,234 | 277,362 | 322,369 | 599, 731 | 16,339 | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 43,303 | 140,422 | 34,813 | 70,641 | 97,368 | 250,504 | 265,269 | 515,863 | 7,560 | (NA) | (NA) |
| 1947. | (NA) | 1,202 | (NA) | 46,891 | 131,279 | 39,393 | (NA) | 96,291 | 239,191 | 226,231 | 465,422 | (NA) | (NA) | (NA) |
| 1939 | (NA) | 568 | (NA) | 25,686 | 35,758 | 20,477 | (NA) | 23,238 | 64,731 | 59,851 | 124,582 | (NA) | (NA) | (NA) |
| 1937 | (NA) | 466 | (NA) | 25,599 | 33,888 | 21,743 | (NA) | 24,918 | 59,503 | 55,593 | 115,096 | (NA) | (NA) | (NA) |
| 1935 | (NA) | 501 | (NA) | 20,113 | 24,342. | 16,677 | (NA) | 17,232 | 45,586 | 40,114 | 85,700 | (NA) | (NA) | (NA) |
| 1933 | (NA) | 357 | (NA) | 12,459 | 12,625 | 10,538 | (NA) | 9,506 | 26,932 | 19,241 | 46,173 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 523 | (NA) | - | - | 14,790 | (NA) | 18,150 | 44,738 | 30,312 | 75,050 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 614 | (NA) | 28,339 | 46,979 | 23,580 | (NA) | 33,269 | 87,048 | 57,918 | 144,966 | (NA) | (NA) | (NA) |
| 1927 | (NA) | 481 | (NA) | 25,821 | 41,898 | 21,030 | (NA) | 29,207 | 72,193 | 55,609 | 127,802 | (NA) | (NA) | (NA) |
| 1925 | (NA) | 517 | (NA) | 26,835 | 42,301 | 22,334 | (NA) | 31,072 | 71,927 | 57,771 | 129,698 | (NA) | (NA) | (NA) |
| 1923 | (NA) | 535 | (NA) | 27,359 | 39,567 | 22,191 | (NA) | 29,097 | 66,339 | 52,640 | 118,979 | (NA) | (NA) | (NA) |
| 1921 | (NA) | 465 | (NA) | 19,056 | 25,409 | 15,866 | (NA) | 18,523 | 39,252 | 32,802 | 72,054 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 512 | (NA) | 21,776 | 26,228 | 18,155 | (NA) | 19,095 | 41,679 | 38,688 | 80,367 | (NA) | (NA) | (NA) |
| 191 | (NA) | 611 | (NA) | 21,389 | 15,371 | 18,047 | (NA) | 10,677 | 23,276 | 22,102 | 45,378 | (NA) | (NA) | (NA) |
| 1909 | (NA) | 619 | (NA) | 22,475 | 14,734 | 18,861 | (NA) | 10,393 | 24,590 | 20,467 | 45,057 | (NA) | (NA) | (NA) |
| 1904 | (NA) | 405 | (NA) | 14,319 | 8,606 | 12,576 | (NA) | 6,408 | 15,482 | 11,078 | 26,560 | (NA) | (NA) | (NA) |
| 1899........... | (NA) | 370 | (NA) | 12,532 | 6,680 | 11,238 | (NA) | 5,188 | 11,859 | 7,962 | 19,821 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3643.-CURRENT CARRYING DEVICES |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 431 | 449 | 180 | 35,424 | 175,185 | 27,239 | 53,474 | 115,097 | 355,643 | 257,175 | 615,980 | 14,119 | 80 | 83 |
| $1962^{1} 3 . . . . .$. | (NA) | (NA) | (NA) | 40,633 | 189,586 | 32,018 | 63,058 | 125,804 | 386,741 | 269,105 | 649,849 | 14,877 | (NA) | (NA) |
| $1961{ }^{1} 3$ | (NA) | (NA) | (NA) | 41,536 | 196,028 | 31,827 | 62,831 | 124,932 | 388,469 | 267,342 | 639,532 | 15,534 | (NA) | (NA) |
| $1960{ }^{13}$ | (NA) | (NA) | (NA) | 41,942 | 187,291 | 32,261 | 62,779 | 115,317 | 371,439 | 256,504 | 625,587 | 17,967 | (NA) | (NA) |
| $1959^{1} 3 \ldots .$. | (NA) | (NA) | (NA) | 41,341 | 179,230 | 32,976 | 63,591 | 118,510 | 371,770 | 253,316 | 611,132 | 13,990 | (NA) | (NA) |
| $1958^{3}$ 4........ | 405 | 423 | 161 | 35,692 | 155,976 | 26,556 | 51,612 | 100,229 | 300,836 | 197,905 | 501,309 | 9,629 | 87 | 79 |
|  | INDUSTRY 3644.-NONCURPENT CARRYING DEVICES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 168 | 182 | 103 | 20,290 | 123,576 | 14,756 | 29,691 | 79,605 | 253,918 | 226,499 | 479,033 | 7,873 | 77 | 80 |
| 19621 | (NA) | (NA) | (NA) | 23,020 | 134,980 | 15,897 | 32,912 | 86,099 | 255,935 | 229,169 | 487,340 | 11,082 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 23,210 | 134,102 | 15,929 | 33,062 | 85,874 | 257,540 | 224,572 | 472,762 | 12,873 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 22,353 | 121,955 | 15,289 | 31,280 | 79,066 | 246,821 | 193,473 | 430,830 | 10,743 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 23,168 | 126,261 | 16,053 | 34,424 | 83,998 | 264,741 | 213,282 | 469,762 | 10,135 | (NA) | (NA) |
| 1958. (New SIC) | 138 | 150 | 93 | 19,722 | 101,382 | 14,574 | 28,741 | 67,772 | 214,607 | 193,003 | 413,758 | 9,976 | 78 | 89 |
| $1958{ }^{4}$ (01d SIC) | (NA) | 556 | 236 | 50,689 | 236,137 | 37,853 | 73,690 | 155,112 | 474,348 | 357,282 | 840,886 | 18,480 | (NA) | (NA) |
| $1957^{1}$ 4....... | (NA) | (NA) | (NA) | 49,694 | 223,186 | 39,526 | 76,981 | 154,258 | 461,639 | 337,922 | 790,07? | 25,174 | 86 | 87 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 49,270 | 214,813 | 40,306 | 80,595 | 154,101 | 455,391 | 359,074 | 793,066 | 20,889 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 49,145 | 194,797 | 40,245 | 78,752 | 140,430 | 426,591 | 302,323 | 704,676 | 15,273 | (NA) | (NA) |

[^241]
## table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted ( $\$ 1,000$ ) | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3644.-NONCURRENT CARRYING DEVICES-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1954{ }^{4}$ | 368 | 395 | 211 | 43,195 | 168,474 | 34,882 | 68,944 | 122,166 | 340,911 | 243,455 | 584,366 |  | 85 | 86 |
| $1953{ }^{1 / 4}$ | (NA) | (NA) | (NA) | 49,162 | 191,885 | 39,721 | 79,883 | 136,787 | 359,275 | 286,353 | 645,628 | (NA) | (NA) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (NA) | 49,000 | 175,618 | 39,159 | 77,704 | 122,972 | 355,009 | 250,291 | 605,300 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 54,794 | 176,069 | 45,332 | 89,623 | 128,474 | 361,436 | 299,490 | 660,926 | (NA) | (NA) | (NA) |
| $1950{ }^{14}$. | (NA) | (NA) | (NA) | 44,364 | 136,921 | 36,811 | 73,174 | 97,568 | 272,540 | 227,021 | 499,561 | (NA) | (NA) | (NA) |
| $1949{ }^{1} 4$. | (NA) | (NA) | (NA) | 33,815 | 104,967 | 26,879 | 53,035 | 70,902 | 195,395 | 149,210 | 34,4,605 | (NA) | (NA) | (NA) |
| 19474. | (NA) | 344 | (NA) | 39,160 | 104,095 | 33,020 | (NA) | 78,655 | 218,567 | 165,879 | 384,446 | (NA) | (NA) | (NA) |
| 19394. | (NA) | 141 | (NA) | (NA) | (NA) | 14,024 | (NA) | 16,358 | 47,951 | 43,428 | 91,379 | (NA) | (NA) | (NA) |
| $1937{ }^{2}$ | (NA) | 124 | (NA) | (NA) | (NA) | 17,301 | (NA) | 19,884 | 48,485 | 46,906 | 95,391 | (NA) | (NA) | (NA) |

[^242]table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establi ishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of material s$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3641.-ELECTRIC LAMPS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total... | 81 | 50 | 23,404 | 122,721 | 20,461 | 40,256 | 99,476 | 362,235 | 207,016 | 574,522 | 17,040 | 21,495 | 270,498 |
| Middle Atlantic.... <br> New York.......... | 36 10 | 20 4 | 8,545 499 | 47,233 1,984 | 7,111 | 14,327 854 | 34,936 1,421 | 105,413 4,086 | 59,188 6,301 | 164,107 10,074 | 3,640 88 | 8,249 428 | 81,745 2,724 |
| New Jersey.. | 18 | 10 | 6,432 | 36,640 | 5,237 | 10,451 | 26,128 | 67,803 | 36,531 | 101,743 | 2,056 | 6,143 | 55,263 |
| Pennsylvania..... | 8 | 6 | 1,614 | 8,609 | 1,461 | 3,022 | 7,387 | 33,524 | 16,356 | 52,290 | 1,496 | 1,678 | 23,758 |
| East South Central. All other divisions | 8 37 | 7 23 | 3,118 11,741 | 14,673 60,815 | 2,811 10,539 | 5,439 20,490 | 12,302 52,238 | 41,997 214,825 | 26,315 121,513 | 70,383 340,032 | 2,623 10,777 | ) 13,246 | 188,753 |
|  | INDUSTRY 3642.-LIGHTING FIXTURES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total..... | 1,239 | 480 | 53,866 | 288,148 | 42,052 | 83,284 | 193,464 | 587,834 | 578,062 | 1,159,497 | 23,072 | 47,309 | 397,378 |
| New England........ | 72 | 32 | 3,903 | 18,573 | 3,015 | 5,738 | 12,687 | 35,230 | 32,747 | 67,704 | 1,156 | 3,294 | 26,654 |
| Massachusetts.... | 40 | 17 | 2,562 | 11,800 4,552 | 1,992 656 | 3,725 | 8,153 3,011 | 22,968 6,677 | 21,806 7,505 | 44,704 14,077 | 660 212 | 2,032 890 | 16,734 6,390 |
| Middle Atlantic.... | 521 | 206 | 17,642 | 86,668 | 14,101 | 27,193 | 58,745 | 177,421 | 175,546 | 351,907 | 4,862 | 15,513 | 120,356 |
| New York.... | 331 | 105 | 7,703 | 39,877 | 6,081 | 11,674 | 26,603 | 77,324 | 77,896 | 154,844 | 1,968 | 8,006 | 64,106 |
| New Jersey....... | 97 | 45 | 3,934 | 20,593 | 3,092 | 6,097 | 13,757 | 46,113 | 36,502 | 82,391 | 1,344 | 2,943 | 22,561 |
| Pennsylvania..... | 93 | 56 | 6,005 | 26,198 | 4,928 | 9,422 | 18,385 | 53,984 | 61,148 | 114,672 | 1,550 | 4,564 | 33,689 |
| East North Central. | 252 | 114 | 18,862 | 112,629 | 14,433 | 29,456 | 76,115 | 212,925 | 198,247 | 407,480 | 10,460 | 17,514 | 146,169 |
| Ohio....... | 60 | 28 | 5,192 | 30,071 | 3,745 | 7,518 | 18,972 | 58,318 | 58,406 | 114,301 | 1,496 | 4,768 | 41,833 |
| Illinois......... | 141 | 67 | 6,555 | 33,674 | 5,129 | 10,041 | 21,488 | 63,098 | 73,402 | 136,860 | 3,350 | 6,148 | 46,742 |
| Michigan.......... | 22 | 9 | 1,144 | 6,082 | 922 | 1,844 | 4,361 | 11,159 | 13,960 | 25,198 | 349 | 645 | 7,797 |
| West North Central. | 39 | 20 | 1,791 | 9,685 | 1,337 | 2,690 | 5,790 | 18,257 | 16,632 | 34,802 | 654 | 1,694 | 12,075 |
| Minnesota. . . . . . Missouri....... | 7 27 | 2 17 | 119 1,610 | 740 8,683 | 99 1,188 | 215 2,382 | 484 5,130 | 2,075 15,549 | $\begin{array}{r}569 \\ 15 \\ \hline\end{array}$ | 2,645 | 72 | (2) | - 81 |
| Missouri...... | 27 | 17 | 1,610 | 8,683 | 1,188 | 2,382 | 5,130 | 15,549 | 15,742 | 31,186 | 568 | 1,556 | 10,843 |
| South Atlantic..... | 55 | 14 | 2,495 | 13,462 | 1,899 | 3,921 | 8,406 | 36,823 | 44,065 | 81,127 | 1,844 | 1,601 | 17,932 |
| Florida. | 21 | 5 | 265 | 1,083 | 206 | 417 | 746 | 2,046 | 2,751 | 4,783 | 58 | 321 | 1,554 |
| East South Central. | 11 | 7 | 2,081 | 9,037 | 1,742 | 3,553 | 6,686 | 27,621 | 31,793 | 59,288 | 710 | 1,917 | 19,443 |
| West South Central. | 39 | 10 | 797 | 3,863 | 599 | 1,166 | 2,378 | 11,045 | 9,503 | 20,395 | 307 | $\left(\begin{array}{l}2 \\ (2) \\ \hline\end{array}\right.$ | $\left({ }^{2}\right)$ |
| Texas....... | 29 | 8 | 506 | 2,773 | 354 | 713 | 1,561 | 7,212 | 7,111 | 14,150 | 269 | (2) | $\left.{ }^{2}\right)$ |
| Mountain........... | 10 | 2 | 187 | 1,058 | 151 | 294 | 639 | 2,048 | 2,565 | 4,581 | 308 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ |
| Pacific............ | 240 | 75 | 6,108 | 33,173 | 4,775 | 9,273 | 22,018 | 66,464 | 66,964 | 132,213 | 2,771 | 5,305 | 50,025 |
| Califormia....... | 226 | 71 | 5,523 | 30,297 | 4,315 | 8,513 | 19,948 | 60,955 | 63,038 | 123,106 | 2,539 | 4,917 | 46,310 |


| Total.......... |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 449 | 180 | 35,424 | 175,185 | 27,239 | 53,474 | 115,097 | 355,643 | 257,175 | 615,980 | 14,119 | 35,692 | 300,836 |
| New England.. | 77 | 39 | 12,347 | 61,182 | 9,777 | 19,073 | 42,472 | 116,533 | 90,659 | 207,934 | 3,631 | 12,250 | 103,314 |
| Massachusetts.... | 37 | 16 | 3,048 | 15,119 | 2,245 | 4,474 | 9,993 | 28,747 | 23,805 | 52,371 | 1,323 | 3,317 | 25,120 |
| Connecticut...... | 28 | 15 | 5,663 | 31,452 | 4,397 | 8,639 | 21,736 | 62,696 | 38,799 | 103,007 | 1,863 | 6,995 | 62,627 |
| Middle Atlantic.... | 151 | 58 | 11,788 | 54,646 | 9,405 | 18,183 | 37,747 | 111,664 | 88,360 | 203,617 | 5,211 | 10,131 | 79,871 |
| New York... | 85 | 33 | 6,984 | 32,408 | 5,604 | 10,808 | 22,538 | 53,931 | 47,267 | 101,954 | 2,868 | 6,171 | 42,098 |
| New Jersey....... | 36 | 10 | 2,487 | 11,456 | 2,015 | 3,895 | 8,143 | 21,369 | 19,557 | 43,816 | 1,342 | 2,136 | 15,663 |
| Pennsylvania..... | 30 | 15 | 2,317 | 10,782 | 1,786 | 3,480 | 7,066 | 36,364 | 21,536 | 57,847 | 1,001 | 1,824 | 22,110 |
| East North Central. | 105 |  | 8,341 | 43,029 | 5,924 | 11,869 | 25,333 | 86,122 | 54,443 | 139,804 | 2,934 | 8,832 | 81,154 |
| Illinois......... | 36 | 22 | 4,927 | 25,948 | 3,325 | 6,532 | 14,186 | 54,450 | 23,320 | 77,258 | 1,579 |  | 58,889 |
| Michigan.......... | 16 | 4 | 330 | 1,444 | 281 | 581 | 1,115 | 2,100 | 6,798 | 8,879 | 1201 | (2) | ${ }^{(2)}$ |
| West North Central. | 23 | 10 | 1,293 | 7,876 | 882 | 1,869 | 4,266 | 18,711 | 12,487 |  | 1,436 | 893 | 6,915 |
| Missouri.. | 12 | 4 | 1,996 | 6,448 | 648 | 1,411 | 3,302 | 9,742 | 9,155 | 18,665 | 1,376 | 830 | 6,628 |
| South | 23 | 7 | 505 | 2,173 | 412 | 818 | 1,526 | 9,108 | 4,714 | 13,872 | 362 | 113 | 905 |
| Texas. | 5 | 1 | 45 | 265 | 29 | 59 | 171 | 324 | 99 | 461 | 6 | (2) | $\left({ }^{2}\right)$ |
| West. | 70 | 18 | 1,150 | 6,279 | 839 | 1,662 | 3,753 | 13,505 | 6,512 | 19,774 | 545 | 3,473 | 28,677 |
| Califormia. | 64 | 17 | 1,113 | 6,081 | 812 | 1,610 | 3,646 | 13,109 | 6,325 | 19,191 | 535 | 3,450 | 28,383 |

See footnotes at end of table.

## table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total (number) | With 20 employees or more (number) | Total (number) | Payroll $(\$ 1,000)$ | Total (number) | Manhours $(1,000)$ | Wages $(\$ 1,000)$ |  |  |  |  |  |  |
| Total. | INDUSTRY 3644.-NONCURRENT CARRYING DEVICES |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 182 | 103 | 20,290 | 123,576 | 14,756 | 29,691 | 79,605 | 253,918 | 226, | 79,033 | 7,873 | 19,722 | 214,607 |
| Midale Atlant | 56 | 32 | 8,29 | 50,506 | 5,783 | 11,511 | 31,354 | 104,573 | 88,760 | 192,634 | 3,221 | 9,276 | 99,891 |
| New York.. | 22 | 11 | 3,829 | 23,449 | 2,568 | 5,097 | 14,108 | 44,234 | 26,424 | 71,329 | 1,269 | 3,777 | 35,255 13,546 |
| New Jersey... | 12 | 5 16 | 1,287 3,178 | 8,454 18,603 | 750 2,465 | 1,617 | 4,426 12,820 | 21,185 39,154 | 10,632 51,704 | 31,387 89,918 | 785 1,167 | 1,169 4,330 | 13,546 51,090 |
| Pennsylvania | 22 | 16 | 3,178 | 18,603 | 2,465 | 4,797 | 12,820 | 39,154 | 51,704 | 89,918 | 1,167 | 4,330 |  |
| Pacific. | 32 | 12 | 1,308 | 8,282 | 1,064 | 2,017 | 5,761 | 18,564 | 20,321 | 38,673 | 530 | 1,117 | 13,968 |
| All other divisions |  |  | 10,688 | 64,7 | 7,909 | 16,163 1,589 | 42,490 3,834 | 130,781 11,316 | 117,418 6,416 | 247,726 17,822 |  |  | 100,748 6,880 |
| Ohio....... | 16 | 11 | 1,805 | 11,948 | 1,226 | 1,564 | 3,834 7,328 | 11,316 | 6,416 15,404 | 17,822 | 399 423 | 730 1,427 |  |
| Alabama |  | 3 | 513 | 3,341 | 336 | 728 | 1,872 | 5,925 | 4,537 | 10,459 | 174 |  |  |
| Standard Notes: - Represents zero. <br> (D) Withheld to avoid disclosing figures for individual companies. <br> (NA) Not available. <br> (X) Not <br> applicable. <br> ${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3641, Electric Lamps: New England-New Hampshire, 1 (100-249); Massachusetts, 5 (2,500-4,999); East North Central-0hio, 10 (2,500-4,999); Indiana, 1 (1-19); Illinois, 6 (983); Michigan, 1 (1-19); Wisconsin, 1 (1-19); West North Central—Minnesota, 1 (1-19); Missouri, 2 (500-999); Kansas, 1 (1-19); South Atlantic-West Virginia, 1 (1,000-2,499); Florida, 1 (1-19); East South Central-Kentucky, 5 (1,366); Tennessee, 1 (500-999); Alabama, 1 (500-999); Mississippi, 1 (100-249); West South Central—Arkansas, 1 (500-999); Louisiana, 1 (1-19); 0klahoma, 1 (1-19); Mountain-Colorado, 1 (1-19); Arizona, 1 (1-19); Pacific-California, 1 (1-19). <br> SIC 3642, Lighting Fixtures: New England-New Hampshire, 1 (1-19); Vermont, 1 (250-499); Rhode Island, 4 (100-249); East North Central-Indiana, 12 (2,500-4, 999); Wisconsin, 17 (1,000-2,499); West North Central-Iowa, 2 (1-19); Kansas, 3 (20-99); South Atlantic-Delaware, 2 (100-249); Maryland, 8 (20-99); District of Columbia, 4 (1-19); Virginia, 1 (20-99); West Virginia, 2 (250-499); North Carolina, 7 (945); South Carolina, 1 (20-99); Georgia, 9 (500-999); East South Central-Kentucky, 6 (500-999); Tennessee, 2 (20-99); Mississippi, 3 (1,000-2,499); West South CentralArkansas, 4 (250-499); Louisiana, 4 (1-19); Oklahoma, 2 (1-19); Mountain-Colorado, 5 (133); Arizona, 3 (1-19); Utah, 2 (20-99); Pacific-Washington, 6 (529); Oregon, 6 (20-99); Hawaii, 2 (1-19). <br> SIC 3643, Current Carrying Devices: New England-Maine, 1 (250-499); New Hampshire, 1 (1-19); Phode Island, 10(2,500-4,999); East North Central-Ohio, 29 (1,000-2,499); Indiana, 18 (1397); Wisconsin, 6 (20-99); West North Central-Minnesota, 8 (245); Iowa, 2 (20-99); Kansas, 1 (20-99); South Atlantic-Maryland, 2 (20-99); District of Columbia, 1 (1-19); North Carolina, 7 (284); South Carolina, 1 (20-99); Florida, 4 (20-99); East South Central-Kentucky, 1 (20-99); West South Central-Louisiana, 1 (1-19); Oklahoma, 1 (1-19); Texas, 5 (20-99); Mountain-Wyoming, 1 (1-19); Colorado, 2 (20-99); Arizona, 2 (1-19); Pacific-Oregon, 1 (1-19). <br> SIC 3644, Nancurrent Carrying Devices: New England-Massachusetts, 8 (278); East North Central-Indiana, 1 (250-499); Illinois, 21 (3,695); Michigan, 7 (250-499); Wisconsin, 3 (103-249); West North Central-Minnesota, 2 (250-499); Missouri, 5 (500-999); South Atlantic-Maryland, 1 (20-99); West Virginia, 2 (500-999); Georgia, 1 (100-249); Florida, 2 (20-99); East South Central-Kentucky, 1 (20-99); Tennessee, 2 (20-99); Mississippi, 1 (20-99); West South Central-Iouisiana, 1 (1-19); Texas, 6 (250-499); Mountain-Colorado, 2 (1-19); Pacific-Oregon, 2 (l-19); California, 30 (1,000-2,499). showed the number of establishments and total employment (either actual or in size ranges) for such States. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## TABLE 3. Detailed Statistics: 1963

| Item | Electric lamps (SIC 3641) | Lighting fixtures (SIC 3642) | Current carying devices (SIC 3643) | Noncurrent carrying devices (SIC 3644) |
| :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio ${ }^{1}$... | . 95 | . 93 | . 80 | . 77 |
| Coverage ratio ${ }^{2}$.......................... | . 96 | . 93 | . 83 | . 80 |
| Establishments, total.................................... . number.. | 81 | 1,239 | 449 | 182 |
| With 1 to 19 employees. . . . . . . . . . . . . . . . . . . . . . . . . . . . do.... | 31 | 759 | 269 | 79 |
| With 20 to 99 employees................................ do.... | 8 | 368 | 113 | 58 |
| With 100 employees or more.............................do.. | 42 | 112 | 67 | 45 |
| Proprietors and working partners........................do.... | 19 | 458 | 144 | 22 |
| All employees (average for the year)...................do.... | 23,404 | 53,866 | 35,424 | 20,290 |
| Payroll (all employees), total for year............... $\$ 1,000 .$. | 122,721 | 288,148 | 175,185 | 123,576 |
| Production workers: |  |  |  |  |
| Average for the year................................. number.. | 20,461 | 42,052 | 27,239 | 14,756. |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. .. . | 20,514 | 41,355 | 26,773 | 14,544 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do | 20,479 | 39,782 | 27,021 | 14,758 |
| August............................................. . . . . . do | 20,476 | 42,542 | 27,374 | 14,881 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 20,362 | 44,659 | 27,830 | 14,885 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 40,256 | 83,284 | 53,474 | 29,691 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 10,252 | 19,881 | 13,182 | 7,189 |
| April-June . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 10,398 | 20,185 | 13,710 | 7,625 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 8,996 | 20,958 | 12,655 | 7,325 |
|  | 10,610 | 22,260 | 13,927 | 7,552 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 99,476 | 193,464 | 115,097 | 79,605 |
| Cost of materials, etc., total..........................do.... | 207,016 | 578,062 | 257,175 | 226,499 |
| Materials, parts, containers, and supplies consumed..do.. | 183,990 | 538,801 | 225,474 | 203,364 |
| Cost of resales............................................ .do. | 18,115 | 22,082 | 19,762 | 16,430 |
| Fuels consumed. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 1,758 | 3,630 | 1,323 | 2,422 |
| Electric energy: |  |  |  |  |
| Purchased: |  |  |  |  |
| Quantity...............................million kw.-hrs.. | 239 2,837 | 387 5,571 | 193 2,905 | 186 2,598 |
| Cost............................................. $\$ 1,000 .$. |  |  |  |  |
| Generated less sold......................million kw.-hrs.. | - | (D) | - | - |
| Contract work.......................................... $\$ 1,000$. . | 328 | 7,978 | 7,711 | 1,685 |
| Value of shipments (including resales), total..........do.... | 574,522 | 1,159,497 | 615,980 | 479,033 |
| Value of resales..........................................do.... | 21,464 | 29,523 | 28,132 | 19,098 |
| Value added by manufacture, adjusted....................do.... | 362,235 | 587,834 | 355,643 | 253,918 |
| Manufacturers' inventories: |  |  |  |  |
| Beginning of year, total................................d. ${ }^{\text {do. }}$ | 69,167 | 147,258 | 102,326 | 99,015 |
| Finished products.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 53,970 | 49,991 | 38,181 | 47,654 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,449 | 44,106 | 34,377 | 24,853 |
| Materials, supplies, fuel, etc.......................do.... | 13,748 | 53,161 | 29,768 | 26,508 |
| End of year, total......................................do.. | 63,744 | 157,100 | 99,549 | 101,517 |
| Finished products....................................... . . . . . | 48,571 | 52,763 | 37,905 | 48,390 |
| Work-in-process..................... . . . . . . . . . . . . . . .do.... | 1,577 | 47,733 | 32,461 | 25,501 |
| Materials, supplies, fuel, etc..........................do..... | 13,596 | 56,611 | 29,183 | 27,626 |
| Expenditures for plant and equipment, total............do.... | 17,425 | 24,473 | 15,616 | 8,733 |
| New, total............................... . . . . . . . . . . . . do.... | 17,040 | 23,072 | 14,119 | 7,873 |
| New structures and additions to plant...............ddo.... | 4,124 | 7,751 | 2,479 | 938 6,935 |
| New machinery and equipment.........................do.... | 12,916 | 15,321 | 11,640 | 6,935 |
| Used plant and equipment................................do.... | 385 | 1,401 | 1,497 | 860 |
| Selected operating ratios: |  |  |  |  |
| Payroll/Total employment.. | 5,243 | 5,349 | 4,945 | 6,090 |
| Production workers/Total employment. . . . . . . . . . . . . . . . . . . . . | . 87 | . 78 | . 77 | . 73 |
| Man-hours/Production workers. | 1,967 | 1,981 | 1,963 | 2,012 |
| Production worker wages/Man-hours. . . . . . . . . . . . . . . . . . . . . . . | 2.47 | 2.32 | 2.15 | 2.68 |
| Cost of materials and payrolls/Total value of shipments.... | . 57 | . 75 | .70 .42 | . 73 |
| Adjusted value added/Total employment........................... . | 15,477 | 10,915 | 10,040 | 12,514 |
| Salaries and wages/Adjusted value added...................... | . 34 | . 49 | . 49 | . 49 |

Note: Detailed figures may not add to totals because of independent rounding or indepencient dropping of fractions of t..ousands rather than rounding in computcr operations. See Introduction for an explanation of terms used.
Standard
applicable.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
${ }_{2}^{1}$ The proportion of product shipments (both prinary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of prinary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establisluments.
table 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | 5 to 9 employees | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 1,000 \text { to } \\ & 2,499 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & \text { 2,500 } \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3641.-ELECTRIC LAMPS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 81 | 18 | 6 | 7 | 3 | 5 | 10 | 14 | 16 | 1 | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 23,404 | 31 | 41 | 101 | 93 | 343 | 1,534 | 5,059 | 16,202 | (D) | (D) |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 122,721 | 146 | 173 | 456 | 390 | 1,365 | 6,643 | 25,534 | 88,014 | (D) | (D) |
| Value added, adjusted.......do.... | 362,235 | 286 | 470 | 1,176 | 686 | 4,016 | 16,991 | 84,051 | 254. 559 | (D) | (D) |
| Value of shipments.........do.... | 574,522 | 440 | 773 | 1,854 | 1,234 | 10,235 | 28,904 | 139,700 | 391,382 | (D) | (D) |
| Capital expenditures, new...do.... | 17,040 | ${ }^{1} 1,892$ | (D) | (D) | (D) | (D) | (D) | 1,658 | 13,490 | (D) | (D) |
|  | INDUSTRY 3642. -LIGFITING FIXTURES |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 1,239 | 384 | 195 | 180 | 234 | 134 | 74 | 21 | 16 | - | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total........................ do.... | 53,866 | 690 3 | 1,339 | 2,472 | 7,351 | 9,080 | 11,101 | 7,347 39 | $\frac{14,486}{87,976}$ | - | (D) |
| Payroll................ $\$ 1,000 .$. | 288,148 | 3,907 | 6,172 | 11,672 | 35,770 | 45,420 | 57,463 | 39,768 | $\frac{87,976}{78,689}$ | - | (D) |
| Value added, adjusted.......do.... | 587,834 | 9,003 | 13,085 | 23,359 | 69,641 | 87,706 | 124,377 | 77,974 | $\frac{182,689}{322}$ | - | (D) |
| Value of shipments.......... do.... | 1,159,497 | 19,536 | 26,877 | 50,589 | 158, 731 | 182,780 | 249,345 | 149,560 | $\frac{322,079}{8,082}$ | - | (D) |
| Capital expenditures, new...do.... | 23,072 | 434 | 429 | 955 | 2,225 | 3,144 | 3,878 | 3,025 | 8,982 | - | (D) |
|  | INDUSTRY 3643. -CURRENT CARRYING DEVICES |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 449 | 149 | 61 | 59 | 71 | 42 | 36 | 18 | 6 | 6 | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 35,424 | 240 | 393 | 814 | 2,247 | 3,060 | 5,602 | 6,761 | 4,297 | 12,010 | (D) |
| Payrol1................. $\$ 1,000 .$. | 175,185 | 1,075 | 1,648 | 3,708 | 10,325 | 15,759 | 27,852 | 33,379 | 23,993 | 57.446 | (D) |
| Value added, adjusted.......do.... | 355,643 | 2,704 | 3,486 | 7,700 | 20,920 | 40,414 | 60,289 | 66,457 | 44,275 | 109,398 | (D) |
| Value of shipments.........do.... | 615,980 | 5,400 | 6,152 | 13,653 | 37,635 | 71,206 | 110,061 | 120,488 | 86,533 | 164.852 | (D) |
| Capital expenditures, new...do.... | 14,119 | 152 | 135 | 289 | 840 | 2,607 | 2,055 | 1,966 | 971 | 5,104 | (D) |
|  | INDUSTRY 3644. - NONCURRENT CARRYING DEVICES |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 182 | 31 | 18 | 30 | 26 | 32 | 21 | 16 | 6 | 2 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.................... . do.... | 20,290 | 58 | 125 | 432 | 756 | 2,222 | 3,609 | 5,737 | 7,351 | (D) | - |
| Payroll................. . $\$ 1,000$. . | 123,576 | 246 | 635 | 2,165 | 4,483 | 11,860 | 21,265 | 36,787 | 46,135 | (D) | - |
| Value added, adjusted.......do.... | 253,918 | 1,434 | 1,183 | 4,483 | 9,155 | 28,200 | 38,695 | 73,025 | $\underline{97.743}$ | (D) | - |
| Value of shipments..........do.... | 479,033 | 1,196 | 2,476 | 9,114 | 17,603 | 58,422 | 92,271 | 136,428 | 161.523 | (D) | - |
| Capital expenditures, new...do.... | 7,873 | 31 | 42 | 190 | 405 | 1,569 | 903 | 2,061 | 2,672 | (D) | - |

## - Represents Zero.

(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

1 Includes capital expenditures for plants under construction but not in operation which constitute $\$ 1,000-2,000$ thousand of the total for the size class.

## table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio Col. B <br> Col. B+C <br> (percent) | Total, made in all industries <br> $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries <br> $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | I |
| 3641 | Electric lamps..................... $1963 .$. | $\begin{aligned} & 574,522 \\ & 417,516 \end{aligned}$ | $\begin{aligned} & 522,669 \\ & 384,151 \end{aligned}$ | $\begin{aligned} & 30,024 \\ & 24,756 \end{aligned}$ | $\begin{array}{r} 21,829 \\ 8,609 \end{array}$ | $\begin{aligned} & 95 \\ & 94 \end{aligned}$ | $\begin{aligned} & 545,947 \\ & 393,597 \end{aligned}$ | $\begin{aligned} & 522,669 \\ & 384,151 \end{aligned}$ | $\begin{array}{r} 23,278 \\ 9,446 \end{array}$ | 96 98 |
| 3642 | Lighting fixtures................. 1963.. | $1,159,497$ 826,595 | 1,039,211 | $\begin{aligned} & 83,846 \\ & 69,896 \end{aligned}$ | $\begin{aligned} & 36,440 \\ & 35,502 \end{aligned}$ | $\begin{aligned} & 93 \\ & 91 \end{aligned}$ | $\begin{array}{r} 1,116,064 \\ 765,413 \end{array}$ | $\begin{array}{r} 1,039,211 \\ 721,197 \end{array}$ | $\begin{aligned} & 76,853 \\ & 44,216 \end{aligned}$ | 93 94 |
| 3643 | Current carrying devices ......... $19633^{\circ}{ }^{\circ}$. | $\begin{aligned} & 615,980 \\ & 501,309 \end{aligned}$ | $\begin{aligned} & 464,160 \\ & 407,135 \end{aligned}$ | $\begin{array}{r} 116,631 \\ 72,860 \end{array}$ | $\begin{aligned} & 35,189 \\ & 21.314 \end{aligned}$ | $\begin{aligned} & 80 \\ & 85 \end{aligned}$ | $\begin{aligned} & 561,845 \\ & 448,491 \end{aligned}$ | $\begin{array}{r} 464,160 \\ (\mathrm{NA}) \end{array}$ | $\begin{array}{r} 97,685 \\ (\mathrm{NA}) \end{array}$ | $\begin{array}{r} 83 \\ \text { (NA) } \end{array}$ |
| 3644 | Noncurrent carrying devices....... 1963.. | $\begin{aligned} & 479,033 \\ & 413,758 \end{aligned}$ | $\begin{aligned} & 352,016 \\ & 304,734 \end{aligned}$ | $\begin{array}{r} 103,206 \\ 83,694 \end{array}$ | $\begin{aligned} & 23,811 \\ & 25,330 \end{aligned}$ | $\begin{aligned} & 77 \\ & 78 \end{aligned}$ | $\begin{aligned} & 439,343 \\ & 341,570 \end{aligned}$ | $\begin{aligned} & 352,016 \\ & 304,734 \end{aligned}$ | $\begin{aligned} & 87,327 \\ & 36,836 \end{aligned}$ | 80 89 |

NOTE: See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
${ }^{1}$ Not strictly comparable with 1963 because of the reclassification of electronic connectors. See text for further explanation.

# TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


Standard Notes: - Represents zero.

## applicable.

Not elsewhere classified.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
n.s.k. Not specified by kind.
individuales shipments of over $\$ 2$ million by each of the following industries, but the exact values are withheld to avoid disclosing figures for
${ }^{2}$ Includes the following product classes which total $\$ 2$ million or more
Other special industry machinery and equipment, and 36992 , Lamp bulb components (except glass blanks) and asing individual company figures: 35595,
${ }^{3}$ Includes shipments of over $\$ 2$ million by industry 3229 , Pressed and Blown (except glass blanks) and electrical products.
ndividual company figures
individual company figures
${ }^{4}$ Includes shipments of over $\$ 2$ million by each of the following industries, but the exact values are withheld to avoid disclosing individual company figures: 3229, Pressed and Blown Glass, N.E.C., and 3644, Noncurrent Carrying Devices

Includes shipments of over $\$ 2$ million by industry 3717, Motor Vehicles and Parts. However, the exact value is withheld to avoid disclosing individual company figures
${ }^{6}$ Includes shipments of $\$ 11,461$ thousand by industry 3644, Noncurrent Carrying Devices. In addition, includes shipments of over $\$ 2$ million by industry 3441 , Fabricated Structural Steel. However, the exact value is withheld to avoid disclosing individual company figures.
${ }^{7}$ Includes shipments of $\$ 2,651$ thousand by industry 3692, Primary Batteries, Dry and Wet. In addition, includes shipments of over $\$ 2$ million by ndustry 3433, Heating Equipment, Except Electric. However, the exact value is withheld to avoid disclosing individual company figures.
${ }^{8}$ Includes shipments of over $\$ 2$ million for each of the following product classes, the exact values of which are withheld to avoid disclosing individual company figures: 32315, Mirrors; 24990, Fabricated metal products, n.e.c.; 36112, Test equipnent for testing electrical, radio, and conmunication circuits and motors; 26391, Capacitors for industrial use (except for electronic applications); 36410, Electric lamps (bulbs only) including sealed beam lamps; 36920, Primary batteries, dry and wet; 37175, Parts and accessories for passenger cars, trucks, and busses, shipped
${ }^{9}$ Includes $\$ 5,824$ thousand shipped by industry 3613, Switchgear and Switchboards; $\$ 4,204$ thousand shipped by industry 3642 , Lighting Fixtures; $\$ 24,327$ thousand shipped by industry 3644, Noncurrent Carrying Devices; and $\$ 10,615$ thousand shipped by industry 3679 , Electronic Components, N.E.C. In addition, the following industries each shipped $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: industry 3264, Porcelain Electric Supplies; industry 3356, Rolling and Drawing, N.E.C.; industry 3544, Special Dies and Tools; industry 3612, Transformers; industry 3622, Industrial Controls; industry 3629, Electric Industrial Goods, N.E.C.; industry 3661, Telephone; Telegraph Apparatus; industry 3694, Engine Electrical Equipment; and, industry 3871, Watches and Clocks.
${ }^{10}$ Includes the following product classes each of which total $\$ 2$ million or more, but are withheld to avoid disclosing individual company figures: 34990 , Fabricated metal products, n.e.c.; 36131, Switchgear, including power switchgear assemblies and other switching and interrupting devices 2,300 volts and over; 36134, Fuses and fuse equipment under 2,300 volts; 36220, General industry power circuit devices and controls; 36233, Resistance welders, components, accessories, and electrodes; 36945; Other complete electrical equipment for intermal combustion engines; 36992, Lamp bulb components (except blanks) and other electrical products; and, 39120, Jewelers' findings and materials.
${ }^{1}$ Includes $\$ 9,742$ thousand shipped by industry 3317, Steel Pipe and Tube; $\$ 12,161$ thousand shipped by industry 3352, Aluminum Rolling and Drawing; $\$ 4,182$ thousand by industry 3357, Nonferrous Wire Drawing; $\$ 5,799$ thousand by industry 3613, Switchgear and Switchboards; and, $\$ 7,083$ thousand shipped by industry 3643, Current Carrying Devices. In addition, the following industries each shipped $\$ 2$ million or more, but exact values are withheld to avoid disclosing individual company figures: industry 3312, Blast Furnaces and Steel Mills, and industry 3351, Copper Rolling and Drawing.
${ }^{12}$ Includes $\$ 4,040$ thousand shipped by industry 3643, Current Carrying Devices.
${ }^{13}$ Includes .the following product classes each of which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 30692, Rubber hose and tubing; 33126, Steel pipe and tube (produced in steel mills); 33579, Other insulated wire and cable, n.e.c.; 34231, Mechanics' hand service tools; 34522, Special industrial fasteners (nonstandard); 35616, Parts and attachments for pumps, air and gas compressors, and pumping equipment; 36131, Switchgear, including power switchgear assemblies and other switching and interrupting devices 2,300 volts and over; 36423 , Industrial type electric fixtures; 36623, Intercommuication equipment (except telephone and telegraph) and electric alarm and signal systems and devices; and, 37294, Receipts and development on missile parts and components, n.e.c.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| Product code | Product | 1963 |  |  | 1958 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production for all purposes(1,000 bulbs) | Total shipments, including interplant transfers |  | Production for all purposes$\text { ( } 1,000 \text { bulbs) }$ | Total shipments, including interplant transfers |  |
|  |  |  | $\begin{gathered} \text { Quantity } \\ (1,000 \text { bulbs }) \end{gathered}$ | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |  | $\begin{gathered} \text { Quantity } \\ (1,000 \text { bulbs) } \end{gathered}$ | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3641- -- | ELECTRIC LAMPS, (BULLS) | (X) | (x) | 545,947 | (x) | (x) | 393,597 |
| 3641010 | Electric lamps, except cold cathode fluorescent: <br> As reported in the census of manufactures. $\qquad$ <br> As reported on Census Quarterly Form M36B. . <br> ......................... | $\begin{array}{r} (\mathrm{X}) \\ 3,060,337 \end{array}$ | (X) $3,017,245$ | $\begin{aligned} & 543,565 \\ & 550,963 \end{aligned}$ | (X) 2,321,063 | (X) | $\begin{aligned} & 390,386 \\ & 395,577 \end{aligned}$ |
|  | Photographic incandescent, total................................. | 718,226 | 714,568 | 63,843 | 585,529 | 584,617 | 49,289 |
|  | Photoflash, total ${ }^{1}$ | 707,623 | 704,284 | 47,463 | 574,920 | 572,768 | 37,438 |
| $\begin{array}{ll} 36410 & 21 \\ 36410 & 22 \end{array}$ | Screw base (including blue) Midget (including blue).... | 3,780 186,942 | 3,304 195,773 | 471 14,910 | 8,965 401,132 | 10,879 399,418 | 1,091 27,156 |
| 3641023 | Miniature (incluaing blue) | 188,877 | 191,393 | 12,933 | 164,823 | 162,470 | 9,191 |
| 3641027 | All glass (AG-1).......... | 328,024 | 313,814 | 19,149 | (NA) | (NA) | (NA) |
|  | Projection, total | 6,349 | 6,118 | 12,368 | 4,139 | 4,885 | 8,102 |
| $\begin{aligned} & 3641028 \\ & 3641029 \end{aligned}$ | Bulk packed. <br> All other | 1,747 4,602 | 1,604 | 3,126 | 4,139 | 4,885 | 8,102 |
| 3641025 | Photoflood, photo-erilarger, and other photolamps.... | 4,254 | 4,166 | 4,012 | 6,470 | 6,964 | 3,749 |
|  | Large incandescent, except photographic and Christmas tree, total........................................................................... . . . | 1,253,528 | 1,236,303 | 216,547 | 1,051,675 | 1,085,119 | 165,767 |
|  | General lighting: <br> 15-150 watt, $100-130$ volts: |  |  |  |  |  |  |
| $\begin{aligned} & 3641008 \\ & 36410 \quad 09 \end{aligned}$ | White 1 amps.. All other. | $\begin{aligned} & 163,129 \\ & 746,285 \end{aligned}$ | $\begin{aligned} & 156,171 \\ & 734,654 \end{aligned}$ | $\begin{aligned} & 20,453 \\ & 84,656 \end{aligned}$ | 765,538 | 777,200 | 79,499 |
| 3641012 | Above 150 watt, 100-130 volts | 62,322 | 61,287 | 17,728 | 57,458 | 61,641 | 16,911 |
| 3641013 | $3-1 \mathrm{ight}, 100-130$ volts | 33,963 | 33,703 | 10,013 | 23,080 | 27,323 | 7,758 |
|  | Reflector, 100-130 volts, | 30,195 | 29,119 | 28,360 | 21,181 | 20,983 | 19,233 |
| $\begin{aligned} & 3641014 \\ & 3641019 \end{aligned}$ | Par type (pressed volts) <br> R type (blow glass) | $\begin{aligned} & 16,065 \\ & 14,130 \end{aligned}$ | 15,488 13,631 | $\begin{aligned} & 17,491 \\ & 10,869 \end{aligned}$ | 21,181 | 20,983 | 19,233 |
| 3641015 | Infrared (all types), 100-130 volts. | 5,423 | 4,363 | 4,751 | 3,400 | 3,687 | 2,477 |
| 3641016 | Traffic and street lighting, $100-130$ volt | 14,392 | 15,448 | 5,269 | 13,141 | 12,359 | 4,538 |
| 3641017 | Rough and vibration service, 100-130 volts. | 28,829 | 28,449 | 6,533 | 31,197 | 26,722 | 5,778 |
| 3641018 | All other large incandescent (special purpose) | 168,981 | 173,109 | 38,784 | 136,680 | 155,204 | 29,573 |
|  | Miniature incandescent, total | 674,109 | 653,920 | 94,390 | 391,837 | 415,710 | 64,618 |
|  | Automobile glass and metal sealed beans: Under 6 inches. $\qquad$ | 54,489 | 52,618 | 31,217 | 28,161 | 27,467 | 17,085 |
| $\begin{aligned} & 3641030 \\ & 3641031 \end{aligned}$ | Bulk packed. <br> All other. | 54,489 | $\left\{\begin{array}{l}31,987 \\ 20,631\end{array}\right.$ | 18,092 | \} 28,161 | 27,467 | 17,085 |
|  | 6 inches and | 24,080 | 22,725 | 15,989 | 24,889 | 26,728 | 19,108 |
| $\begin{array}{ll} 36410 & 32 \\ 36410 & 37 \end{array}$ | Bulk packed. All other.. | \} 24,080 | $\left\{\begin{array}{r}5,619 \\ 17,106\end{array}\right.$ | 3,633 12,356 | ) 24,889 | 26,728 | 19,108 |
|  | Automobile miniature other than glass and metal sealed beams | 414,562 | 405,635 | 29,099 | 226,824 | 236,138 | 17,755 |
| $\begin{aligned} & 3641033 \\ & 3641036 \end{aligned}$ | Bulk packed All other.. | \} 414,562 | $\left\{\begin{array}{l}257,068 \\ 148,567\end{array}\right.$ | $\begin{aligned} & 16,804 \\ & 12,295 \end{aligned}$ | 226,824 | 236,138 | 17,755 |
| 3641034 | Flashlight | 68,250 | 65,782 | 3,569 | 51,430 | 62,54,4 | 3,360 |
| 3641035 | Radio panel | 48,445 | 47,978 | 2,275 | 27,782 | 29,187 | 1,282 |
| 3641039 | All other miniature ${ }^{3}$ | 64,283 | 59,182 | 12,241 | 32,751 | 33,646 | 6,028 |
|  | Electrical discharge (except Christmas tree), total............ | 245,990 | 241,401 | 166,938 | 142,850 | 146,117 | 105,684 |
| 3641041 | Germicidal, sterile, bacterial, and ozone.................... | 1,216 | 1,001 | 1,098 | 833 | 1,144 | 981 |
| 3641042 | Sun lamps (bulbs only).......................................... . . | 428 | 391 | 1,707 | 566 | 497 | 2,423 |
|  | Fluorescent, hot cathode, total. | 179,041 | 175,180 | 139,294 | 112,519 | 114,769 | 88,674 |
| 3641043 | Slimline. | 32,503 | 31,728 | 37,842 | 21,690 | 21,927 | 30,479 |
| 3641046 | Circular. | 5,079 | 5,001 | 7,865 |  |  |  |
| 3641047 | High output 800 milliamp and over ${ }^{4}$........................... | 8,222 | 7,794 | 16,070 |  |  |  |
|  | Other fluorescent: |  |  |  | \} 90,829 | 92,842 | 58,195 |
| $\begin{aligned} & 3641044 \\ & 3641045 \end{aligned}$ | Below 40 watt. <br> 40 watt and overs | $\begin{array}{r} 32,198 \\ 101,039 \end{array}$ | $\begin{aligned} & 30,996 \\ & 99,661 \end{aligned}$ | $\begin{aligned} & 17,781 \\ & 59,736 \end{aligned}$ |  |  |  |
|  | Miscellaneous electrical discharge, total | 65,305 | 64,829 | 24,839 | 28,932 | 29,707 | 13,606 |
| 3641051 | Glow. . | 63,013 | 62,644 | 5,783 | 28,079 | 28,798 | 2,753 |
| 3641052 | Mercury . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2,24,4 | 2,138 | 17,321 | 800 | 853 | 8,823 |
| 3641053 | Sodium, photochemical and other miscelianeous discharge... | 48 | 47 | 1,735 | 53 | 56 | 2,030 |
| 3641055 | Christmas tree lamps (all types).. | 168,484 | 171,053 | 9,245 | 149,172 | 160,760 | 10,216 |
| 3641063 | Cold cathode fluorescent lamps for illumination and decoration, including custom built lamps, but excluding sign applications.... | (X) | (X) | 2,382 | (X) | (X) | 3,211 |

[^243]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



See footnotes at end of table.

TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

# TABLE 6A. <br> Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3644- -- | NONCURRENT CARRYING WIRING DEVICES--Continued |  |  |  |  |  |
| 3644233 | Flexible steel conduit. | 1,000 feet.... | 90,257 | 6,994 | 70,389 | 6,110 |
| 3644235 | Raceways and raceway fittings (metal)............ |  | (X) | 21,886 | (X) | 21,315 |
| 3644236 | Other electrical conduit (including underground conduit and fittings, molding angles, molding outlet, and molding junction boxes). |  | (X) | 11,790 | (X) | ${ }^{15} 116,354$ |
| 3644239 | Fittings other than those listed above (including conduit and electric metallic tubing connectors, service entrance caps and ells, insulating bushings, pothead, etc., and fittings for armored cable, nonmetallic wiring systems, and service cables) |  | (X) | 63,457 | (X) | 44,760 |
|  | Switch and outlet wall plates: |  |  |  |  |  |
| $\begin{aligned} & 3664263 \\ & 3644265 \end{aligned}$ | Metal... | 1,000 units... | 23,130 | 2,866 | 23,802 | 3,525 |
| 3644265 | Plastic | do. | 96,834 | 5,890 | 52,726 | 4,045 |
| 3664200 | Electric conduit and conduit fittings, n.s.k. |  | (X) | (X) | (x) | 5,157 |
| 3644310 | Other noncurrent carrying wiring devices and supplies: |  |  |  |  |  |
| 364310 | As reported in the census of manufactures. As reported on Census Annual Form MA-36K..................................... |  | (X) | $\begin{aligned} & 92,836 \\ & 89,616 \end{aligned}$ | (X) | $\begin{array}{r} 59,126 \\ (\mathrm{X}) \end{array}$ |
|  | Stamped metal boxes, covers, and accessories (including clamped conduit boxes): |  |  |  |  |  |
| 3644311 | Switch and receptical boxes.............................. | 1,000 units... | 85,254 | 15,342 | 87,113 | 16,198 |
| 3644313 | Outlet boxes.... | ...do.......... | 115,296 | 19,647 | 76,380 | 14,580 |
| 3644317 | Covers and accessories (including supports and bar hangers)... |  | ( X ) | 6,219 | (X) | 3,153 |
| 3644321 | Cast metal boxes, covers, and accessories, (including cast conduit boxes, but excluding fittings).. |  | (X) | 48,408 | (X) | 20,984 |
| 3644323 | Nonmetallic boxes and covers................................... |  |  |  |  |  |
| 3644300 | Other noncurrent carrying wiring devices and supplies, n.s.k.... |  | (x) | (X) | (X) | 4,211 |
| 3644000 | Noncurrent carrying wiring devices, n.s.k......................... |  | (x) | 6,425 | (X) | (X) |

Standard Notes: -Represents zero
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(x) Not applicable.
n.s.k. Not specified by kind.
${ }^{1}$ The total shipments of photoflash lamps for 1963 includes 148.2 million blue photoflash lamps, valued at $\$ 11,619$ thousand; the comparable 1958 figures are 85.7 million blue photoflash lamps, valued at $\$ 7,011$ thousand
${ }^{2}$ Includes lamps for special services such as sign and display lighting; aviation; street; railway; spot and flood lighting; train and country home lighting; showcase; other items for special application; and large incandescent lamps under 15 watts and other than $100-130$ volts.
${ }^{3}$ Includes lamps for use in toys, pin games, surgical, medical, and dental instruments, and for special applications.
${ }_{5}^{4}$ Includes power groove VHO, SHO lamps.
${ }^{5}$ Includes pre-heat rapid starting lamps.
${ }^{6}$ In the 1958 Census of Manufactures product class 36427 was part of product class 36421 . Accordingly the 1958 value for portable resiadential type electrical fixtures, not specified by kind, are included in product code 3642110.
${ }^{7}$ Excludes indoor signs.
${ }^{8}$ Of this total, shipments of other motor vehicle lighting equipment (such as parking lights, dome lights, taillights, etc.) to motor vehicle manufacturers accounted for $\$ 48,863$ thousand; shipments of such equipment to all other customers for $\$ 12,493$ thousand. Shipments of headlight fixtures (exclusive of bulbs) accounted for the remaining $\$ 18,483$ thousand.
${ }^{9}$ Includes $\$ 14,020$ thousand of incandescent fixtures and $\$ 1,930$ thousand of fluorescent fixtures.
${ }^{10}$ For 1958, figures probably exclude components (sold separately) and renewal parts for outdoor lighting equipment.
${ }^{11}$ Excludes ballasts.
${ }^{12}$ Differs from previously published data. Electronic connectors valued at 66,436 thousand are now included in industry 3679 , Electronic Components, N.E.C., rather than this industry.
${ }^{13}$ For 1958, figures for "Precision (1/8" gap or less) snap-acting switches" are included with "Other current carrying wiring devices, " product code 3643098.
${ }^{14}$ Includes current carrying wiring devices, not specified by kind.
${ }^{15}$ For 1958, data for codes $3644221,3644222,2644223$, and 3644224 are included with code 3644236.

## table 6B: Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 364 | Lighting and wiring devices.................... ${ }^{\text {d }}$ 1963.. 1958.. | $(1)$ $(1)$ | (1) $(1)$ |
| 3641 | Electric lamps (bulbs only).......................... 1963.. | 153 | 111 |
| 3642 | Lighting fixtures........................................ . 1963. 1963.. | (1) | (1) |
|  | Current carrying devices.............................. $19.1963 .$. | (1) | (2) 116 |
| 3643 | Current carrying devices..............................1963.. ${ }^{\text {1958.. }}$ | 169 | 106 |
| 3644 | Noncurrent carrying devices.......................... . $1963 .$. | 186 107 | $\begin{array}{r}99 \\ 112 \\ \hline\end{array}$ |

${ }^{1}$ Not shown pending further review of data covering lighting fixtures (products of industry 3642).
table 6c. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962^{1}$ | $1961{ }^{1}$ | $1960^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3641- | Electric lamps................................... . | 545,947 | 507,931 | 485,080 | 490,413 | 470,169 | 393,597 | 309,650 | 191,706 |
| 3642- | Lighting fixtures. | 1,116,064 | 1,118,376 | 958,935 | 928,312 | 883,242 | 765,413 | 633,488 | 468,477 |
| 36421 | Residential type electric fixtures, except portables. $\qquad$ | 158,799 | 2311,743 | ${ }^{2} 247,078$ | ${ }^{2} 255,354$ | ${ }^{2} 255,959$ | 114,804 | 88,529 | 54,229 |
| 36422 | Commercial and institutional type electric fixtures. $\qquad$ | 299,181 | 287,956 | 260,640 | 226,799 | 187,378 | 168,083 | 119,016 | 68,443 |
| 36423 | Industrial type electric fixtures.............. | 76,134 | 75,929 | 63,476 | 68,609 | 67,075 | 62,393 | 60,457 | 51,023 |
| 36424 | Vehicular lighting equipment, electric...... | 157,390 | 146,947 | 119,565 | 132,908 | 130,547 | 105,970 | 144,391 | 110,120 |
| 36425 | Outdoor lighting equipment.................... | 134,764 | 124,343 | 97,383 | 87,819 | 83,093 | 76,308 | 52,047 | 35,649 |
| 36426 | Other electric and nonelectric <br> lighting equipment.. | 84,683 | 81,133 | 82,808 | 77,025 | 79,315 | 68,872 | 54,834 | 51,002 |
| 36427 | Portable lamps (residential: table, floor, wall, etc.) | 160,188 | (2) | (2) | (2) | (2) | 112,540 | 94,898 | 75,419 |
| 36420 | İghting fixtures, n.s.k....................... | 44,925 | (S) | (S) | (S) | (S) | 56,433 | 19,316 | 22,592 |
| 3643- | Current carrying devices ${ }^{3}$. | 561,845 | 505,047 | 450,671 | (NA) | (NA) | 448,491 | (NA) | (NA) |
| 3644- | Noncurrent carrying devices. | 439,343 | 381,375 | 380,832 | 366,918 | 373,926 | 341,570 | 284,066 | 205,387 |
| 364.41 | Pole-line and transmission hardware | 97,901 | 82,666 | 76,109 | 65,401 | 94,096 | - 81,178 | 70,915 | 57,707 |
| 364.42 | Electric conduit and conduit fittings....... | 242,181 | 220,884 | 232,075 | 231,041 | 195,016 | 201,266 | 152,289 | 111,004 |
| 36443 | Other noncurrent carrying wiring devices and supplies. | 92,836 | 77,825 | 72,648 | 70,476 | 84,814 | 59,126 | 60,862 | $36,676$ |
| 36440 | Noncurrent carrying devices, n.s.k. | 6,425 | (X) |  |  |  |  | $(x)$ | (x) |

Sticable Notes: - Represents zero
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
$(S)$ Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
n.s.k. Not specified by kind.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
${ }^{2}$ For 1959-1962, product classes 36427, Portable lamps (residential: table, floor, wall, etc.) was included with product class 36421 , Residential type electric fixtures, except portable. For 1947, 1954, and 1958, the comparable product class figures have been derived from the detailed product statistics.
${ }^{3}$ This product class previously included electronic connectors but has been redefined in the 1963 Census of Manufactures to exclude this product. The value of shipments including electronic connectors are as follows: 1963, \$828,235 thousand; 1962, \$768,718. thousand; 1961, \$636,748 thousand; 1960, $\$ 622,336$ thousand; 1959, $\$ 615,715$ thousand; 1958, $\$ 514,921$ thousand; 1954, $\$ 285,163$ thousand; and 1947, $\$ 170,266$ thousand,

# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RESIDENTIAL TYPE ELECTRIC <br> FIXTURE, EXCEPT PORTABLE <br> (36421) | $1963{ }^{1}$ |  | VEHICULAR LICHTING EQUIPMENT ELECTRIC (36424) | $1963{ }^{1}$ | 1958 | PORTABLE LAMPS RESIDENTIAL: TABLE, FLOOR, WALL, ETC. (36427)-Continued | 19631 |  |
|  | 158,799 |  |  |  | $105,970$ |  |  |  |
| United States, total.... |  |  |  |  |  | Middle Atlantic............. |  | 91,763 |
| New England................ |  |  | New England. <br> Middle Atlantic. | 5,49712,651 | 414,391 | New York................... |  | 42,176 |
|  |  |  |  |  |  | New Jersey. <br> Pennsylvania. .............. |  | 17,517 32,070 |
| Middle Atlantic <br> New York. <br> New Jersey <br> Pennsylvania | $\begin{aligned} & 64,1640 \\ & 19,490 \\ & 13,625 \\ & 31,049 \end{aligned}$ |  |  | 12,651 |  |  |  | 32,070 |
|  |  |  |  | $\begin{array}{r} 134,035 \\ 16,670 \\ 10,350 \end{array}$ | $\} 91,579$ |  |  | 40,5407,14528,453 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| East North Central Ohio. . <br> Illinois | $\begin{aligned} & 42,040 \\ & 11,01 \\ & 23,068 \end{aligned}$ |  | South and West............... OUTDOOR LIGHTING EQUIPNENT (36425) | 5,207 |  |  | 1,454 |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  | Pacific................... |  |  |  |  |  |  |
| West North Central.......... | ${ }^{2} 2,368$ |  |  | United States, total.. | 134,764 | 76,308 |  |  |  |
| South.....................Georgia.............. | 19,1991,018 |  | DEVICES, INCLUDING LIGHTNING RODS (36430) |  |  |  | $1963{ }^{1}$ | 1958 |
|  |  |  |  | $\begin{aligned} & 1,979 \\ & 1,460 \end{aligned}$ | $\begin{array}{r} (5) \\ 2,274 \end{array}$ |  |  |  |
| West. | 25,285 |  |  |  |  | Middle Atlantic <br> New York. <br> New Jersey. <br> Pennsylvania | United States, total.... | 561, 845 | 4.48,491 |
| COMMERCIAL AND INSTITUTTONAL TYPE ELECTRIC FIXTURES (36422) | $1963{ }^{1}$ |  | $\begin{array}{r} 27,975 \\ 10,693 \\ 11,815 \\ 5,467 \end{array}$ |  | New England...................Massachusetts............Connecticut................ |  |  |  |
|  |  | 1958 |  | $\begin{aligned} & 18,544 \\ & 8,974 \\ & 5,862 \\ & 3,818 \end{aligned}$ |  |  | $\begin{array}{r} 158,125 \\ 48,293 \\ 77,571 \end{array}$ | $\begin{array}{r} 125,815 \\ 38,408 \\ 64,417 \end{array}$ |
|  |  |  |  |  |  |  |  |  |
| United States, total | 299,181 | 168,083 |  | $\begin{aligned} & 53,469 \\ & 23,524 \\ & 21,062 \end{aligned}$ | $\begin{aligned} & 342,000 \\ & 19,074 \end{aligned}$ | Middle Atlantic. | 189,678 | 158,22789,609 |
|  |  |  |  |  |  | New York. | 92,745 |  |
| New England....................Massachusetts.............. | $\begin{aligned} & 15,4,40 \\ & 10,725 \end{aligned}$ | 7,660 ${ }_{(2)}$ |  |  | 17,661 | New Jersey...................Pennsylvania............. | $\begin{aligned} & 49,284 \\ & 47,649 \end{aligned}$ | 35,44333,175 |
|  |  |  | Illinois <br> West North Central. | 2,502 |  |  |  |  |
| Middle Atlantic <br> New York. <br> New Jersey. <br> Pennsylvania | $\begin{aligned} & 87,104 \\ & 38,032 \\ & 23,320 \\ & 25,752 \end{aligned}$ | $\begin{array}{r} 4,16,168 \\ 19,092 \\ 8,782 \\ 16,094 \end{array}$ |  | 37,8595,594 | ( ${ }^{5}$ ( $)$ | East North Central.. | 151,166 | 101,098 |
|  |  |  |  |  |  | Ohio.. | 32,144 | 19,845 |
|  |  |  |  |  |  | Indiana | 24,781 | 15,396 |
|  |  |  | West....................... | 10,98 | ${ }^{5} 15,654$ | Illino | 73,563 | 54,766 |
| East North | 66,663 | 258,528 | West........................ |  |  | West North Central........... <br> Missouri................. | 29,955 | 16,78016,286 |
| Ohio..... | 23,536 | 16,417 | OTHER EIECTRIC AND NON- |  |  |  | 18,242 |  |
| Illinois. | 28,082 |  | EIECTRIC LICHTTNG EQUPP- |  |  |  |  |  |
| Michigan. | 7,821 | 3,320 | MENT (INCLIUDING HAND |  |  | South | 16,528 | ,872 |
| West North Centra | 16,903 | ${ }^{3} 11,886$ | PARTS AND ACCESSORTES ) (36426) |  |  | West. California | $\begin{aligned} & 16,393 \\ & 15,828 \end{aligned}$ | $\begin{aligned} & 41,699 \\ & 40,990 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |
| ath | 29,602 |  |  | 84,683 | 68,8 |  |  |  |
| East South Centra |  | 20,935 |  | $\begin{array}{r} 19,523 \\ 9,551 \end{array}$ | $\begin{aligned} & 15,033 \\ & (2) \end{aligned}$ | POIE-LINE AND TRANSMISSIONHARDWARE $(36441)$ |  |  |
|  |  |  |  |  |  |  |  |  |
| West South Central |  |  |  |  |  | United States, total.... | 97,901 | 81,178 |
| West. | 48,572 | 36,792 | Middle Atlantic. New York New Jersey PennsyIvania. | $\begin{array}{r} 24,080 \\ 10,864 \\ 5,950 \\ 7,266 \end{array}$ | 14, 126 |  |  |  |
|  |  |  |  |  | $\begin{array}{r} 14,1120 \\ 6,279 \\ 4,368 \\ 3,479 \end{array}$ | Northeast....................... New York. . . . . . . . . . . . . . | $\begin{aligned} & 18,680 \\ & 10,320 \end{aligned}$ | $\begin{gathered} 24,035 \\ 7,992 \end{gathered}$ |
| FIXTURES (36423) |  |  |  |  |  |  |  |  |
|  | 76,134 | 62,393 | East North | 22,545 | 321,675 |  | $\begin{aligned} & 56,624 \\ & 26,465 \end{aligned}$ | $\begin{aligned} & 42,270 \\ & 21,032 \end{aligned}$ |
| United States, total. |  |  |  |  |  |  |  |  |
| New England......... | 4,053 | 3,653 | Indiana..................Inlinois.............. | 4,70311,404 | 4,1176,840 | South... | 13,263 | 7,119 |
|  |  |  |  |  |  |  |  |  |
| Midde Atlantic <br> New York. <br> New Jersey. <br> Pennsylvania | $\begin{array}{r} 18, \alpha_{11} 1 \\ 7,487 \\ 4,388 \\ 5,826 \end{array}$ | $\begin{array}{r} 19,773 \\ 9,94 \\ 3,589 \\ 6,190 \end{array}$ | West North Central <br> South. | 8,057 | (3) | Pacific..................... | 9,334 | 7,754 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 12,290 | EIECTRIC CONDUIT AND CONDUIT FITTINGS (36442) |  |  |
| East North Central.........Onio..................Inlinois............ | $\begin{aligned} & 28,687 \\ & 13,577 \\ & 14,179 \end{aligned}$ | $\begin{array}{r} 3 \\ 36,533 \\ 3,161 \\ 8,826 \end{array}$ | West. ..........................PORTABLE LAMPS RESIDLNTTAL:TABLE, FLOR, WALL, ETC.$(36427)$ | 8,072 |  | ited S | 242,181 |  |
|  |  |  |  |  | 5,748 |  |  | $\begin{array}{r} 12,835 \\ 9,798 \end{array}$ |
|  |  |  |  | $1963{ }^{1}$ |  | New Engla | 15,345 |  |
| West North Central $\qquad$ Missouri $\qquad$ | $\begin{aligned} & 1,916 \\ & 1,916 \end{aligned}$ |  |  |  |  | Conne | 12,767 |  |
|  |  |  | United States, total.... |  |  | Middle At | 103,065 | 110,248 |
|  |  |  |  |  | 160,188 | Pennsylv | 56,136 | 77,870 |
| South. | 16,717 | 11,147 |  |  |  |  |  |  |
| West. | 6,720 | 11,287 | New England.... |  | 2,481 | East North | 73,075 20,574 | 3 38,869 3,738 |
| Cal | 6,079 | 10,595 | Massachusetts |  | 2,300 | hio. | 20,574 | 3,738 |

See footnotes at end of table.

## TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ELECTRIC CONDUIT AND | $1963{ }^{1}$ | 1958 | NONCURRENT CARRYING | $1963{ }^{1}$ | 1958 | R NONCURRENT CARRYING | $1963{ }^{\text {I }}$ | 1958 |
| East North Central-Continued |  |  |  |  |  |  | 29,962 | ${ }^{3} 19,576$ |
| Indiana.................... | 10,069 | (2) | United States, total... | 92,836 | 59,126 | East North $\quad$ Illinois..................... | 13,658 | 10,139 |
| Illinois.. | 36,564 | 21,619 | New England.................. | 1,919 | (4) | Wisconsin.................. | 3,079 | ${ }^{2}$ ) |
| Michigan..................... | 5,868 | (Z) | Connecticut | 1,316 | (2) |  |  |  |
| West North Central. | 5,433 | (3) | Middle Atlantic | 37,570 | 432,430 | West North Central. | 6,003 | $\left.{ }^{3}\right)$ |
| South.. | 30,561 | 37,769 | New York.. | 21,269 1,905 | 18,270 2,022 | South. | 5,085 | 2,537 |
| Pacific. | 14,702 | 11,545 | Pennsylvania................ | 14,396 | 11,177 | West. | 12,297 | 4,583 |

## NA Not available.

$Z$ Less than $\$ 1$ million.







 Minnesota, and West Virginia.
${ }^{2}$ Totaled $\$ 1$ million or more but exact figure is withheld to avoid disclosing figures for individual companies.
${ }^{3}$ In 1958 West North Central was combined with East North Central.
4 In 1958 New England was combined with Middle Atlantic.
${ }^{5}$ In 1958 New England and South were combined with West.

## table 7A. Materials by Kind: 1963 and 1958



TABLE 7A. Materials by Kind: 1963 and 1958-Continued


[^244]
## table 7A. Materials by Kind: 1963 and 1958-Continued



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.
${ }^{1}$ Represent estimates published in MC58(1)-7 (Supplement) "Selected Materials Consumed" from data collected in a supplemental survey on Form MA- 131 "Consumption of Materials, Parts, Containers, and Supplies During 1958." This survey was limited to large establishments in selected chemical, machinery and equipment industries and produced data which are subject to greater qualification than those collected in the census of manufacturers itself.
${ }^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."
${ }^{3}$ Does not include castings produced and consumed in the same establishment.
QQuantity is not available for bare wire. However, between 1,000 and 1,500 thousand pounds of insulated wire and cable were consumed by industry 3644.
${ }^{5}$ The quantities of aluminum and aluminum-base alloy castings produced for incorporation into other items produced at the same establishment cannot be published. The 1958 figure was 3,082 thousand pounds.

## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962


Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
(Z) Less than 500 horsepower applicable.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued


## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $20 \text { or }$ more |  | 1 to 4 | 5 to 19 | 20 or more |
| Machine shop. <br> Stamping, blanking, and forming of metals. Painting, lacquering, and enameling on metals | INDUSTRY 3641.-ELECTRIC LAMPS |  |  |  |  |  |  |  |
|  | 17 | 221 | 921 | 6 | 46228(D) | (D)(D)(D) | (D)(D)(D) | 376-- |
|  |  |  |  | - |  |  |  |  |
|  |  |  |  | - |  |  |  |  |
|  | INDUSTRY 3642.-LIGHTING FIXTURES |  |  |  |  |  |  |  |
| Nonferrous foundry (except die casting) | 915 | 422 | 4 | 1 | 104 |  | (D) | (D) |
| Nonferrous die casting.................................. |  |  | 10 | 3 | - 350 |  |  | (D) |
| Electroplating and other plating. | 74 | 42 | 22 | 10 | 669 | (D) | (D) |  |
| $G a l v a n i z i n g$ and other hot dip coating................. | 7 | 7 | $\overline{1}$ | - | 142727 | (D) | (D) | 369 |
| Heat, treating of metals.. | 15 | 14 |  | - |  |  |  | (D) |
| Automatic screw machine department. | 17 | 12 | 4 | 1 | 81 | 23 | (D) |  |
| Machine shop.. | 168 | 94 | 54 | 20 | 1,486 | 170 | 510 | 806 |
| Tool and die shop. | 118 | 83 | 2913 | 6 | 784260 | 14330 | 264122 | 377 |
| Plate or structural fabrication. | 33 | 16 |  | 4 |  |  |  |  |
| Stamping, blanking, and forming of metals. | 283 | 115 | $\begin{array}{r} 105 \\ 87 \end{array}$ | 63 | $\begin{aligned} & 4,366 \\ & 2,402 \end{aligned}$ | $\begin{aligned} & 209 \\ & 364 \end{aligned}$ | 1,054779 | 3,1031,259 |
| Painting, lacquering, and enameling on metals | 319 | 204 |  | 28 |  |  |  |  |

[^245]
# table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963-Continued 

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$. |  |  | Tot al man-hours $(1,000)$ |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | 20 or more |  |
|  | INDUSTRY 3643-CURRENT CARRYING DEVICES |  |  |  |  |  |  |  |  |
| TOTAL, ALL OPERATIONS................................ | (X) | (X) | (X) | (X) | 22,223 | (X) | (X) | (X) | 43,747 |
| Ferrous foundry ........................................... | 3 3 | - |  | 3 | 64 | (D) | (D) | 64 | 130 |
| Nonferrous die casting.................................. | 4 | 3 | 1 | - | (D) | (D) | (D) | (D) | (D) |
| Forging........... | 5 | 1 | 2 | 2 | (D) | (D) | (D) | (D) | (D) |
| Electroplating and other plating....................... | 44 | 22 | 16 | 6 | 349 | 34 | 136 | 179 | 697 |
| Galvanizing and other hot dip coating................. | 9 | 7 | 1 | 1 | 45 | (D) | (D) | (D) | 92 |
| Heat treating of metals....... | 27 | 19 | 3 | - | 61 | 28 | 33 |  | 117 |
| Automatic screw machine department..................... | 28 | 15 | 9 | 4 | 422 | 32 | 89 | 301 | 858 |
| Machine shop.. | 81 | 33 | 26 | 22 | 1,343 | 71 | 211 | 1,061 | 2,845 |
| Tool and die shop........................................ | 80 | 31 | 31 | 18 | 1,120 | 60 | 298 | 762 | 2,115 |
| Foundry pattern shop..................................... | 6 | 6 | - | - | 10 | 10 | - | (D) | 20 |
| Plate or structural fabrication........................ | 3 | 2 | 1 | - | (D) | (D) | (D) | (D) | (D) |
| Stamping, blanking, and forming of metals............. | 93 | 41 | 28 | 24 | 1,690 | 78 | 267 | 1,345 | 3,311 |
| Painting, lacquering, and enameling on metals......... | 25 | 19 | 4 | 2 | 136 | 31 | (D) | (D) | 288 |
| Plastics molding. | 37 | 11 | 13 | 13 | 865 | 23 | 131 | - 711 | 1,754 |
| Assembly of product...................................... | 142 | 20 | 47 | 75 | 11,099 | 50 | 545 | 10,504 | 22,308 |
| Shipping department, including packing and crating... | 121 | 90 | 27 | 9 | 690 | 167 | 199 | 324 | 1,398 |
| housing, etc. | 96 | 38 | 31 | 22 | 4,054 | 62 | 324 | 3,668 | 7,122 |
|  | INDUSTRY 3644-NONCURRENT CARRYING DEVICES |  |  |  |  |  |  |  |  |
| TOTAL, ALL OPERATIONS. | (X) | (X) | (X) | (X) | 13,454 | (X) | (X) | (X) | 27,144 |
| Ferrous foundry. | 4 | - | 1 | 3 | 653 | - | (D) | (D) | 1,250 |
| Nonferrous foundry, (except die casting).............. | 10 | $\overline{7}$ | 6 | 4 | 328 | - | 69 | 259 | 646 |
| Nonferrous die casting. | 16 | 7 | 6 | 3 | 169 | 11 | 46 | 112 | 340 |
| Forging............ | 15 | 7 | 10 | 5 | 653 | - | 124 | 529 | 1,389 |
| Electroplating and other plating...................... | 21 | 7 | 7 | 7 | 452 | 15 | 72 | 365 | 749 |
| Galvanizing and other hot dip coating................. | 26 | 6 | 8 | 12 | 592 | 15 | 115 | 462 | 1,185 |
| Heat treating of metals................................. | 13 | 10 | 2 | 1 | 59 | 18 | (D) | (D) | 119 |
| Automatic screw machine department..................... | 18 | 11 | 4 | 3 | 271 | 24 | 32 | 215 | 604 |
| Machine shop....................................... . . . . . | 61 | 20 | 19 | 22 | 1,480 | 44 | 200 | 1,230 | 3,025 |
| Tool and die shop........................................ | 56 | 29 | 23 | 4 | 432 | 55 | 220 | 157 | 855 |
| Foundry pattern shop. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 11 | 7 | 3 | 1 | 87 | 13 | (D) | (D) | 172 |
| Plate or structural fabrication......................... | 7 | - | 4 | 3 | 126 | - | 39 | 87 | 257 |
| Stamping, blanking, and forming of metals............. | 71 | 22 | 21 | 28 | 1,679 | 36 | 215 | 1,428 | 3,496 |
| Painting, lacquering, and enameling on metals......... | 40 | 23 | 10 | 7 | 346 | 42 | 76 | 228 | 685 |
| Plastics molding.......................................... | 8 | 5 | 3 | - | 50 | 20 | 30 | - | 99 |
| Assembly of product....................................... | 81 | 16 | 30 | 35 | 3,052 | 31 | 321 | 2,700 | 5,985 |
| Shipping department, including packing and crating... | 84 | 45 | 28 | 11 | 793 | 101 | 296 | 396 | 1,621 |
| All other operations such as maintenance, warehousing, etc | 59 | 16 | 17 | 26 | 2,332 | 32 | 194 | 2,106 | 4,667 |

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

| Item | $\begin{aligned} & \text { Electric } \\ & \text { lamps } \\ & \text { (SIC } 3641 \text { ) } \end{aligned}$ | Lighting <br> fixtures <br> 'SIC 3642) | Current <br> carrying devices (SIC 3643) | Noncurrent carrying devices (SIC 3644) |
| :---: | :---: | :---: | :---: | :---: |
| Total number of establishments in the industry. | 81 | 1,239 | 449 | 182 |
| Number of establishments which reported one or more of the specified operations. | 19 | 433 | 200 | 129 |
| Percent of industry production workers in these establishments...... | 55-60 | 70-75 | 85-90 | 90-95 |
| Number of establishments which reported "none" of the operations apply Percent of industry production workers in these establishments...... | $\begin{array}{r} 34 \\ 40-45 \end{array}$ | 162 $5-10$ | (X) | (X) |
| Percent of industry production workers in establishments which completed metalworking operations inquiry. | 95-100 | 80-85 | 85-90 | 90-95 |

(D) Withheld to avoid disclosing figures for individual companies. (X) Not applicable.
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

## COMMUNICATION EQUIPMENT. INCLUDING RADIO AND TV, AND ELECTRON COMPONENTS AND ACCESSORIES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title
3651-Radio and Television Receiving Sets, Except Communication Types
3652-Phonograph Records
3661-Telephone and Telegraph Apparatus
3662-Radio and Television Transmitting, Signaling, and Detection Equipment and Apparatus
3671-Radio and Television Receiving Type Electron Tubes, Except Cathode Ray 3672-Cathode Ray Picture Tubes
3673-Transmitting, Industrial, and Special Purpose Electron Tubes
3674-Semiconductors (Solid State) and Related Devices
3679-Electronic Components and Accessories, Not Elsewhere Classified
The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

Industries included in this report produce the bulk of electronic equipment, i.e., radios, television sets, electron tubes, etc., but also produce communications equipment other than electronic (industry 3661).

Component parts are generally included in the industry of the end product with the exception of certain general purpose components which are specifically classified elsewhere in the Standard Industrial Classification. Electronic components are frequently produced and consumed at the same location by establishments classified in this major group. Thus, there are (1) plants solely engaged in producing electronic components; (2) plants producing electronic components and assembling them into finished products; and (3) plants which assemble components produced elsewhere either in other plants of the same company or by other companies.

## 3651-RADIO AND TELEVISION RECEIVING SETS, EXCEPT COMMUNICATION TYPES

This industry comprises establishments primarily engaged in the manufacture of electronic equipment for home entertainment. This industry also includes establishments primarily engaged in manufacturing public address systems, and music distribution apparatus except records. Establishments primarily engaged in manufacturing records are classified in
industry 3652 ; radio and television receiving type tubes in industry 3671 ; and television receiving type cathode ray tubes in industry 3672 . For a detailed list of products of industry 3651 , refer to table $6 \mathrm{~A}-2$, product codes 3651101 to 3651394.

The code number for this industry in the Standard lndustrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to the reclassification of TV tuners from industry 3651 to industry 3662, Radio, TV Communications Equipment.

Value of shipments and other receipts of the Radio and TV Receiving Sets lndustry totaled $\$ 2,255$ million. This amount included shipments of radio and TV receiving sets (primary products) valued at $\$ 1,992$ million, shipments of other products (secondary products) valued at $\$ 191$ million, and miscellaneous receipts (mainly resales) at $\$ 72$ million.

This industry's shipments of radio and TV receiving sets represented 91 percent of its total product shipments. The industry specialization ratio in 1958 also was 91 percent. Secondary products shipped by this industry in 1963 consisted mainly of electronic components and accessories ( $\$ 43$ million), and coils, transformers, reactors, and chokes for electronic application ( $\$ 20$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 62 percent of the total industry shipments are represented by plants specializing in product class 36512 , Household television receivers, including television combinations; 20 percent in 36511 , Household and automobile radios, and radio-phonograph combinations; and 17 percent in 36513 , Recorders, audio-amplifiers, phonographs, tuners, speaker systems and other audio equipment and accessories.

Shipments of radio and TV receiving sets by this industry represented 96 percent of all shipments of these products ( $\$ 2,071$ million) by all industries. In 1958 the coverage ratio was 92 percent. Other industries shipping radio and TV receiving sets consisted mainly of industry 3679, Electronic Components, N.E.C., $\$ 14$ million; and industry 3662, Radio, TV Communications Equipment, $\$ 12$ million.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product class of industry 3651, e.g., 36512, Household television receivers, including television combinations, 100 percent.

The production index for the primary products of the industry increased to 161 in 1963 from the 1958 level of 99 . The unit value index for 1963 was 83 compared to 97 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3652-PHONOGRAPH RECORDS

This industry comprises establishments primarily engaged in the manufacture of phonograph records and prerecorded tape. Establishments primarily engaged in manufacturing electronic equipment for home entertainment, except records, are classified in industry 3651. For a detailed list of products of industry 3652 , refer to table $6 \mathrm{~A}-1$, product codes 3652022 to 3652091 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Phonograph Records lndustry totaled $\$ 180$ million. This amount included shipments of phonograph records and prerecorded tape (primary products) valued at $\$ 174$ million, shipments of other products (secondary products) valued at $\$ 4$ million, and miscellaneous receipts (mainly resales) at $\$ 2$ million.

This industry's shipments of phonograph records and prerecorded tape represented 99 percent of its total product shipments. The industry specialization ratio in 1958 was 97 percent.

Shipments of phonograph records and prerecorded tape by this industry in 1963 represented 97 percent of all shipments of these products ( $\$ 179$ million) by all industries. In 1958 the coverage ratio was 98 percent.

The production index for the primary products of the industry increased to 221 in 1963 from the 1958 level of 178 . The unit value index for 1963 was 106 compared to 101 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3661-TELEPHONE AND TELEGRAPH APPARATUS

This industry comprises establishments primarily engaged in the manufacture of wire and wireless telephone and telegraph equipment, and parts especially designed for telephone and telegraph use. For a detailed list of products of industry 3661, refer to table 6A-1, product codes 3661111 to 3661281 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Data on cost of materials and value of shipments of the Telephone; Telegraph Apparatus Industry include extensive duplication resulting from the transfer of products such as telephone and telegraph components to establishments producing complete telephone and telegraph equipment. The value of such shipments are duplicated in the rotal value of shipments. A corresponding duplication enters into the total cost of materials. The data shown for value added by manufacture (value of shipments less cost of materials, etc.) avoid this duplication.

Value of shipments and other receipts of the Telephone and Telegraph Apparatus Industry totaled $\$ 1,736$ million. This amount included shipments of telephone; telegraph apparatus (primary products) valued at $\$ 1,463$ million, shipments of other products (secondary products) valued at $\$ 192$ million, and miscellaneous receipts (mainly resales) at $\$ 80$ million.

This industry's shipments of telephone and telegraph apparatus represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent. The exact percentage, however, is not very meaningful due to the duplication described above. Secondary products shipped by this industry in 1963 consisted mainly of commercial, industrial, and military electronic communication equipment (except broadcast equipment and home-type intercommunication equipment), $\$ 43$ million.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 45 percent of the total industry shipments are represented by plants specializing in product class 36611 , Telephone switching and switchboard equipment, and 54 percent in 36612, Other telephone and telegraph (wire) apparatus, equipment, and components.

Shipments of telephone and telegraph apparatus by this industry represented 95 percent of all shipments of these products ( $\$ 1,538$ million) by all industries. In 1958 the coverage ratio was 99 percent. The exact percentages, however, are not very meaningful due to the duplication described above. Other industries shipping telephone and telegraph apparatus consisted mainly of industry 3662 , Radio, TV Communications Equipment, $\$ 20-\$ 50$ million.

## 3662-RADIO AND TELEVISION TRANSMITTING, SIGNALING, ANDDETECTION EQUIPMENT AND APPARATUS

This industry comprises establishments primarily engaged in manufacturing (1) radio and television broadcasting equipment; (2) electric communication equipment and parts, except telephone and telegraph; (3) electronic field detection apparatus, light and heat emission operating apparatus, object detection apparatus and navigational electronic equipment, and aircraft and missile control systems; and (4) other electric and electronic communication and signaling products, not elsewhere classified. Establishments primarily engaged in manufacturing transmitting tubes are classified in industry 3673. For a detailed list of products of industry 3662, refer to table 6A-3, product codes 3662121 to 3662812.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to the reclassification of TV tuners to industry 3662 from industry 3651, Radio and TV Receiving Sets.

During the period 1958-1963 reports received from some large establishments indicated a change from the manufacture primarily of such individual instruments as those used for indicating air speed, rate-of-climb, angle-of-yaw and similar flight characteristics, and gyroscopes which are sold separately, to primarily manufacturing complete instrumentation systems for navigation, guidance, check-out, etc. The major impact of this change has been on the classification of products and, consequently, the SIC coding of these large establishments. This change in reporting was brought to light by the initiation by the Census Bureau of detailed commodity surveys in the fields of electronic products and instrumentation. The electronic and associated products report (MA-36N) was started covering the year 1961 and the instruments series (MA-38B) was broadened for 1963 to encompass most types of instruments following an introductory report for 1961 and 1962 covering industrial process instruments and test and measuring equipment. Annual statistics from both reports are published in the Current Industrial Reports Series.

In both the 1958 Census of Manufactures and the Annual Survey of Manufactures from 1959 through 1962 the classification of systems was not sufficiently spelled out in the product inquiries of these programs, especially at the 5 -digit product class level. However, with the introduction in the MA-36N and MA-38B surveys of detailed 7 -digit product information which itself is used to build up to broader 5 -digit product class totals, these totals, although they should be the same as those reported on Form MA-100 (Annual Survey of Manufactures), have differed. The respondents affected have identified the proportion of earlier years' output which consisted of systems rather than instruments as such, which was the manner in which the items were originally reported.

In view of the above, the annual data for 1958-1962 have been revised, as indicated with the symbol " $r$ " in the appropriate tables. Because of the shift in recent years from instruments which are classified in industry 3811 to complete systems which are classified in industry 3662 , the year-to-year changes are of dubious validity for the industries considered separately. The two industries taken in combination, however, would yield significant measures of activity in the general area.

Value of shipments and other receipts of the Radio, TV Communications Equipment Industry totaled $\$ 7,146$ million. This amount included shipments of radio and TV communications equipment (primary products) valued at $\$ 5,512$ million, shipments of other products (secondary products) valued at $\$ 750$ million, and miscellaneous receipts (mainly receipts for research and development work) at $\$ 883$ million.

This industry's shipments of radio and TV communications equipment represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 consisted mainly of aircraft, flight, nautical and navigational instruments, and automatic pilots ( $\$ 169$ million), and other electronic components and accessories, n.e.c. (\$73 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8 . Approximately 20 percent of the total industry shipments are represented by plants specializing in product classes 36621, Commercial, industrial, and military electronic communication equipment; 32 percent in 36625 , Electronic search and detection apparatus, including radar, infrared and sonar; and 21 percent in 36628 , Missile-borne and space vehicle-borne navigation and guidance systems and equipment.

Shipments of radio and TV communications equipment by this industry represented 91 percent of all shipments of these products ( $\$ 6,052$ million) by all industries. In 1958 the coverage ratio was 83 percent. Other industries shipping radio and TV communications equipment consisted mainly of industry 3679, Electronic Components, N.E.C., $\$ 39$ million; and industry 3661, Telephone; Telegraph Apparatus, $\$ 43$ million.
The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3662, e.g., 36623, Intercommunication equipment and electric alarm and signal systems and devices, 76 percent; 36624, Electronic navigational aids, except missile-borne and space vehicle-borne equipment, 97 percent; 36626, Electronic military, industrial and commercial equipment, n.e.c., 82 percent; and, 36627, Space satellite-borne communication systems, 100 percent.

## 3671-RADIO AND TELEVISION RECEIVING TYPE ELECTRON TUBES, EXCEPT CATHODE RAY

This industry comprises establishments primarily engaged in the manufacture of radio and television receiving type electron tubes, except cathode ray tubes. Establishments primarily engaged in manufacturing television receiving type cathode ray tubes are classified in industry 3672; transmitting tubes in industry 3673; X-ray tubes in industry 3693; and electronic equipment for home entertainment, except tubes in industry 3651. For a detailed list of products of industry 3671, refer to table 6A-3, product codes 3671011 to 3671015.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electron Tubes, Receiving Type, Industry totaled $\$ 321$ million. This amount included shipments of receiving type electron tubes (primary products) valued at $\$ 272$ million, shipments of other products (secondary products) valued at $\$ 34$ million, and miscellaneous receipts (mainly resales) at $\$ 15$ million.

This industry's shipments of receiving type electron tubes represented 89 percent of its total product shipments. The industry specialization ratio in 1958 also was 89 percent. Secondary products shipped by this industry in 1963 consisted mainly of transmitting, industrial, and special purpose electron tubes (except X-ray) (\$15 million), and electronic components and accessories, n.e.c. ( $\$ 17$ million).

Shipments of receiving type electron tubes by this industry in 1963 represented 95 percent of all shipments of these products ( $\$ 288$ million) by all industries. ln 1958 the coverage ratio was 96 percent. Other industries shipping receiving type electron tubes consisted mainly of industry 3661, Telephone; Telegraph Apparatus, and industry 3674, Semiconductors, over $\$ 2$ million each.

The product index for the primary products of the industry decreased to 91 in 1963 from the 1958 level of 104 . The unit value index for 1963 was 109 compared to 113 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3672-CATHODE RAY PlCTURE TUBES

This industry comprises establishments primarily engaged in manufacturing television receiving type cathode ray tubes. Establishments primarily engaged in manufacturing other radio and television receiving type electron tubes are classified in industry 3671 ; and transmitting tubes in industry 3673. For a detailed list of products of industry 3672 , refer to table 6A-3, product codes 3672013 to 3672015 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Cathode Ray Picture Tubes Industry totaled $\$ 269$ million. This amount included shipments of cathode ray picture tubes (primary products) valued at $\$ 224$ million, and shipments of other products (secondary products) and miscellaneous receipts valued at $\$ 45$ million.

This industry's shipments of cathode ray picture tubes represented between $85-90$ percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent. Secondary products shipped by this industry in 1963 consisted mainly of other electronic components and accessories (\$4 million).

Shipments of cathode ray picture tubes by this industry represented 90 percent of all shipments of these products ( $\$ 249$ million) by all industries. In 1958 the coverage ratio was 84 percent. Other industries shipping cathode ray picture tubes consisted mainly of industry 3651, Radio and TV Receiving Sets, industry 3673 , Electron Tubes, Transmitting, and industry 3674, Semiconductors, over $\$ 2$ million each.

The production index for the primary products of the industry increased to 110 in 1963 from the 1958 level of 92 . The unit value index for 1963 was 106 compared to 91 in 1958. Both indexes were computed on a basis of $1954=100$.

3673-TRANSMITT1NG, INDUSTR1AL, AND SPECIAL PURPOSE ELECTRON TUBES
This industry comprises establishments primarily engaged in manufacturing transmitting, industrial, and special purpose electron tubes. Establishments primarily engaged in manufacturing radio and television transmitting equipment are classified in industry 3662 ; radio and television receiving tubes in industry 3671 ; television type cathode ray tubes in industry 3672 ; and X-ray tubes in industry 3693. For a detailed list of products of industry 3673 , refer to table 6A-3, product codes 3673011 to 3673096 .

The code number as well as the definition of the industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electron Tubes, Transmitting, Industry totaled $\$ 300$ million. This amount included shipments of electron tubes, transmitting (primary products) valued at $\$ 214$ million, shipments of other products (secondary products) valued at $\$ 53$ million, and miscellaneous receipts (mainly resales) at $\$ 33$ million.

This industry's shipments of electron tubes, transmitting, represented 80 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. Secondary products shipped by this industry in 1963 consisted mainly of other electronic components and accessories, n.e.c. (\$6 million), and electronic military, industrial, and commercial equipment, n.e.c. (\$3 million).

Shipments of electron tubes, transmitting, by this industry represented 75 percent of all shipments of these products ( $\$ 287$ million) by all industries. In 1958 the coverage ratio was 81 percent. Other industries shipping electron tubes, transmitting, consisted mainly of industry 3671, Electron Tubes, Receiving Type, $\$ 15$ million; and industry 3662, Radio, TV Communications Equipment, $\$ 12$ million.

The production index for the primary products of the industry increased to 166 in 1963 from the 1958 level of 130 . The unit value index for 1963 was 111 compared to 110 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3674-SEMICONDUCTORS (SOLID STATE) AND RELATED DEVICES

This industry comprises establishments primarily engaged in the manufacture of semiconductor (solid state) and related devices, such as semiconductor diodes and stacks, including rectifiers; transistors; solar cells; and light sensitive semiconductor (solid state) devices. This industry is now a separate one under the Standard Industrial Classification System. In 1958, the SIC included it as part of industry 3679. For a detailed list of products of industry 3674, refer to table 6A-3, product codes 3674013 to 3674096 .

Value of shipments and other receipts of the Semiconductors Industry totaled $\$ 688$ million. This amount included shipments of solid state semiconductor devices (primary products) valued at $\$ 575$ million, shipments of other products (secondary products) valued at $\$ 76$ million, and miscellaneous receipts (mainly receipts for research and developmental work) at $\$ 36$ million.

This industry's shipments of solid state semiconductor devices represented 88 percent of its total product shipments. Secondary products shipped by this industry in 1963 consisted mainly of electronic components and accessories, n.e.c. ( $\$ 29$ million) and capacitors for electronic applications ( $\$ 4$ million).

Shipments of solid state semiconductor devices by this industry represented 92 percent of all shipments of these products ( $\$ 623$ million) by all industries. Another industry shipping solid state semiconductor devices was industry 3679, Electronic Components, N.E.C., $\$ 15$ million.

## 3679-ELECTRONIC COMPONENTS AND ACCESSORIES, NOTELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing specialty resistors for electronic end products; solid state electronic devices and similar devices; inductors, electronic transformers and capacitors; and, other electronic components, n.e.c. Establishments primarily engaged in manufacturing resistors, inductors, and transformers for telephone and telegraph apparatus are classified in industry 3661 ; and electric lamps in industry 3641 . For a detailed list of products of industry 3679 , refer to table 6A-3, product codes 3679212 to 3679598.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been significantly changed from the classification system used in 1958. The composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to
the setting up of separate industry 3674 for those establishments producing solid state semiconductor devices; and, the inclusion in 1963 of electronic connectors, which were previously classified in industry 3643, Current Carrying Devices.

Value of shipments and other receipts of the Electronic Components, N.E.C., Industry totaled $\$ 2,332$ million. This amount included shipments of electronic components, n.e.c. (primary products) valued at $\$ 1,944$ million, shipments of other products (secondary products) valued at $\$ 243$ million, and miscellaneous receipts (mainly resales) at $\$ 146$ million.

This industry's shipments of electronic components, n.e.c., represented 89 percent of its total product shipments. Secondary products shipped by this industry in 1963 consisted mainly of electronic military, industrial, and commercial equipment, n.e.c. ( $\$ 32$ million) and optical instruments and lenses (except sighting and fire-control equipment), \$17 million.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 56 percent of the total industry shipments are represented by plants specializing in product class 36795 , Other electronic components and accessories.

Shipments of electronic components, n.e.c., by this industry represented 78 percent of all shipments of these products ( $\$ 2,501$ million) by all industries. Other industries shipping electronic components, n.e.c., consisted mainly of industry 3571, Computing and Related Machines, $\$ 75$ million; and industry 3662, Radio, TV Communications Equipment, $\$ 82$ million.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3679 , e.g., 36792, Capacitors for electronic applications, 94 percent; 36793, Resistors for electronic applications, 74 percent; 36794, Coils, transformers, reactors, and chokes for electronic applications, 85 percent; and 36795, Other electronic components and accessories, n.e.c., 72 percent.


table 1. General Statistics: 1963 and Earlier Years

| Year | Companies | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted | Cost of materials | Value of shipments | Capital expenditures, new | Spe-cialization ratio | Cov- <br> erage ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (rumber) | With 20 employbes or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |


| $\begin{aligned} & 1963 \\ & 1962^{1} \ldots \ldots . . . \\ & 1961^{1} \ldots \ldots . . \\ & 1960^{2} \\ & 1959^{2} \\ & 1958^{2} \ldots \ldots . . . \end{aligned}$ |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |



INDUSTRY 3652.——PHONOGRAPH RECORDS


INDUSTRY 3671. - ELECTRON TUBES, RECEIVING TYPE

| 1963 | 30 | 42 | 22 | 25,850 | 136,768 | 20,357 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1962{ }^{\text {i }}$ | (NA) | (NA) | (NA) | 26,575 | 134,616 | 21,381 | 40,443 | 88,463 | 250,681 | 76,109 72,515 | 321,091 310,224 | 5,596 5,308 | 89 (X) | 95 (X) |
| $1961{ }^{2}$ | (NA) | (NA) | (NA) | 27,179 | 131,675 | 21,715 | 39,561 | 88,014 | 230,913 | 79,949 | 313,860 | 8,275 | (X) | (X) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 36,182 | 162,071 | 29,234 | 51,340 | 107,312 | 299,998 | 103,485 | 397,032 | 14,695 | (x) | (X) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 37,391 | 163,173 | 30,374 | 56,139 | 113,322 | 323,801 | 106,019 | 422,068 | 12;201 | (X) | (X) |
| $1958{ }^{2}$. | 71 | 85 | 41 | 36,968 | 149,540 | 30,931 | 57,271 | 110,707 | 285,799 | 92,260 | 382,526 | 11,514 | 89 | 96 |
|  | INDUSTRY 3672. -CATHODE RAY PICTURE TUBES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963.. | 148 | 151 | 28 | 10,916 | 66,888 | 7,958 | 16,634 | 40,468 | 128,354 | 142,111 | 269,122 | 16,138 | 85-90 | 90 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 6,809 | 40,212 | 5,425 | 11,158 | 27,485 | 63,406 | 104,277 | 167,947 | 3,666 | (NA) | (NA) |
| $1961{ }^{1}$. | (NA) | (NA) | (NA) | 7,498 | 41,059 | 6,094 | 12,475 | 28,671 | 84,073 | 103,071 | 183,505 | $(4,661)$ | (NA) | (NA) |
| $1960{ }^{2}$ | (NA) | (NA) | (NA) | 8,019 | 43,015 | 6,597 | 13,350 | 30,999 | 77,056 | 103,977 | 179,932 | 3,125 | (NA) | (NA) |
| $1959{ }^{2}$ | (NA) | (NA) | (NA) | 7,649 | 40,314 | 6,135 | 12,841 | 28,845 | 82,493 | 100,181 | 183,169 | (S) | (NA) | (NA) |
| $1958{ }^{2}$ | 72 | 75 | 30 | 8,554 | 38,092 | 6,955 | 14,183 | 27,570 | 67,472 | 91,972 | 159,252 | 1,794 | 96 | 84 |

[^246]
# table 1. General Statistics: 1963 and Earlier Years-Continued 

| Year | Companies (number) | Establi shments |  | All employees |  | Production workers |  |  | Value <br> added by <br> manufacture, <br> adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenaitures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Cor- <br> erage <br> ratio <br> (per- <br> cent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | with 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| INDUSTRY 3673.-ELECTRON TUBES, TRANSMITTING |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 45 | 57 | 45 | 18,704 | 129,296 | 11,631 | 24,027 | 72,406 | 204,614 | 96,311 | 299,527 | 13,262 | 80 | 75 |
|  | (NA) | (NA) | (NA) | 25,023 | 157,419 | 15,220 | 31,137 | 84,537 | 276,760 | 131,649 | 404,908 | 18,609 | (X) | (X) |
|  | (NA) | (NA) | (NA) | 23,263 | 140,755 | 14,248 | 29,058 | 75,543 | 225,177 | 112,876 | 335,528 | 16,727 | (X) | (x) |
|  | (NA) | (NA) | (NA) | 22,273 | 125,485 | 13,665 | 27,667 | 66,540 | 203,477 | 100,422 | 292,842 | 20,190 | (X) | (X) |
|  | (NA) | (NA) | (NA) | 22,658 | 123,172 | 14,487 | 29,687 | 69,322 | 201, 343 | 98,513 | 291,903 | 11,818 | (X) | (X) |
|  | 40 | 48 | 44 | 20,146 | 102,150 | 14,475 | 29,472 | 65,134 | 165,803 | 90,669 | 258,474 | 9,021 | 83 | 81 |
|  | INDUSTRY 3674.-SEMICONDUCTORS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 1963^{7} \ldots . . . . . . \\ & 1958^{7} \ldots . . . . \end{aligned}$ |  |  | 87 | 56,349 | 320,875 | 37,548 | 77,113 | 168,504 | 467,035 | 199,384 | 687,817 | 52,439 | 88 | 92 |
|  | (NA) | 48 | 42 | 23,370 | 112,989 | 17,630 | 34,691 | 65,902 | 186,800 | 75,522 | 250,306 | 16,172 | ( NA ) | (NA) |
|  | INDUSTRY 3679.-ELECTRONIC COMPONENTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1963{ }^{8}$ | 1,743 | 1,934 | 968 | 176,708 | 881,920 | 133,412 | 261,707 | 550,845 | 1,457,433 | 889,488 | 2,332,215 | 88,508 | 89 | 78 |
| 1958 ${ }^{\text {8 }}$.......... | (NA) | 1,431 | 695 | 108,872 | 451,032 | 85,251 | 166,696 | 301,424 | 728,006 | 473,451 | 1,195,378 | 35,719 | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All erployees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all ermployees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unad.justed value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. Revised. n.e.c. Not elsewhere classified.
(S) Withheld because the estirnate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establislynents canvassed in the annual survey of manufactures. These estimates, therefor, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishnents. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data. See text for explanation concerning shift from individual instruments to systems.
${ }^{2}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that comparable data for prior years are not available. See text for explanation concerning shift from individual instruments to systems.
${ }^{3}$ Data for Alaska and Hawaii are not included for 1958 and previous years.
${ }^{4}$ The value of shipments and cost of materials for this industry include extensive duplication arising from shipments between establishments in the same industry classifications. For further explanation see text.
${ }^{5}$ For 1958 and 1963 a number of small establishnents (under 20 employees) may have been misclassified in industry 3661 , Telephone and Telegraph Apparatus because of insufficient product information. Although this has a significant effect on the number of establishments for this industry it has virtually no effect or any of the other statistics, i.e., number of employees, salaries and wages, value added, etc. It is estimated that the effect on these principal statistics is less than l percent.
${ }^{6}$ The exact figures show, while correct to the extent that they are mathematical calculations, are not very meaningful because of extensive duplication in the value of shipments. See introductory text for this industry.
${ }^{7}$ This industry was included in industry 3679 in the 1958 Census of Manufactures. Accordingly, no estimates are available for 1959-1962, or for years prior to 1958. The figures for 1958 are based on a special tabulation.
${ }^{8}$ This industry included the semiconductor devices manufacturers (present SIC 3674) in 1958. Accordingly, no estimates are available for 1959-1962, or for years prior to 1958. The figures for 1958 are based on a special tabulation.
table 2. General Statistics, by Geographic Areas: 1963 and 1958


See footnotes at end of table.
table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manutacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Manhours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total $\qquad$ <br> Northeast. ........... <br> East North Central.. <br> West North Central.. <br> South and West...... | INDUSTRY 3672.-CATHODE RAY PICTURE TUBES |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 151 | 28 | 10,916 | 66,888 | 7,958 | 16,634 | 40,468 | 128,354 | 142,111 | 269,122 | 16,138 | 8,554 | 67,472 |
|  | 39 | 13 | 4,973 | 32,408 | 3,303 | 7,063 | 17,119 | 73,017 | 43,117 | 116,448 | 5,670 | 3,515 | 26,420 |
|  | 36 | 9 | 5,388 | 32,140 | 4,176 | 8,632 | 21,509 | 51,365 | 95,463 | 145,052 | 9,553 | 4,638 | 62 |
|  | 13 | - | 37 | 179 | 30 |  | 122 | 309 | 224 |  | 61 |  |  |
|  | 63 | 6 | 518 | 2,161 | 449 | 886 | 1,718 | 3,663 | 3,307 | 7,063 | 854 | 401 | 3,890 |
|  | INDUSTRY 3673.-ELECTRON TUBES, TRANSMITTING |  |  |  |  |  |  |  |  |  |  |  |  |
| Total........... | 57 | 45 | 18,704 | 129,296 | 11,631 | 24,027 | 72,406 | 204,614 | 96,311 | 299,527 | 13,262 | 20,146 | 165,803 |
| Northeast. .......... | 30 | 24 | 8,967 | 58,377 | 5,471 | 10,594 | 31,432 | 93,461 | 55,431 | 149,340 | (D) | 14,332 | 114,836 |
| New York.......... | 7 | 7 | 3,209 | 20,476 | 1,568 | 2,746 | 7,284 | 39,194 | 27,489 | 68,202 | 1,403 | 1,885 | 16,057 |
| New Jersey........ | 13 | 10 | 1,161 | 6,961 | 858 | 1,685 | 4,420 | 12,805 | 5,061 | 16,291 | 760 | 2,408 | 17,070 |
| East North Central.. | 5 | 4 | 415 | 2,288 | 279 | 555 | 1,161 | 2,732 | 1,575 | 4,850 | (D) | $\left({ }^{2}\right)$ | ${ }^{2}$ ) |
| Illinois.......... | 5 | 4 | 415 | 2,288 | 279 | 555 | 1,161 | 2,732 | 1,575 | 4,850 | (D) | (2) | (2) |
| South and West....... Califormia......... | 22 | 17 | 9,322 | 68,631 | 5,881 | 12,878 | 39,813 | 108,421 | 39,305 | 145,337 | (D) | 5,237 | 47,998 |
|  | 16 | 13 | 8,023 | 60,483 | 4,916 | 10,840 | 34,536 | 91,677 | 33,013 | 126,421 | 7,865 | 4,302 | 32,239 |
|  | INDUSTRY 3674.-SEMICONDUCTORS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.. | 107 | 87 | 56,349 | 320,875 | 37,548 | 77,113 | 168,504 | 467,035 | 199,384 | 687,817 | 52,439 | 23,370 | 186,800 |
| New England......... | 27 | 24 | 10,126 | 49,437 | 8,126 | 16,982 | 34,357 | 59,534 | 31,311 | 98,219 | 4,987 | 6,815 | 46,675 |
| Massachusetts..... | 16 | 15 | 6,337 | 31,146 | 5,271 | 10,997 | 23,619 | 35,416 | 18,770 | 56,306 | 3,842 | ${ }^{2}$ ) | ${ }^{(2)}$ |
| Middle Atlantic..... | 35 | 28 | 19,333 | 114,907 | 12,517 | 24,617 | 58,752 | 163,587 | 75,386 | 255,816 | 19,584 | 8,067 | 55,835 |
| New York.......... | 13 | 11 | 4,614 | 27,396 | 2,990 | 6,078 | 13,163 | 45,617 | 15,865 | 60,726 | 2,899 |  | (2) |
| New Jersey........ | 11 | 8 | 3,665 | 22,161 | 2,081 | 4,076 | 8,669 | 23,996 | 9,908 | 36,852 | 2,378 | $\left.{ }^{2}\right)$ | ${ }^{2}$ ) |
| Pennsylvania...... | 11 | 9 | 11,054 | 65,350 | 7,446 | 14,463 | 36,920 | 93,974 | 49,613 | 158,238 | 14,307 | 2,901 | 20,091 |
| North Central South and West $\qquad$ California......... | 45 | 35 | 26,890 | 156,531 | 16,905 | 35,514 | 75,395 | 243,914 | 92,687 | 333,782 | 27,868 | 8,488 |  |
|  | 28 | 22 | 11,198 | 69,820 | 6,543 | 12,645 | 27,146 | 116,242 | 34,395 | 150,236 | 9,117 | 3,726 | 33,090 |
|  | INDUSTRY 3679.-ELECTRONIC COMPONENTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 1,934 | 968 | 176,708 | 881,920 | 133,412 | 261,707 | 550,845 | 1,457,433 | 889,488 | 2,332,215 | 88,508 | 108,872 | 728,006 |
| New England. | 258 | 137 | 32,425 | 156,674 | 24,064 | 45,903 | 96,599 | 238,028 | 139,047 | 375,077 | 10,047 |  |  |
| Maine..... | 4 | 3 | , 399 | 1,605 | , 361 | . 739 | 1,166 | 1,976 | 1,915 | 3,933 | 56 +575 | (2) | $\left(\begin{array}{l}(2) \\ (2)\end{array}\right.$ |
| Massachusetts. | 151 | 75 | 16,976 | 82,437 | 12,185 | 23,974 | 49,360 | 124,045 | 72,167 | 195,280 | 4,575 | $\left(\begin{array}{l}(2) \\ (2)\end{array}\right.$ | $\left(\begin{array}{l} 2 \\ (2) \end{array}\right.$ |
| Connecticut....... | 73 | 39 | 9,177 | 47,088 | 6,726 | 11,999 | 28,695 | 67,600 | 42,292 | 109,991 | 3,366 |  | $\left.{ }^{2}\right)$ |
| Middle Atlantic..... | 592 | 293 | 49,110 | 264,329 | 35,816 | 70,873 | 153,606 | 440,139 | 287,657 | 719,145 | 34,731 | 36,157 | 259,527 |
| New York. . | 261 | 135 | 25,784 | 148,565 | 17,890 | .35,928 | 78,365 | 219,210 | 162,740 | 374,013 | 22,970 | (2) |  |
| New Jersey........ | 215 | 98 | 11,296 | 58,469 | 8,406 | 16,595 | 35,923 | 104,391 | 59,066 | 163,094 | 4,504 |  |  |
| Pennsylvania...... | 116 | 60 | 12,030 | 57,295 | 9,520 | 18,350 | 39,318 | 116,538 | 65,851 | 182,038 | 7,257 |  |  |
| North Central....... | 425 | 263 | 47,324 | 212,536 | 37,571 | 72,784 | 141,442 | 361,063 | 239,719 | 598,809 | 13,675 |  |  |
| Ohio............... | 58 | 32 | 5,117 | 25,741 | 3,727 | 7,202 | 16,226 | 38,209 | 32,455 | 71,010 | 1,948 |  |  |
| Illinois.......... | 169 | 116 | 20,331 | 87,203 | 16,379 | 31,408 | 57,779 | 139,251 | 97,181 | 236,424 | 5,160 |  |  |
| Michigan.......... | 41 | 17 | 3,017 | 13,600 | 2,496 | 4,888 | 9,522 | 28,751 | 32,657 | 59,080 | 752 |  |  |
| Wisconsin......... | 32 | 19 | 2,802 | 14,403 | 2,152 | 3,912 | 8,483 | 23,891 | 9,915 | 33,479 | 891 |  |  |
| Nebraska.......... | 9 | 4 | 1,565 | 6,184 | 994 | 2,025 | 2,974 | 11,368 | 4,467 | 16,298 | 366 |  |  |
| South............... | 183 | 87 | 19,967 | 87,019 | 15,903 | 31,359 | 61,487 | 150,447 | 93,218 | 247,137 | 9,822 | 533,679 | 357,468 |
| West Virginia..... | 4 | 3 | 905 | 3,800 | -719 | 1,424 | 2,419 | 5,354 | 2,418 | 7,754 | 136 |  |  |
| North Carolina. . . | 15 | 14 | 3,643 | 13,521 | 3,045 | 6,101 | 10,184 | 33,356 | 13,222 | 46,680 | 1,645 |  |  |
| Tennessee......... | 9 | 6 | 1,130 | 3,825 | 918 | 1,809 | 2,535 | 5,662 | 2,961 | 8,389 | 228 |  | - |
| Texas............. | 38 | 8 | 797 | 3,702 | 597 | 1,176 | 2,285 | 5,799 | 3,407 | 10,617 | 357 |  |  |
| West................ | 476 | 188 | 27,882 | 161,362 | 20,058 | 40,788 | 97,711 | 267,756 | 129,847 | 392,047 | 20,233 |  |  |
| Colorado.......... |  | 4 |  | 1,008 | 221 | 481 | 795 | 1,184 | , 352 | 1,542 | 90 | $121$ | $8{ }^{401}$ |
| California........ | 433 | 173 | 26,452 | 153,657 | 19,200 | 38,789 | 93,520 | 256,208 | 123,977 | 374,454 | 19,743 | 11,436 | 87,827 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. applicable. n.e.c. Not elsewhere classified.

## TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

Footnotes for Table 2-36D-Continued

${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3651, Radio and TV Receiving Sets: New England-Maine, 1 (100-249); Massachusetts, 12 (1,000-2,499); Middle Atlantic-New Jersey, 19 (4, 726 ); Pennsylvania, 8 (3,319); East North Central-Ohio, 10 (979); Indiana, 15 (14,565); Wisconsin, 3 (299); West North Central-Minnesota, 6 (500-999); Missouri, 1 (20-99); Kansas, 3 (1-19); South Atiantic—Maryland, l (1-19); District of Columbia, l (1-19); Virginia, 1 (1-19); North Carolina, 1 (20-99); South Carolina, 1 (1-19); Georgia, 1 (20-99); Florida, 4 (1-19); East South Central-Kentucky, 3 (250-499); Tennessee, 2 (1,000-2,499); West South Central-Arkansas, 5 (1,000-2,499); Oklahoma 2 (100-249); Texas, 10 ( $1,000-2,499$ ); Mountain-Colorado, 2 (1-19); Arizona, 1 (1-19); Nevada, I (1-19); Pacific-Washington, 1 (1-19).
SIC 3652, Phonograph Records: New England-New Hampshire, I (20-99); Massachusetts, '1 (20-99); Connecticut, 4 (500-999); Middle Atlantio-New Jersey, 26 (2,336); Pennsylvania, 11 (1,119); East North Central-Ohio, 4 (126); Indiana, 3 (2,249); Michigan, 3 (20-99); West North Central-Minnesota, 2 (20-99); South Atlantic-Maryland, l (1-19); Florida, 3 (20-99); East South Central—Kentucky, l (1-19); Tennessee, 5 (20-99); Mississippi, l (20-99); West South Central-Arkansas, 1 (1-19); Louisiana, 1 (1-19); Texas, 4 (20-99); Mountain-Arizona, I (1-19); Pacific-Hawaii, 2 (1-19). SIC 3661, Telephones; Telegraph Apparatus: New England-New Hampshire, 1 (20-99); Massachusetts, 5 (9,966); Connecticut, 2 (250-499); Middle Atlantic-New York, 19 ( 5,471 ); New Jersey, 8 (10,000 and over); Pennsylvania, 1 (1-19); East North Central-Ohio, 5 ( 6,626 ); Indiana, 2 ( $5,000-9,999$ ); Illínois, 15 (29,213); Wisconsin, 1 (100-249); West North Central-Minnesota, 1 (100-249); Iowa, 1 (1-19); Missouri, 3 (4,022); Nebraska, 1 ( $2,500-4,999$ ); South Atlantic—Maryland, 1 (2,500-4,999); Virginia, 2 (500-999); East South Central-Kentucky, 1 (1-19); Tennessee, 2 (500-999); Mississippi, 1 (250-499); West South Central—Arkansas, 1 (250-499); Oklahoma, 2 (2,500-4,999); Texas, 2 (1-19); Pacific-0regon, 1 (20-99); California, $12(2,823)$.
SIC 3662, Radio, TV Communications Equipment: New England-Maine, l (1-19); Massachusetts, 83 (30,726); Rhode Island, 3 (746); Connecticut, 40 (5,000-9,999); Middle Atlantic-New York, 176 ( 68,204 ); New Jersey, 108 ( 10,000 and over); Pennsylvania, 61 ( 10,000 and over); East North CentralOhio, $37((8,429)$; Indiana, $20(5,000-9,999)$; Illinois, 68 ( 14,350 ); Wisconsin, 13 ( $5,000-9,999$ ); West North Central-Minnesota, 9 (5,000-9,999); Iowa, 5 ( $5,000-9,999$ ); Missouri, 10 (836); South Dakota, 1 (1-19); Kansas, 3 (304); South Atlantic-Delaware, 1 (1-19); Maryland, 28 (10,000 and over); District of Columbia, 3 (20-99); West Virginia, 1 (20-99); North Carolina, 8 (9,908); South Carolina, 2 (20-99); Georgia, 4 (20-99); East South Central-Kentucky, 4 (100-249); Tennessee, 6 (2,500-4,999); Alabama, 2 (500-999); West South Central-Arkansas, 2 (100-249); Louisiana, 2 (20-99); Oklahoma, 9 ( $2,500-4,999$ ); Mountain-Arizona, 7 (3,155); Utah, 3 (500-999); Nevada, 2 (100-249); Pacific—Oregon, 3 (20-99); California, 256 (94,071); Alaska, I (1-19).
SIC 3671, Electron Tubes, Receiving Type: New England-Massachusetts, 5 (2,500-4,999); Middle Atlantic-New York, 6 (1,175); New Jersey, 7 (8,242); Pennsylvania, 7 (2,500-4,999); East North Central-Ohio, 2 (1,000-2,499); Indiana, 2 (1,000-2,499); Illinois, 3 (20-99); West North CentralMinnesota, 1 (1-19); Iowa, 1 (1,000-2,499); Nebraska, 1 (1-19); South Atlantic-Maryland, 1 (1-19); South Carolina, 1 (1-19); East South CentralKentucky, 1 (2,500-4,999); Alabama, 1 (100-249); Pacific-Califormia, 3 (20-99).
SIC 3672, Cathode Ray Picture Tubes: New England-New Harppshire, 1 (1-19); 'Massachusetts, 6 (20-99); Midale Atlantic-New York, 11 (569); New Jersey, 10 (231); Pennsylvania, 11 ( 4,092 ); East North Central-Ohio, 11 ( $1,000-2,499$ ); Indiana, 4 ( $1,000-2,499$ ); Illinois, 14 ( 2,126 ); Michigan, 7 (20-99); West North Central-Minnesota, 4 (1-19); Iowa, 1 (1-19); Missouri, 4 (1-19); South Dakota, 1 (1-19); Nebraska, 1 (1-19); Kansas, 2 (1-19); South Atlantic-Virginia, 2 (20-99); North Carolina, 2 (1-19); Georgia, 5 (122); Florida, 4 (20-99); East South Central-Kentucky, 2 (1-19); Tennessee, 5 (1-19); Alabama, 7 (1-19); Mississippi, 2 (1-19); West South Central-Arkansas, 1 (1-19); Louisiana, 4 (20-99); Oklahoma, 2 (1-19); Texas, 5 (20-99); Mountain-Colorado, 2 (1-19); New Mexico, 1 (1-19); Arizona, 4 (1-19); Utah, 1 (1-19); Pacific—Washington, 2 (1-19); Oregon, 2 (1-19); California, 9 (125); Hawaii, I (1-19).
SIC 3673, Electron Tubes, Transmitting: New England-Massachusetts, 5 (2,915); Connecticut, 3 (1,000-2,499); Middle Atlantic-Pennsylvania, 2 (250-499); South Atlantic-Virginia, l (100-249); Florida, l (500-999); East South Central—Mississippi, 1 (1-19); West South Central-Texas, 2 (100-249); Mountain-Utah, 1 (250-499).
SIC 3674, Semiconductors: New England-Maine, 1 (500-999); New Hampshire, 1 (500-999); Rhode Island, 3 (500-999); Connecticut, 6 (1,000-2,499); East North Central-Ohio, 1 (1,000-2,499); Illinois, 7 (626); West North Central—Minnesota, 1 (20-99); South Atlantic-Florida, I (1-19); East South Central-Mississippi, 1 (1-19); West South Central-Texas, 2 (5,000-9, 999); Mountain-Arizona, 4 (5,260).
SIC 3679, Electronic Components, N.E.C.: New England-New Hampshire, 16 ( $2,500-4,999$ ); Vermont, 4 ( $1,000-2$,499); Rhode Island, 10 (500-999); East North Central—Indiana, 43 ( 7,342 ); West North Central—Minnesota, 34 (2,361); Iowa, 12 (1,000-2,499); Missouri, 14 ( 800 ); South Dakota, 2 (100-249); Kansas, 11 ( $1,000-2,499$ ); South Atlantic-Delaware, 4 (20-99); Maryland, 24 (1,000-2,499); District of Columbia, 1 (20-99); Virginia, 13 (5,624); South Carolina, 5 (2,500-4,999); Georgia, 4 (1-19); Florida, 47 (1,475); East South Central—Kentucky, 6 (100-249); Alabama, 3 (776); Mississippi, 2 (250-499); West South Central-Arkansas, 1 (1-19); Louisiana, 2 (1-19); Oklahoma, 5 (100-249); Mountain-Idaho, 2 (20-99); New Mexico, 6 (20-99); Arizona, 11 (502); Utah, 3 (250-499); Nevada, 2 (1-19); Pacific-Washington, 7 (100-249); Oregon, 5 (20-99).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such states.

## TABLE 3. Detailed Statistics: 1963

| Item | Radio and TV receiving sets (SIC 3651) | Phonograph records (SIC 3652) | Telephone; telegraph apparatus (SIC 3661) | Radio, TV communications equipment (SIC 3662) | Electron tubes, receiving type (SIC 3671) | Cathode ray picture tubes (SiC 3672) | Electron tubes,$\begin{array}{l}\text { transmitting } \\ \text { (SIC } 3673 \text { ) }\end{array}$ | $\left\|\begin{array}{c} \text { Semicon- } \\ \text { ductors } \\ \text { (SIC 3674) } \end{array}\right\|$ | Electronic components, n.e.c. (SIC 3679) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio ${ }^{1}$. | . 91 | . 99 | . 95 | . 88 | . 89 | .85-. 90 | . 80 | . 88 | . 89 |
| Coverage ratio... | . 96 | . 97 | . 95 | . 91 | . 95 | . 90 | . 75 | . 92 | . 78 |
| Establishments, total.......................................... | 348 | 167 | 90 | 1,132 | 42 | 151 | 57 | 107 | 1,934 |
| With 1 to 19 employees.................................. ${ }^{\text {do }}$ do | 170 | 107 | 34 | 497 | 20 | 123 | 12 | 20 | 966 |
| With 20 to 99 employees. | 82 | 39 | 15 | 329 | 3 | 20 | 15 | 31 | 555 |
| With 100 employees or more | 96 | 21 | 41 | 306 | 19 | 8 | 30 | 56 | 41 |
| Proprietors and working partners | 74 | 49 | 14 | 175 | 72 | 63 | 5 | 3 | 422 |
| All employees (average for the year)....................do | 81,264 | 9,554 | 89,465 | 387,384 | 25,850 | 10,916 | 18,704 | 56,349 | 176,708 |
| Payroll (all employees), total for year.............. $\$ 1,000 .$. | 411,924 | 46,981 | 554,375 | 2,840,218 | 136,768 | 66,888 | 129,296 | 320,875 | 881,920 |
| Production workers: |  |  |  |  |  |  |  |  |  |
| Average for the year..................................number.. | 66,538 | 7,566 | 63,983 | 205,698 | 20,357 | 7,958 | 11,631 | 37,548 | 133,412 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 58,916 | 7,723 | 68,574 | 213,454 | 21,918 | 7,904 | 11,681 | 37,375 | 131,896 |
| May. | 62,323 | 7,149 | 60,090 | 207,850 | 21,128 | 7,904 | 11,929 | 37,194 | 132,911 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 71,209 | 7,426 | 63,892 | 201,503 | 19,953 | 7,713 | 11,600 | 37,080 | 134,116 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 73,706 | 7,957 | 63,385 | 199,985 | 18,437 | 8,319 | 11,329 | 38,525 | 134,720 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000 .$. | 128,463 | 15,022 | 122,707 | 419,121 | 37,670 | 16,634 | 24,027 | 77,113 | 261,707 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . | 28,304 | 3,845 | 38,867 | 110,578 | 10,745 | 4,174 | 6,287 | 19,752 | 64,840 |
| April-June. | 30,976 | 3,520 | 32,096 | 107,207 | 10,225 | 4,136 | 6,263 | 19,825 | 66,221 |
| July-September | 33,672 | 3,650 | 26,739 | 98,645 | 8,134 | 3,957 | 5,591 | 17,708 | 64,412 |
| October-December | 35,511 | 4,007 | 30,005 | 102,691 | 8,566 | 4,367 | 5,886 | 19,828 | 66,234 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | 289,287 | 32,976 | 358,741 | 1,230,671 | 88,463 | 40,468 | 72,406 | 168,504 | 550,845 |
| Cost of materials, etc., total | 1,389,412 | 54,087 | 704,187 | 2,822,882 | 76,109 | 142,111 | 96,311 | 199,384 | 889,488 |
| Materials, parts, containers, and supplies con | 1,335,000 | 49,512 | 655,050 | 2,468,669 | 60,103 | 138,318 | 73,946 | 183,301 | 754,690 |
| Cost of resales | 34,681 | 1,703 | 29,466 | 156,673 | 9,806 | 672 | 10,054 | 2,657 | 83,006 |
| Fuels consumed............................ . . . . . . . . . . . . . do | 2,036 | 1,216 | 3,758 | 7,163 | 787 | 785 | 1,100 | 1,529 | 5,261 |
| Electric energy: |  |  |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |  |  |
| Quantity.............. . . . . . . . . . . . . . . .million kw.-hrs.. | 367 | 105 | 547 | 2,173 | 232 | 196 | 251 | 678 | 998 |
| Cost.............................................. . $\$ 1,000 .$. | 4,703 | 1,458 | 6,013 | 25,972 | 2,710 | 2,133 | 2,927 | 7,044 | 14,249 |
| Generated less sold......................million kw. -hrs.. | (D) | - | (D) | 43 | - |  | - | (D) | (D) |
| Contract work......................................... $\$ 1,000 .$. | 12,992 | 198 | 9,900 | 164,405 | 2,703 | 203 | 8,284 | 4,853 | 32,282 |
| Value of shipments (including resales), total..........do. | 2,254,878 | 180, 173 | 1,736,358 | 7,145,600 | 321,091 | 269,122 | 299,527 | 687,817 | 2,332,215 |
| Value of resales........................................do | 43,140 | 1,838 | 33,357 | 184,511 | 11,149 | 855 | 18,730 | 5,116 | 103,823 |
| Value added by manufacture, adjusted. | 911,954 | 125,388 | 1,013,792 | 4,327,671 | 250,681 | 128,354 | 204,614 | 467,035 | 1,457,433 |
| Manufacturers' inventories: |  |  |  |  |  |  |  |  |  |
| Beginning of year, total................................d. ${ }^{\text {do }}$ | 314,841 | 20,400 | 356,497 | 1,368,034 | 48,158 | 20,720 | 75,800 | 142,985 | 377,578 |
| Finished produc | 124,775 | 11,608 | 29,920 | 137,482 | 24,476 | 5,530 | 16,836 | 44,455 | 81,071 |
| Work-in-process. | 88,432 | 2,467 | 250,147 | 974,510 | 13,813 | 4,979 | 35,148 | 69,924 | 168,512 |
| Materials, supplies, fuel, etc.......................do. | 101,634 | 6,325 | 76,430 | 256,042 | 9,869 | 10,211 | 23,816 | 28,606 | 127,995 |
| End of year, total....................................... . ${ }^{\text {do }}$ | 381,381 | 19,852 | 331,398 | 1,331,948 | 53,327 | -23,237 | 74, 176 | 118,192 | 391,982 |
| Finished products | 171,830 | 10,736 | 26,902 | 143,549 | 31,293 | 6,360 | 18,673 | 37,722 | 80,328 |
| Work-in-process. | 92,001 | 2,641 | 234,786 | 979,271 | 12,695 | 5,492 | 34,709 | 55,259 | 183,961 |
| Materials, supplies, fuel, | 117,550 | 6,475 | 69,710 | 209,128 | 9,339 | 11,385 | 20,794 | 25,211 | 127,693 |
| Expenditures for plant and equipment, total...........do. | 31,031 | 9,033 | 57,315 | 149,465 | 6,722 | 16,410 | 13,544 | 56,057 | 92,609 |
| New, total.......................... . . . . . . . . . . . . . . . . .do. | 30,511 | 8,704 | 55,127 | 138,734 | 5,596 | 16,138 | 13,262 | 52,439 | 88,508 |
| New structures and additions to plant..............do | 12,056 | 2,700 | 5,472 | 44,023 | 1,025 | 2,254 | 3,263 | 14,023 | 25,902 |
| New machinery and equipment.......................... do. | 18,455 | 6,004 | 49,655 | 94,711 | 4,571 | 13,884 | 9,999 | 38,416 | 62,606 |
| Used plant and equipment................................do.. | 520 | 329 | 2,188 | 10,731 | 1,126 | 272 | 282 | 3,618 | 4,101 |
| Selected operating ratios: |  |  |  |  |  |  |  |  |  |
| Payroll/Total employment. | 5,069 | 4,917 | 6,197 | 7,332 | 5,291 | 6,128 | 6,913 | 5,694 | 4,991 |
| Production workers/Total employment | . 82 | . 79 | . 72 | . 53 | . 79 | . 73 | . 62 | . 67 | . 75 |
| Man-hours/Production workers. | 1,931 | 1,985 | 1,918 | 2,038 | 1,850 | 2,090 | 2,066 | 2,054 | 1,962 |
| Production worker wages/Man-hours. | 2.25 | 2.20 | 2.92 | 2.94 | 2.35 | 2.43 | 3.01 | 2.18 | 2.10 |
| Cost of materials and payrolls/Total value of shipments | . 79 | . 56 | . 72 | . 79 | . 66 | . 78 | . 75 | . 76 | . 76 |
| Cost of materials/Total value of shipments. | . 62 | . 30 | . 41 | . 40 | . 24 | . 53 | . 32 | . 29 | . 38 |
| Adjusted value added/Total employment....................... | 11,222 | 13,124 | 11,332 | 11,172 | 9,698 | 11,758 | 10,940 | 8,288 | 8,248 |
| Salaries and wages/Adjusted value added...................... | . 45 | . 37 | . 55 | . 66 | . 55 | . 52 | . 63 | . 69 | . 61 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of tiousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withneld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
${ }^{1}{ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of prinary products shipped by the establishnents classified in the industry to total shipments of such products by all manufacturing establis:uments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

|  | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item |  | 1 to 4 employees | 5 to 9 employees | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{aligned} & 100 \text { to } \\ & 249 \\ & \text { employees } \end{aligned}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ \text { 2,499 } \\ \text { employees } \end{gathered}$ | $\begin{gathered} 2,500 \\ \text { employees } \\ \text { and over } \end{gathered}$ |
|  | INDUSTRY 3651.-RADIO AND TV RECEIVING SETS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 348 | 81 | 48 | 41 | 50 | 32 | 35 | 25 | 15 | 15 | 6 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 81,264 | 124 | 350 | 570 | 1,556 | 2,358 | 5,651 | 8,457 | 11,223 | 23,800 | 27,175 |
| Payroll................. $\$ 1,000$. . | 411,924 | 661 | 1,712 | 2,618 | 7,147 | 10,953 | 24,253 | 38,159 | 53,378 | 121,984 | 151,059 |
| Value added, adjusted.......do.... | 911,954 | 1,081 | 5,831 | 3,723 | 13,166 | 24,887 | 46,428 | 74,639 | 102,688 | 286,149 | 353,362 |
| Value of shipments............do..... <br> Capital expenditures, new...do.... | 2,254,878 | 2,444 | 8,469 | 9,229 | 26,129 | 51,480 | 106,587 | 145,364 | 272,588 | 760,517 | 872,071 |
|  | 30,511 |  | 317 | 257 | 608 | 864 | 1,015 | 1,267 | 2,147 | 8,479 | 15,347 |
|  | INDUSTRY 3652.-PHONOGRAPH RECORDS |  |  |  |  |  |  |  |  |  |  |
| Establishments............number.. | 167 | 59 | 26 | 22 | 25 | 14 | 12 | 4 | 4 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 9,554 | 100 | 196 | 299 | 861 | 922 | 1,922 | 5,254 | (D) | (D) | - |
| Pay roll. . . . . . . . . . . . . . $\$ 1,000$. . | 46,981 | 536 | 869 | - 1,536 | 3,590 | 4,406 | 8,536 | 27,508 | (D) | (D) |  |
| Value added, adjusted.......do.... | 125,388 | 1,972 | 1,929 | 3,922 | 6,551 | 8,362 | 18,001 | 84,651 | (D) | (D) | - |
| Value of shipments...........do..... Capital expenditures, new...do.... | 180,173 | 2,038 | 3,154 | 6,028 | 11,148 | 12,740 | 28,376 | 115,689 | (D) | (D) |  |
|  | 8,704 | 23,773 | 462 | 367 | 675 | 623 | 848 | 1,956 | (D) | (D) | - |
|  | INDUSTRY 3661.-TEIEPHONE; TELEGRAPH APPARATUS |  |  |  |  |  |  |  |  |  |  |
| Establishments............ number.. | 90 | 18 | 8 | 8 | 11 | 4 | 10 | 6 | 9 | 4 | 12 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 89,465 | 25 | 56 | 111 | 309 | 242 | 1,726 | 2,229 | 84,767 | (D) | (D) |
| Payroll.................. $\$ 1,000$. . | 554,375 | 135 | 310 | 648 | 1,486 | 1,466 | 9,403 | 13,968 | 526,959 | (D) | (D) |
| Value added, adjusted.......do.... | 1,013,792 | 247 | 488 | 1,459 | 3,327 | 2,603 | 16,351 | 28,922 | 960,395 | (D) | (D) |
| Value of shipments..........do.... | 1,736,358 | 506 | 833 | 2,002 | 6,132 | 3,720 | 30,703 | 46,301 | 1,646,161 | (D) | (D) |
| Capital expenditures, new...do.... | 55,127 | 78 | 57 | 103 | 271 | 69 | 288 | 813 | 53,448 | (D) | (D) |
|  | INDUSTRY 3662.-RADIO, TV COMMONICATIONS EQUIPMENT |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 1,132 | 211 | 138 | 148 | 196 | 134 | 120 | 52 | 49 | 41 | 43 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 387,384 | 333 | 942 | 2,065 | 6,191 | 9,317 | 18,565 | 18,235 | 34,863 | 66,114 | 230,759 |
| Pay roll.................. \$1,000.. | 2,840,218 | 3,580 | 5,456 | 11,616 | 36,634 | 54,472 | 119,010 | 119,606 | 235,772 | 499, 843 | 1,754,229 |
| Value added, adjusted.......do. | 4,327,671 | 3,623 | 8,313 | 19,210 | 58,200 | 96,689 | 182,085 | 180,672 | 366,634 | 735, 526 | 2,676,719 |
| Value of shipments..........d. ${ }^{\text {do.. }}$ | 7,145,600 | 6,136 | 15,190 | 32,365 | 98,441 | 157,469 | 296,346 | 297, 299 | 645,991 | 1,168,309 | 4,428,054 |
| Capital expenditures, new...do.... | 138,734 | ${ }^{3} 891$ | 538 | 692 | 2,387 | 3,945 | 10,006 | 6,336 | 12,695 | 23,407 | 77,837 |
|  | INDUSTRY 3671.-ELECTRON TUBES, RECEIVING TYPE |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 42 | 9 | 6 | 5 | 2 | 1 | 2 | 2 | 4 | 9 | 2 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total. . . . . . . . . . . . . . . . . . do. . . | 25,850 | 15 | 37 | 104 | (D) | 1,156 | (D) | (D) | 3,042 | 21,496 | (D) |
| Payroll.................. $\$ 1,000$. . | 136,768 | 75 | 158 | 425 | (D) | 4,389 | (D) | (D) | 14,500 | 117,221 | (D) |
| Value added, adjusted.......do.... | 250,681 | 175 | 303 | 779 | (D) | 4,799 | (D) | (D) | 35,014 | 209,671 | (D) |
| Capital expenditures, new...do.... | 321,091 | 242 | 425 | 1, $\overline{098}$ | (D) | 6,661 | (D) | (D) | 49,808 | 262,857 | (D) |
|  | 5,596 | 25 | 23 | 34 | (D) | 76 | (D) | (D) | 573 | 4,865 | (D) |
|  | INDUSTRY 3672.-CATHODE RAY PICTURE TUBES |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 151 | 77 | 27 | 19 | 15 | 5 | 2 | 1 | 1 | 3 | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do.... | 10,916 | 130 | 176 | 274 | 468 | 320 | 1,412 | (D) | (D) | 8,136 | (D) |
| Payroll.................. \$1,000.. | 66,888 | 598 | 709 | 1,168 | 2,117 | 1,611 | 8,646 | (D) | (D) | 52,039 | (D) |
| Value added, adjusted.......do.... | 128,354 | 951 | 1,026 | 1,828 | 2,743 | 3,923 | 8,034 | (D) | (D) | 109,849 | (D) |
| Value of shipments..........do.... | 269,122 | 1,845 | 1,988 | 3,033 | 6,163 | 6,542 | 25,895 | (D) | (D) | 223,656 | (D) |
| Capital expenditures, new...do.... | 16,138 | 406 | 310 | 254 | 496 | 300 | 773 | (D) | (D) | 13,599 | (D) |

See footnotes at end of table.
table 4. Selected Statistics, by Employment Size of Establishments: 1963-Continued

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | 5 to 9 employees | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 1,000 \text { to } \\ & 2,499 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3673.-ELECTRON TUBES, TRANSMITTING |  |  |  |  |  |  |  |  |  |  |
| Establishments...............number. . All employees: | 57 | 4 | 6 | 2 | 6 | 9 | 10 | 8 | 6 | 5 | 1 |
| Total.......................do.... | 18,704 | 81 | (D) | (D) | 200 | 634 | 1,433 | 2,701 | 4,082 | 9,573 | (D) |
| Payroll. . . . . . . . . . . . . . $\$ 1,000$. . | 129,296 | $4 \overline{25}$ | (D) | (D) | 1,139 | 3,501 | 9,949 | 18,710 | 27,781 | 677,791 | (D) |
| Value added, adjusted.......do.... | 204, 614 | $\frac{793}{07}$ | (D) | (D) | 1,954 | 5,686 | 15,802 | 29,386 | 49,786 | 101,207 | (D) |
| Value of shipments...........do.... | 299,527 13,262 | 1,046 | (D) | (D) | 3,509 81 | 8,339 134 | 20,823 663 | 39,088 1,773 | 71,534 2,285 | $\frac{155,188}{8,228}$ | (D) |
|  | INDUSTRY 3674.-SEMICONDUCTORS |  |  |  |  |  |  |  |  |  |  |
| Establishments...............number. . All employees: | 107 | 9 | 4 | 7 | 13 | 18 | 19 | 8 | 14 | 11 | 4 |
| Total......................do.... | 56,349 | 18 | 32 | 104 | 455 | 1,332 | 3,173 | 2,958 | 10,071 | 17,516 | 20,690 |
| Payroll................. $\$ 1,000 .$. | 320,875 | 119 | 178 | 668 | 2,713 | 7,073 | 17,333 | 16,232 | 52,794 | 102,756 | 121,009 |
| Value added, adjusted.......do.... | 467,035 | 86 | 358 | 1,099 | 4,211 | 10,358 | 32,793 | 29,086 | 75,414 | 115,611 | 198,019 |
| Value of shipments..........do.... | 687,817 | 232 | 494 | 1,571 | 6,097 | 14,665 | 45,876 | 40,801 | 111,936 | 188,828 | 277,317 |
| Capital expenditures, new...do.... | 52,439 | 13 | 31 | 154 | 470 | -696 | 1,879 | 1,631 | 6,451 | 12,048 | 29,066 |
|  | INDUSTRY 3679.-ELECTRONIC COMPONENTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 1,934 | 506 | 229 | 231 | 337 | 218 | 238 | 109 | 47 | 16 | 3 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.. | 176,708 | 975 | 1,560 | 3,164 | 10,702 | 15,468 | 36,455 | 39,092 | 32,410 | 24,234 | 12,648 |
| Payroll. . . . . . . . . . . . . $\$ 1,000$. . | 881,920 | 4,848 | 7,758 | 14,688 | 51,074 | 75,082 | 169,598 | 195,985 | 155,790 | 135,184 | 71,913 |
| Value added, adjusted.......do.... | 1,457,433 | 8,497 | 13,700 | 23,777 | 79,766 | 140,486 | 274,755 | 338,540 | 274,182 | 207,031 | 96,699 |
| Value of shipments,.........do.... | 2,332,215 | 15,411 | 21,973 | 40,315 | 132,553 | 221,922 | 458,705 | 523,145 | 416,100 | 343,910 | 158,181 |
| Capital expenditures, new...do.... | 88,508 | 47,998 | 979 | 1,286 | 4,426 | 6,650 | 11,329 | 15,095 | 12,197 | 23,451 | 5,097 |

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## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio <br> Col. B <br> Col. B+C <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3651 | Radio and TV receiving sets.......1963.. | $\begin{aligned} & 2,254,878 \\ & 1,548,006 \end{aligned}$ | $\begin{aligned} & 1,991,885 \\ & 1,364,275 \end{aligned}$ | $\begin{aligned} & 190,751 \\ & 129,669 \end{aligned}$ | $\begin{aligned} & 72,242 \\ & 54,062 \end{aligned}$ | $\begin{aligned} & 91 \\ & 91 \end{aligned}$ | $\begin{aligned} & 2,070,838 \\ & 1,481,575 \end{aligned}$ | $\begin{aligned} & 1,991,885 \\ & 1,364,275 \end{aligned}$ | $\begin{array}{r} 78,953 \\ 117,300 \end{array}$ | $\begin{aligned} & 96 \\ & 92 \end{aligned}$ |
| 3652 | Phonograph records. . . . . . . . . . . . . . 1963.. | $\begin{aligned} & 180,173 \\ & 148,731 \end{aligned}$ | $\begin{aligned} & 174,063 \\ & 133,016 \end{aligned}$ | $\begin{aligned} & 3,822 \\ & 4,236 \end{aligned}$ | $\begin{array}{r} 2,288 \\ 11,479 \end{array}$ | $\begin{aligned} & 99 \\ & 97 \end{aligned}$ | $\begin{aligned} & 178,699 \\ & 136,165 \end{aligned}$ | $\begin{aligned} & 174,063 \\ & 133,016 \end{aligned}$ | $\begin{aligned} & 4,636 \\ & 3,149 \end{aligned}$ | $\begin{aligned} & 97 \\ & 98 \end{aligned}$ |
| 3661 | Telephone; telegraph apparatus....1963.. | $\begin{aligned} & 1,736,358 \\ & 1,207,955 \end{aligned}$ | $\begin{aligned} & 1,463,433 \\ & 1,077,273 \end{aligned}$ | $\begin{array}{r} 192,478 \\ 77,243 \end{array}$ | $\begin{aligned} & 80,447 \\ & 53,439 \end{aligned}$ | $\begin{aligned} & \mathbf{1}_{95} \\ & \mathbf{1}_{96} \end{aligned}$ | $\begin{aligned} & 1,538,015 \\ & 1,079,017 \end{aligned}$ | $\begin{aligned} & 1,463,433 \\ & 1,077,273 \end{aligned}$ | $\begin{array}{r} 74,582 \\ 1,744 \end{array}$ | $\begin{aligned} & 1_{95} \\ & 1_{99} \end{aligned}$ |
| 3662 | Radio, TV commmications equipment......................................... 1963 1958.. | $\begin{aligned} & 7,145,600 \\ & 2,852,617 \end{aligned}$ | $\begin{aligned} & 5,511,882 \\ & 1,971,726 \end{aligned}$ | $\begin{aligned} & 750,466 \\ & 309,307 \end{aligned}$ | $\begin{aligned} & 883,252 \\ & 571,584 \end{aligned}$ | $\begin{aligned} & 88 \\ & 86 \end{aligned}$ | $\begin{aligned} & 6,052,037 \\ & 2,382,330 \end{aligned}$ | $\begin{aligned} & 5,511,882 \\ & 1,971,726 \end{aligned}$ | $\begin{aligned} & 540,155 \\ & 410,604 \end{aligned}$ | 91 83 |
| 3671 | Electron tubes, receiving type... $\begin{array}{r}\text { 1963.. } \\ \text { 1958.. }\end{array}$ | $\begin{aligned} & 321,091 \\ & 382,526 \end{aligned}$ | $\begin{aligned} & 272,436 \\ & 323,502 \end{aligned}$ | $\begin{aligned} & 33,846 \\ & 38,492 \end{aligned}$ | $\begin{aligned} & 14,809 \\ & 20,532 \end{aligned}$ | $\begin{aligned} & 89 \\ & 89 \end{aligned}$ | $\begin{aligned} & 287,893 \\ & 337,274 \end{aligned}$ | $\begin{aligned} & 272,436 \\ & 323,502 \end{aligned}$ | $\begin{aligned} & 15,457 \\ & 13,772 \end{aligned}$ | 95 96 |
| 3672 | Cathode ray picture tubes.........1963.. | $\begin{aligned} & 269,122 \\ & 159,252 \end{aligned}$ | $\begin{aligned} & 223,667 \\ & 149,535 \end{aligned}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 5,710 \end{array}$ | $\begin{array}{r} 245,455 \\ 4,007 \end{array}$ | $\begin{gathered} \left({ }^{2}\right) \\ 96 \end{gathered}$ | $\begin{aligned} & 248,515 \\ & 177,251 \end{aligned}$ | $\begin{aligned} & 223,667 \\ & 149,535 \end{aligned}$ | $\begin{aligned} & 24,848 \\ & 27,716 \end{aligned}$ | 90 84 |
| 3673 | Electron tubes, transmitting..... $\begin{array}{r}\text { 1963.. } \\ \text { 1958.. }\end{array}$ | $\begin{aligned} & 299,527 \\ & 258,474 \end{aligned}$ | $\begin{aligned} & 213,736 \\ & 181,055 \end{aligned}$ | $\begin{aligned} & 52,807 \\ & 37.954 \end{aligned}$ | $\begin{aligned} & 32,984 \\ & 39,465 \end{aligned}$ | $\begin{aligned} & 80 \\ & 83 \end{aligned}$ | $\begin{aligned} & 286,663 \\ & 224,899 \end{aligned}$ | $\begin{aligned} & 213,736 \\ & 181,055 \end{aligned}$ | $\begin{aligned} & 72,927 \\ & 43,844 \end{aligned}$ | $\begin{aligned} & 75 \\ & 81 \end{aligned}$ |
| 3674 | Semiconductors. $\qquad$ . 1963. 1958. | $\begin{aligned} & 687,817 \\ & 250,306 \end{aligned}$ | $\begin{array}{r} 575,087 \\ \text { (NA) } \end{array}$ | $\begin{array}{r} 76,342 \\ (\mathrm{NA}) \end{array}$ | $\begin{array}{r} 36,388 \\ (\mathrm{NA}) \end{array}$ | $\begin{array}{r} 88 \\ (\mathrm{NA}) \end{array}$ | $\begin{aligned} & 623,278 \\ & 236,702 \end{aligned}$ | $\begin{array}{r} 575,087 \\ \text { (NA) } \end{array}$ | $\begin{array}{r} 48,191 \\ \text { (NA) } \end{array}$ | $\begin{array}{r} 92 \\ \text { (NA) } \end{array}$ |
| 3679 | Electronic components, n.e.c..... $\begin{array}{r}\text { 1963.. } \\ \text { 1958.. }\end{array}$ | $\begin{aligned} & 2,332,215 \\ & 1,195,378 \end{aligned}$ | $\begin{array}{r} 1,943,715 \\ (\mathrm{NA}) \\ \hline \end{array}$ | $\begin{array}{r} 242,542 \\ (\mathrm{NA}) \\ \hline \end{array}$ | $\begin{array}{r} 145,958 \\ (\mathrm{NA}) \\ \hline \end{array}$ | $\begin{array}{r} 89 \\ \text { (NA) } \\ \hline \end{array}$ | $\begin{aligned} & 2,501,294 \\ & 1,297,570 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1,943,715 \\ (\mathrm{NA}) \\ \hline \end{array}$ | $\begin{array}{r} 557,579 \\ (\mathrm{NA}) \\ \hline \end{array}$ | $\begin{array}{r} 78 \\ (\mathrm{NA}) \\ \hline \end{array}$ |

Note: See Introduction for an explanation of terms used.
Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. $\mathrm{r}_{\text {Revised }}$.
${ }^{1}$ The exact percentages shown, while correct to the extent that they are mathematical calculations, are not very meaningful because of duplication in the value of shipments. See introductory text for this industry.
${ }^{2}$ For 1963, secondary products are included with miscellaneous receipts. The specialization ratio is between $85-90$ percent.

## table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary praducts), (b) products classified in other industries (secondary products), and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

| Prod. <br> class <br> code | Class of products and miscellaneous receipts | All industries | Radio and TV receiving sets (SIC 3651) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
|  | RADIO AND TV RECEIVING SETS Industry |  |  |  |
|  | Total shipments and receipts of the industry. | (x) | 2,254,878 | (x) |
|  | Primary products. | 2,070,838 | 1,991,885 | 78,953 |
| $\begin{aligned} & 36511 \\ & 36512 \end{aligned}$ | Household and automobile radios, and radio-phonograph combinations................................. Household television receivers, including television combinations....................................... | $\begin{array}{r} 531,290 \\ 1,092,310 \end{array}$ | $\begin{array}{r} 496,921 \\ 1,092,165 \end{array}$ | 34,369 145 |
| 36513 | Recorders, audio-amplifiers,phonographs, tuners, speaker systems, and other audio equipment and accessories. | 431,102 | 386,727 | 44,375 |
| 36510 | Radio and IV receiving sets, n.s.k............................................................ | 16,136 | 16,072 |  |
|  | Secondary products.. | (x) | 190,751 | (x) |
| 36621 | Testing equipment for testing electrical, radio, and communication circuits and motors......... | (x) | 4,079 | (x) |
|  | Commercial, industrial, and military electronic communication equipment (except broadcast equipment, space satellite-borne communications equipment (complete package)) ...................... | (x) | 8,384 | (x) |
| 36623 | Radio and television broadcast equipment, and closed circuit systems......................... | (X) | 9,768 | (X) |
|  | Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices................................................................................................. | (X) | 3,744 | (x) |
| $\begin{aligned} & 36625 \\ & 3626 \\ & 36794 \\ & 36795 \end{aligned}$ | Electronic search and detection apparatus, including radar, infrared, and sonar................. | (x) | 10,105 |  |
|  | Electronic military, industrial, and commercial equipment, n.e.c.... | (X) | 10,516 | (x) |
|  | Coils, transformers, reactors, and chokes for electronic applications.......................... | (x) | 19,709 | ( X ) |
|  | Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks). | (x) | 43,065 | (x) |
|  | All other secondary products.. | (x) | 81,381 | (x) |
| $\begin{aligned} & 35811 \\ & 35851 \\ & 36720 \\ & 36740 \\ & 36442 \\ & 37175 \end{aligned}$ | Automatic merchandising machines............................................................. | (x) | (5-10) | (x) |
|  | Heat transfer equipment.................................................................... |  | (over 2) | (x) |
|  |  | (X) | (over 2) $(10-20)$ | (X) |
|  | Battery charging generators.. | (x) | (over 2) | (X) |
|  | Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manuf ac turers |  | (2-5) | (x) |
| $\begin{aligned} & 38424 \\ & 38661 \\ & 38613 \\ & 39312 \end{aligned}$$3939$ | Electrical hearing aids........................................................................... | (x) | (2-5) | (x) |
|  | Still picture equipment.. | (X) | (2-5) | (x) |
|  | Motion picture equipment. | (X) | (over 2) | (X) |
|  | Organs................... | (x) | (5-10) | (X) |
| 39312 | Miscellaneous receipts. | (x) | 72,242 | (x) |
|  | Contract work....... |  |  |  |
|  | Resales.................... | (x) | $43,140$ | (x) |
| 36511 | Iisting of other industries with over \$2 million shipments of each primary product class: |  |  |  |
|  | 3634 Electric housewares and fans. <br> 3662 Radio, TV communications equipment. | $\begin{gathered} (\mathrm{X}) \\ (\mathrm{X}) \end{gathered}$ | $\begin{gathered} (\mathrm{X}) \\ (\mathrm{X}) \end{gathered}$ | $\begin{aligned} & \text { (over } 2 \text { ) } \\ & \text { (over 2) } \end{aligned}$ |
| 36513 | 3581 Automatic vending machines......................................................... |  |  | (over 2) |
|  | 3611 Electric measuring instruments. | (x) | (x) | 2,362 |
|  | 3662 Radio, TV communications equipment. | (x) | (x) | 11,716 |
|  | 3679 Electronic components, n.e. | (x) | (x) | 14,223 |
|  | 3931 Musical instruments and parts. | (X) | (X) | (2-5) |
|  |  | All industries | Phonograph records (SIC 3652) | Other industries |
|  | PHoNOGRAPH RECÓRDS INDUSTRY |  |  |  |
|  | Total shipments and receipts of the industry | (x) | 180,173 | (x) |
| 36520 | Phonograph records................................................................................... | 178,699 | 174,063 | 4,636 |
|  | Secondary products. | (x) | 3,822 | (x) |
|  | Miscellaneous receipts. | (x) | 2,288 | (x) |
|  | Resales. <br> Other miscellaneous receipts | $\underset{(\mathrm{X})}{(\mathrm{X})}$ | 1,838 450 | ( X ( X ) |

# table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued 

| Prod. class code | Class of products and miscellaneous receipts | All industries | Telephone; telegraph apparatus, (SIC 3661) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
|  | TELEPHONE; TELEGRAPH APPARATUS INDUSTRY |  |  |  |
|  | Total shipments and receipts of the indust | (X) | 1,736,358 | (X) |
|  | Primary products. | 1,538,015 | 1,463,433 | 74,582 |
| 36611 36612 | Telephone switching and switchboard equipment.............................................................. | $\begin{array}{r} 491,339 \\ 1,045,173 \end{array}$ | $\begin{aligned} & 489,347 \\ & 972,583 \end{aligned}$ | 1,992 72,590 |
| 36610 | Telephone, telegraph apparatus, n.s.k.................. | 1,503 | 1,503 |  |
|  | Secondary products | (X) | 192,478 | (X) |
| 36621 | Commercial, industrial, and military electronic communication equipment (except broadcast equipment, space satellite-borne communications equipment (complete package))....................... | (X) | 43,208 | (X) |
| 33560 | All other secondary produc | (x) | 149,270 | (X) |
| 19291 | Ammunition over 30 mm . (or 1.18 inches and over) n | (x) | (over 2) | (X) |
| 25420 | Metal partitions, shelving, lockers, and office and store fixtures | (X) | (over 2) | (X) |
| 33512 | Rolied, drawn and extruded copper and copper-base alloy mill shapes. | (x) | (over 2) | (X) |
| 33560 | Rolled, drawn, and extruded nonferrous metal mill products (except copper and aluminum) | (X) | (over 2) | (X) |
| 35595 | Other special industry machinery and equipment....... | (x) | (over 2) | (X) |
| 36112 | Test equipment for testing electrical, radio, and communication circuits and motors. | (X) | (over 2) | (X) |
| 36131 | Switchgear, including power switchgear assemblies and other switching and interrupting devices 2300 volts and over. | (x) | (over 2) | (X) |
| 36220 | General industry power circuit devices and controls. | (X) | (5-10) | (X) |
| 36292 | Rectifying apparatus.. | (x) | (over 2) | (x) |
| 36410 | Electric lamps (bulbs only) including sealed beam lamps | (X) | (over 2) | (X) |
| 36430 | Current carrying wiring devices, including lightning rods | (X) | (over 2) | (X) |
| 36441 | Pole-line and transmission hardware. | (X) | (over 2) | (X) |
| 36623 | Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices. | (x) | (2-5) | (X) |
| 36710 | Receiving type electron tubes, except cathode ray | (x) | (over 2) | (X) |
| 36730 | Transmitting, industrial and special purpose electron tubes (except X-ray) | (X) | (2-5) | (X) |
| 36740 | Solid state semiconductor devices. | (X) | (over 2) | (X) |
| 36793 | Resistors for electronic applications. | (X) | (over 2) | (X) |
| 36795 | Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks). | (X) | (20-50) | (X) |
|  | Miscellaneous receipts | (x) | 80,447 | (x) |
|  | Contract work. | (x) | 1,647 | (X) |
|  | Resales. | (x) | 33,357 | (X) |
|  | Other miscellaneous receipts | (X) | 45,443 | (X) |
| 36612 | Listing of other industries with over $\$ 2$ million shipments of each primary product class: <br> 3357 Nonferrous wire drawing, etc. $\qquad$ <br> 3662 Radio, TV comunications equipment. <br> 3674 Semiconductors. $\qquad$ $\qquad$ <br> RADIO, TV COMMUNICATIONS EQUIPNENT INDUSTRY <br> Total shipments and receipts of the industry. $\qquad$ |  |  |  |
|  |  |  | (X) | (over 2) |
|  |  | (X) | (X) | $(20-50)$ |
|  |  | (X) | (X) |  |
|  |  | All industries | Radio, TV communications equipment (SIC 3662) | Other industries |
|  |  |  |  |  |
|  |  | (X) | 7,145,600 | (X) |
|  | Primary products | 6,052,037 | 5,511,882 | 540,155 |
| 36621 | Commercial industrial and military electronic communication equipment (except broadcast equipment, space satellite-borne communications equipment (complete package))........... | 1,080,989 | 972,384 | 108,605 |
| 36622 | Radio and television broadcast equipment, and closed circuit systems............................ | 150,931 | 133,279 | 17,652 |
| 36623 | Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices. | 165,801 | 125,720 | 40,081 |
| 36624 | Electronic navigational aids (except missile-borne and space vehicle basin equipment). | 1,246,261 | 1,212,484 | 33,777 |
| 36625 | Electronic search and detection apparatus, including radar, infrared and sonar. | 1,644,863 | 1,493,695 | 151,168 |
| 36626 | Electronic military, industrial, and commercial equipment, n.e.c. | 723,925 | 595,052 | 128,873 |
| 36627 | Space satellite-borne communication systems (complete package). | 28,709 | 28,709 |  |
| 36628 | Missile-borne and space vehicle-borne navigation and guidance systems and equipment | 978,597 | 919,014 | 59,583 |
| 36620 | Radio, TV communications equipment, n.s.k. | 31,961 | 31,545 | 416 |
|  | Secondary products. | (x) | 750,466 | (X) |
| 19410 | Sighting and fire-control equipment made from purchased lenses. |  | 12,997 | (x) |
| 19990 | Ordnance and accessories, n.e.c.................................................................. |  | 6,134 | (X) |
| 34460 | Architectural and ornamental metal work (except curtain wall and other exterior panels)......... |  | 2,283 | (X) |
| 34990 | Fabricated metal products, n.e.c.......... | (X) | 3,535 | (x) |
| 35595 | Other special industry machinery and equipment. | (X) | 3,581 | (X) |

See footnotes at end of table.
table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 -Continued


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 -Continued

| Prod. class code | Class of products and miscellaneous receipts | All industries | Electron tubes, transmitting (SIC 3673) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
|  | EIECtron tubes, transmitting, industry |  |  |  |
|  | Total shipments and receipts of the indus | (x) | 299,527 | (x) |
| 36730 | Transmitting, industrial, and special purpose electron tubes (except X -ray).. | 286,663 | 213,736 | 72,927 |
|  | Secondary products | (x) | 52,807 | (x) |
| $\begin{aligned} & 36626 \\ & 36795 \end{aligned}$ | Electronic military, industrial, and commercial equipment, n.e.c.............................. Other electronic components and accessories, n.e.c., including parts for electron tubes | (x) | 3,284 | (x) |
|  | (except glass blanks)................................................................. | (x) | 5,820 | (x) |
|  | All other secondary products. | (x) | 43,703 | (X) |
| 36720 36740 | Cathode ray picture tubes, including rebuilt tubes. <br> Solid state semiconductor devices. | (X) | (over 2 2) <br> $(2-5)$ | (X) |
| 36930 |  | (x) | (2-5) | (x) |
| 38172 | Laboratory and scientific instruments........................................................ | (x) | (over 2) | (x) |
| 38311 | Optical instruments and lenses, except sighting and fire-control equipment................... |  | (over 2) | (x) |
|  | Miscellaneous receipts. | (x) | 32,984 | (X) |
|  | Resales. <br>  | $\begin{gathered} (\mathrm{X}) \\ (\mathrm{x}) \end{gathered}$ | $\begin{aligned} & 18,730 \\ & 14,254 \end{aligned}$ |  |
| 36730 | Iisting of other industries with over $\$ 2$ million shipments of electron tubes, transmitting: <br> 3661 Telephone; telegraph apparatus. <br> 3662 Radio and TV communications equipment. $\qquad$ <br> 3671 Electron tubes, receiving. <br> 3672 Cathode ray picture tubes $\qquad$ <br> 3674 Semiconductors.. <br> SEMLCONDUCTORS INDUSTRY <br> Total shipments and receipts of the industry. $\qquad$ |  | (x) | (2-5) |
|  |  | (x) | (x) | 12,462 14,734 |
|  |  | (x) | (x) | (over 2) |
|  |  |  |  | (5-10) |
|  |  | All industries | Semiconductors (SIC 3674) | Other industries |
|  |  |  |  |  |
|  |  | (x) | 687,817 | (x) |
| 36740 | Solid state semiconductor devices | 623,278 | 575,087 | 48,191 |
|  | Secondary produc | (x) | 76,342 | (x) |
| $\begin{aligned} & 36792 \\ & 36795 \end{aligned}$ | Capacitors for electronic applications. Other electronic components and accessories, n.e.c., including parts for electron tubes (except blanks) | ( x ) | 4,268 | (x) |
|  |  | (x) | 28,901 | (x) |
|  | All other secondary products: | (X) | 43,173 | (x) |
| $\begin{aligned} & 35595 \\ & 36612 \\ & 36710 \\ & 36720 \\ & 36730 \\ & 36793 \end{aligned}$ | Other special industry machinery and equipment............................................................ <br> Other telephone and telegraph (wire) apparatus, equipment, and components. <br> ........................... <br> Receiving type electron tubes, except cathode ray... <br> Cathode ray picture tubes, including rebuilt tubes. <br> Transmitting, industrial, and special purpose electron tubes (except x-ray). <br> Resistors for electronic applications.. |  |  |  |
|  |  |  | (over 2) | (x) |
|  |  | (x) | (over 2) | (x) |
|  |  | (x) | (5-10) |  |
|  |  | (x) | (5-10) | (x) |
|  | Miscellaneous' receipts. | (x) | 36,388 | (x) |
|  | Receipts for research and developmental work................................................... | (x) | 19,048 | (x) |
|  |  | (X) | 5,116 12,224 | (x) |
| 36740 | Tisting of other industries with over $\mathbf{\$ 2}$ million shipments of solid state semiconductor devices: |  |  |  |
|  | 3535 Conveyors. <br> 3651 Radios and TV receiving sets. |  | $(\mathrm{X})$ $(\mathrm{X})$ ( | (over 2) $(10-20)$ |
|  | 3661 Telephone; telegraph apparatus | (x) | (x) | (over 2) |
|  | 3673 Electron tubes, transmitting. | (x) | (x) | (2-5) |
|  | 3679 3822 Alectronic components, n.e.c. Automatic temperature controis | (X) | (x) | 14,503 (over 2) |

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 -Continued

| Prod. class code | Class of products and miscellaneous receipts | All industries | Electronic components, n.e.c. (SIC 3679) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
|  | ELECTRONTC COMPONENTS, N.E.C., Industry |  |  |  |
|  | Total shipments and receipts of the indust | (X) | 2,332,215 | ( X ) |
|  | Primary products | 2,501,294 | 1,943,715 | 557,579 |
| 36792 | Capacitors for electronic applications | 318,831 | 299,920 |  |
| 36793 36794 |  | 312,583 274,443 | 230,369 233,292 | 82,214 41,151 |
| 36795 | Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks). |  | 1,081,847 | 414,821 |
| 36790 | Electronic components, n.e.c., n.s.k.................................................................... | 1,48,769 | 1,08,287 | , 482 |
|  | Secondary products | (x) | 242,542 | ( X ) |
| 36112 36113 | Test equipment for testing electrical, radio, and communication circuits, and motors............. |  | 4,599 <br> 9,662 | (X) |
| 36131 | Other electrical measuring instruments. Switchgear, including power switchgear assemblies and other switching and interrupting | (x) | 9,662 | (X) |
|  | devices 2300 volts and over.......................................................... | (x) | 3,691 | (x) |
| 36211 | Fractional horsepower motors | (x) | 4,696 | (x) |
| 36220 | General industry power circuit devices and controls. | (x) | 2,410 | ( X ) |
| 36430 | Current carrying wiring devices, including lightning rods... | (X) | 10,615 | (X) |
| 36513 | Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories | (x) | 14,223 | (x) |
| 36621 | Commercial, industrial, and military electronic communication equipment, except broadcast, and home-type intercommunication equipment. | (x) | $7,256$ | (x) |
| 36626 | Electronic military, industrial and commercial equipment, n.e. | (x) | 32,230 | (x) |
| 36740 | Semiconductor devices................ | (x) | 14,503 | (x) |
| 36992 | Lamp bulb components (except glass blanks) and other electrical products. | (x) | 5,549 | (x) |
| 38111 | Aircraft, flight, nautical, and navigational instruments and automatic pilots. | (x) | 4,207 | (x) |
| 38311 | Optical instruments and lenses, except sighting and fire-control equipment.................................................... | (X) | 4,401 | (x) |
|  |  | (X) | 16,739 | (X) |
|  | All other secondary products. | (x) | 107,761 | (x) |
| 19990 | Ordnance and accessories, n.e.c... | (x) | (2-5) | (x) |
| 22953 | Other impregnated and coated fabrics (except rubber coated) | (x) | (2-5) | (x) |
| 30795 | Industrial plastics products........ | (x) | (2-5) | (x) |
| 34612 35197 | Job stampings, except automotive...................... | (X) | (2-5) | (x) |
| 35712 | Computing and accounting machines, including cash registers...................................... | (x) | (over (2-5) | (x) |
| 35990 | Carburetors, pistons and other machine shop products.. | (x) | (2-5) | (x) |
| 36121 | Specialty transformers and fluorescent ballasts, except parts. | (x) | (2-5) | (x) |
| 36291 | Capacitors for industrial use (except for electronic applications) |  | (5-10) |  |
| 36941 | Ignition harness and cable sets....................... | (x) | (over 2) | (x) |
| $\begin{aligned} & 36945 \\ & 37224 \end{aligned}$ | Other complete electrical equipment for internal combustion engines Aircraft engine parts and accessories. |  | (2-5) | (x) |
|  |  | (x) | (over 2) | (x) |
|  | Miscellaneous receipts | (x) | 145,958 | (x) |
|  | Contract work. | (x) | 11,493 | (x) |
|  | Resales. | (x) | 103,823 | (x) |
|  | 'Sales of scrap and refuse and miscellaneous | (x) |  | (x) |
|  | Other miscellaneous receipts. | (X) | 20,103 | (X) |
| 36792 | Listing of other industries with over \$2 million shipments of each primary product class: |  |  |  |
|  | 3629 Electric industrial goods, n.e.c.......................................................... |  |  | (2-5) |
|  | 3662 Radio and TV communications equipment | (x) |  | (2-5) |
|  | 3674 Semiconductors.. |  |  |  |
|  | 3694 Engine electrical equipment. | (x) |  | (over 2) |
| 36793 | 3571 Computing and related machines 3622 Industrial controls............. | (x) | (x) | (over 2) (over 2) |
|  | 3624 Carbon and graphite products. | (x) | (x) | (over ${ }_{(2-5 \text { ) }}$ |
|  | 3661 Telephone; telegraph apparatus | (x) | (x) | (over 2) |
|  | 3674 Semiconductors...... | (X) | (x) | (5-10) |
| 36794 | 3611 Electric measuring instrument | (x) | (x) | (2-5) |
|  | 3612 Transformers............. | (X) | (X) | 4,384 2,132 |
|  | 3651 Radio and TV receiving sets. | (x) | (x) | 19,709 |
|  | 3662 Radio, TV communications equipm | (x) | (X) | 8,403 |

[^248]table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 -Continued

| Prod. class code | Class of products and miscellaneous receipts | All industries | Electronic components, n.e.c. (SIC 3679) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
| 36795 | EIECTRONIC COMPONENTS, N.E.C., INDUSTRY-Continued |  |  | (over 2) <br> (over 2) |
|  | Listing of other industries with over $\$ 2$ million shipments of each primary product class-con. 2641 Paper coating and glazing |  |  |  |
|  | 3317 Steel pipe and tube...... | (X) | (X) |  |
|  | 3357 Nonferrous wire drawing, etc |  | (X) | (over 2) <br> (over 2) |
|  | 3449 3481 | (X) | (X) | (over 2) |
|  | 3494 Valves and pipe fittings... | (x) | (X) | (2-5) |
|  | 3541 Metal-cutting machine tools. | (X) | (X) | (2-5) |
|  | 3571 Computing and related machines | (x) |  | 74,69618,375 |
|  | 3611 Electric measuring instruments | (X) | (X) |  |
|  | 3612 Transforners.............. | (X) | (X) | $(2-5)$ 19,476 |
|  | 3651 Radio and TV receiving sets. | (X) | (X) | 43,065 |
|  | 3661 Telephone; telegraph apparatus. | (X) |  | (20-50) |
|  | 3662 Radio, TV communications equipment | (x) | (X) | 73,481 |
|  | 3671 Electron tubes, receiving type | (x) | (X) | 16,591 |
|  | 3672 Cathode ray picture tubes... | (X) | (X) | 3,657 |
|  | 3673 Electron tubes, transmitting | (X) | (X) | - 5,820 |
|  | 3674 Semiconductors............. | (x) |  | 28,901 |
|  | 3699 Electrical products, n.e. | (X) | (X) | 2,599 |
|  | 3729 Aircraft equipment, n.e.c | (x) | (X) | 13,256 |
|  | 3821 Mechanical measuring devices | (X) | (X) | (5-10) |
|  | 3861 Photographic equipment. | (X) | (X) | (2-5) |

Standard Notes: - Represerts zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

## table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958



See footnotes at end of table.

## table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



See footnotes at end of table.

## table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Value of shipments including interplant transfers $(\$ 1,000)$ |  |
| :---: | :---: | :---: | :---: |
|  |  | 1963 | 1958 |
| 3662- -- | radio and TV Communicaiton equiplent-Continued |  |  |
| 3662410 | Electronic navigational aids, except missile-borne and space-vehicle borne equipment: <br> As reported in the census of manufactures ${ }^{2}$ <br> As reported on Census Annual Form MA-36N2. | $\begin{aligned} & 1,246,261 \\ & 1,224,230 \end{aligned}$ | 425,542 |
| 3662510 | Electronic search and detection apparatus, including radar, infrared and sonar: <br> As reported in the census of manufactures ${ }^{2}$ <br> As reported on Census Annual Form MA-36N ${ }^{2}$. | $\begin{aligned} & 1,644,863 \\ & 1,563,909 \end{aligned}$ | 1,016,440 |
| 3662610 | Electronic military, industrial, and conmercial equipment, n.e.c.: <br> As reported in the census of manufactures ${ }^{2}$ <br> As reported on Census Annual Form MA-36N ${ }^{2}$. | $\begin{aligned} & 723,925 \\ & 662,984 \end{aligned}$ | $\begin{array}{r} 1340,749 \\ (\mathrm{X}) \end{array}$ |
| 3662710 | Space satellite-borne communications systems (complete package): <br> As reported in the census of manufactures ${ }^{2}$ <br>  | 28,709 28,409 | (NA) |
| 3662810 | Missile-borne and space vehicle-borne navigation and guidance systems and equipment: <br> As reported in the census of manufactures ${ }^{2}$ <br> As reported on Census Annual Form MA-36N ${ }^{2}$. | $\begin{aligned} & 978,597 \\ & 961,391 \end{aligned}$ | ( NA ( ${ }^{\text {) }}$ |
| 3662000 | Radio and TV communication equipment, n.s.k. | 31,961 | - |
| 3671- -- | ĖLectron tubes, receiving type, total. | 287,893 | 337,274 |
| 3671000 | Radio and television receiving type electron tubes, except cathode ray: <br> As reported in the census of manufactures ${ }^{2}$ <br> As reported on Census Annual Form MA-36N ${ }^{2}$. | $\begin{aligned} & 287,893 \\ & 276,098 \end{aligned}$ | $\begin{aligned} & 337,2744 \\ & \text { (X) } \end{aligned}$ |
| 3672- -- | Cathode ray picture tubes, total. | 248,515 | 177,251 |
| 3672000 | Cathode ray picture tubes, including rebuilt: <br> As reported in the census of manufactures ${ }^{2}$ <br> As reported on Census Annual Form MA-36N2 | $\begin{aligned} & 248,515 \\ & 243,290 \end{aligned}$ | $\begin{aligned} & 177,251 \\ & \text { (X) } \end{aligned}$ |
| 3673- -- | transmitting, industrial, and special purpose electron tubes, total | 286,663 | 224,899 |
| 3673000 | Transmitting, industrial, and special purpose electron tubes: <br> As reported in the census of manufactures ${ }^{2}$ <br> As reported on Census Annual Form MA-36N ${ }^{2}$ | $\begin{aligned} & 286,663 \\ & 281,355 \end{aligned}$ | $\begin{aligned} & 224,899 \\ & (\mathrm{X}) \end{aligned}$ |
| 3674- -- | SEMICONDUCTORS, TOTAL. | 623,278 | 236,702 |
| 3674000 | Solid state semiconductor devices: <br> As reported in the census of manuf actures ${ }^{2}$ <br> As reported on Census Annual Form MA-36N2. $\qquad$ | $\begin{aligned} & 623,278 \\ & 608,275 \end{aligned}$ | $\xrightarrow[(X)]{236,702}$ |
| 3679--- | ELECTRONIC COMPONENTS AND ACCESSORIES, N.E.C., TOTAL | 2,501,294 | ${ }^{5} 1,297,570$ |
| 3679200 | Capacitors for electronic applications: <br> As reported in the census of manufactures ${ }^{2}$ <br> As reported on Census Annual Form MA-36N2. $\qquad$ | $\begin{aligned} & 6318,831 \\ & 6305,911 \end{aligned}$ | ${ }^{6} 183,562$ |
| 3679300 | Resistors for electronic applications: <br> As reported in the census of manufactures ${ }^{2}$ <br> As reported on Census Annual Form MA-36N ${ }^{2}$. | $\begin{aligned} & 312,583 \\ & 312,386 \end{aligned}$ | $\begin{aligned} & 146,788 \\ & (\mathrm{X}) \end{aligned}$ |
| 3679400 | Coils, transformers, reactors, and chokes for electronic application: <br> As reported in the census of manufactures ${ }^{2}$ <br>  | $\begin{aligned} & { }^{6} 274,443 \\ & 6_{259}, 325 \end{aligned}$ | ${ }^{6} 191,984$ |
| 36795 -- | Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks). | 1,496,668 | ${ }^{5} 685,015$ |
| 3679500 | Electronic components, n.e.c., except phonograph needles and cutting styli: <br> As reported in the census of manufactures ${ }^{2}$ <br> As reported on Census Annuai Form MA-36N ${ }^{2}$ | $\begin{aligned} & 1,459,552 \\ & 1,342,011 \end{aligned}$ | $\begin{array}{r} 674,084 \\ (\mathrm{X}) \end{array}$ |
| 3679547 | Phonograph needles and cutting styli. | 37,116 | 10,931 |
| 3679000 | Electronic components and accessories, n.s.k. | 98,769 | 90,221 |

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## table 6A-1. Products and Product Classes—Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

Footnotes for table 6A-1-36D--Continued

${ }^{2}$ For these products, figures were alco collected in the Bureau of the Census commodity survey program. In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified groups of products for which separate figures had previously been collected in the commodity survey. In most cases, the value figures reported in the census of manufactures for each group of products agreed closely with the corresponding figures reported in the commodity survey. However, there were minor differences between the census figures and the commodity survey figures. These variations were due primarily to the following reasons:
a. Better coverage in census of manufactures program. Coverage in the annual surveys will be supplemented by adding respondents not currently in the survey but making the specified product according to their census of manufactures report.
b. Use of different reporting periods (calendar year vs. fiscal year).
c. Use of estimates in reporting figures on the commodity survey, whereas census of manufactures figures generally represent more exact shipment figures.

See tables 6A-2 and 6A-3 for more detailed product data.
 under code 3651320.
 for sale separately, in order to avoid disclosing figures of individual companies.
${ }^{5}$ Includes $\$ 66,436$ thousand of connectors for electronic application which were previously classified in industry 3643 , Current Carrying Devices.
${ }^{6}$ Data for 1958 for product class 36792, Capacitors for electronic applications, include $\$ 9$, 449 thousand for permeability tuning devices. These tuning devices are included in product class 36794 , Coils, transformers, reactors, and chokes for electronic applications in l963.

# table 6A-2. Radio Receivers and Television Sets-Quantity and Value of Shipments: 1963 and 1958 



See footnotes at end of table.

## TABLE 6A-2. Radio Receivers and Television Sets-Quantity and Value of Shipments: 1963 and 1958--Continued

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 36513 -- | Phonographs and record player attachments; radio and television chassis sold separately; recorders, tuners, and other similar home-type electronic equipment-Continued <br> As reported in Census Annual Form MA-36M-Continued <br> Recorders, tuners, and other similar home-type electronic equipment, for sale separately, total............................... | 1,000 units... | 2,291 | 103,924 | (X) | 83,267 |
|  |  |  |  |  |  |  |
| 3651331 | Recorders, home-type, tape, wire, and dise (except radio-phonograph-TV-recorder combinations; office recording machines; and recorder mechanisms) $\qquad$ |  | 412 | 43,511 | (X) | 44,892 |
| 3651362 | Audio amplifiers and pre-amplifiers, home-type............... | . do. | 228 | 17,316 | 504 | 34,663 |
| 3651365 | Tuners, AM, FM, and AM-FM and tuner-amplifier combinations.. | ..do......... | 1,060 | 35,433 | 51 | 3,712 |
| 3651367 | Other home-type electronic equipment (converters, adapters, etc.) | .do.......... | 591 | 7,664 | (X) | $\left({ }^{2}\right)$ |
| 3651371 3651372 36513 | \} Chassis for home-type radio receivers, for sale separately.... | ...do.......... | 16 | 421 | 29 | 1,358 |
| $\begin{aligned} & 3651387 \\ & 3651388 \end{aligned}$ | \} Chassis for home-type television receivers, for sale | ...do......... | 592 | 8,398 | 38 | 2,916 |
|  | As reported in Census Annual Form MA-36N......................... |  | (X) | 108,061 | (X) | 107,867 |
| 3651351 |  |  | (X) | 69,510 | (X) | 63,714 |
| 3651355 | Microphones. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Units | 2,770,788 | 17,555 | 1,551,000 | 11,763 |
| 3651360 | Home entertainment equipment kits................................ | ...do......... | 359,155 | 13,944 | (X) | 13,326 |
| $\begin{aligned} & 3651393 \\ & 3651394 \end{aligned}$ |  |  |  | 7,052 | (X) | ${ }^{2} 19,064$ |
| 3651394 | Public address systems................................................. |  |  |  |  |  |

Source: Current Industrial Reports Series M36M "Home-type Radio Receivers and Television Sets, Automobile Radios, Phonographs, and Record Player Attachments" and M36N "Selected Electronics and Associated Products."
Standard Notes: - Represents zero
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
${ }^{1}$ Includes a negligible amount of console models.
${ }^{2}$ Other home-type electronic equipment (code 3651367 ) were included with music distribution systems (code 3651393) and public address systems (code 3651384) in 1958.

## table 6a-3. Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958



See footnotes at end of table.
table 6a-3. Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958-Continued


[^250]
# table 6A-3. Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958-Continued 



See footnotes at end of table.

## TABLE 6A-3. Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958-Continued



[^251]tABLE 6A-3. Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958-Continued


## TABLE 6A-3. Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958-Continued



[^252]
## TABLE 6A-3. Selected Electronic and Associated Products-Quantity and Value of Shipments: 1963 and 1958-Continued

Footnotes for table 6A-3--36D-Continued
${ }^{5}$ The following figures were published in Current Industrial Reports Series M36A, Switchgear, Switchboard Apparatus, Relays, and Industrial Controls:

| Product | $\begin{gathered} 1963 \\ (\$ 1,000) \end{gathered}$ |
| :---: | :---: |
| Total (Series M36A) | \$1.63,733 |
| Switchboard relays.................. | 39,939 |
| Circuit relays: <br> A.c. and d.c. magnetic control... | 114,172 |
| Overload relays...................... | 9,622 |

The Series M36A values, when added to the comparable values for relays for electronic applications, result in the following total for l963: \$204,427.
${ }^{6}$ Figures on "Frequency synthesizers" and "Cryogenic cooling devices" are included with "Electronic parts, n.e.c., and specialized electronic hardware" ( 3679539 ) in order to avoid disclosing figures of individual companies.
${ }^{7}$ Figures on "Phase shifters" are included with "Circulators (electromagnetic), used as switches, modulators, etc.," to avoid disclosing figures of individual companies.
table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  | Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |  |  | Production | Unit value |
| 365-- | Radio and TV receiving equipment................................... . 1963. . 1958. . | 163 | $\begin{aligned} & 84 \\ & 97 \end{aligned}$ | 3662- | Communication equipment-Continued Radio and TV commuication equip-. | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |  |
| 3651- | Radio and television receiving sets, except communication types............1963.. | 161 99 | 83 97 |  | ment. ......................................... 1963. . |  | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 36511 | Household and automobile radios, and radio-phonograph combina- | $\begin{aligned} & 260 \\ & 134 \end{aligned}$ | 90113 | 367-- | Electronic components.............1963.. 1958 | (1) ${ }^{(1)}$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 36512 | Household television receivers,including television combina- |  |  | 3671- | Electron tubes, receiving type.......1963.. 1958. | 91104 | 109 |
|  |  |  |  |  |  |  |  |
|  |  | 129 | 8392 | 3672- | Cathode ray picture tubes.............1963.. | 92 | 91 |
| 36513 | 1958.. | 77 |  | 3673- | Transmitting, industrial, and special purpose electron tubes....... 1963. |  |  |
|  | Phonographs and record players.....1963.. 1958.. | $\begin{aligned} & 181 \\ & 141 \end{aligned}$ | $89$ |  |  | 166 | 111 |
|  |  | $141$ |  | 3674- | Solid state semiconductor devices....1963... | 130$(3)$782 | ${ }^{110}$ |
| 3652- | Phonograph records, record blanks, and prerecorded tapes...................1963.. | 221 | 106 |  |  |  | 134 |
|  |  | 178 |  |  |  | $\left(\begin{array}{l}1 \\ (1) \\ \hline\end{array}\right.$ |  |
| 366-- | $\begin{array}{r} \text { Communication equipment............ } 1963 . . \\ 1958 . . \end{array}$ | (1) ${ }^{1} 1$ | $\left(\begin{array}{l}1 \\ (1) \\ \hline 1\end{array}\right.$ | 3679- | Electronic components and accessories, n.e.c................................ 1963.. |  | $(1)$$(1)$ |
| 3661- | Telephone and telegraph apparatus....1963.. | $\begin{aligned} & \left({ }^{1}\right) \\ & \left({ }^{1}\right) \end{aligned}$ | $\begin{aligned} & \binom{1}{(1)} \end{aligned}$ | 36792 |  |  |  |
|  | 1958.. |  |  |  | Capacitors for electronic applications $\text { - } 1963 .$ |  | ${ }^{1}$ ) |
| 36612 | Other telephone and telegraph (wire) apparatus, equipment and components ${ }^{2}$............................. 1963.. | 270161 | 8587 | 36793 | Resistors for electronic appli- $1958 .$. <br> cations................................. $1963 .$. <br> $1958 .$.  | 88 | 117 |
|  |  |  |  |  |  | 300 | 110 |
|  |  |  |  |  |  | 137 | 113 |

n.e.c. Not elsewhere classified.
${ }^{1}$ Not shown because comparable quantity data were not obtained for the majority of these products measured in terms of value.
${ }^{2}$ Unit value indexes based on shipments data for telephone instrument sets; production indexes derived by including in addition the values for other telephone apparatus and equipment shipped.
${ }^{3}$ Not shown pending further review of quantity and price information reported in 1963 to determine comparability with data reported for 1958 and 1954.
table 6C. Product Classes-Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962{ }^{1}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | $1959{ }^{1}$ | $1958$ | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3651- | Radio and TV receiving sets..................... | 2,034,333 | 1,947,943 | 1,711,514 | 1,640,594 | 1,743,644 | 1,481,575 | ( NA ) | (NA) |
| 36511 | Household and automobile radios, and radiophonograph combinations. | ${ }^{2} 520,034$ | 2495,999 | ${ }^{2} 431,956$ | ${ }^{2} 414,933$ | 421,722 | 344,892 | 253,494 | 672,880 |
| 36512 | Household television receivers, including television combinations. | ${ }^{2} 1,067,061$ | ${ }^{2} 925,132$ | ${ }^{2} 812,012$ | ${ }^{2} 775,191$ | 815,361 | 726,595 | (NA) | (NA) |
| 36513 | Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories...................... | 431,102 | 523,715 | 462,389 | 444,820 | 502,713 | 409,445 | (NA) | (NA) |
| 36510 | Radio and TV receiving sets, n.s.k.......... | 16,136 | $(3,097)$ | $(5,157)$ | $(5,650)$ | $(3,848)$ | 643 | (NA) | (NA) |
| 36520 | Phonograph records, record blanks, and prerecorded tapes. | 178,699 | 186,800 | 160,660 | 149,175 | 141,954 | 136,165 | 80,224 | 105,825 |
| 3661- | Telephone; telegraph apparatus. | 1,538,015 | 1,757,802 | 1,583,039 | 1,431,136 | 1,244,568 | 1,079,017 | 755,469 | 631,919 |
| 36611 | Telephone switching and switchboard equipment. | 491,339 | 613,140 | 585,390 | 514,348 | 418,115 | 434,708 | 245,159 | 284,932 |
| 36612 | Other telephone and telegraph (wire) apparatus, equipment, and components....... | 1,045,173 | 1,127,231 | 992,264 | 910,240 | 820,906 | 637,339 | 508,744 | 345,524 |
| 36610 | Telephone; telegraph apparatus, n.s.k....... | 1,503 | $(17,431)$ | $(5,385)$ | $(6,548)$ | 5,547 | 6,970 | 1,566 | 1,463 |
| 3662 | Radio and TV communications equipment ${ }^{r}$ | 5,863,071 | 5,085,729 | 4,582,836 | 3,854,109 | 3,000,412 | 2,382,330 | (X) | (x) |
| 36621 | Commercial, industrial, and military electronic communication equipment (except broadcast equipment, space satellite-borne communication equipment (complete package) ${ }^{r}$. | ${ }^{3} 1,080,989$ | ${ }^{3} 858,833$ | ${ }^{3} 811,848$ | ${ }^{3} 597,088$ | ${ }^{3} 518,553$ | ${ }^{3} 416,001$ | (X) | (X) |
| 36622 | Radio and television broadcast equipment, and closed circuit systems ${ }^{r}$. | ${ }^{3} 143,397$ | 93,643 | 72,619 | 86,969 | 76,372 | 53, 812 | (X) | (X) |
| 36623 | Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices ${ }^{\text {r }}$...... | 165,801 | 181,027 | 163,817 | 183,873 | 168,477 | 53,812 129,786 | (x) (X) | (X) (X) |
| 36624 | Electronic navigational aids (except missileborne and space vehicle-borne equipment) ${ }^{r}$.. | 341,224,230 | 4, $4,693,818$ | ${ }^{4} 1,379,912$ | 4887, 118 | 4465,447 | 4 425,542 | (X) | (X) |
| 36625 | Electronic search and detection apparatus, including radar, infrared and sonar ${ }^{\text {r }}$....... | 41,563,909 | 1,693,818 | 1,562,074 | 1,507,485 | 1,391,719 | 1,016,440 | (X) | (X) (X) |
| 36626 | Electronic military, industrial and commercial equipment, n.e.c ${ }^{r}$. | 4662,984 | $1,698,680$ 559,728 | $1,562,074$ 592,566 | $1,507,485$ 590,576 | $1,391,719$ 379,844 | $1,016,440$ 340,749 | (X) | (X) |
| 36627 | Space satellite-borne communications systems (complete package) ${ }^{r}$. | 13428,409 | (3) | $\left({ }^{3}\right)$ | (3) | ${ }^{(3)}$ | $\left(^{3}\right)$ | (X) | (X) |
| 36628 | Missile-borne and space vehicle-borne navigation and guidance systems and equipmentr. | 3 4961,391 | $\left({ }^{3}\right)$ | ${ }^{3}$ ) | $\left({ }^{3}\right)$ | (3) | (3) | (X) | (X) |
| 36620 | Radio, TV communications equipment, n.s. $\mathrm{k}^{T} .$. | 31,961 |  |  | - | - | - | - | - |
| 36710 | Receiving type electron tubes, except, cathode ray. | 4276,098 | 277,886 | 263,635 | 307,400 | 335,841 | 337,274 | 288,821 | 86,795 |
| 36720 | Cathode ray picture tubes, including rebuilt tubes. $\qquad$ | 4243,290 | 222,318 | 229,451 | 212,930 | 211,949 | 177,251 | 212,968 | 7,137 |
| 36730 | Transmitting industrial, and special purpose electron tubes (except X-ray).................... | 4281,355 | 337,747 | 297,413 | 256,374 | 257,699 | 224,899 | 156,111 | 27,135 |
| 36740 | Solid state semiconductor devices. | 4608,265 | 567,645 | 552,681 | 525,798 | 389,795 | 236,702 | 22,602 | (NA) |
| 3679- | Electronic components, n.e.c. | 2,318,402 | 2,190,295 | 1,795,231 | 1,637,605 | 1,487,904 | 1,297,570 | 915,443 | ( NA ) |
| 36792 | Capacitors for electronic applications...... | 4305,911 | 355,958 | 294,531 | 271,005 | 240,506 | 183,562 | 178,157 | 75,190 |
| 36793 36794 | Resistors for electronic applications....... | 4312,386 | 275,382 | 235,691 | 211,786 | 205,419 | 146,788 | 94,785 | 21,492 |
| 36794 | Coils, transformers, reactors, and chokes for electronic applications................... | 4259,325 | 227,852 | 212,268 | 215,266 | 222,962 | 191,984 | 180,223 | 63,461 |
| 36795 | Other electronic components and accessories, n.e.c., including parts for electronic tubes (except glass blanks). | 41, 342,011 | 1,201,103 | 929,705 | 825,709 | 720,867 | 685,015 | 440,521 | (NA) |
| 36790 | Electronic components, n.e.c., n.s.k........ | 98,769 | $(130,000)$ | $(123,036)$ | $(113,839)$ | 98,150 | 90,221 | 21,757 | 42,595 |

[^253]
# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.


See footnotes at end of table.

## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued



Footnotes on next page.

## tABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued

Footnotes for table 6D-36D

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## TABLE 7A. Materials by Kind: 1963 and 1958



See footnotes at end of table.

## table 7A. Materials by Kind: 1963 and 1958-Continued



[^255]
## table 7a. Materials by Kind: 1963 and 1958-Continued



See footnotes at end of table.

## table 7A. Materials by Kind: 1963 and 1958-Continued



## table 7A. Materials by Kind: 1963 and 1958-Continued



## TABLE 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost <br> $(\$ 1,000)$ | Quantity | $\begin{aligned} & \text { Delivered } \\ & \text { cost } \\ & (\$ 1,000) \end{aligned}$ |
|  |  | Thousands...... | INDUSTRY 3679. - ELECTRONIC COMPONENTS, N.E.C. -Con. |  |  |  |
| 367010 | Electron tubes, except X -ray |  |  | 5,290 | 2,474 | 3,390 |
| 367408 | Solid state semiconductors. | ...do.......... | 15,918 | 13,718 | 1,732 | 2,599(NA) |
| 281995 | Silicon, hvperpure. | Kilograms..... <br> Pounds. . . . . . . | 2,773 | 395 |  |  |
| 335605 | Germanium. ........ |  | 1,139 | 1,0227,080 | (NA) (NA) | (NA) |
| 260091 | Paper and paperboard containers........................................ | ............... |  |  | (NA) | (NA) |
| 329905 | Mica.................................................................... | Pounds......... | 687,544 | 3,212 | (X) | 2,604 |
| 335606 | Nickel and nickel-base alloy mill shapes and forms.................. | 1,000 lbs...... | 1,172 | 3,646 | 1,178 | 3,056 |
| 335602 | Tantalum mill products.................................................. | Pounds.......... | 159,417 | 8,237 | (NA) | 2,023 |
| 335603 | Molydbenum, rolled, drawn, or extruded................................ | i, ., do .......... | $\begin{array}{r} 14,371 \\ 1,065 \\ (X) \end{array}$ | 255289 | (NA) | (NA) |
| 335733 | Tungsten wire............................................................. |  |  |  | (NA) |  |
| 339913 | Ferrites (powders and paste)............................................. | ................ |  | 9,354 | (X) | 3,605 |
|  | Glass and glass products: |  |  |  |  |  |
| 322921 | Tube blanks........................................................... | Thousands...... | 465 | $\begin{array}{r} 254 \\ 3,282 \end{array}$ | (NA) |  |
| 320311 | Other than tube blanks. | ................ |  |  | (X) | (NA) |
| 367951 | Fabricated electron tube parts except blanks........................ | $\begin{aligned} & \text { i,000 pound. } \\ & \text { …do................ } \end{aligned}$ | (X)5,032 | 1,7122,823 | (NA) | (NA) |
| 282130 | Thermoplastic resins (cellulosics, polyethylenes, styrenes, etc.). |  |  |  |  | (NA) |
| 282140 | Thermosetting resins (melamines, phenolics, polyesters, ureas, etc) |  | 9,968 | 6,703 | (NA) | (NA) |
|  | consumed. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | $(X)$ | 434,704${ }^{1} 135,742$ | (X) | 326,496174,582 |
| 976000 | Materials, parts, containers, and supplies, n.s.k................... |  | (X) |  |  |  |

[^256]
## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Radio and TV receiving sets (SIC 3651) | Phonograph records (SIC 3652) | Telephone; telegraph apparatus (SIC 3661) | Radio, TV communications equipment (SIC 3662) | Electron tubes, receiving type (SIC 3671) | Cathode ray picture tubes (SIC 3672) | Electron tubes, transmitting (SIC 3673) | Electronic components, n.e.c. (SIC 3679) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. | 7,034 | 1,581 | 9,322 | 23,128 | 3,517 | 2,300 | 4,309 | 26,440 |
| Total cost of purchased fuels...............................do.. | 2,312 | 724 | 3,211 | 5,895 | 896 | 729 | 1,057 | 6,752 |
| Bituminous coal, lignite, and anthracite: <br> Quantity............................................. 1,000 short tons.. | 52 | (S) | 189 | 45 | (S) | (S) | (S) | 52 |
| Cost.......... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 360 | (S) | 1,363 | 378 | (S) | (S) | (S) | 369 |
| Coke and breeze: <br> Quantity.............................................. 1,000 short tons. <br> cost. <br> ........... .\$1,000. |  | - | (S) | - | - | - | - | (S) |
| Fuel oil (distillate and residual): <br> Quantity...........................1,000 barrels of 42 gallons.. |  | 107 | 233 | 939 | 53 | 31 | 49 | 697 |
| cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 966 | 357 | 729 | 2,909 | 165 | 118 | 157 | 2,488 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million cu.ft. . | (S) | 547 | 2,110 | 2,583 | 623 | 719 | 348 | 4,578 |
|  | (S) | 276 | 928 | 1,903 | 385 | 459 | 234 | 2,801 |
|  | 283 | (S) | 186 | 705 | 209 | 117 | 495 | 1,092 |
| Electric energy: |  |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million kw. -hrs. . | 357 | 60 | 531 | 1,440 | 219 | 138 | 276 | 1,536 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | 4,722 | 857 | 6,111 | 17,233 | 2,621 | 1,571 | 3,252 | 19,688 |
| Generated less sold............................million kw. -hrs.. | (S) | - | 152 | 53 | - | - | - | (S) |
| Aggregate horsepower of prime movers and electric motors <br> driven by purchased energy '(December 31), total.......1, $000 \mathrm{hp.}$. | 182 | 25 | 222 | 946 | 48 | 17 | 40 | 372 |
| Prime movers, total............................................. . do | 21 | (z) | 91 | 310 | 1 | 1 | 1 | 4 |
| Driving generators. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 17 | (8) | 76 | 24 | (2) ${ }^{1}$ | (z) ${ }^{1}$ | (z) ${ }^{1}$ | 21 |
| Not driving generators....................................... . ${ }_{\text {do. }}$ | 4 | (z) | 15 | 286 | (z) | (z) | (z) | 23 |
| Electric motors, total......................................... . . . . | 162 | 24 | 209 | 645 | 47 | 15 | 39 | 328 |
| Driven by purchased energy................................do.... | 162 | 24 | 130 | 636 | 47 | 15 | 39 | 328 |
| Driven by energy generated at establishment.............do. | (Z) | - | 78 | 10 | - |  | - | (Z) |
| Aggregate horsepower per 100 production workers. | 276 | 354 | 326 | 645 | 224 | 313 | 263 | 219 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power
 fore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors
 "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. (Z) Less than 500 horsepower
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specializa tion in products primary to their indstry. The measures of plant specialization shown are (1) industry specialization-the ratio of prigary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | $\begin{gathered} \text { Capital } \\ \text { expend- } \\ \text { itures, } \\ \text { new } \\ (\$ 1,000) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3651- | RADIO AND TV RECEIVING SETS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishnents with- | 348 | 81,264 | 411,924 | 66,538 | 128,463 | 289,287 | 911,954 | 1,389,412 | 2,254,878 | 30,511 |
|  | $90 \%$ or more specialization. . <br> 75-89\% specialization....... | 274 21 | $\begin{aligned} & 52,724 \\ & 14,568 \end{aligned}$ | $\begin{array}{r} 253,916 \\ 87,206 \end{array}$ | $\begin{aligned} & 45,017 \\ & 10,709 \end{aligned}$ | $\begin{aligned} & 86,026 \\ & 21,488 \end{aligned}$ | $\begin{array}{r} 186,596 \\ 54,379 \end{array}$ | $\begin{aligned} & 654,478 \\ & 143,700 \end{aligned}$ | $\begin{array}{r} 1,081,312 \\ 173,741 \end{array}$ | $\begin{array}{r} 1,691,378 \\ 314,451 \end{array}$ | $\begin{array}{r} 19,262 \\ 7,781 \end{array}$ |
| 36511 | Household and automobile radios, and phonograph combinations (primary product class of estab.) Establishments with- | 35 | 17,448 | 94,454 | 14,205 | 27,759 | 68,056 | 200,974 | 257,370 | 452,294 | 8,765 |
|  | $90 \%$ or more specialization.... | 22 | 5,042 | 24,260 | 4,234 | 8,458 | 17,434 | 68,635 | 96,340 | 162,416 | 1,273 |
| 36512 | ```Housenold television receivers, including television combinations (primary product class of estab.) Establishments with-``` | 24 | 39,410 | 204,764 | 33,265 | 63,015 | 146,594 | 508,188 | 919,672 | 1,390,810 | 15,928 |
|  | 90\% or more specialization.... <br> 75-89\% specialization.......... | 7 | 10,302 16,048 | $\begin{aligned} & 52,941 \\ & 83,960 \end{aligned}$ | $\begin{array}{r} 8,514 \\ 14,459 \end{array}$ | $\begin{aligned} & 16,227 \\ & 27,531 \end{aligned}$ | $\begin{aligned} & 39,422 \\ & 64,941 \end{aligned}$ | $\begin{aligned} & 159,766 \\ & 180,081 \end{aligned}$ | $\begin{aligned} & 297,294 \\ & 359,512 \end{aligned}$ | $\begin{aligned} & 439,081 \\ & 526,513 \end{aligned}$ | $\begin{aligned} & 2,148 \\ & 8,896 \end{aligned}$ |
| 36513 | Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories (primary |  |  |  |  |  |  |  |  |  |  |
|  | product class of estab.)......... <br> Establishments with- | 169 | 22,793 | 106,586 | 17,686 | 34,975 | 69,848 | 192,115 | 204,472 | 393,078 | 5,059 |
|  | $\begin{aligned} & \text { 90\% or more specialization.... } \\ & 75-89 \% \text { specialization........... } \end{aligned}$ | 116 17 | 7,326 4,692 | 39,688 21,929 | $\begin{aligned} & 6,099 \\ & 3,707 \end{aligned}$ | 11,892 7,159 | 20,846 15,084 | $\begin{aligned} & 58,599 \\ & 41,130 \end{aligned}$ | $\begin{aligned} & 58,087 \\ & 41,130 \end{aligned}$ | 115,311 90,078 | $\begin{array}{r} 1,538 \\ 738 \end{array}$ |
| 3661- | TELEPHONE; TELEGRAPH APPARATUS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. Establishments with- | 90 | 89,465 | 554,375 | 63,983 | 122,707 | 358,741 | 1,013,792 | 704,187 | 1,736,358 | 55,127 |
|  | 90\% or more specialization | 67 | 41,886 | 249,015 | 30,969 | 58,949 | 169,789 | 498,394 | 322,921 | 818,488 | 20,349 |
| 36611 | Telephone switching and switchboard equipment (primary product class of estab.) | 15 | 43,117 | 274,590 | 30,661 | 57,807 | 180,786 | 472,449 | 306,835 | 789,777 | (D) |
|  | Establishments with$90 \%$ or more specialization.... | 3 |  | 665 | 125 | 220 | 491 | 2,263 | $985$ | 3,240 | (D) |
| 36612 | ```Other telephone and telegraph (wire) apparatus, equipment, and components (primary product class of estab.).``` | 51 | 46,202 | 279,108 | 33,205 | 64,669 | 177,493 | 540,076 | 396,371 | 944,337 | (D) |
| 3662- | RADIO, TV COMMUNICATIONS EQUIPNENT |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 1,132 | 387,384 | 2,840,218 | 205,698 | 419,121 | 1,230,671 | 4,327,671 | 2,822,882 | 7,145,600 | 138,734 |
|  | 90\% or more specialization.. <br> 75-89\% specialization....... | $\begin{array}{r} 890 \\ 83 \end{array}$ | $\begin{array}{r} 242,904 \\ 49,606 \end{array}$ | $\begin{array}{r} 1,803,960 \\ 339,204 \end{array}$ | $\begin{array}{r} 125,728 \\ 25,518 \end{array}$ | $\begin{array}{r} 254,497 \\ 54,050 \end{array}$ | $\begin{aligned} & 739,699 \\ & 147,369 \end{aligned}$ | $\begin{array}{r} 2,863,220 \\ 506,459 \end{array}$ | $\begin{array}{r} 1,818,259 \\ 400,048 \end{array}$ | $\begin{array}{r} 4,647,647 \\ 908,751 \end{array}$ | $\begin{aligned} & 82,671 \\ & 22,117 \end{aligned}$ |
| 36621 | Commercial, industrial, and military electronic communication equipment (except broadcast equipment, space satellite-borne communications equipment) |  |  |  |  |  |  |  |  |  |  |
|  | duct class of estab.).............. <br> Establishments with- | 210 | 76,540 | 535,179 | 44,668 | 92,490 | 250,045 | 828,362 | 614,829 | 1,439,735 | 23,416 |
|  | 90\% or more specialization.... 75-89\% specialization.......... | $\begin{array}{r} 135 \\ 23 \end{array}$ | $\begin{array}{r} 18,847 \\ 5,998 \end{array}$ | $\begin{array}{r} 119,917 \\ 36,059 \end{array}$ | $\begin{array}{r} 11,289 \\ 3,590 \end{array}$ | $\begin{array}{r} 23,133 \\ 7,758 \end{array}$ | $\begin{aligned} & 49,990 \\ & 17,965 \end{aligned}$ | $\begin{array}{r} 247,267 \\ 46,844 \end{array}$ | $\begin{array}{r} 150,059 \\ 72,335 \end{array}$ | $\begin{aligned} & 388,257 \\ & 130,436 \end{aligned}$ | $\begin{array}{r} 7,207 \\ 690 \end{array}$ |
| 36622 | Radio and television broadcast equipment, and closed circuit |  |  |  |  |  |  |  |  |  |  |
|  | systems (primary product class of estab.) | 109 | 8,220 | 55,976 | 4,393 | 9,055 | 25,170 | 94,675 | 80,392 | 174,067 | 1,909 |
|  | Establishments with90\% or more specialization.... 75-89\% specialization.......... | $\begin{array}{r} 84 \\ 8 \end{array}$ | $\begin{aligned} & 1,423 \\ & 2,158 \end{aligned}$ | $\begin{array}{r} 7,744 \\ 14,121 \end{array}$ | $\begin{array}{r} 911 \\ 1,055 \end{array}$ | $\begin{aligned} & 1,816 \\ & 2,198 \end{aligned}$ | $\begin{aligned} & 4,036 \\ & 5,131 \end{aligned}$ | $\begin{aligned} & 14,045 \\ & 21,241 \end{aligned}$ | $\begin{aligned} & 11,465 \\ & 24,542 \end{aligned}$ | $\begin{aligned} & 26,321 \\ & 44,182 \end{aligned}$ | $\begin{aligned} & 468 \\ & 302 \end{aligned}$ |

See footnotes at end of table.
table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued


[^257](NA) Not available.

# table 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963 

| orking oper | Number of establishments |  |  |  | Employment in the specified operation |  |  |  | Man-hours worked by production workers in the specified operation$(1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{\text {² }}$ |  |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  |
|  | INDUSTRY 3651.-RADIO AND TV RECEIVING SETS |  |  |  |  |  |  |  |  |
| TOTAL, ALL OPERATIONS. | (X) | (X) | (x) | (X) | 59,204 | (x) | (X) | (X) | 117,247 |
| Nonferrous die casting. | 5 | 2 | 1 | 2 | (D) | (D) | (D) | (D) | (D) |
| Electroplating and other plating. | 16 | 5 | 8 | 3 | 233 | (D) | 92 | 132 | 478 |
| Galvanizing and other hot dip coating | 4 | 3 | - | 1 | (D) | (D) | - | (D) | (D) |
| Heat treating of metals.... | 4 | 4 | - | - |  |  | - |  | 19 |
| Automatic screw machine department | 11 | 7 | 1 | 3 | 148 | 11 | (D) | (D) | 305 |
| Machine shop......... | 55 | 24 | 19 | 12 | 1,068 | 52 | 184 | 832 | 1,832 |
| Tool and die shop. | 4 | 22 | 17 | 5 | 579 | 43 | 191 | 345 | 1,199 |
| Stamping, blanking and forming of metals. | 52 | 18 | 14 | 20 | 1,092 | 39 | 126 | 927 | 2,195 |
| Painting, lacquering and enameling on metals. | 37 | 21 | 14 | 2 | 242 | 48 | (D) | (D) | 484 |
| Plastics molding................................. | 2 | 2 | - | - | (D) | (D) | ) | - | (D) |
| Assembly of product...................................... | 125 | 8 | 22 | 95 | 45,914 | 16 | 209 | 45,689 | 90,957 |
| Shipping department, including packing and crating... | 113 | 57 | 39 | 17 | 1,567 | 111 | 335 | 1,121 | 3,139 |
| All other operations such as maintenance, warehousing, etc.................................................... |  | 29 | 14 | 36 | 8,096 | 64 | 142 | 7,890 | 16,127 |
|  | INDUSTRY 3661.-TELEPHONE; TELEGRAPH APPARATUS |  |  |  |  |  |  |  |  |
| TOTAL, ALL OPERATIONS........................... . | (X) | (X) | (X) | (X) | 62,315 | (X) | (x) | (X) | 122,310 |
| .Nonferrous die casting................................... | 4 | 1 | - | 3 | 173 | (D) | - | (D) | 328 |
| Electroplating and other plating...................... | 24 | 7 | 7 | 10 | 589 | 24 | 58 | 507 | 1,185 |
| Galvanizing and other hot dip coating................ | 5 | 4 | 1 | - | 15 | 10 | 5 | - | 32 |
| Heat treating of metals.......... | 23 | 11 | 9 | 3 | 193 | 27 | 86 | 80 | 383 |
| Automatic screw machine department | 19 | 3 | 6 | 10 | 614 | 8 | 60 | 54.6 | 1,208 |
| Machine shop..... | 40 | 7 | 13 | 20 | 2,919 | 11 | 136 | 2,772 | 5,738 |
| Tool and die shop...... | 29 | 3 | 9 | 17 | 1,688 | 10 | 85 | 1,593 | 3,357 |
| Plate or structural fabrication.. | 14 | - | 6 | 8 | 715 | - | 78 | 637 | 1,228 |
| Stamping, blanking and forming of metals.. | 35 | 7 | 8 | 20 | 2,751 | 18 | 80 | 2,653 | 5,285 |
| Painting, lacquering and enameling on metals | 29 | 11 | 13 | 5 | 381 | 21 | 110 | 250 | 736 |
| Plastics molding.... | 12 | - | 3 | 9 | 1,273 | - | 35 | 1,238 | 2,441 |
| Assembly of product...................................... | 45 | 2 | 6 | 37 | 40,430 | 4 | 66 | 40,360 | 78,946 |
| Shipping department, including packing and crating... | 40 | 13 | 16 | 11 | 727 | 21 | 156 | 550 | 1,490 |
| All other operations such as maintenance, warehousing, etc $\qquad$ | 42 | 9 | 8 | 25 | 9,847 | 15 | 87 | 9,745 | 19,953 |
|  | INDUSTRY 3662.-RADIO, TV COMMUNICATIONS EQUIPNENT |  |  |  |  |  |  |  |  |
| TOTAL, ALL OPERATIONS. | (X) | (X) | (X) | (X) | 168,757 | (x) | (X) | (X) | 339,554 |
| Nonferrous die casting...... | 3 | 2 | 1 | - | (D) | (D) | (D) | - | (D) |
| Electroplating and other plating. | 99 | 54 | 30 | 15 | 896 | 94 | 273 | 529 | 1,803 |
| Galvanizing and other hot dip coating. | 16 | 11 | 3 | 2 | (D) | (D) | (D) | (D) | (D) |
| Heat treating of metals......... | 54 | 43 | 9 | 2 | 197 | 68 | (D) | (D) | 469 |
| Automatic screw machine department | 46 | 27 | 19 | 2 | 277 | 52 | (D) | (D) | 556 |
| Machine shop...... | 422 | 156 | 146 | 122 | 15,349 | 310 | 1,425 | 13,614 | 32,887 |
| Tool and die shop...... | 124 | 45 | 44 | 35 | 2,787 | 80 | 444 | 2,263 | 5,791 |
| Plate or structural fabrication... | 53 | 25 | 13 | 15 | 1,172 | 42 | 138 | 992 | 2,195 |
| Stamping, blanking and forming of metals............. | 189 | 97 | 61 | 31 | 2,403 | 174 | 639 | 1,590 | 5,093 |
| Painting, lacquering and enameling on metals. Plastics molding.......................... | 227 | 166 | 45 | 16 | 1,278 | 261 | 384 | 633 | 2,674 |
| Plastics molding...... | 4.4 | 25 | 13 | 6 | 373 | 42 | 114 | 217 | 744 |
| Assembly of product.................................... | 493 | 67 | 125 | 301 | 88,498 | 158 | 1,340 | 37,000 | 179,912 |
| Shipping department, including packing and crating... All other operations such as maintenance, ware- | 394 | 273 | 81 | 40 | 3,329 | 432 | 732 | 2,165 | 6,537 |
| housing, etc............................................ | 246 | 114 | 69 | 163 | 52,102 | 204 | 651 | 51,247 | 100,723 |
|  | INDUSTRY 3671.-ELECTRON TUBES, RECEIVING TYPE |  |  |  |  |  |  |  |  |
| TOTAL, aLL OPERATIONS........................... | (X) | (x) | (X) | (X) | 20,226 | (X) | (X) | (X) | 35,170 |
| Electroplating and other plating...................... | 4 | 2 | 2 | $\overline{3}$ | 32 | (D) | (D) | - | 61 |
| Heat treating of metals................................. | 6 | 1 | 2 | 3 | 181 | (D) | (D) | 165 | 335 |
| Machine shop............................................... . | 18 | 3 | 7 | 8 | 354 | 7 | 91 | 256 | 650 |
| Tool and die shop......................................... | 5 | - | 4 | 1 | 81 | - | (D) | (D) | 117 |
| Stamping, blanking, and forming of metals............. | 6 | 1 | 2 | 3 | 375 | (D) | (D) | (D) | 706 |
| Painting, lacqueríng and enameling on metals......... | 6 | 3 | 3 | - | 29 | 4 | 25 | (D) | 56 |
| Assembly of product...................................... | 21 | - | 2 | 19 | 16,065 | - | (D) | (D) | 27,834 |
| Shipping department, including packing and crating... | 17 | 6 | 6 | 5 | 288 | 8 | 69 | 211 | 576 |
| All other operations such as maintenance, warehousing, ete. | 19 | 1 | - | 18 | 2,821 | (D) | - | (D) | 4,835 |

see footnotes at end of table.

# TABLE 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963-Continued 



Footnotes on next page.

## table 9. Establishments, Production Workers, and Man-Hours for Selected Metalworking Operations: 1963-Continued

## Footnotes for table 9-36D

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

| Item | Industry |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3651 | 3661 | 3662 | 3671 | 3672 | 3673 | 3674 | 3679 |
| Total number of establishments in the industry...... | 348 | 90 | 1,132 | 42 | 151 | 57 | 107 | 1,934 |
| Number of establishments which reported one or more of the specified operations. | 167 | 54 | 634 | 23 | 20 | 41 | 87 | 779 |
| Percent of industry production workers in these establishments $\qquad$ | 85-90 | 95-100 | 80-85 | 95-100 | 85-90 | 90-95 | 95-100 | 80-85 |
| Number of establishments which reported "none" of the operations apply. | 15 | 2 | 68 | 19 | 16 | 4 | 20 | 157 |
| Percent of industry production workers in these establishments. $\qquad$ | 0-5 | 0-5 | 0-5 | 0-5 | 0-5 | 0-5 | 0-5 | 0-5 |
| Percent of industry production workers in establishments which completed the metalworking operations inquiry. | 85-90 | 95-100 | 85-90 | 95-100 | 90-95 | 90-95 | 95-100 | 85-90 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

# MISCELLANEOUS ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES 

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3691-Storage Batteries<br>3692-Primary Batteries, Dry and Wet<br>3693-X-Ray and Therapeutic Apparatus and Tubes<br>3694-Electrical Equipment for Internal Combustion Engines<br>3699-Electrical Machinery, Equipment, and Supplies, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activites of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3691-STORAGE BATTERIES

This industry comprises establishments primarily engaged in the manufacture of storage batteries for automobiles, trucks, farm tractors, and busses as well as storage batteries for farm uses, communications systems, and railroad equipment. Parts for storage batteries are also included in this industry. For a detailed list of products of industry 3691 , refer to table 6A-1, product codes 3691112 to 3691298.
The code number as well as the definition of this industry was unchanged between 1958 and 1963.
Value of shipments and other receipts of the Storage Batteries Industry totaled $\$ 516$ million. This amount included shipments of storage batteries (primary products) valued at $\$ 500$ million, shipments of other products (secondary products) valued at $\$ 8$ million, and miscellaneous receipts (mainly resales) at $\$ 8$ million.
This industry's shipments of storage batteries represented 98 percent of its total product shipments. The industry specialization ratio in 1958 was 99 percent.
Shipments of storage batteries by this industry in 1963 represented 99 percent of all shipments of these products ( $\$ 504$ million) by all industries. In 1958 the coverage ratio was 100 percent.

The production index for the primary products of the industry increased to 153 in 1963 from the 1958 level of 112. The unit value index for 1963 was 92 compared to 96 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3692-PRIMARY BATTERIES, DRY AND WET

This industry comprises establishments primarily engaged in the manufacture of dry and wet cell primary batteries for flashlights, railroad lanterns, hearing aids, portable radios, farm radios, and general purposes as well as parts and supplies for primary batteries. For a detailed list of products of industry 3692 , refer to table $6 \mathrm{~A}-1$, product codes 3692012 to 3692095.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Primary Batteries, Dryand Wet, Industry totaled $\$ 195$ million. This amount included shipments of dry and wet primary batteries (primary products) valued at $\$ 173$ million, shipments of other products (secondary products) valued at $\$ 8$ million, and miscellaneous receipts (mainly resales) at $\$ 14$ million.

This industry's shipments of dry and wet primary batteries represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 99 percent.

Shipments of dry and wet primary batteries by this industry represented 91 percent of all shipments of these products ( $\$ 192$ million) by all industries. ln 1958 the coverage ratio was 98 percent.

The production index for the primary products of the industry increased to 120 in 1963 from the 1958 level of 93 . The unit value index for 1963 was 135 compared to 123 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3693-X-RAY AND THERAPEUTIC APPARATUS AND TUBES

This industry comprises establishments primarily engaged in manufacturing radiographic X-ray, fluoroscopic X-ray, and therapeutic X-ray apparatus and tubes for medical, industrial, research and control applications. Establishments primarily engaged in manufacturing radio receiving type tubes are classified in industry 3671 ; television receiving cathode ray tubes in industry 3672; transmitting tubes in industry 3673; and electrotherapeutic lamp units for ultra-violet and infra-red radiation in industry 3641. For a detailed list of products of industry 3693, refer to table 6A-1, product codes 3693019 to 3693096.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the X-Ray Apparatus and Tubes lndustry totaled $\$ 144$ million. This amount included shipments of X-ray apparatus and tubes (primary products) valued at $\$ 87$ million, shipments of other products (secondary products) valued at $\$ 18$ million, and miscellaneous receipts (mainly resales) at $\$ 39$ million.

This industry's shipments of X-ray apparatus and tubes represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent.

Shipments of X-ray apparatus and tubes by this industry represented 80 percent of all shipments of these products ( $\$ 109$ million) by all industries. ln 1958 the coverage ratio was 82 percent.

## 3694-ELECTR1CAL EQU1PMENT FOR INTERNAL COMBUSTION ENGINES

This industry comprises establishments primarily engaged in manufacturing electrical equipment for internal combustion engines. lmportant products of this industry include starting motors and generators for automobiles and aircraft; and ignition apparatus for
internal combustion engines including spark plugs, magnetos, coils, and distributors. For a detailed list of products of industry 3694, refer to table 6A-1, product codes 3694111 to 3694698.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The change in composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due to a revision made in the 1963 supplement to the 1957 edition of the Standard Industrial Classification, reclassifying establishments primarily manufacturing automotive wiring harness sets other than ignition from industry 3694 to industry 3714 (census industry 3717) "Automobiles and Parts."

Value of shipments and other receipts of the Engine Electrical Equipment Industry totaled $\$ 901$ million. This amount included shipments of electrical equipment for internal combustion engines (primary products) valued at $\$ 706$ million, shipmenis of other products (secondary products) valued at $\$ 128$ million, and miscellaneous receipts (mainly resales) at $\$ 67$ million.

This industry's shipments of engine electrical equipment represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 consisted mainly of parts and accessories for passenger cars, trucks, and busses shipped to motor vehicle manufacturers ( $\$ 81$ million).

Shipments of electrical equipment for internal combustion engines by this industry represented 81 percent of all shipments of these products ( $\$ 874$ million) by all industries. In 1958 the coverage ratio was 83 percent.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3694, e.g., Cranking motors (36943), 98 percent; Components and parts for engine electrical equipment (36946), 92 percent; and Ignition harness and cable sets and spark plugs ( 36941 and 36944 combined), 54 percent.

The higher specialization ratio in 1963 compared with the 1958 figure primarily results from changes in the Standard Industrial Classification system as described above.

The production index for the primary products of the industry increased to 129 in 1963 from the 1958 level of 100 . The unit value index for 1963 was 123 compared to 107 in 1958. Both indexes were computed on a basis of $1954=100$.

3699-ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing electrical machinery, equipment, and supplies, n.e.c. For a detailed list of products of industry 3699 , refer to table $6 \mathrm{~A}-1$, product codes 3699211 to 3699629.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Electrical Products, N.E.C., Industry totaled $\$ 190$ million. This amount included shipments of electrical machinery, equipment, and supplies, n.e.c. (primary products) valued at $\$ 163$ million, shipments of other products (secondary products) valued at $\$ 19$ million, and miscellaneous receipts (mainly resales) at $\$ 8$ million.

This industry's shipments of electrical machinery, equipment, and supplies, n.e.c., represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent. Secondary products shipped by this industry in 1963 included miscellaneous electronic components and accessories ( $\$ 3$ million).

Shipments of electrical machinery, equipment, and supplies, n.e.c., by this industry represented 49 percent of all shipments of these products ( $\$ 336$ million) by all industries. In 1958 the coverage ratio was 54 percent. Other industries shipping electrical machinery, equipment, and supplies, n.e.c., consisted mainly of industry 3357 , Nonferrous Wire Drawing, etc., \$102 million.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3699 , e.g., Lamp bulb components (36992), 65 percent; and Appliance wire and cord and flexible cord sets (36996), 30 percent.

tABLE 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or mote (number) | Total <br> (number) | Payrol! <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3691.-STORAGE BATTERIES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 169 | 252 | 120 | 17,512 | 108,700 | 13,871 | 28,444 | 80,237 | 244, 152 | 275,629 | 516,457 | 11,968 | 98 | 99 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 16,250 | 99,410 | 12,540 | 29,201 | 74,813 | 210,867 | 245,478 | 452,097 | 9,566 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 15,427 | 89,516 | 11,725 | 27,134 | 67,261 | 178,547 | 245,787 | 423,353 | 8,449 | (NA) | (NA) |
| $1960^{1}$ | (NA) | (NA) | (NA) | 15,525 | 87,867 | 12,075 | 26,545 | 63,709 | 167,923 | 244, 521 | 415,777 | 9,188 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 16,059 | 88,298 | 12,648 | 27,684 | 66,081 | 180,792 | 244,241 | 417,413 | 6,766 | (NA) | (NA) |
| 1958. | 207 | 276 | 106 | 14,924 | 76,961 | 11,787 | 23,205 | 55,459 | 150, 061 | 211,794 | 368,993 | 7,330 | 99 | 100 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 14,522 | 72,217 | 11,266 | 21,554 | 51,282 | 132,565 | 226,719 | 359,353 | (S) | 98 | 100 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 15,820 | 71, 284 | 11,983 | 23,488 | 51,591 | 124,274 | 242,962 | 362,869 | 17,474 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 15,882 | 71,582 | 11,827 | 24,120 | 51,070 | 129,713 | 245,835 | 370,954 | 9,609 | (NA) | (NA) |
| $1954{ }^{2}$ | 244 | 308 | 101 | 15,670 | 66,872 | 11,899 | 23,244 | 46,415 | 128,882 | 215,854 | 343,668 | 10,512 | 100 | 100 |
| $1953{ }^{12}$ | (NA) | (NA) | (NA) | 17,292 | 73,341 | 13,315 | 26,494 | 53,218 | 138,795 | 234,420 | 373,215 | (NA) | (NA) | (NA) |
| $1952{ }^{1} 2$ | (NA) | (NA) | (NA) | 16,286 | 67,185 | 12,972 | 26,935 | 51,071 | 135,200 | 238,568 | 373,768 | (NA) | (NA) | (NA) |
| 1951 ${ }^{1} 2$ | (NA) | (NA) | (NA) | 16,794 | 64,254 | 13,531 | 27,948 | 49,131 | 138,698 | 248,329 | 387,027 | (NA) | (NA) | (NA) |
| $1950^{1} 2$ | (NA) | (NA) | (NA) | 16,368 | 57,973 | 12,927 | 26,436 | 42,450 | 120,419 | 193,065 | 313,484 | (NA) | (NA) | (NA) |
| $1949^{1}{ }^{2}$ | (NA) | (NA) | (NA) | 15,742 | 52,320 | 12,282 | 24,855 | 37,073 | 107,291 | 175,422 | 281, 713 | (NA) | (NA) | (NA) |
| $1947{ }^{2}$ | 205 | 246 | (NA) | 16,570 | 49,734 | 13,632 | 29,541 | 38,257 | 114,246 | 183,408 | 297,654 | (NA) | 90 | 99 |
| $1939{ }^{2}$. | (NA) | 190 | (NA) | (NA) | (NA) | 9,564 | (NA) | 12,743 | 35,841 | 48,932 | 84,773 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3692.-PRIMARY BATTERIES, DRY AND WET |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963.. | 26 | 46 | 29 | 8,478 | 40,602 | 6,791 | 13,615 | 29,029 | 113,787 | 80,302 | 195,298 | 4,132 | 96 | 91 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 8,326 | 39,045 | 6,296 | 12,982 | 25,213 | 109,232 | 86, 3772 | 194,327 | 3,076 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 8,006 | 36,832 | 5,992 | 12,169 | 24,067 | 96,950 | 75,389 | 170,445 | 2,413 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 8,433 | 36,673 | 6,554 | 12,734 | 24,570 | 94,036 | 69,187 | 163,787 | 3,362 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 8,911 | 37,326 | 7,230 | 14,307 | 27,089 | 96,699 | 67,098 | 162,181 | 1,948 | (NA) | (NA) |
| 1958. | 24 | 42 | 29 | 8,096 | 34,025 | 6,498 | 13,236 | 24,455 | 75,431 | 59,518 | 138,215 | 2,343 | 99 | 98 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 8,049 | 33,101 | 6,575 | 12,568 | 24,131 | 70,493 | 62,455 | 126,369 | 2,121 | 99 | 97 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 9,421 | 35,572 | 7,582 | 14,312 | 26,056 | 62,505 | 63,271 | 124,744 | 2,255 | (NA) | (NA) |
| 19551 | (NA) | (NA) | (NA) | 9,668 | 35,489 | 8,042 | 15,053 | 26,170 | 59,499 | 62,100 | 124,752 | (S) | (NA) | (NA) |
| $1954{ }^{2}$ | 20 | 41 | 33 | 10,773 | 36,633 | 8,893 | 16,814 | 27,427 | 58,490 | 61,080 | 123,803 | 2,088 | 98 | 98 |
| $1953{ }^{2}$ | (NA) | (NA) | ( NA ) | 12,331 | 40,254 | 10,617 | 20,524 | 31,575 | 76,159 | 72,830 | 148,989 | (NA) | (NA) | (NA) |
| $1952^{1} 2$ | (NA) | (NA) | (NA) | 11,481 | 36,105 | 9,789 | 19,432 | 28,516 | 57,768 | 70,177 | 127,945 | (NA) | (NA) | (NA) |
| $1951{ }^{1} 2$ | (NA) | (NA) | (NA) | 10,960 | 32,839 | 9,409 | 18,500 | 26,131 | 50,109 | 62,582 | 112,691 | (NA) | (NA) | (NA) |
| $1950{ }^{1} 2$ | (NA) | (NA) | (NA) | 10,008 | 27,610 | 8,657 | 17,043 | 22,149 | 49,908 | 46,845 | 96,753 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 9,516 | 25,514 | 8,006 | 16,235 | 19,891 | 44,691 | 41,385 | 86,076 | (NA) | (NA) | (NA) |
| $\begin{aligned} & 1947^{2} \\ & 1939^{2} \end{aligned}$ | 23 | 38 | (NA) | 10,261 | 24,463 | 9,181 | 18,407 | 20,656 | 45,275 | 39,770 | 85,045 | (NA) | 90 | 98 |
|  | (NA) | 31 | (NA) | (NA) | (NA) | 5,470 | (NA) | 6,466 | 18,565 | 14,245 | 32,810 | (NA) | ( NA ) | (NA) |
|  | INDUSTRY 3693.-X-RAY APPARATUS AND TUBES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 56 | 58 | 30 | 6,236 | 43,796 | 3,430 | 6,921 | 20,124 | 86,534 | 56,916 | 143,706 | 2,132 | 83 | 80 |
| $1962^{1}$ | (NA) | (NA) | (NA) | 6,240 | 41, 129 | 3,815 | 7,900 | 18,474 | 76,229 | 53,171 | 127,101 | 1,239 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 6,377 | 37,714 | 3,601 | 7,375 | 16,792 | 67,168 | 49,995 | 116,315 | 1,087 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 6,064 | 35,412 | 3,380 | 7,219 | 16,223 | 67,406 | 47,246 | 110,670 | 826 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | ( NA ) | (NA) | 5,789 | 32,581 | 3,241 | 6,766 | 15, 222 | 60,057 | 42,435 | 101,882 | 1,086 | (NA) | (NA) |
| 1958. | 124 | 126 | 33 | 5,258 | 30,686 | 3,012 | 5,856 | 14,308 | 58,436 | 35,743 | 95,090 | 1,371 | 84 | 82 |
| $1957{ }^{1}$. | (NA) | (NA) | (NA) | (S) | (S) | (s) | (S) | (S) | (S) | (S) | (S) | (s) | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (NA) | (NA) |
| $1954{ }^{2}$ | 129 | 130 | 35 | 7,054 | 32,583 | 4,601 | 9,036 | 17,688 | 57,665 | 40,736 | 97,043 | 1,913 | 81 | 91 |
| $1953^{1}$ 2.. | (NA) | (NA) | (NA) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (NA) | (NA) |
| $1952^{1} 2$ | (NA) | (NA) | (NA) | 6,551 | 28,235 | 4,317 | 8,909 | 16,373 | 48,938 | 20,803 | 69,741 | (NA) | (NA) | (NA) |
| $1951{ }^{1} 2$ | (NA) | (NA) | (NA) | 6,294 | 25,845 | 4,232 | 9,090 | 15,491 | 45,160 | 20,390 | 65,560 | (NA) | (NA) | (NA) |
| $1950{ }^{1} 2$ | (NA) | (NA) | (NA) | 4,945 | 18,297 | 3,172 | 6,594 | 9,960 | 31,688 | 12,707 | 44, 395 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 5,306 | 18,318 | 3,329 | 6,511 | 10,078 | 34, 102 | 15,695 | 49,797 | (NA) | (NA) | (NA) |
| $1947{ }^{2}$ | 114 | 116 |  | 7,678 | 23,217 | 5,621 | 11,762 | 15,354 | 38,635 | 20,473 | 59,518 | 2,271 | 94 | 93 |
| $1939{ }^{2}$ | (NA) | 77 | (NA) | (NA) | (NA) | 1,920 | (NA) | 2,708 | 12,057 | 5,690 | 17,747 | (NA) | (NA) | (NA) |
| $1937{ }^{2} \ldots$ | (NA) | 46 | (NA) | (NA) | (NA) | 1,936 | (NA) | 2,760 | 11,912 | 5,236 | 17,148 | (NA) | (NA) | (NA) |

## TABLE 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | $\begin{gathered} \text { Value } \\ \text { added by } \\ \text { manufacture, } \\ \text { adjusted } \\ (\$ 1,000) \end{gathered}$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3694.-ENGINE ELECTRICAL EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 163 | 182 | 98 | 40,559 | 250, 202 | 32,697 | 66,903 | 184,438 | 496,662 | 398,039 | 900,663 | 15,490 | 93 | 81 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 43,598 | 272,568 | 35,298 | 71,801 | 193,029 | 534,498 | 382,386 | 905,004 | 22,039 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 40,485 | 236,857 | 31,949 | 61,334 | 157,859 | 449,219 | 311,162 | 766,399 | 18,698 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 42,926 | 239,326 | 33,861 | 65,742 | 164,782 | 470,667 | 330,960 | 799, 392 | 13,889 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 41,281 | 235,993 | 32,616 | 66,524 | 165,103 | 473,468 | 323,023 | 782,467 | 12,119 | (NA) | (NA) |
| $1958{ }^{3}$ | 147 | 157 | 89 | 38,127 | 195,983 | 29,530 | 56,394 | 135,775 | 353,534 | 248,149 | 606,518 | 8,942 | 87 | 84 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 50,874 | 235,627 | 40,519 | 78,714 | 168,949 | 435,489 | 301,781 | 723,211 | 12,430 | 85 | 87 |
| $1956{ }^{2}$ | (NA) | (NA) | (NA) | 49,277 | 227,134 | 39,505 | 79,474 | 165,392 | 396,855 | 284,530 | 672,112 | 16,983 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 53,600 | 245,103 | 44,253 | 91,616 | 186,006 | 440,894 | 327,988 | 745,645 | 16,880 | (NA) | (NA) |
| $1954{ }^{2}$ | 154 | 169 | 105 | 46,349 | 200,279 | 37,219 | 74,147 | 146,769 | 336,623 | 264,580 | 612,344 | 18, 172 | 85 | 87 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 52,970 | 216,471 | 44, 047 | 86,872 | 167, 704 | 348,020 | 283,053 | 631,073 | (NA) | (NA) | (NA) |
| $1952^{1} 2$ | (NA) | (NA) | (NA) | 47,737 | 194,485 | 39,359 | 79,363 | 150,701 | 314,830 | 242,299 | 557,129 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | ( NA ) | (NA) | 51,169 | 195,591 | 43,130 | 85,859 | 153,850 | 330,828 | 265,089 | 595,917 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 39,971 | 149,315 | 33,516 | 69,280 | 117,038 | 263,847 | 189,779 | 453,626 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 36,890 | 124,328 | 30,471 | 59,018 | 94,650 | 204,471 | 152,665 | 357,136 | (NA) | (NA) | (NA) |
| $1947{ }^{2}$. | 100 | 112 | (NA) | 44,450 | 126,737 | 38,449 | 73,329 | 103,249 | 198,656 | 159,143 | 357,799 | (NA) | 89 | 91 |
| 1939².... | (NA) | 90 | (NA) | (NA) | (NA) | 17,043 | (NA) | 23,675 | 66,066 | 40,565 | 106,631 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3699.-ELECTRICAL PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 245 | 350 | 106 | 10,923 | 51,215 | 8,492 | 16,496 | 33,355 | 101,221 | 88,970 | 190,038 | 3,271 | 90 | 49 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 11,551 | 53,293 | 8,803 | 16,370 | 31,817 | 93,687 | 96,562 | 189,308 | 2,302 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 11,998 | 52,483 | 9,190 | 18,004 | 32,854 | 93,832 | 86,235 | 179,549 | 1,639 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 11,607 | 48,683 | 9,115 | 17,550 | 30,889 | 91,472 | 82,610 | 172,572 | 1,444 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 10,902 | 43,748 | 8,512 | 16,689 | 28,040 | '79,933 | 90,199 | 171',844 | (S) | (NA) | (NA) |
| $1958{ }^{4}$. | 247 | 259 | 99 | 10,259 | 39,342 | 8,182 | 15,776 | 26,342 | 73,581 | 89,773 | 165,388 | 1,364 | 91 | 54 |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production ather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
applicable. n.e.c. Not e.lsewhere classified.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishrnents. The standard errors associated with these estinates are published in the annual survey of manufactures volumes for this period.
${ }_{3}^{2}$ Data for Alaska and Hawaii are not included.
${ }^{3}$ A revision in the definition of this industry was made in the 1963 supplement to the 1957 edition of the Standard Industrial Classification, reclassifying establishments primarily manufacturing automotive wiring harness sets other than ignition from industry 3694 to industry 3714 (Census industry 3717) "Motor Vehicles and Parts." The statistics for 1958 to 1962 have been revised to take this reclassification into account. However, comparable data for this industry are not available for earlier years.
${ }^{4}$ A revision of the definition of this industry was introduced in the 1957 Standard Industrial Classification so that earlier figures on a comparable basis are unavailable.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted ( $\$ 1,000$ ) |
|  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Manhours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3691. - STORAGE BATTERIES |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 252 | 120 | 17,512 | 108,700 | 13,871 | 28,444 | 80,237 | 244,152 | 275,629 | 516,457 | 11,968 | 14,924 | 150,061 |
| New England........ | 16 | 10 | 1,117 | 7,494 | 704 | 1,498 | 3,197 | 13,932 | 13,885 | 27,195 | 1,503 | 501 | 5,758 |
| Middle Atlantic.... | 34 | 18 | 5,549 | 34,683 | 4,200 | 8,331 | 24,915 | 70,027 | 68,498 | 137,285 | 2,340 | 5,238 | 46,260 9,168 |
| New York......... | 8 | 5 | 900 | 5,199 | 676 | 1,433 | 3,372 9,301 | 8,686 | 9,574 23,460 | 18,787 51,079 | 468 639 | 1,011 | 9,168 14,300 |
| New Jersey....... Pennsylvania.... | 11 | 6 7 | 1,901 | 11,584 17,900 | 1,514 | 3,092 3,806 | 9,301 12,242 | 28,151 33,190 | 23,460 35,464 | 51,079 67,419 | 639 1,233 | 1,556 | 14,300 |
| East North Central. | 44 | 26 | 4,259 | 27,892 | 3,562 | 7,473 | 22,546 | 65,897 | 76,066 | 142,221 | 2,107 | $\left({ }^{2}\right)$ | ${ }^{2}$ ) |
| Ohio............. | 5 | 4 | 239 | 1,158 | 190 | 387 | 22, 898 | 3,548 | 4,494 | 8,026 | 97 | 819 | 8,511 |
| Illinois......... | 19 | 11 | 1,049 | 4,927 | 835 | 1,578 | 4,333 | 17,160 | 18,619 | 35,972 | 446 | 872 | 12,630 |
| Michigan......... | 8 | 4 | 652 | 4,559 | 544 | 1,217 | 3,712 | 10,231 | 16,825 | 26,938 | 588 | 446 | 4,412 |
| West North Central. | 21 | 12 | 2,041 | 11,414 | 1,738 | 3,529 | 9,257 | 27,365 | 29,712 | 56,111 | 435 | $\left.{ }^{2}\right)$ | ${ }^{2}$ ) |
| South Atlantic..... | 37 | 16 | 1,383 | 8,083 | 1,069 | 2,192 | 5,412 | 17,631 | 26,381 | 43,956 | 2,542 | 830 | 10,236 |
| East South Central. Tennessee. $\qquad$ | 12 6 | 7 4 | 470 260 | 2,581 1,428 | 402 219 | 838 463 | 2,142 1,205 | 8,030 | 10,219 6,021 | 18,063 10,317 | 369 1,323 | $\begin{aligned} & 364 \\ & \left.\mathbf{(}^{2}\right) \end{aligned}$ | 4,412 ${ }_{(2)}$ |
| West South Central. | 24 | 9 | 862 | 5,384 | 690 | 1,480 | 4,131 | 12,651 | 17,255 | 29,557 | 1,482 | 833 | 9,258 |
| West. . | 64 | 22 | 1,831 | 11,169 | 1,506 | 3,103 | 8,637 | 28,619 | 33,613 | 62,069 | 1,190 | 1,752 | 18,233 |
| California....... | 40 | 15 | 1,437 | 9,051 | 1,207 | 2,506 | 7,090 | 22,792 | 26,098 | 48,684 | 635 | 1,391 | 14,419 |
|  | INDUSTRY 3692. -PRIMARY BATTERIES, DRY AND WET |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. . | 46 | 29 | 8,478 | 40,602 | 6,791 | 13,615 | 29,029 | 113,787 | 80,302 | 195,298 | 4,132 | 8,096 | 75,431 |
| Northeast.. | 15 | 9 | 1,778 | 9,018 | 1,448 | 2,956 | 6,643 | 23,753 | 15,796 | 40,958 | 738 | 1,665 | 16,651 |
| North Central. | 14 | 12 | 4,357 | 19,832 | 3,550 | 7,011 | 14,262 | 49,871 | 36,059 | 85,926 | 1,532 |  | 8,780 |
| South and West..... | 17 | 8 | 2,343 | 11,752 | 1,793 | 3,648 | 8,124 | 40,163 | 28,447 | 68,414 | 1,862 |  |  |
|  | INDUSTRY 3693.-X-RAY APPARATUS AND TUBES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 58 | 30 | 6,236 | 43,796 | 3,430 | 6,921 | 20,124 | 86,534 | 56,916 | 143,706 | 2,132 | 5,258 | 58,436 |
| Northeast. | 24 | 13 | 1,447 | 9,466 | 838 | 1,697 | 5,044 | 19,208 | 10,285 | 29,269 | 534 | 1,270 | 12,562 |
| North Central. | 18 | 13 | 3,593 | 25,461 | 2,009 | 3,979 | 11,470 | 52,702 | 25,352 | 78,433 | 1,365 | 3,205 | $\begin{aligned} & 34,784 \\ & \hline \end{aligned}$ |
| Illinois. | 11 | 7 | 605 | 3,604 | 468 | 917 | 2,254 | 6,456 | 4,425 | 11,549 | 179 |  | $\left(^{2}\right)$ |
| South and West..... | 16 | 4 | 1,196 | 8,869 | 583 | 1,245 | 3,610 | 14,624 | 21,279 | 36,004 | 233 | 783 | 11,090 |
|  | INDUSTRY 3694.-ENGINE ELECTRICAL EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |
| Total... | 182 | 98 | 40,559 | 250,202 | 32,697 | 66,903 | 184,438 | 496,662 | 398,039 | 900,663 | 15,490 | 38,127 | 353,534 |
| New England........ | 17 | 11 | 2,152 | 10,908 | 1,626 | 3,035 | 6,554 | 18,606 | 17,686 | 36,165 | 397 | 2,410 | 17,817 |
| Middle Atlantic.... | 45 | 27 | 4,537 | 21,718 | 3,423 | 6,719 | 14,168 | 44,544 | 28,695 | 72,954 | 1,196 | 7,847 | 57,376 |
| New York........ | 23 | 13 | 2,505 | 11,743 | 1,844 | 3,441 | 6,966 | 27,770 | 16,660 | 44,100 | 890 | 6,328 | 46,519 |
| New Jersey....... | 10 | 6 | 851 | 4,129 | 724 | 1,525 | 2,989 | 6,119 | 5,245 | 11,359 | 81 225 | 515 1,004 | 3,246 7,611 |
| Pennsylvania..... | 12 | 8 | 1,181 | 5,846 | 855 | 1,753 | 4,213 | 10,655 | 6,790 | 17,495 | 225 | 1,004 | 7,611 |
| North Central...... | 60 | 38 | 31,667 | 207,565 | 25,824 | 53,339 | 156,432 | 416,281 | 338,953 | 760,396 | 13,394 | 27,051 | 272,185 |
| Ohio............. | 11 | 9 | 5,919 | 35,739 | 4,671 | 9,339 | 23,519 | 77,448 | 67,400 | 145,772 | 3,059 | 8,135 | 95,479 |
| Illinois......... | 15 | 10 | 2,792 | 15,174 | 1,859 | 3,621 | 8,802 | 31,280 | 26,695 | 60,292 | 1,541 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| Wisconsin........ | 5 | 5 | 1,235 | 5,706 | 1,020 | 2,034 | 4,188 | 9,776 | 6,737 | 16,396 | 236 | 2,031 | 10,651 |
| South Atlantic..... | 13 | 4 | 189 | 713 | 164 | 351 | 597 | 1,141 | 791 | 1,952 | 10 |  |  |
| East South Central. | 9 | 7 | 1,107 | 4,369 | 947 | 1,991 | 3,308 | 7,714 | 7,486 | 16,486 | 197 | 3343 | 2,155 |
| West South Central. | 8 | 1 | 67 | 288 | 57 | 116 | 212 | 455 | 451 | 914 | 17 |  |  |
| West............... | 30 | 10 | 840 | 4,641 | 656 | 1,352 | 3,167 | 7,921 | 3,977 | 11,796 | 279 | 476 | 4,001 |
| California.. | 27 | 10 | 817 | 4,508 | 638 | 1,310 | 3,095 | 7,723 | 3,785 | 11,407 | 272 | 462 | 3,881 |

## table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expend itures, new $(\$ 1,000)$ | All employees <br> (number) | Value added by manutacture, adjusted ( $\$ 1,000$ ) |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Mant } \\ \text { hours } \\ (1,000) \end{gathered}$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3699.-ELECTRICAL PRODUCTS, N. E.c. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 350 | 106 | 10,923 | 51,215 | 8,492 | 16,496 | 33,355 | 101,221 | 88,970 | 190,038 | 3,271 | 10,259 | 73,581 |
| New England... | 28 | 11 | 1,666 | 7,763 | 1,333 | 2,666 | 5,793 | 16,743 | 12,014 | 28,523 | 528 | 1,202 | 8,584 |
| Massachusetts.... | 12 | 2 | 773 | 3,409 | 580 | 1,147 | 2,439 | 6,920 | 5,863 | 12,603 | (D) | (2) | (2) |
| Connecticut...... | 10 | 5 | 240 | 1,112 | 195 | 394 | 791 | 1,378 | 1,785 | 3,131 |  | ${ }^{2}$ ) | (2) |
| Middle Atlantic.... | 119 | 39 | 3,210 | 13,736 | 2,722 | 5,241 | 9,946 | 28,496 | 32,138 | 59,931 | 737 | 3,430 | 25,703 |
| New York. | 65 | 26 | 2,277 | 8,765 | 1,912 | 3,714 | 6,023 | 17,370 | 22,734 | 39,433 | 254 | 2,524 | 15,330 |
| East North Central. | 79 | 37 | 2,768 | 12,291 | 2,303 | 4,386 | 8,444 | 24,101 | 23,188 | 47,397 | 441 | ${ }^{2}$ ) | (2) |
| Ohio............. | 17 | 8 | 739 | 4,118 | 582 | 1,116 | 2,842 | 8,762 | 7,038 | 15,786 | 82 | 898 | 7,905 |
| Indiana. | 14 | 11 | 685 | 2,664 | 583 | 1,060 | 1,728 | 5,578 | 4,754 | 10,626 | 169 | 296 | 2,000 |
| Wisconsin. | 4 | 4 | 159 | 636 | 134 | 255 | 453 | 1,015 | 1,355 | 2,352 | 23 | 123 | 733 |
| West North Central. | 14 |  | 704 | 3,133 | 493 | 916 | 1,977 | 8,638 | 5,673 | 14,785 | 159 |  |  |
| Missouri.......... | 5 | 5 | 548 | 2,367 | 365 | 677 | 1,412 | 6,787 | 3,842 | 10,999 | 94 | (2) | (2) |
| South.............. | 44 | 6 | 1,953 | 10,807 | 1,198 | 2,461 | 5,269 | 16,949 | 10,345 | 27,428 | 1,284 | (2) | (2) |
| West............... | 66 | 5 | 622 | 3,485 | 443 | 826 | 1,926 | 6,294 | 5,612 | 11,974 | 122 | 972 | 6,467 |
| California. | 56 | 5 | 603 | 3,380 | 429 | 797 | 1,844 | 6,081 | 5,448 | 11,624 | 120 | (2) | ${ }^{2}$ ) |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3691, Storage Batteries: New England--Massachusetts, 10 (558); Phode Island, 1 (20-99); Connecticut, 5 (500-999); East North Central--Indiana, 8 (1, 771); Wisconsin, 4 (191); West North Central-Minnesota, 5 (558); Iowa, 2 (20-99); Missouri, 8 (702); Nebraska, 1 (20-99); Kansas, 5 ( 689 ); South Atlantic--Delaware, 1 (100-249); Maryland, 3 (1-19); District of Columbia, 1 (1-19); Virginia, 4 (20-99); North Carolina, 5 (234); Georgia, 8 (504); Florida, 15 (390); East South Central--Kentucky, 4 (100-249); Mississippi, 2 (20-99); West South Central--Louisiana, 4 (20-99); Oklahoma, l (100-249); Texas, 19 (686); Mountain--Colorado, 4 (129); New Mexico, l (1-19); Arizona, 2 (1-19); Utah, 2 (20-99); Pacific-Washington, 4 (20-99); Oregon, 10 (179); Alaska, l (1-19).
SIC 3692, Primary Batteries, Dry and Wet: New England--Vermont, 1 (250-499); Connecticut, 2 (20-99); Middle Atlantic--New York, 6 (674); New Jersey, 3 (250-499); Pennsylvania, 3 (100-249); East North Central--0hio, 3 (1,000-2, 499); Illínois, 3 (1,000-2, 499); Wisconsin, 6 ( $1,000-2,499$ ); West North Central--Iowa, 1 (250-499); Missouri, 1 (20-99); South Atlantic--Maryland, 2 (100-249); North Carolina, 6 ( 2 , 128 ); East South Central--Tennessee, 1 (100-249); Mountain--Colorado, 1 (20-99); Pacific--Washington, 1 (1-19); Oregon, 1 (1-19); California, 5 (1-19).
SIC 3693, X-Ray Apparatus and Tubes: New England--Massachusetts, 4 (20-99); Connecticut, 3 (230); Middle Atlantic--New York, 12 (761); New Jersey, 3 (250-499); Pennsylvania, 2 (100-249); East North Central--Ohio, 2 (1,000-2,499): Wisconsin, 2 (1,000-2, 499); West North Central--Minnesota, 2 (20-99) ; Missouri, l (20-99); South Atlantic--Maryland, 1 (500-999); Florida, l (20-99); East South Central--Kentucky, l (l-19); West South Central--Texas, 1 (1-19); Pacific--Washington, 1 (1-19); Oregon, 1 (100-249); California, 10 (150.
SIC 3694, Engine Electrical Equipment: New England--New Hampshire, 1 (1-19); Massachusetts, 9 (1509); Connecticut, 6 (500-999); East North Central-Indiana, 5 (15, 879); Michigan, 15(5,000-9, 999); West North Central--Minnesota, 2 (1-19); Iowa, 1 (250-499); Missouri, 3 (20-99); Nebraska, 1 (1-19); Kansas, 2 (1-19); South Atlantic--Delaware, 1 (20-99); Maryland, 1 (1-19); North Carolina, 3 (20-99); South Carolina, 1 (20-99); Georgia, 1 (1-19); Florída, 6 (20-99); East South Central--Kentucky, 4 (249); Tennessee, 3 (20-99); Alabama, 1 (500-999); Mississippi, 1 (20-99); West South Central-Arkansas, l (1-19); Louisiana, 2 (20-99); Oklahoma, l (1-19); Texas, 4 (20-99); Mountain--New Mexico, l (1-19); Nevada, l (1-19); Pacific-Washington, 1 (1-19).
SIC 3699, Electrical Products, n.e.c.: New England--Maine, l (100-249); New Hampshire, 2 (20-99); Rhode Island, 3 (250-499); Middle Atlantic--New Jersey, 34 (639); Pennsylvania, 20 (294); East North Central--Illinois, 26 (500-999); Michigan, 18 (500-999); West North Central--Minnesota, 5 (124); Iowa, 1 (1-19); Nebraska, 2 (20-99); Kansas, 1 (1-19); South Atlantic--Maryland, 2 (1-19); Virginia, 2 (20-99); North Carolina, 3 (1-19); Georgia, 4 (20-99); Florida, 12 (1,419); East South Central--Tennessee, 3 (20-99); Alabama, 2 (1-19); West South Central--Arkansas, 1 (1-19); Oklahoma, 5 (1-19); Texas, 10 (350); Mountain--Colorado, 3 (1-19); Arizona, 3 (1-19); Pacific--Washington, 4 (1-19).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

TABLE 3. Detailed Statistics: 1963

| Item | Storage batteries (SIC 3691) | Primary batteries, dry and wet (SIC 3692) | $X$-ray apparatus and tubes (SIC 3693) | Engine electrical equipment (SIC 3694) | Electrical products, n.e.c. (SIC 3699) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio... | . 98 | . 96 | . 83 | . 93 | . 90 |
| Coverage ratio........................... | . 99 | . 91 | . 80 | . 81 | . 49 |
|  | 252 | 46 | 58 | 182 | 350 |
| With 1 to 19 employees.................................. do. | 132 | 17 | 28 | 84 | 244 |
| With 20 to 99 employees.................................. . . . do. | 73 | 7 | 19 | 51 | 83 |
| With 100 employees or more..............................do. | 47 | 22 | 11 | 47 | 23 |
| Proprietors and working partners.......................do.... | 111 | 13 | 11 | 44 | 155 |
| All employees (average for the year)...................do.... | 17,512 | 8,478 | 6,236 | 40,559 | 10,923 |
| Payroll (all employees), total for year............... $\$ 1,000$. | 108,700 | 40,602 | 43,796 | 250, 202 | 51,215 |
| Production workers: |  |  |  |  |  |
| Average for the year..................................number.. | 13,871 | 6,791 | 3,430 | 32,697 | 8,492 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . | 13,473 | 6,461 | 3,292 | 33,321 | 8,035 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 13,623 | 6,589 | 3,344 | 33,598 | 8,100 |
| August..... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 13,174 | 7,170 | 3,371 | 31,113 | 8,705 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.. .. | 15,214 | 6,945 | 3,710 | 32,770 | 9,125 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 28,44,4 | 13,615 | 6,921 | 66,903 | 16,496 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . | 7,254 | 3,265 | 1,767 | 17,018 | 3,944 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 6,702 | 3,487 | 1,780 | 17,353 | 3,973 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 6,597 | 3,252 | 1,624 | 15,435 | 4,054 |
| October-December.......................................do.... | 7,902 | 3,624 | 1,768 | 17,121 | 4,525 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 80,237 | 29,029 | 20,124 | 184,438 | 33,355 |
| Cost of materials, etc., total...........................do. | 275,629 | 80,302 | 56,916 | 398,039 | 88,970 |
| Materials, parts, containers, and supplies consumed..do.... | 264,197 | 69,928 | 34,352 | 356,386 | 83,253 |
| Cost of resales..........................................dio. | 2,955 | 8,754 | 21,376 | 34,795 | 3,876 |
| Fuels consumed............................................do..... | 2,217 | 529 | 185 | 1,783 | 506 |
| Electric energy: Purchased: |  |  |  |  |  |
| Quantity....................................... | 442 | 61 | 39 | 344 | 69 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 5,159 | 817 | 552 | 2,787 | 1,048 |
| Generated less sold.......................million kw.-hrs.. | (D) | - | - | (D) | - |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 1,101 | 274 | 451 | 2,288 | 287 |
| Value of shipments (including resales), total..........do.. | 516,457 | 195,298 | 143,706 | 900,663 | 190,038 |
| Value of resales.........................................do. | 3,959 | 12,413 | 28,844 | 59,316 | 6,450 |
| Value added by manufacture, adjusted....................do.. | 244, 152 | 113,787 | 86,534 | 496,662 | 101,221 |
| Manufacturers' inventories: |  |  |  |  |  |
| Beginning of year, total..............................do.... | 72,900 | 29,464 | 30,274 | 109,644 | 25,078 |
| Finished products.......................................do.... | 23,548 | 10,370 | 12,238 | 33,050 | 6,973 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 27,933 | 8,992 | 8,588 | 44, 120 | 4, 211 |
| Materials, supplies, fuel, etc........................do.. | 21,419 | 10,102 | 9,448 | 32,474 | 13,894 |
| End of year, total.........................................d. do. | 75,138 | 29,986 | 30,036 | 99,818 | 24,330 |
| Finished products.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 23,836 | 9,292 | 11,608 | 31,921 | 7,349 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 30,065 | 8,861 | 8,962 | 39,287 | 3,988 |
| Materials, supplies, fuel, etc........................do. | 21,237 | 11,833 | 9,466 | 28,610 | 12,993 |
| Expenditures for plant and equipment, total.............do. | 12,445 | 4,207 | 2,190 | 17,187 | 3,333 |
| New, total.................................................... . . . . . . . | 11,968 | 4,132 | 2,132 | 15,490 | 3,271 |
| New structures and additions to plant...............do. | 3,460 | 1,173 | 579 | 3,009 | 260 |
| New machinery and equipment.......................... . ${ }^{\text {do. }}$ | 8,508 | 2,959 | 1,553 | 12,481 | 3,011 |
| Used plant and equipment................................do.. | 477 | 75 | 58 | 1,697 | 62 |
| Selected operating ratios: |  |  |  |  |  |
| Payroll/Total employment. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,207 | 4,789 | 7,023 | 6,169 | 4,689 |
| Production workers/Total employment........................... . | . 79 | . 80 | . 55 | . 81 | . 78 |
| Man-hours/Production workers........... . . . . . . . . . . . . . . . . . . . | 2,051 | 2,005 | 2,018 | 2,046 | 1,943 |
| Production worker wages/Man-hours............................. . | 2.82 | 2.13 | 2.91 | 2.76 | 2.02 |
| Cost of materials and payrolls/Total value of shipments.... | . 74 | . 62 | . 70 | . 72 | . 74 |
| Cost of materials/Total value of shipments.................. | . 53 | 4,41 | 13.40 | 12, 245 | 9, . 267 |
| Adjusted value added/Total employment........................ | 13,942 .45 | 13,421 .36 | 13,877 .51 | 12,245 .50 | 9,267 .51 |
| Salaries and wages/Adjusted value added..................... | . 45 | . 36 | . 51 | . 50 | . 51 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable.
${ }_{2}^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufactüring establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{gathered} 5 \text { to } 9 \\ \text { employees } \end{gathered}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ \text { 2,499 } \\ \text { employees } \end{gathered}$ | 2,500 employees and over |
|  | INDUSTRY 3691.-STORAGE BATTERIES |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 252 | 76 | 31 | 25 | 41 | 32 | 29 | 13 | 3 | 2 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
|  | 17,512 108,700 | 124 591 | 219 1,051 | $\begin{array}{r}360 \\ 1,740 \\ \hline\end{array}$ | 1,313 6,614 | 2,335 13,074 | 4,303 27,079 | 4,576 27,047 | $\begin{array}{r}4,282 \\ 29,504 \\ \hline\end{array}$ | (D) | - |
| Value added, adjusted................. | 244,152 | 1,612 | 2,203 | 3,834 | 15,270 | 31,658 | 70,146 | 60,407 | 59,022 | (D) |  |
| Value of shipments...........do.... | 516,457 | 3,307 | 4,171 | 9,301 | 37,917 | 74,684 | 158,267 | 120,227 | 108,583 | (D) |  |
| Capital expenditures, new...do.... | 11,968 | ${ }^{1} 283$ | 154 | 219 | 872 | 1,619 | 5,662 | 2,181 | $\underline{978}$ | (D) |  |
|  | INDUSTRY 3692.-PRDMARY BATTERIES, DRY AND WET |  |  |  |  |  |  |  |  |  |  |
| Establishments............number. . | 46 | 10 | 3 | 4 | 2 | 5 | 9 | 9 | 3 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 8,478 | 12 | 16 | 117 | (D) | 358 | 1,751 | 6,224 | (D) | (D) |  |
| Payroll.................\$1,000.. | 40,602 | 54 | 64 | $\frac{564}{981}$ | (D) | 1,443 | 8,784 | $\frac{29,693}{79}$ | (D) | (D) |  |
| Value added, adjusted.......do.... | 113,787 | 105 | 158 | $\frac{981}{155}$ | (D) | 3,420 | 30,915 | 78,208 | (D) | (D) |  |
| Value of shipments..........do.... Capital expenditures, new.. do... | $\begin{array}{r} 195,298 \\ 4,132 \end{array}$ | $\begin{array}{r}246 \\ 2 \\ 7 \\ \hline\end{array}$ | 290 | $\frac{2,155}{(D)}$ | (D) | 5,928 86 | 53,102 1,857 | $\frac{133,577}{2,119}$ | (D) | (D) | - |
|  | INDUSTRY 3693. -X-RAY APPARATUS AND TUBES |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 58 | 9 | 7 | 12 | 7 | 12 | 7 | 1 | 2 | 1 | - |
| All ermployees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................... do.... | 6,236 43,796 | $\begin{array}{r}24 \\ 116 \\ \hline\end{array}$ | $\begin{array}{r}56 \\ 390 \\ \hline\end{array}$ | 171 936 | 203 1,175 | 806 4,834 | 1,652 | (D) | 2 $\frac{3,324}{55,624}$ | (D) |  |
| Payroll................. $\$ 1,000$. | 43,796 86,534 | 116 | 390 864 | 936 1,107 | 1,175 | 4,834 8,899 | $\frac{10,721}{23,343}$ | (D) | $\frac{25,624}{49,713}$ | (D) |  |
| Value added, adjusted.......do.... | 86,534 143,706 | 192 | 864 1,335 | 1,107 2,494 | 2,416 4,192 | 8,899 15,771 | $\frac{23,343}{33,005}$ | (D) | $\frac{49,713}{86,561}$ | (D) | - |
| Value of shipments..........do.... Capital expenditures, new...do... | 143,706 2,132 | 348 7 | $\begin{array}{r}1,335 \\ \hline 22\end{array}$ | $\begin{array}{r}2,494 \\ \hline 29\end{array}$ | 4,192 43 | 15,771 323 | $\frac{33,005}{\underline{593}}$ | (D) | $\frac{86,561}{1,116}$ | (D) | - |
|  | INDUSTRY 3694. - ENGINE ELECTRICAL EQUIPMENT |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 182 | 38 | 19 | 27 | 31 | 20 | 19 | 16 | 6 | 4 | 2 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... . . do. | 40,559 | 55 | 145 | 382 | 982 | 1,379 | 3,040 | 5,997 | 4,382 | 24, 197 | (D) |
| Payroll. . . . . . . . . . . . . . . \$1,000. . | 250,202 | 273 | 789 | 1,729 | 4,011 | 6,474 | 15,118 | 30,769 | 17,719 | 173,320 | (D) |
| Value added, adjusted.......do.... | 496,662 | 602 | 1,479 | 3,355 | 6,605 | 11,247 | 31,903 | 54,578 | 38,516 | 348,377 | (D) |
| Value of shipments..........do.. | 900,663 | 1,110 | 2,640 | 6,310 | 11,978 | 19,768 | 67,151 | 101,684 | 76,429 | 613,593 | (D) |
| Capital expenditures, new...do.... | 15,490 | 22 | 61 | 112 | 177 | 605 | 1,190 | 1,840 | 756 | 10.727 | (D) |
|  | INDUSTRY 3699.-ELECTRICAL PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 350 | 167 | 33 | 44 | 58 | 25 | 15 | 5 | 2 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total. . . . . . . . . . . . . . . . . do. . . . | 10,923 | 190 | 224 | 607 | 1,884 | 1,664 | 2,297 | 1,509 | 2,548 | (D) | - |
| Payroll. . . . . . . . . . . . . . .\$1,000. . | 51,215 | 1,074 | 1,128 | 2,793 | 8,416 | 6,520 | 10,874 | 6,634 | 13,776 | (D) | - |
| Value added, adjusted.......do.... | 101,221 | 1,948 | 1,999 | 4,748 | 15,830 | 14,183 | 22,765 | 18,154 | $\underline{21,594}$ | (D) | - |
| Value of shipments..........do.... | 190,038 | 4,034 | 3,709 | 11,467 | 32,451 | 31,557 | 41,965 | 31,086 | 33,769 | (D) | - |
| Capital expenditures, new...do.... | 3,271 | 46 | 43 | 120 | 429 | 465 | 333 | 357 | 1,478 | (D) | - |

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## table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio <br> Col. B <br> Col. B+C <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3691 | Storage batteries............... $1963 .$. 1958.. | $\begin{aligned} & 516,457 \\ & 368,993 \end{aligned}$ | $\begin{aligned} & 500,373 \\ & 360,359 \end{aligned}$ | $\begin{aligned} & 8,300 \\ & 2,131 \end{aligned}$ | $\begin{aligned} & 7,784 \\ & 6,503 \end{aligned}$ | $\begin{aligned} & 98 \\ & 99 \end{aligned}$ | $\begin{aligned} & 504,492 \\ & 361,489 \end{aligned}$ | $\begin{aligned} & 500,373 \\ & 360,359 \end{aligned}$ | $\begin{aligned} & 4,119 \\ & 1,130 \end{aligned}$ | 99 100 |
| 3692 | Primary batteries, dry and wet...1963.. ${ }^{1958 . .}$ | $\begin{aligned} & 195,298 \\ & 138,215 \end{aligned}$ | $\begin{aligned} & 173,536 \\ & 132,525 \end{aligned}$ | 8,000 1,255 | 13,762 4,435 | 96 99 | $\begin{aligned} & 191,624 \\ & 135,679 \end{aligned}$ | $\begin{aligned} & 173,536 \\ & 132,525 \end{aligned}$ | 18,088 3,154 | 91 |
| 3693 | X-ray apparatus and tubes....... $1963 .$. $1958 .$. | $\begin{array}{r} 143,706 \\ 95,090 \end{array}$ | $\begin{aligned} & 87,014 \\ & 59,948 \end{aligned}$ | $\begin{aligned} & 18,031 \\ & 11,564 \end{aligned}$ | $\begin{aligned} & 38,661 \\ & 23,578 \end{aligned}$ | 83 84 | $\begin{array}{r} 108,577 \\ 72,969 \end{array}$ | $\begin{aligned} & 87,014 \\ & 59,948 \end{aligned}$ | $\begin{aligned} & 21,563 \\ & 13,021 \end{aligned}$ | 80 82 |
| 3694 | Engine electrical equipment...... $1963 .$. | $\begin{aligned} & 900,663 \\ & 606,518 \end{aligned}$ | $\begin{aligned} & 705,622 \\ & 484,585 \end{aligned}$ | $\begin{array}{r} 128,394 \\ 75,301 \end{array}$ | $\begin{aligned} & 66,647 \\ & 46.632 \end{aligned}$ | $\begin{aligned} & 93 \\ & 87 \end{aligned}$ | $\begin{aligned} & 873,912 \\ & 586,853 \end{aligned}$ | $\begin{aligned} & 705,622 \\ & 484,585 \end{aligned}$ | $\begin{aligned} & 168,290 \\ & 102,268 \end{aligned}$ | 81 83 |
| 3699 | Electrical products, n.e.c.......1963.. | $\begin{aligned} & 190,038 \\ & 165,388 \end{aligned}$ | $\begin{aligned} & 163,009 \\ & 134,736 \end{aligned}$ | $\begin{aligned} & 18,896 \\ & 12,958 \end{aligned}$ | $\begin{array}{r} 8,133 \\ 17,694 \end{array}$ | $\begin{aligned} & 90 \\ & 91 \end{aligned}$ | $\begin{aligned} & 335,524 \\ & 249,231 \end{aligned}$ | $\begin{aligned} & 163,009 \\ & 134,736 \end{aligned}$ | $\begin{aligned} & { }^{1} 172,515 \\ & { }^{1} 114,495 \end{aligned}$ | 149 154 |

Note: See Introduction for an explanation of terms used.
${ }^{1}$ Included in this industry are appliance wire and cord and flexible cord sets which are also primary to industry 3357 , Nonferrous Wire Drawing, Etc. For 1963, a coverage ratio computed on the basis of including both industries to which appliance wire and cord and flexible cord sets are primary would total 79 percent; 49 percent by industry 3699 , and 30 percent by industry 3357 . The remaining 21 percent was shipped by establishments in other industries. For 1958, a coverage ratio computed on the basis of including both industries to which appliance wire and cord and flexible cord sets are primary would total 81 percent; 54 percent by industry 3699 , and 17 percent by industry 3357 . The remaining 19 percent was shipped by establishments in other industries.

## TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products). (b) products classified in other industries (secondary products), and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


## TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958



See footnotes at end of table.

## table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



[^259]
## table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



[^260]
## table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



Stendard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ For 1958 , includes both wet and dry charge.
${ }^{2}$ For 1958 , includes $\$ 180$ thousand for which no quantity was reported.
${ }^{3}$ For 1963, product codes 3691241 and 3691271 are included with product code 3691298.
${ }_{5}$ For 1958, product codes 3691241 and 3691261 are included with product code 3691298.
${ }^{5}$ For 1963, a large portion of this value represents work on fuel cells.
${ }^{6}$ Codes 3692012 and 3692014 include data for codes 3692016 and 3692018 in 1958.
${ }^{7}$ Codes 3692089 and 3692091 include data for codes 3692028, 3692029, 3692051, 3692053, and 3692072 through 3692088 in 1958.
${ }^{8}$ Codes 3692072 through 3692081 include data for codes 3692041 through 3692053 in 1963.
${ }^{9}$ Codes 3692041 and 3692043 include data for codes 3692045 and 3692047 in 1958.
${ }^{10}$ Codes 3692069 and 3692071 include data for codes 3692061 and 3692063 in 1963.
${ }^{11}$ Codes 3692089 and 3692091 include data for codes 3692083 through 3692088 in 1963.
${ }^{12}$ Code 3693094 combined with code 3693096 to avoid disclosing figures of individual companies.
${ }^{13}$ Product code 3694111 has been revised to exclude nonignition automotive wiring harness sets. Accordingly, the total for product class 36941 is not comparable with estimates published for 1959 to 1962 in the annual survey of manufactures. Also, see footnote 3 of table 1.
${ }^{14}$ In 1958, automotive type ignition harness sets were included with "all other" (Census product code 3694119) to avoid disclosing operations of individual companies.
${ }^{15}$ Other types of electric comfort heating equipment are included in industry 3634, Electric Housewares and Fans.
${ }^{16}$ In 1958, product codes 3357613 and 3357615 were combined.
${ }^{17}$ In 1958, product codes 3699613 and 3699615 were combined.

# TABLE 6A-2. Automotive Type Storage Batteries-Quantity and Value Shipped, by Class of Customer: 1963 and 1958 

(Product codes 3691112 to 3691128 )

| Class of customer | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1963 |  | 1958 |  |
|  | $\begin{gathered} \text { Quantity } \\ (1,000 \text { units }) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity (1,000 units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ |
| Shipments by all manufacturing establishments, total................................... | 41,422 | 337,528 | 30,732 | 254,662 |
| To the United States Govermment.................................................... | 485 | 6,241 | 647 | 9,210 |
| To export custaners (including shipments to company's foreign branches or subsidiaries)........................................................................................... | 193 | 1,715 | 664 | 4,548 |
| To domestic customers: <br> For original equipment purposes. $\qquad$ | 9,070 | 75,009 | 5,631 | 49,109 |
| For replacement purposes: <br> Manufacturer's proprietary brands: |  |  |  |  |
| To jobbers and distributors..................................................... | 12,387 | 111,532 | 9,914 | 86,667 |
| To retail dealers................................................................... | 978 | 10,226 | 1,270 | 14,228 |
| To other proprietary-brand custaners............................................. | 986 | 6,005 | 690 | 4,066 |
| Private brands: |  |  |  |  |
| To oil companies. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . <br> To tire companies | 3,703 2,053 |  | $\int 3,049$ |  |
| To mail-order and chain stores..................................................... | 7,735 | \} 126,800 | $\left\{\begin{array}{r}\text { 2,183 } \\ 5,746\end{array}\right.$ | \} 86,834 |
| To motor-vehicle manufacturers (replacement only). To other private-brand customers............... | 1,663 |  | 368 570 |  |

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 369-- | Electrical products, n.e.c........................ ${ }^{\text {1963.. }} 19$ | $\left(\begin{array}{l}1 \\ (1) \\ \\ \\ \\ \text { a }\end{array}\right.$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3691- |  | 153 | 92 96 |
| 36911 | Storage batteries, SLI type........................ $1963 .$. | 164 | 85 95 |
| 3692- | Primary batteries, dry and wet....................... $1963 .$. | $\begin{array}{r}120 \\ 9 \\ \hline 1\end{array}$ | 135 123 |
| 3693- | X-ray apparatus and tubes........................... $1963 .$. | $\left(\begin{array}{l}1 \\ (1) \\ (1)\end{array}\right.$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3694- | Electrical equipment for internal combustion engines ${ }^{3}$...................................................... . 1963.. | 129 | 123 |
|  | 1958.. | 100 | 107 |
| 36942 | Battery charging generators......................... . $1963 .$. | 140 <br> 102 | 126 97 |
| 36943 | Cranking motors........................................ $1963 .$. | 126 | 132 |
|  | 1958.. | 89 | 114 |
| 36945 | Other complete electrical equipment for | 137 | 112 |
|  | internal combustion engines......................1963... | 88 | 108 |
| 3699- | Electrical products, n.e.c............................ $1963 .$. | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |

[^261]TABLE 6C. Product Classes-Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962{ }^{1}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3691- | Storage batteries............................... | 504,492 | 436,646 | 406,911 | 404,862 | 401,483 | 361,489 | 336,118 | 293,358 |
| 36911 | Storage batteries, SLI type................. | 360,885 | 318,066 | 298,255 | 298,990 | 310,007 | 278,960 | 258,840 | 249,328 |
| 36912 | Storage batteries, other than SLI types, including parts for storage batteries..... | 139,095 | 115,854 | 106,071 | 101,650 | 87,909 | '78,511 | 77,278 | 44,030 |
| 36910 | Storage batteries, n.s.k.................... | 4,512 | $(2,726)$ | $(2,585)$ | $(4,222)$ | $(3,567)$ | 4,018 | (NA) | (NA) |
| 36920 | Primary batteries, dry and wet | 191,624 | 197,066 | 171,341 | 153,320 | 157,787 | 135,679 | 117,926 | 78,094 |
| 36930 | X -ray equipment, including X -ray tubes, and electrotherapeutic apparatus. | ${ }^{2} 100,599$ | 281,435 | 255,394 | 87,980 | 78,307 | 72,969 | 66,839 | 58,868 |
| 3694- | Engine electrical equipment................... | 873,912 | 812,798 | 729,394 | 743,170 | 744,332 | 586,853 | 588,171 | (NA) |
| 36941 | Ignition harness and cable sets. | 58,899 | 39,449 | 37,370 | 37,066 | 35,051 | 28,831 | 53,943 | (NA) |
| 36942 | Battery charging generators................ | 199,287 | 126,498 | 125,313 | 123,918 | 129,666 | 104,930 | 105,343 | 72,519 |
| 36943 | Cranking motors. . . . . . . . . . . . . . . . . . . . . . . . | 134,672 | 119,110 | 99,086 | 113,940 | 111,726 | 82,332 | 80,701 | 47,496 |
| $3694 / 4$ | Spark plugs................................. | 143,845 | 158,858 | 149,334 | 157,473 | 159,997 | 123,064 | 113,631 | 57,922 |
| 36945 | Other complete electrical equipment for internal combustion engines.................. | 217,123 | 189,514 | 155,251 | 160,049 | 163,214 | 133,797 | 158,500 | 113,285 |
| 36946 | Components and parts for engine electrical equipment. | 114,726 | 148,518 | 131,412 | 129,402 | 130,601 | 103,325 | 76,053 | 70,929 |
| 36940 | Engine electrical equipment, n.s.k......... | 5,360 | $(30,851)$ | (31,628) | $(21,322)$ | (14,077) | 10,574 | (NA) | (NA) |
| 3699- | Electrical products, n.e.c. | 335,524 | 309,320 | 292,912 | 244,294 | 286,759 | 249,231 | (NA) | (NA) |
| 36992 | Lamp bulb components (except glass blanks) and other electrical products................ | 156,918 | 142,169 | 133,462 | 119,198 | 125,108 | 115,846 | (NA) | (NA) |
| 36996 | Appliance wire and cord, and flexible cord sets ${ }^{3}$. | 167,664 | 159,215 | 146,659 | 90,129 | 149,809 | 127,069 | (NA) | (NA) |
| 36990 | Electrical products, n.e.c., n.s.k......... | 10,942 | $(7,936)$ | $(12,791)$ | $(34,967)$ | $(11,842)$ | 6,316 | (NA) | (NA) |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

Source: Current Industrial Reports Series M36N, "Selected Electronics and Associated Productst'. in
${ }^{3}$ Includes the total for product class 33576 , appliance wire and cord and flexible cord sets, which is primary to industry 3357 .

# TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.


[^262]
## TABLE 7A. Materials by Kind: 1963 and 1958



[^263]
## table 7A. Materials by Kind: 1963 and 1958-Continued



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."
${ }^{2}$ Does not include quantities produced and consumed in the same establishment.

## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Storage batteries (SIC 3691) | Primary batteries, wet and dry (SIC 3692) | X-ray apparatus and tubes (SIC 3693) | Engine electrical equipment (SIC 3694) | Electrical products, n.e.c. (SIC 3699) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000$. | 7,143 | 1,273 | 675 | 6,082 | 1,704 |
| Total cost of purchased fuels..............................do.... | 2,302 | 505 | 181 | 2,262 | 589 |
| Bituminous coal, lignite, and anthracite: <br> Quantity............................................. . 1,000 short tons.. | 12 | 18 | (S) | 100 754 | (S) |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. |  | 180 |  | 754 |  |
| Coke and breeze: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000 short tons. <br> Cost. <br> ............ \$1,000. | (S) | - | - | - | - |
| Fuel oil (distillate and residual): Quantity............................ 1,000 barrels of 42 gallons.. Cost. | 170 496 | 13 57 | (S) | 77 265 | 57 221 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |
|  | 1,799 1,025 | 377 235 | 58 49 | 2,096 1,217 | 410 |
| Other fuels.................................................do.... | 642 | (s) | 52 | (s) | 114 |
| Electric energy: |  |  |  |  |  |
| Purchased: <br> Quantity million kw. -hrs.. | 413 | 57 | 30 | 345 | 68 |
| Cost............................................................. . $\$$. ${ }^{\text {d,000.. }}$ | 4,841. | 768 | 494 | 3,820 | 1,115 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . .million kw.-hrs.. | (s) | - | - | (s) | - |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.........1,000 hp.. | 97 | 19 | 15 | 173 | 30 |
| Prime movers, total.........................................do.... | 17 | (z) | (z) | 15 | 1 |
| Driving generators. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.... | 6 | (z) | (z) | 5 | (z) |
| Not driving generators......................................do.... | 11 | (2) | (z) | 10 | 1 |
| Electric motors, total........................................ . do.... | 81 | 18 | 15 | 166 | 28 |
| Driven by purchased energy. $\qquad$ | 80 | 18 | 15 | 158 | 28 |
| Driven by energy generated at establishment....................... | 1 | - | - | 9 | - |
| Aggregate horsepower per 100 production workers................... | 774 | 302 | 393 | 452 | 341 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Iess than 500 horsepower.
applicable.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated
with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

# TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the estabishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $20 \text { or }$ <br> more |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
| Nonferrous foundry (except die casting) Nonferrous die casting. <br> Heat treating of metals. <br> Machine shof..... <br> Tool and die shop. <br> Stamping, blanking and forming of metals. <br> Painting, lacquering and enameling on metals......... | INDUSTRY 3691.-STORAGE BATTERIES |  |  |  |  |  |  |  |
|  | 9 | 7 | 1 | 1 | 59 | (D) | (D) | (D) |
|  | 15 | 11 | 4 | - | 43 | 13 | 30 | - |
|  | 2 | 2 | - | - | (D) | (D) | - | - |
|  | 18 | 6 | 8 | 4 | 236 | 14 | 76 | 146 |
|  | 3 | 2 | 1 |  | (D) | (D) | (D) | - |
|  | 5 | 4 | 1 | - | 23 | (D) | (D) | - |
|  | 10 | 10 | - | - | 14 | 14 | - | - |
|  | INDUSTRY 3692.-PRTMARY BATTERIES, DRY AND WET |  |  |  |  |  |  |  |
| Nonferrous foundry (except die casting)............... | 1 | - | 1 | - | (D) | - | (D) | - |
| Heat treating of metals............................... | 1 | - | 1 | - | (D) | - | (D) | - |
| Machine shop............................................. | 4 | 4 | - | - | 9 | 9 | - | - |
| Tool and die shop..................................... | 4 | - | 4 | - | 33 | - | 33 | - |
| Stamping, blanking and forming of metals............... <br> Painting, lacquering and enameling on metals.......... | 11 | 6 2 | 5 | - | (D) 63 | (D) | 50 | - |
|  | INDUSTRY 3693.-X-RAY APPARATUS AND TUBES |  |  |  |  |  |  |  |
| Machine shop.............................................. | 30 | 13 | 9 | 8 | 485 | 23 | 94 | 368 |
| Tool and die shop....................................... | 11 | 7 | 2 | 2 | 75 | 11 | (D) | (D) |
| Plate or structural fabrication........................ | 4 | 2 | - | 2 | (D) | (D) | - | (D) |
| Stamping, blanking and forming of metals............. | 18 | 8 | 5 | 5 | 241 | 14 | 39 | 188 |
| Painting, lacquering and enameling on metals......... | 20 | 14 | 3 | 3 | 161 | 28 | 43 | 90 |
| Ferrous foundry............................................ . | INDUSTRY 3694.-ENGINE ELECTRICAL EQUIPMENT |  |  |  |  |  |  |  |
|  | 2 | 1 | - | 1 | (D) | (D) | - | (D) |
| Nonferrous die casting................................ | 7 | - | 4 | 3 | 198 | - | 47 | 151 |
| Electroplating and other plating..................... | 19 | 11 | 7 | 1 | 136 | 24 | (D) | (D) |
| Galvanizing and other hot dip coating................. | 6 | 5 | - | 1 | 30 | (D) | - | (D) |
| Heat treating of metals............................... | 14 | 6 | 6 | 2 | 143 | (D) | 58 | (D) |
| Automatic screw machine department.................... | 26 | 10 | 9 | 7 | 618 | 23 | 84 | 511 |
| Machine shop..... | 41 | 16 | 12 | 13 | 907 | 31 | 120 | 756 |
| Tool and die shop... | 40 | 14 | 17 | 9 | 1,554 | 28 | 144 | 1,382 |
| Stamping,Painting, lacquering and enameling on metals.......... | 40 | 15 | 16 | 9 | 1,509 | 28 | 138 | 1,343 |
|  | 31 | 28 | 2 | 1 | 86 | 48 | (D) | (D) |
|  | INDUSTRY 3699.-EIECTRICAL PRODUCTS, N.E.C. |  |  |  |  |  |  |  |
| Machine shop............................................... | 29 | 16 | 10 | 3 | 208 | 29 | 94 | 85 |
| Stamping, blanking and forming of metals............. | 23 | 10 | 8 | 5 | 401 | 13 | 92 | 296 |
| Painting, lacquering and enameling on metals......... | 22 | 16 | 5 | 1 | 98 | 28 | (D) | (D) |

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

| Item |
| :---: |
|  |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.
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## Transportation Equipment

37A Motor vehicles and equipment<br>37B Aircraft and parts<br>37C Ship and boat building, railroad and miscellaneous transportation equipment

This major group covers establishments primarily engaged in manufacturing equipment for transportation of passengers and cargo by land, air, and water. Important products produced by establishments classified in this major group include motor vehicles, aircraft, ships, boats, railroad equipment, and miscellaneous transportation equipment such as motorcycles, bicycles, etc.

The Standard Industrial Classification System (1957 edition) includes, in Industry Group 372, guided missile components, not elsewhere classified, and receipts from research and development on aircraft parts, guided missile components, not elsewhere classified, and airplane and missile engines.

Certain products which are sometimes associated with or considered a part of transportation
equipment are classified in other major groups in the Standard Industrial Classification System. For example, wheeltype tractors, track-laying tractors, mining cars, and industrial trucks, tractors, trailers, and stackers are in Major Group 35; and ignition systems and storage batteries, in Major Group 36.

Railroad shops are not classified as manufacturing by the Standard Industrial Classification System and, therefore, such activities are not included in employment and other establishment totals for Major Group 37 or Industry Group 374. However, such shops were requested to report the quantity and value of locomotives and railroad cars built or rebuilt. Data on railroad cars built or rebuilt in railroad shops are included only in table 6A-2 for Industry 3742.

## Transportation Equipment: Major Group 37

Value Added by Manufacture by State: 1963


## table 1. General Statistics: 1963 and Earlier Years

| Year and item | Establishments |  | All employees ${ }^{1}$ |  |  |  | Production workers |  |  |  |  |  | Value added by manufacture, adjusted |  |  | Cost of materials ${ }^{3}$ |  | Value of shipments ${ }^{3}$ |  | $\begin{aligned} & \text { Capital } \\ & \text { expenditures, } \\ & \text { new } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> (number) | With 20 employees or more (number) |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ |  | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \\ & \hline \end{aligned}$ |  | $\begin{gathered} \text { Total } \\ \text { (number) } \\ \hline \end{gathered}$ | Man-hours <br> $(1,000)$ |  | Wages $(\$ 1.000$ |  |  |  |  |  |  |  |  |  |  |
| ALL MANUFACTURING ESTABLISHMENTS, TOTAL: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 . . . . . . . | 7410 | 3022 |  | 689737 | 12 | 735609 | 1 | 1500.32 | 2450150 | 7 | 731 | 192 |  | 765 | 674 | 32 | 725442 | 55 | $422 \quad 194$ | 1 | 022004 |
| 1958 | 6810 | 2788 |  | 641360 | 9 | 793175 | 1 | 138559 | 2274891 | 6 | 037 | 341 |  | 315 | 289 |  | (NA) |  | 823901 |  | 629621 |
| 1954 | (NA) | (NA) |  | 765891 | B | 697 998 | 1 | 327772 | 2710939 | 6 | 006 | 009 |  | 428 | 014 |  | (NA) |  | (NA) |  | 924898 |
| AOMINISTRATIVE ANO AUXILIARY UNIIS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 . | 214 | 154 |  | 98 579 |  | 877369 |  | (x) | $(x)$ |  |  | $(x)$ |  |  | (x) |  | (x) |  | (x) |  | (x) |
| $1958^{5}$. . . . | 176 | 114 |  | 79431 |  | 607479 |  | (x) | $(x)$ |  |  | (x) |  |  | $(x)$ |  | (x) |  | $(x)$ |  | $(x)$ |
| $1954{ }^{5}$. | (NA) | (NA) |  | 60390 |  | 397795 |  | (x) | $(x)$ |  |  | $(x)$ |  |  | (x) |  | (x) |  | $(x)$ |  | (x) |
| OPERATING MANUFACTURING ESTABLISHMENTS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $19633^{6}$. . . . . . . | $\begin{array}{ll}7 & 196 \\ 6 & 634\end{array}$ |  |  |  |  |  |  |  |  | 7 |  |  |  |  |  | 32 |  |  |  |  |  |
| $1958{ }^{6}$. . . . . . | $\begin{array}{ll}6 & 634 \\ 5 & 349\end{array}$ | 2 2 674 |  | 562 <br> 705 <br> 029 | 9 | $\begin{array}{ll}185 & 696 \\ 300 & 103\end{array}$ |  | 138 <br> 327 <br> 279 | $\begin{array}{llll}2 & 274 & \text { R9 } \\ 2 & 710\end{array}$ | 6 | 037 006 | $\begin{aligned} & 341 \\ & 009 \end{aligned}$ |  | 315 429 | $299$ |  | (NA) | 38 | 299301 |  | $\begin{aligned} & 629621 \\ & 924998 \end{aligned}$ |
| 1954 . . . . |  | 2318 |  |  |  |  |  |  | 2710939 | 6 |  |  |  | 429 |  |  |  |  |  |  |  |
| OPERATING MANUFACTURING ESTABLISHMENTS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1962^{6}$ 7. - | (NA) | (NA) |  | 600670 | 11 | 333596 | 1 | 128764 | $\begin{array}{llll}2 & 367 & 196\end{array}$ | 7 | 169 | 035 |  | 971 | 844 |  | 621392 | 51 | 341609 |  | 356300 |
| $1961{ }^{6} 7^{7}$. . . - | (NA) | (NA) |  | 505454 |  | 112640 |  | 055777 | $\begin{array}{llll}2 & 156 & 737\end{array}$ | 6 |  | 391 |  | 432 |  | 26 | 042266 | 43 | 549317 |  | 720132 |
| $1960{ }^{6} 7^{7}$. . . . . . . . . . . | (NA) | (NA) |  | 592591 |  | 360424 |  | 160697 | 2392942 | 6 | 841 | 476 |  | 368 |  |  | (NA) |  | (NA) |  | 730913 |
| $1959{ }^{6}{ }^{7}$. . . . . . . . . . . | (NA) | (NA) |  | 615442 | 10 | 254416 |  | 172093 | 2453935 | 6 | 696 |  |  | 094 |  |  | (NA) |  | ( NA) |  | 723111 |
| $1957{ }^{7}$. - | (NA) | (NA) |  | 901249 | 10 | 490748 |  | 402026 | 2845103 | 7 | 177 | 630 |  | 491 |  |  | (NA) |  | (NA) |  | 142393 |
| $1956{ }^{7}$. | (NA) | (NA) |  | 792676 | 9 | 706567 | 1 | 357997 | 2793344 | 6 | 743 | 150 |  | 633 |  |  | (NA) |  | (NA) |  | 437361 |
| $1955^{7}$. | (NA) | (NA) |  | 912629 | 9 | 407064 | 1 | 417730 | 2959874 | 6 | 342 | 467 |  | 070 | 961 |  | (NA) |  | (NA) |  | 849 832 |
| $1953{ }^{\text {? }}$. . . . . . . | (NA) | (NA) |  | 911706 | 9 | 986838 |  | 529924 | 3154956 | 6 |  |  |  | 534 |  |  | (NA) |  | ( NA) |  | $70959 ?$ |
| $1952^{7^{\circ}}$. . . . . . | (NA) | (NA) |  | 650203 | 7 | 423349 |  | 317374 | 2749640 | 5 | 585 | 444 |  | 042 |  |  | (NA) |  | (NA) |  | (NA) |
| $19517^{\circ}$. . . . . . | 3393 | (NA) |  | 469509 | 6 | 066748 679 |  | 199629 | $2 \begin{array}{llll}2 & 449 & 100\end{array}$ | 4 | 672 | 343 |  | 798 | 928 |  | ( NA ) |  | (NA) |  | 599519 |
| $1950{ }^{\circ}$ | 2790 | (NA) |  | 218417 |  | 679459 |  | 005923 | 2060313 | 3 | 656 | 460 |  | 546 | 828 |  | (NA) |  | (NA) |  | 343428 |
| 1949 . | ( NA) | (NA) |  | 139983 |  | 098421 |  | 935611 | 1873124 | 3 | 163 | 343 |  | 054 | 449 |  | (NA) |  | ( $\mathrm{N}, \mathrm{A}$ ) |  | 263712 |
| $1947{ }^{\text {. }}$ | 3703 | (NA) |  | 174499 |  | 694932 |  | 931103 | 1361399 | 2 | 920 | 213 |  | 841 | 722 |  | (NA) |  | (NA) |  | 354974 |
| $1939{ }^{\circ}{ }^{\circ}$ | 2012 | (NA) |  | (NA) |  | (NA) |  | 544553 | (NA) |  | 867 | 024 |  | 772 | 573 |  | (NA) |  | (NA) |  | (NA) |
| $1937^{\circ}$. | 1958 | (NA) |  | (NA) |  | (NA) |  | 66221.8 | (NA) | 1 | 029 | 650 |  | 986 | 497 |  | (NA) |  | (NA) |  | (NA) |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

The figures for 1939 through 1963 include data for employees of manufacturing estabishments who are engaged in distribution and construction work. The extent to which
ata for such employees are included in the figures for earlier years is not known.
${ }^{2}$ For the period 1954 to 1963 , figures represent adjusted value added by manufactu
${ }^{2}$ For the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, value of finished products and work-in-process inventories between the beginning and end of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. See Introduction, "Value Added by Manufacture."
${ }^{3}$ The total value of shipments and cost of materials for industry groups (2- and 3digit) includes extensive duplication arising from shipments between establishments in the same industry classification. For a more complete explanation, see Introduction. The figures for 1958 to 1963 include expenditures for plants under construction and not ${ }_{5}$ yet in operation.
for manufacturing centa for operating establishments, figures for employment and payroll for manufacturing central administrative offices and auxiliary units are shown for the
years 1949 to 1953 in the annual survey of manufactures volumes. Data for these units are not available for the years 1955 to 1957, 1959 to 1962, or prior to 1949.

Figures for 1958 to 1963 for operating manufacturing establishments are not strictiy comparable with prior years due to revisions of the Standard Industrial Classification System. Prior to 1958 , establishments primarily engaged in the manufacture of truck and bus bearings, convertible tops for automobiles, rebuilt automotive parts, and aircraft ments primarily engaged in the manufacture of parachutes are included in data prior to 1958.
${ }^{7}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with the ${ }^{8}$ The figures for 1939 , but not for 1937 , have been revised for comparability with
${ }^{8}$ The figures for 1939, but not for 1937, have been revised for comparability with road repair shops reclassified as nonmanufacturing establishments. Value added by manufacture for 1939 on a basis strictly comparable with 1937 was $\$ 1,794$ million.
${ }^{9}$ The figures for 1935 and earlier years are not sufficiently comparable with those for later years to be shown in this table because the earlier figures exclude data for establishments primarily engaged in the manufacture of aircraft engines and for a number
of large establishments classified prior to 1937 in other industry groups.

## table 2. General Statistics, by Geographic Areas: 1963 and 1958



TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


## table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Code | Industry group and geographic area | 1963 |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  |  | Total <br> (number) | With 20 <br> employees <br> or more <br> (number) | Total <br> (number) | Payroll | Total | Man hours | Wages |  |  |  |  |
| 379 |  | 222 | 82 | 7399 | 30068 | 6393 | 12716 | 22878 | 61198 | 2605 | 5045 | 26592 |
|  |  | 90 | 38 | 3861 | 16469 | 3341 | 6669 | 12473 | 35632 | 1428 | 1127 | 7618 |
|  |  | 13 | 6 | 501 | 1432 | 416 | 734 | 1016 | 2882 | 117 | (0) | 101 |
|  |  | 21 | 12 | 1572 | 6882 | 1396 | 2892 | 5276 | 17069 | 671 | 383 | 2642 |
|  |  | 45 | 15 | 1167 | 5532 | 980 | 1936 | 4161 | 10617 | 463 | (0) |  |
|  | EAST SOUTH CENTRAL. | 19 | 10 | 1023 | 3757 | 882 | 1746 | 2881 | 5832 | 358 | 513 | 2578 |
|  |  | $\begin{aligned} & 9 \\ & 4 \end{aligned}$ | 4 3 | 269 346 | 796 1.272 | 224 315 | 407 599 | 590 1048 | 1 1 1 815 | 42 124 | (0) $(0)$ | (0) |
|  | ALABAMA . . . . . . . . . | 4 | 3 | 346 | 1272 | 315 | 599 | 1048 | 1815 | 124 | (0) | - |
|  | WEST SOUTH CENTRAL. | 113 | 34 | 2515 | 9842 | 2170 | 4301 | 7524 | 19734 | 819 | 3405 | 16396 |
|  | OKLAHOMA . . . . . . . . | 23 | 7 | 577 | 2214 | 501 | 1011 | 1584 | 4588 | 157 | 923 | 4225 |
|  | WEST • . . | 269 | 101 | 8472 | 40679 | 7294 | 14024 | 31629 | 68120 | 3309 | 5198 | 34674 |
|  | IOAHO. . | 12 | 6 | 523 | 2256 | 444 | 902 | 1647 | 4589 | 341 | 166 | 608 |
|  | COLORADO . | 26 | 4 | 271 | 1358 | 225 | 424 | 1113 | 2407 | 241 | $(0)$ | (0) |
|  | ARIZONA. | 16 | 4 | 247 | 1106 | 212 | 415 | $\begin{array}{r}861 \\ \hline 137\end{array}$ | 1566 | 103 | (0) | (0) |
|  | UTAH * | 13 | 4 | 327 | 1653 | 262 | 513 | 1137 | 2653 | 93 | (0) | (0) |
|  | WASHINGTON . | 22 | 4 | 230 | 975 | 197 | 345 | 766 | 1412 | 75 | (0) | (0) |
|  | CALIFORNIA . . . . . . . . | 158 | 71 | 6311 | 31072 | 5468 | 10513 | 24313 | 51787 | 2297 | 4185 | 29128 |

## table 3. Detailed Statistics: 1963

| Item | Transportation equipment (SIC 37) | Motor vehicles and equipment (SIC 371) | Aircraft and parts (SIC 372) | Ship and boat building (SIC 373) | Railioad equipment (SIC 374) | Motorcycles, bicycles, and parts (SIC 375 ) | Transportation equipment, n.e.c. (SIC 379) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ESTABL ISHMENTS, TOTAL . . . . . . . . . . . . . . NUMBER. | 7196 | 2765 | 1346 | 1960 | 102 | 88 | 935 |
| WITH 1 TU 19 EMPLOYEES. . . . . . . . . . . . . . OO. | 4328 | 1543 | 1 631 | 1492 | 32 | 55 | 575 |
| WITH 20 TU 99 EMPLUYEES . . . . . . . . . . . . . DD. | 1672 | 691 | 363 | + 318 | 27 | 17 | 256 |
| WIth 100 EMHLOYEES OR MORE. . . . . . . . . . . . DU. | 1196 | 531 | 352 | 150 | 43 | 16 | 104 |
| PRUPRIETORS ANO WORKING PARTNERS. . . . . . . . . . DO. | 3169 | 1067 | 419 | 1240 | 14 | 13 | 416 |
| ALL EMPLOYEES (AVERAGE FDR THE YEARI. . . . . . . . . DO. | 1601158 | 693821 | 679385 | 139510 | 45079 | 9662 | 33 701 |
| PAYROLL (ALL EMPLOYEES), TUTAL FOR YEAR . . . . . $\$ 1,000$. | 11858240 | 5193447 | 5253685 | 898439 | 301695 | 48425 | 162549 |
| PRUDUCTION WORKERS: |  |  |  |  |  |  |  |
| AVERAGE FUR the year. . . . . . . . . . . . . . Number. . | $1 \begin{array}{lll}150 & 082\end{array}$ | 571026 | 390295 | 117394 | 34902 | 7912 | 28553 |
| MARCH . . . . . . . . . . . . . . . . . . . . . DO. | 1168966 | 592177 | 386858 | 121213 | 35012 | 7549 | 26157 |
| MAY . . . . . . . . . . . . . . . . . . . . . . . OD. | 1159037 | 583065 | 383462 | 122300 | 33082 | 8149 | 28979 |
| AUGUST. . . . . . . . . . . . . . . . . . . . . DO. | 1062841 | 475125 | 399824 | 114346 | 35591 | $8 \quad 431$ | 29524 |
| NOVEMEER . . . . . . . . . . . . . . . . . . . . DO. | 1209657 | 633739 | 390986 | 111920 | 35902 | 7 7 | 29585 |
| MAN-HOURS . . . . . . . . . . . . . . . . $1,000$. | 2450150 | 1264399 | 810454 | 235523 | 68049 | 15152 | 56573 |
| JANUARY-MARCH . . . . . . . . . . . . . . . . DO. | 609426 | 309085 | 208215 | 60299 | 16058 | 3429 | 12340 |
| APRIL-JUNE. . . . . . . . . . . . . . . . . . . . 00. | 624859 | 323628 | 203696 | 62082 | 16672 | 4073 | 14708 |
| JULY-SEPTEMBER. . . . . . . . . . . . . . . . . . DD. | 575838 | 286788 | 194557 | 58664 | 16874 | 4013 | 14942 |
| OCtOBER -DECEMBER . . . . . . . . . . . . . . DO. | 642299 | 344898 | 203999 | 56437 | 18457 | 3660 | 14848 |
| WAGES . . . . . . . . . . . . . . . . . . . $\$ 1,000$. | 7731192 | 4069698 | 2585997 | 701693 | 217540 | 34398 | 121866 |
| COST DF MATERIALS, ETC., TOTAL ${ }^{1}$. - - ${ }^{\text {d }}$ | $\begin{array}{llll}32 & 725442\end{array}$ | 24449111 | 5887954 | 853282 | 840808 | 112157 | 582130 |
| MATERIALS, PARTS, CONTAINERS, AND SUPPLIES CONSUMED - DO. | 31205370 | 24041040 | 4906174 | 779986 | 808800 | 102722 | 566648 |
| COST OF RESALES . . . . . . . . . . . . . . . . . . . DO. | - 529636 | 170576 | 307309 | 17497 | 19640 | 6323 | 8291 |
| FUELS CONSUMED. . . . . . . . . . . . . . . . . . . DO. . | 113567 | 77778 | 21551 | 6 915 | 5241 | 724 | 1358 |
| ELECTRIC ENERGY: PURCHASED: |  |  |  |  |  |  |  |
| OUANTITY. . . . . . . . . . . . . .MILLION KW. -HRS. . | 18924 | 11114 | 6175 | 1078 | 396 |  | 86 |
| CDST . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. | 204102 | 118781 | 64818 | 12984 | 4793. | 877 | 1849 |
| generated less súlo . . . . . . . . .million kw. -hrs. | 13840 | 575 | 9141 | 1959 | 1310 | - | 855 |
| CONTRACT WORK . . . . . . . . . . . . . . . . . \$1,000: | 672004 | 41086 | 588102 | 35897 | 2334 | 1511 | 3074 |
| VALUE OF SHIPMENTS (INCLUDING RESALES), TOTAL ${ }^{\text {² }}$. . . . DO. . | $\begin{array}{llll}55 & 428194\end{array}$ | $\begin{array}{llll}37 & 173 & 401\end{array}$ | 13776419 | 2039973 | 1365056 | 192851 | 880494 |
| Value of resales. . . . . . . . . . . . . . . . . DO. . | 672042 | 205800 | 13414740 | $\begin{array}{r}22552 \\ \hline 1\end{array}$ | - 8480 | 7572 | 12898 |
| VALUE ADDED BY MANUFACTURE, ADJUSTEO. . . . . . . . . DO. | 22765674 | 12780577 | 7867349 | 1192749 | 541471 | 82245 | 301283 |
| MANUFACTURERS' INVENTORIES: |  |  |  |  |  |  |  |
| BEG INNING OF YEAR, TOTAL. . . . . . . . . . . . . ${ }^{\text {c }}$ DO. | 6553226 | $2 \begin{array}{llll}280 & 091\end{array}$ | 3253414 | 459793 | 241409 |  | 83667 |
| FINISHED PRODUCTS . . . . . . . . . . . . . . . DO. | 812470 | 456380 | 260032 | 31877 | 31411 | 9500 | 23270 |
| WORK - IN-PRDCESS . . . . . . . . . . . . . . . DO. | 3936877 | 1025979 | 2370646 | 350985 | 160597 | 15926 | 12744 |
| MATERIALS, SUPPLIES, FUEL, ETC. . . . . . . . . DO. | 1803859 | 997722 | 622736 | 76931 | 49401 | 9426 | 47643 |
| END OF YEAR, TOTAL. . . . . . . . . . . . . . . . . . DO. . | 7048765 | 2627239 | 3603427 | 422697 | 270006 | 36006 | 89390 |
| FINISHED PRODUCTS . . . . . . . . . . . . . . . DO. . | 791245 | 434702 | 255822 | 33645 | $30 \quad 319$ | 11398 | 25359 |
| WORK-IN-PROCESS . . . . . . . . . . . . . . . DO. | 4300913 | 1104914 | 2676420 | 311696 | 178912 | 15579 | 13392 |
| MATERIALS, SUPPLIES, FUEL, ETC. . . . . . . . . . OO. | 1956607 | 1087623 | 671185 | 77356 | $60 \quad 775$ | 9029 | 50639 |
| EXPENDITURES FOR PLANT AND EOUIPMENT, TOTAL . . . . . DO. | $1 \begin{array}{llll}1 & 115081\end{array}$ | 702010 | 318896 | 57064 | 19349 | $\begin{array}{ll}3 & 437\end{array}$ | 14325 |
| NEW, TOTAL. - . . . . . - . . . . . . . . DO. | 1022004 | 655374 | 294163 | 37949 | $18 \quad 072$ | 3152 | 13294 |
| NEW STRUCTURES AND ADDITIONS TO PLANT . . . . . . . DO. | 273140 | 144982 | 102372 | 15814 | 3423 | 540 | 6009 |
| NEW MACHINERY AND EOUIPMENT . . . . . . . . . . . DO. | 748864 | 510392 | 191791 | 22135 | 14649 | 2612 | 7285 |
| USED PLANT ANO EOUIPMENT. . . . . . . . . . . . . . . OO. . | 93077 | 46636 | 24733 | 19115 | 1277 | 285 | 1031 |
| SELECTED OPERATING RATIUS: |  |  |  |  |  |  |  |
| PAYROLL/TOTAL EMPLDYMENT. . . . . . . | 7406 | 7485 | 7733 | 6437 | 6693 | 5012 | 4823 |
| PRODUCTION WORKERS/TDTAL EMPLOYMENT . . . . . . . . . | . 72 | . 82 | . 57 | . 84 | . 77 | . 82 | . 85 |
| MAN-HUURS/PRODUCTION WORKERS. . . . . . . . | 2130 | 2214 | 2077 | 2006 | 1950 | 1915 | 1981 |
|  | 3.16 | 3.22 | 3.19 | 2.98 | 3.20 | 2.27 | 2.15 |
| COST OF MATERIALS AND PAYROLLS/TDTAL VALUE OF SHIPMENTS | . 80 | . 80 | . 81 | . 86 | . 84 | . 83 | . 85 |
| COST OF MATERIALS/TOTAL VALUE DF SHIPMENTS. . . . - | . 59 | . 66 | . 43 | . 42 | . 62 | . 58 | . 66 |
| ADJUSTEO VALUE ADDED/TOTAL EMPLOYMENT . | 14218 | 18421 | 11580 | 8550 | 12012 | 8512 | 8940 |
| Salaries ano wages/adjusted value added | . 52 | .41 | . 67 | . 75 | . 56 | . 59 | . 54 |

[^264]
## MOTOR VEHICLES AND EQUIPMENT

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title

3713-Truck and Bus Bodies<br>3715-Truck Trailers<br>3717-Motor Vehicles and Parts

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3713-TRUCK AND BUS BODIES

This industry comprises establishments primarily engaged in the manufacture of truck and bus bodies for sale separately, or for assembly on purchased chassis. Establishments primarily engaged in manufacturing complete trucks and busses are classified in Census Industry 3717, and stamped body parts for truck and busses in industry 3461.

The code number as well as the definition of this industry was unchanged between 1958 and 1963. For a detailed list of products of industry 3713 , refer to table 6A, product codes 3713012 to 3713099 .

Value of shipments and other receipts of the Truck and Bus Bodies Industry in 1963 totaled $\$ 477$ million. This amount included shipments of truck and bus bodies (primary products) valued at $\$ 362$ million, shipments of other products (secondary products) valued at $\$ 56$ million, and miscellaneous receipts (mainly resales) at $\$ 58$ million.

This industry's shipments of truck and bus bodies in 1963 represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 included motor vehicle manufacturers ( $\$ 11$ million), parts and accessories for passenger cars, trucks, and busses shipped to; other than motor vehicle manufacturers ( $\$ 17$ million).

Shipments of truck and bus bodies by this industry in 1963 represented 86 percent of all shipments of these products ( $\$ 420$ million) by all industries. In 1958 the coverage ratio
was 87 percent. Other industries shipping truck and bus bodies consisted mainly of industry 3717, Motor Vehicles and Parts, $\$ 18$ million; and industry 3715, Truck Trailers, $\$ 13$ million.

## 3715-TRUCK TRAILERS

This industry comprises establishments primarily engaged in the manufacture of truck trailers and truck trailer chassis for sale separately, but not engaged in manufacturing complete trucks and busses.

The code number as well as the definition of this industry were unchanged between 1958 and 1963. For a detailed list of products of industry 3715 , refer to table 6 A , product codes 3715011 to 3715055 .

Value of shipments and other receipts of the Truck Trailers Industry in 1963 totaled $\$ 516$ million. This amount included shipments of truck trailers (primary products) valued at $\$ 450$ million, shipments of other products (secondary products) valued at $\$ 39$ million, and miscellaneous receipts (mainly resales), at $\$ 27$ million.

This industry's shipments of truck trailers in 1963 represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent. Secondary products shipped by this industry in 1963 consisted mainly of truck and bus bodies ( $\$ 13$ million), and automotive parts and accessories shipped to motor vehicle manufacturers (\$10 million).

Shipments of truck trailers by this industry in 1963 represented 93 percent of all shipments of these products ( $\$ 485$ million) by all industries. In 1958 the coverage ratio was also 93 percent. Other industries shipping truck trailers consisted mainly of industry 3443 , Boiler Shop Products, $\$ 2$ million; and industry 3717, Motor Vehicles, and Parts, $\$ 6$ million.

## 3717-MOTOR VEHICLES AND PARTS

The Motor Vehicles and Parts Industry includes establishments engaged primarily in the manufacture or assembly of complete passenger automobiles, car bodies, trucks, commercial cars and busses (except trackless trolleys-Industry 3742), special purpose motor vehicles and motor vehicle parts and accessories. Establishments primarily engaged in manufacturing truck and bus bodies and assembling them on purchased chassis are classified in industry 3713; motorcycles in industry 3751; wheel type tractors, except contractors' off-highway types in industry 3522 ; track laying tractors in industry 3531 ; and combat tanks in industry 1931.

In this report, based on the 1963 Census of Manufactures, as in 1958, the three Standard Industrial Classification industries (3711, 3712, and 3714) have been combined because of a major problem of defining the reporting unit in terms of these industries. This difficulty arises from the fact that many large establishments have integrated operations which include the production of parts or bodies and the assembly of complete vehicles at the same location.

Included in industry 3717 are such parts as passenger-car bodies, motor vehicle engines (except Diesel), brakes, clutches, axles, radiators, differentials, transmissions, wheels and frames, windshield wipers, automotive bumpers, camshafts, connecting rods, crankshaft assemblies, cylinder heads, drive shafts, exhaust systems, fuel systems, heaters, hoods, horns, instrument board assemblies, lubrication systems, mufflers, powertransmission equipment, rear-axle housings, shock absorbers, steering mechanisms, tops (except stamped metal), universal joints, wheel rims, windshield frames, and automobile accessories, not elswhere classified.

A considerable number of components, parts and accessories for motor vehicles are not classified in industry 3717 but are classified in other Standard Industrial Classification industries based on the characteristic of the product itself rather than the Specific Application. Among the more important of these are automotive hardware, industry 3429, Hardware, N.E.C.; automotive stampings, industry 3461, Metal Stampings; Diesel and semi-Diesel engines, industry 3519, Internal Combustion Engines; sealed beam and other electric lamps, industry 3641, Electric Lamps; motor vehicle lighting fixtures, industry 3642, Lighting Fixtures; bearings, industry 3566, Power-Transmission Equipment; tires and inner tubes, industry 3011 , Tires and lnner Tubes; automobile glass, industry 3211, Flat Glass; ignition equipment such as spark plugs, distributors, switches, ignition coils, generators, cranking motors, etc., industry 3694, Engine Electrical Equipment; storage batteries, industry 3691, Storage Batteries; automobile radios, industry 3651, radio and Television Receiving Sets; and carburetors and pistons, industry 3599 , Miscellaneous Machinery.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been slightly changed from the classification system used in 1958. The change in the composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to revision in the definition of this industry made in the 1963 Supplement to the 1957 edition of the Standard Industrial Classification, reclassifying establishments primarily manufacturing automotive wiring harness sets other than ignition, from industry 3694, "Engine Electrical Equipment" to industry 3714 (Census Industry 3717). For a detailed list of products of industry 3717, refer to table 6A, product codes 3717111 to 3717711 .

Motor vehicle and equipment companies frequently operate separate establishments manufacturing such components, parts and accessories for automotive use. These establishments are not classified in industry 3717 . Therefore, to obtain an overall picture of automotive components, parts and accessories associated with the manufacture or assembly of complete motor vehicles and equipment, reference must also be made to many of the industries outside of industry 3717. This situation occurs, of course, not only in connection with the Motor Vehicles and Parts Industry but for many other industries (aircraft, locomotives, etc.).

Another factor to be considered in dealing with the statistics for this group of industries relates to the varied degree of establishment integration in respect to such metalworking operations as stamping, foundry, and tool and die production associated with the output of motor vehicles and equipment. ln some establishments many of these activities are conducted as an integral part of the same establishment which produces or assembles motor vehicles and equipment. In these cases, their employment, wages, materials, etc., are included in the statistics for the establishment. The extent of such integrated captive operations is shown in Table 9 for the motor vehicle industry.

On the other hand, the foundry, and tool and die activities may be set up as separate establishments of motor vehicle and equipment companies or such activities may be performed by establishments which are not part of motor vehicle or parts companies. In either of these cases, data for such separate establishments would not be included in industry 3717, but rather in their respective industries, e.g., Industry Group 332, lron and Steel Foundries; Industry Group 336, Nonferrous Foundries; and lndustry 3544, Special Dies and Tools.

## Value of Shipments

Data on cost of materials and value of shipments of the Motor Vehicle and Parts lndustry include extensive duplication resulting from the transfer of motor vehicle parts to establishments producing complete motor vehicles. The value of such shipments are
duplicated in the total value of shipments. A corresponding duplication enters into the total cost of materials. The data shown for value added by manufacture (value of shipments less cost of materials, etc.) avoid this duplication.

## Replacement Parts

Manufacturers' shipments of replacement parts for passenger cars, trucks, busses, and trailers during 1963 amounted to $\$ 2,318$ million. The comparable 1958 figure was $\$ 1,639$ million. These figures include parts made by establishments classified in the Motor Vehicles and Parts lndustry as well as parts classified as primary products of other industries. They include the value of motor vehicle replacement parts such as spark plugs, ignition coils, storage batteries, carburetors, pistons and piston rings, headlights, fan belts, springs, hardware, mufflers, radiators and cores, water and fuel pumps, wheels, universal joints, cylinder heads, hub and drum assemblies, transmissions, shock absorbers, rear axle shafts, and clutch disc and facing assemblies.

These figures represent the shipments of these parts by parts manufacturers to other than motor vehicle manufacturers and shipments of replacement parts by motor vehicle manufacturers including parts which they purchased and resold in the same condition. No duplication is involved since parts manufacturers reported separately parts shipped to motor vehicle manufacturers and the latter figure is not included in this total. Value of shipments of tires and tubes and motor vehicle accessories such as radios, heaters, etc., are not included in this figure.

In order to arrive at an aggregate value for replacement parts without duplication, establishments producing replacement parts but not engaged in manufacturing complete vehicles were requested to exclude from their shipments data on replacement parts all shipments to motor vehicle producers. Motor vehicle producers that reshipped such replacement parts were requested to report the value of these shipments, even though the parts were not made by such companies. The value of replacement parts in 1963 totaled the $\$ 2,318$ million referred to above.

Table 6E shows data for 1963 and 1958 on the total production of selected motor vehicle parts and the use of such parts in the assembly of new vehicles as well as the use of these parts for replacement, export, and other uses. These data are not a precise measure of the sale of replacement parts in the United States since they include shipments of parts for export and are affected by inventory changes of parts during the year by both producers of parts and assemblers of vehicles. Also, see general Note of table 6 E for discussion of other limitations of these data.

Value of shipments and other receipts of the Motor Vehicles and Parts Industry in 1963 totaled $\$ 36,181$ million. This amount included shipments of motor vehicles and parts (primary products) valued at $\$ 34,837$ million, shipments of other products (secondary products) valued at $\$ 985$ million, and miscellaneous receipts (mainly resales), at $\$ 359$ million.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent to this specialization is indicated in table 8. Approximately 47 percent of the total industry shipments are represented by plants specializing in product class; 37171, Passenger cars, knocked down or assembled and; chassis for sale separately and 36 percent in 37175 , Parts and accessories shipped to motor vehicle manufactures.

As shown in table 5B, except for motor vehicle parts and accessories, only a very small amount of primary products of this industry was shipped by establishments classified in other industries.


## table 1．General Statistics： 1963 and Earlier Years

| Year | $\begin{aligned} & \begin{array}{c} \text { Comr- } \\ \text { panies } \end{array} \\ & \text { (number) } \end{aligned}$ | Establistments |  | All employees |  | Production workers |  |  | $\begin{gathered} \text { value } \\ \text { adededy } \\ \text { manticaure, } \\ \text { adiusted } \\ (s, 000) \\ (s, ~ \end{gathered}$ | Cost of materials material <br> $(\$ 1,000)$ | Value of <br> shipments <br> $(\$ 1,000)$ | Capital expend－itures， new $(\$ 1,000)$ | SpeSialiationation（ationcent）cent） |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{array}{\|l\|l\|} \hline \text { With } 200 \\ \text { enploy } \\ \text { oes } \\ \text { of nore } \\ \text { (number) } \end{array}$ |  |  |  | Man－hours $(1,000)$ | Wages $(51,000)$ |  |  |  |  |  |  |
| Industry 3713．－TRUCK AND BUS Bodirs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 24，466 | 133，300 | 19，729 |  |  | 229，472 | 250，217 | 46，733 |  |  |  |
| $1962{ }^{\text {i }}$ | （NA） | （NA） | （ NA ） |  | 131 | 19，707 | 41，182 | 488 | ， | 317，907 | 503，970 | （6，936） | （NA） | （NA） |
| $1966{ }^{196}$ | （NA） | （NA） | （NA） | 24，24， | 112， 1144 | ${ }_{21,171}^{18,278}$ |  | 87，518 | 172， 107 | ${ }_{\text {223，735 }}$ | 边 394,1813 | （8） | （NA） | （NA） |
| 19591 | （Na） | （NA） | （NA） | 22，815 | 108，904 | 18，007 | 35，681 | 78，045 | 157，582 | 207，523 | 362，803 | （s） | （NA） | （NA） |
|  |  | 562 | 187 | 20，009 | 91，374 | 15，938 | 30，741 | 65，405 | 145，608 | 163，674 | 307，769 | ，627 | ${ }^{87}$ |  |
| 1957 | （Na） | （NA） | （NA） | 21，316 | 93，629 | 17，026 | 34， 3136 | 67，776 | 148，373 | 154，180 | 302，473 | （s） | 90 | 87 |
| $1956{ }^{1}$ | （Na） | （NA） | （Na） | 23，286 | 99，424 | 19，147 | 38，724 | 75，533 | 156，424 | 163，272 | 312，847 | （s） | （Na） | （NA） |
| ${ }_{1955} 19$ | （Na） | ${ }_{5}^{\text {（NA）}}$ | ${ }_{1}^{(\mathrm{NA})}$ | 21,360 <br> 19,618 <br> 18 |  |  |  | ¢8，192 |  | cilit | 边280,368 <br> 256,883 | 5，005 | （Na） | （NA） |
| 195 | （va） | （NA） | （Na） | 20，836 | 83，510 | 17，329 | （NA） |  | 126，013 | cer |  | （NA） | （Na） | （Na） |
| 19 | （NA） | （NA） | （NA） | 21， 24.284 | 88，050 | 18,166 <br> 20,787 | （（NA） | 65， 6931 | 136，051 | 135,606 <br> 154,098 |  | （NA） | （NA） | （NA） |
|  | （（Na） | （NA） | （Na） | 18，068 | 58，225 | 14，692 | （NA） | 43，947 | 82，881 |  | 163，804 | （NA） | （NA） | （NA） |
| $19477^{2}$ | 599 | （1） | （1） | 26，646 | 78，386 | 22，876 | 47，209 | 62，664 | 127，429 | 114，868 | 242，297 | （NA） | 79 | 90 |
|  | Industry 371．－TRUCK TRaILRRS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19 | 175 |  | ${ }^{105}$ |  |  |  |  |  | 278， |  |  |  |  |  |
| ${ }_{1961}^{1962}$ | （NA） | （NA） | （NA） | 20,205 17,205 | 117,329 <br> 94,260 <br> 1 | lis， 1383 |  |  |  | 析 | 405，403 | 6，1180 | （va） | （VA） |
| $1960{ }^{2}$ | （Na） | （NA） | （NA） | 18，854 | 101，564 | 14，729 | 29，583 | 72,725 | 170，094 | 267， 810 | 438,548 | 7， 899 | （NA） | （NA） |
|  | （154） | ${ }_{1}^{(170)}$ | ${ }_{93}(\mathrm{NA})$ | 20，622 | 107,127 78,142 | －12，090 | 35,413 <br> 24,564 |  | 203，195 | －304,962 <br> 206,258 | $\xrightarrow{505,418} 3$ | $\substack{10,300) \\ 5,072}$ | ${ }_{\text {（NA }}^{84}$ | ${ }_{93}$ |
|  | （Na） | （NA） | （NA） | 16，427 | 82，470 | 12，329 | 24，737 | 55，510 | 137， 214 | 215，352 | 354，079 | （s） | （na） | （NA） |
| $1956{ }^{1}$ | （NA） | （NA） | （NA） | 19，163 | 92，336 | 14，830 | 30，072 | 65，516 | 158，773 | 261，910 | 415，659 | 7，108 | （NA） | （NA） |
| 195 | （Na） | ${ }^{\text {（NA）}}$ | （N） | 18，957 | ${ }^{91,766}$ | 15，138 | 32，376 | 67，498 | 147，181 | 264， 3 ， 4 | 408，208 | 6，18 | （v） | （19） |
| 195 | （Na） | 130 （NA） | （NA） | 19， 19.411 | 80，611 | 15，738 |  | （ 22,32, | 147，458 | － | 316，832 | （NA） |  |  |
| 1952 | （NA） | （Na） | （NA） | 17，497 |  | 14，063 |  | 52，349 | 104，298 | ${ }^{188,728}$ | 293，026 | （NA） | （NA） | （NA） |
| ${ }_{1950}^{1951}$ | （NA） | （NA） | （NA） |  | 68,454 43,583 | 14，920 | （109） | 52,933 33,742 | （112，${ }_{9}^{12,020}$ | － | 隹327，997 | ${ }^{(N A)}$ | （NAA） | （NA） |
|  | （ NA | ${ }_{120}$ | （NA） |  |  |  |  | 25，964 |  | － | 235，264 |  | ${ }_{\text {NA }}$ | ${ }_{87}$ |
|  | （NA） | 99 | （NA） | 12，${ }^{\text {a }}$ | （NA） | 3，960 | （NA） | 5，291 | 13，626 | ，356 | 35，982 | （＊） | （NA） | （NA） |
|  | industry 3717．－Motior vehilles and parts |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. |  |  |  |  |  |  | 1，192，606 | 3，889，636 | 12，345，630 | ，31 | 36，181，007 |  |  |  |
| $\begin{aligned} & 1962^{1} 4 \\ & 1961^{1} 4 \end{aligned}$ | （NA） | （NA） | （NA） |  | $4,465,378$ <br> $3,779,355$ <br> 50 | 517,189 460,339 | $\left\lvert\, \begin{aligned} & 1,110,236 \\ & 945,118 \end{aligned}\right.$ | 2，483，972 | 11， 110,932 |  | 325，647，658 |  | （NA） | ） |
| $1960^{1}$ | （NA） | （NA） | （Na） | 658，148 | 4，319，876 | 540， 751 | 1，131，519 | 3，378，315 | $9,77,429$ | 323312，551 | 330，110，144 | 462,4 | （Na） | （Na） |
| ${ }_{19588^{1}}^{1959}$ | （NA） | （NA） | ${ }_{7}(\mathrm{NA} 5$ | 546，0， | ${ }^{3,1149} \times 1,173$ | 4，43，982 | 1，057，969 | $3,019,106$ <br> $2,344,47$ |  |  | ${ }^{3}$$26,712,803$ <br> $320,830,059$ | ${ }^{386,6}$ | （14） | $\stackrel{\text { NA }}{99}$ |
|  | （NA） | 1，264 |  | 530，658 |  |  | 832，838 | 2，318，958 | 6，332，327 | （NA） |  | 311， 437 | （Na） | （Na） |
|  | （NA） | （NA） | （NA） | 688，355 | 3，755，274 | 554，5 | 1，129， 105 | 2，946，041 | 8，291，255 | （NA） | （NA） | 665，801 | （NA） | （NA） |
| 1956 | （NA） | （NA） | （Na） | 679 | 3，597，38 | 558， | 1，145， | 2，837，522 | 7，628，002 | （na） | （NA） | 1,017 | （na） | （NA） |
|  | （Na） | （NA） | （ NA$)$ | 777， 250 | 4， 4 ， 51,649 | 667,816 <br> 565 <br> 159 | li， $\begin{aligned} & 1,436,193 \\ & 1,125,912\end{aligned}$ |  |  | $\underset{\text {（NA）}}{(N)}$ |  |  | （NA） |  |
|  | （NA） | 1，（NA） | （NA） | 807，597 | 3，812，230 | 684，336 | 1，355，869 | 3，085，219 | 6，940，945 | （NA） | （NA） | （NA） | （NA） | （NA） |
|  | （NA） | （NA） | （NA） | 664，727 | 3，043，274 | 557，993 | 1，147， 912 | 2，445，109 | 5，819，252 | （NA） | （NA） | （NA） | （nA） | （NA） |
| 195 | （NA） | （NA） | （NA） | 723，503 | $2,971,973$ $2,899,371$ 2, | 621，090 | 1，281，758 | ${ }^{2}$ | 5，635，879 | （NA） | （NA） | （NA） | （NA） （NA） | （NA） |
| $1949^{1}$ | （NA） | （NA） | （NA） | 648，326 | 2，370，355 | 552，448 | 1，103，235 | 1，932，590 | 4，583，364 | （NA） | （4） | （NA） | （nA） | （NA） |
| $1947^{2}$ | （NA） | 951 | （NA） | 645，067 | 2，039，872 | 552，055 | 1，102，482 | 1，666，913 | 3，544，924 | （NA） | （NA） | 269，720 | （NA） | （NA） |

NOTE：See Introduction for an explanation of terms used．The following variations in definition of terms should be considered in the use of this table：All employees：For 1949－1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March，May， August，and November；for 1947 an average of 12 monthly figures for all employees；and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period（usually in october）．Production workers：For 1947 and prior years figures represent an average of 12 monthly figures．Value added：Value added prior to 1954 is unadjusted value added which is equal to value of products（excluding resales of finished products）less cost of materials，supplies，fuel，electric energy，and contract work；no adjustment is made for changes in inventories of finished products and work－in－process during the year．Cost of materials：Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture，processing or assembly．In addition，figures prior to 1935 exclude cost of contract work．Value of shipments：Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture，processing or assembly．For 1939 and prior years，except 1929，the figures represent value of production rather than shipments．
Standard Notes
－Represents zero．
（D）Withheld to avoid disclosing figures for individual companies．
（NA）Not available．
（x）Not
applicable．
（S）Withheld because the estimate did not meet publication standards，either on the basis of the associated standard error of estimate or on the basis of a consistency review．
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in tne annual survey of manu－ factures．These estimates，therefore，may differ from the results that would have been obtained from a complete canvass of all manufacturing estab－ lishnents．The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period．For 1959－1962 the figures shown in parenthesis either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data．
${ }^{2}$ No comparable figures are available for earlier years．
${ }^{3}$ Includes extensive duplication arising from shipments between establishments in the same industry classification．
 reclassifying establishments primarily manufacturing automotive wiring harness sets other than ingition，from Industry 3694，＂Engine Electrical Equipment＂to Industry 3714 （Census Industry 3717）．The statistics for 1958－1962 have been revised to take this reclassification into account． The data for 1947－1957 could not be revised to conform with this reclassification．Further，the 1947－1957 data are not strictly comparable with 1958－1963 because of changes introduced in the 1957 Standard Industrial Classification．
table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials <br> ( $\$ 1,000$ ) | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new ( $\$ 1,000$ ) | All employees(number) | Value added by manufacture, adjusted (\$1,000) |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> ( $\$ 1,000$ ) |  |  |  |  |  |  |

INDUSTRY 3713.-TRUCK AND BUS BODIES

| Total.......... | 610 | 208 | 24,466 | 133,300 | 19,729 | 40,897 | 98,359 | 229,472 | 250,217 | 476,733 | 6,554 | 20,009 | 145,608 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New England. ....... | 33 | 7 | 424 | 2,192 | 341 | 713 | 1,628 | 3,528 | 3,932 | 7,461 | 128 | 340 | 1,787 |
| Midale Atlantic. | 119 | 43 | 3,362 | 17,379 | 2,777 | 5,722 | 13,062 | 25,875 | 33,168 | 58,453 | 733 | 3,836 | 29,723 |
| New York. | 4 | 16 | 1,075 | 5,351 | 884 | 1,836 | 4,039 | 8,358 | 10,714 | 18,968 | 260 | 1,848 | 14,667 |
| New Jersey....... | 24 | 7 | 566 | 3,371 | 478 | 1,054 | 2,622 | 4,757 | 5,936 | 10,610 | 183 | 637 | 6,002 |
| Pennsylvania..... | 51 | 20 | 1,721 | 8,657 | 1,415 | 2,832 | 6,401 | 12,760 | 16,518 | 28,875 | 290 | 1,351 | 9,054 |
| East North Central. | 119 | 53 | 10,864 | 63,161 | 8,684 | 18,129 | 47,351 | 106,745 | 111,057 | 217,608 | 2,095 | 8,529 | 63,594 |
| Illinois...... | 27 | 10 | 980 | 5,278 | 811 | 1,702 | 3,700 | 8,546 | 11,435 | 20,007 | 270 | 980 | 6,358 |
| Michigan.. | 23 | 9 | 2,027 | 12,814 | 1,616 | 3,826 | 9,641 | 20,782 | 17,796 | 38,624 | 332 | 261 | 1,827 |
| West North Central. | 77 | 26 | 1,993 | 10,330 | 1,579 | 3,145 | 7,187 | 18,834 | 21,043 | 39,353 | 1,775 | 1,662 | 12,168 |
| Minnesota..... | 18 | 6 | 331 | 1,986 | 249 | 496 | 1,287 | 3,134 | 5,208 | 8,257 | 26 | 240 | 2,092 |
| Iowa... | 13 | 3 | 281 | 1,156 | 233 | 485 | 881 | 1,822 | 2,725 | 4,526 | (D) | 296 | 1,951 |
| Missouri. | 31 | 13 | 1,128 | 6,060 | 881 | 1,720 | 4,216 | 11,872 | 11,096 | 22,602 | 1,481 | $\left({ }^{2}\right)$ | ${ }^{2}$ ) |
| Nebraska. | 5 | 2 | 152 | 659 | 132 | 268 | 528 | 1,009 | 1,026 | 2,009 | 72 | 169 | 1,013 |
| South Atlantic. . | 70 | 22 | 2,828 | 13,550 | 2,318 | 5,078 | 9,452 | 22,334 | 28,492 | 49,184 | 681 | 2,062 | 11,500 |
| Maryland.. | 11 | 2 | 162 | 727 | 133 | 269 | 515 | 997 | 1,590 | 2,574 | 30 | 172 | 710 |
| Virginia. | 11 | 3 | 423 | 2,048 | 327 | 761 | 1,446 | 3,146 | 4,930 | 7,583 | 176 | 232 | 1,478 |
| Georgia.......... | 13 | 5 | 901 | 3,903 | 762 | 1,593 | 2,684 | 5,831 | 10,241 | 15,692 | 165 | 700 | 3,117 |
| East South Central. | 35 | 11 | 1,192 | 5,387 | 999 | 1,997 | 4,280 | 12,544 | 14,320 | 26,941 | 479 | 781 | 5,148 |
| Alabama........... | 9 | 2 | 334 | 1,422 | 259 | 532 | 1,012 | 2,610 | 2,960 | 5,412 | 140 | 149 | 1,174 |
| West South Central. | 39 | 11 | 1,006 | 4,404 | 859 | 1,793 | 3,353 | 8,995 | 9,655 | 18,386 | 122 | 801 | 6,067 |
| Texas............. | 19 | 6 | 475 | 2,243 | 383 | 823 | 1,642 | 5,349 | 4,740 | 9,925 | 87 | 436 | 3,872 |
| Mountain. | 13 | 2 | 170 | 955 | 114 | 212 | 562 | 1,347 | 1,512 | 2,884 | 30 | 180 | 1,124 |
| Pacific... | 105 | 33 | 2,627 | 15,942 | 2,058 | 4,108 | 11,484 | 29,270 | 27,038 | 56,463 | 511 | 1,818 |  |
| Washington. | 9 | 4 | 182 | 1,214 | 152 | 290 | , 954 | 2,157 | 1,764 | 3,914 | 27 | $(2)$ | $(2)$ |
| Oregon. . . . . . . . . . | 13 | 5 | 280 | 1,579 | 228 | 453 | 1,244 | 3,385 | 2,847 | 6,223 | 37 | (2) | (2) |
| California...... | 83 | 24 | 2,165 | 13,149 | 1,678 | 3,365 | 9,286 | 23,728 | 22,427 | 46,326 | 447 | 1,642 | 13,196 |
|  | INDUSTRY 3715.-TRUCK TRAILERS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 197 | 105 | 19,429 | 112,876 | 15,455 | 30,896 | 81,703 | 205,475 | 309,463 | 515,661 | 5,265 | 15,669 | 131,140 |
| New England. | 5 | 2 | 101 | 421 | 86 | 162 | 333 | 703 | 516 | 1,225 | 12 | 65 | 435 |
| Middle Atlantic. | 36 | 18 | 3,891 | 23,064 | 3,183 | 6,021 | 16,875 | 39,620 | 66,913 | 106,872 | 1,029 | 1,717 | 21,420 |
| New York. | 7 | 2 | 184 | 897 | 137 | 238 | 551 | 1,972 | 3,017 | 5,269 | 48 | 233 | 2,419 |
| New Jersey....... | 6 | 1 | 152 | 834 | 123 | 231 | 597 | 840 | 1,980 | 2,774 | 16 | 151 | 1,382 |
| Pennsylvania..... | 23 | 15 | 3,555 | 21,333 | 2,923 | 5,552 | 15,727 | 36,808 | 61,916 | 98,829 | 965 | 1,333 | 17,619 |
| East North Central. | 37 | 24 | 5,961 | 35,759 | 4,829 | 9,494 | 26,783 | 75,189 | 101,442 | 176,555 | 1,889 | 4,524 | 34,322 |
| Michigan. ......... | 8 | 2 | 168 | 1,027 | 132 | 266 | 749 | 2,169 | 1,325 | 3,389 | 14 | 182 | 1,654 |
| West North Central. | 20 | 14 | 2,196 | 12,777 | 1,593 | 3,182 | 8,350 | 21,694 | 28,688 | 49,889 | 543 | 2,203 | 18,523 |
| Iowa. | 5 | 3 | 380 | 2,125 | 279 | 590 | 1,335 | 4,125 | 4,937 | 9,048 | (D) | 291 | 2,794 |
| South Atlantic.. | 13 | 4 | 975 | 4,762 | 791 | 1,660 | 3,400 | 4,441 | 14,210 | 20,013 | 135 | 1,212 | 7,507 |
| East South Central. | 11 | 7 | 1,595 | 7,677 | 1,265 | 2,825 | 5,908 | 14,880 | 26,847 | 41,609 | 270 | 1,570 | 9,779 |
| West South Central. | 26 | 12 | 2,041 | 10,970 | 1,645 | 3,492 | 8,076 | 20,4144 | 29,036 | 49,084 | 621 | 1,636 | 13,836 |
| Mountain... | 9 | 5 | 478 | 2,809 | 367 | 726 | 1,966 | 3,757 | 6,567 | 10,228 | 102 | 344 | 4,128 |
| Pacific. | 40 | 19 | 2,191 | 14,637 | 1,696 | 3,334 | 10,012 | 24,747 | 35,244 | 60,186 | 664 | 2,398 |  |
| Oregon. . |  |  | 227 | 1,639 | 173 | 349 | 1,143 | 2,708 | 4,948 | 7,538 | 282 | ${ }^{(2)}$ | ${ }^{2}$ ) |
| California. | 28 | 11 | 1,641 | 11,060 | 1,243 | 2,462 | 7,414 | 18,479 | 24,970 | 44,064 | 277 | 1,918 | 15,999 |

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expentitures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total (number) | With 20 employees or more (number) | $\begin{aligned} & \text { Total } \\ & \text { (number) } \end{aligned}$ | Payroll <br> $(\$ 1,000)$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Manhours $(1,000)$ | Wages <br> ( $\$ 1,000$ ) |  |  |  |  |  |  |
|  | INDUSIRY 3717.-MOTOR VEHICIES AND PARTS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.. | 1,958 | 909 | 649,926 | 4,947,271 | 535,8427 | 1,192,606 | 3,889,636 | 12,345,630 | 23,889,431 | 36,181,007 | 643,555 | 546,037 | 6,504,510 |
| New England. . Connecticut | $\begin{aligned} & 67 \\ & 17 \end{aligned}$ | 24 8 | 7,224 3,694 | 45,691 21,924 | 5,722 | 12,504 5,588 | 32,908 14,788 | 118,606 36,093 | 240,002 41,971 | 353,766 72,906 | 4,683 1,413 | 5,461 2,419 | $\begin{aligned} & 50,627 \\ & 22,772 \end{aligned}$ |
| Middle Atlantic.... <br> New York. | 215 95 | 97 44 | 64,148 38,389 | 493,205 296,817 | 51,346 31,065 | 114,975 70,350 | 378,655 232,015 | $1,167,879$ 625,282 | $2,362,631$ $1,118,142$ | $3,521,332$ $1,740,295$ | 63,606 38,363 | 63,312 33,082 | 747,798 354,116 |
| East North Central. | 799 | 476 | 479,355 | 3,672,140 | 398,233 | 877,265 | 2,912,465 | 8,460,889 | 14,769,393 | 23,193,359 | 436,306 | 400,160 | 4,543,441 |
| Ohio..... | 180 | 121 | 105,218 | 792,195 | 87,436 | 190,715 | 631,238 | 1,820,652 | 2,813,069 | 4,632,877 | 78,448 | 82,294 | 4,533,006 |
| Indiana. | 108 | 67 | 56,962 | 394,700 | 46,799 | 95,127 | 304,829 | 1,734,887 | 982,703 | 1,730,305 | 34,554 | 43,577 | .507,461 |
| Mischigan. | 333 | 200 | 261,154 | 2,087,364 | 215,741 | 488,760 | 1,649,948 | 4,881,329 | 9,041,168 | 13,879,415 | 287,447 | 229,200 | 2,572,339 |
| West North Central. Iowa. $\qquad$ | 115 17 | 53 8 | 29,522 526 | 229,762 2,656 | 24,403 459 | 57,398 954 | 179,897 2,100 | 853,344 7,268 | $2,242,270$ 7,039 | $3,095,765$ 14,074 | 37,737 548 | 22,740 613 | $\begin{array}{r} 405,032 \\ 4,415 \end{array}$ |
| South Atlantic.... | 140 | 48 | 25,550 | 199,243 | 20,775 | 49,868 | 154,764 | 724,180 | 1,871,695 | 2,588,252 | 21,779 | 19,327 | 300,078 |
| North Carolina. | 20 | 4 | 1,102 | 4,659 | 879 | 1,840 | 3,505 | 11,179 | 8,062 | 18,883 | 1,157 | ${ }^{746}$ | 5,759 |
| Florida. | 42 | 5 | 374 | 1,617 | 301 | 638 | 1,240 | 2,709 | 2,839 | 5,537 | 1,662 | $\left.{ }^{2}\right)$ | (2) |
| East South Central. | 62 | 42 | 9,930 | 57,982 | 8,085 | 17,861 | 42,245 | 252,696 | 347,761 | 597,547 | 9,736 | 7,196 | 95,330 |
| Alabama........... | 12 | 6 | 846 | 4,083 | 752 | 1,563 | 3,202 | 8,505 | 8,849 | 17,072 | 359 | 540 | 5,049 |
| Mississippi...... | 8 | 7 | 1,523 | 7,025 | 1,246 | 2,614 | 4,726 | 16,419 | 12,936 | 27,596 | 979 | 962 | 5,693 |
| West South Central. | 153 | 46 | 7,633 | 52,787 | 6,245 | 15,208 | 40,332 | 189,534 | 404,942 | 592,258 | 10,596 | 5,078 | 76,499 |
| Oklahoma. | 27 | 7 | 1,201 | 6,237 | 994 | 2,201 | 4,673 | 17,250 | 9,177 | 25,586 | 4,656 | 403 | 4,286 |
| Mountain. . | 63 | 13 | 993 | 5,139 | 792 | 1,570 | 3,588 | 9,630 | 9,158 | 17,443 | 1,665 | 470 | 3,121 |
| Colorado. | 25 | 10 | 677 | 3,690 | 526 | 1,037 | 2,507 | 7,331 | 6,471 | 12,480 | (D) | (2) | ${ }^{(2)}$ |
| Pacific............ | 344 | 110 | 25,571 | 191,322 | 20,241 | 45,957 | 144,782 | 568,872 | 1,641,579 | 2,221,285 | 57,447 | 22,293 | 282,584 |
| California: ..... | 307 | 102 | 23,194 | 175,988 | 18,462 | 42,576 | 133,917 | 541,217 | 1,586,060 | 2,138,586 | 55,719 | 20,778 | 268,47.5 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3713, Truck and bus bodies: New England-Maine, 3 (20-99); Massachusetts, 17 (250-499); Rhode Island, 2 (20-99); Conmecticut, 11 (20-99); East North Central-Ohio, 35 (4,132); Indiana, 20 ( 2,028 ); Wisconsin, 14 (1,697); West North Central-South Dakota, 3 (1-19); Kansas, 7
(20-99); South Atlantic-District of Columbia, 1 (100-249); West Virginia, 1 (1-19); North Carolina, 14 (500-999); South Carolina, 4 (20-99); Florida, 15 (229); East South Central-Kentucky, 7 (20-99); Tennessee, 13 (235); Mississippi, 6 (500-999); West South Central-Arkansas, 9 (250-499); Louisiana, 5 (100-249); Oklahoma, 6 (20-99); Mountain-Idaho, 3 (20-99); Colorado, 2 (20-99); Arizona, 2 (1-19); Utah, 4 (20-99); Nevada, 2 (1-19).
SIC 3715, Truck Trailers: New England-Massachusetts, 4 (20-99); Connecticut, 1 (1-19); East North Central-Ohio, 8 ( 3,125 ); Indiana, 7 (1,236); Illinois, 10 (456); Wisconsin, 4 (976); West North Central-Minnesota, 1 (250-499); Missouri, 8 (718); South Dakota, 1 (1-19); Nebraska, 3 (502); Kansas, 2 (100-249); South Atlantic-Maryland, 3 (1-19); Virginia, 2 (20-99); West Virginia, 1 (20-99); North Carolina, 1 (1-19); South Carolina, 1 (20-99); Georgia, 1 (500-999); Florida, 4 (240); East South Central-Kentucky, 2 (250-499); Tennessee, 3 (475); Alabama, 5 (742); Mississippi,
(1-19); West South Central-Arkansas, 2 (1-19); Lovisiana, 2 (250-499); Oklahoma, 2 (250-499); Texas, 20 (1,452); Mountain-Montana, 2 (20-99); Idaho, 1 (1-19); Colorado, 2 (250-499); New Mexico, 3 (20-99); Utah, 1 (20-99); Pacific-Washington, 6 (250-499); Hawaii, 1 (20-99).
SIC 3717, Motor Vehicles and Parts: New England-Maine, 2 (1-19); New Hampshire, 2 (1-19); Massachusetts, 38 (2,939); Rhode Island, 8 (500-999); Midale Atlantic-New Jersey, 53 (12,156); Pennsylvania, 67 (13,603); East North Central-Illinois, 143 (20,973); Wisconsin, 35 (35, 048); West
North Central-Minnesota, 29 ( $2,500-4,999$ ); Missouri, 47 ( 21,621 ); South Dakota, 3 (1-19); Nebraska, 6 ( 1,008 ); Kansas, 13 ( 3,650 ); South
Atlantic-Delaware, 3 ( 5,816 ); Maryland, 15 ( 6,851 ); Virginia, 11 ( 1,860 ); West Virginia, 4 (500-999); South Carolina, 1 (100-249); Georgia, 44 ( 8,806 ); East South Central-Kentucky, 17 ( 4,164 ); Tennessee, 25 ( 3,397 ); West South Central—Arkansas, 12 (335); Louisiana, 9 (107); Texas, 105 (5,990); Mountain-Montana, 1 (1-19); Idaho, 6 (20-99); New Mexico, 4 (20-99); Arizona, 19 (100-249); Utah, 7 (20-99); Nevada, (1-19); Pacific-Washington, 16 (1,000-2,499); Oregon, 20 (500-999); Hawaii, 1 (1-19).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

| Item |  | Truck and bus bodies (SIC 3713) | Truck trailers (SIC 3715) | Motor vehicles and parts (SIC 3717) |
| :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio ${ }^{1} \ldots$. Coverage ratio ${ }^{2}$. |  | 88 86 | $\begin{aligned} & 92 \\ & 93 \end{aligned}$ | 97 98 |
| Establishments, total......... With 1 to 19 employees..... With 20 to 99 employees.... With 100 employees or more. |  | 610 402 163 45 | 197 92 60 45 | 1,958 1,049 468 441 |
| Proprietors and working partners......... All employees (average for the year).... Payroll (all employees), total for year. |  | $\begin{array}{r} 335 \\ 24,466 \\ 133,300 \end{array}$ | $\begin{array}{r} 68 \\ 19,429 \\ 112,876 \end{array}$ | $\begin{array}{r} 664 \\ 649,926 \\ 4,947,271 \end{array}$ |
| Production workers: <br> Average for the yea |  | ${ }^{3} 19,835$ | ${ }^{3} 15,497$ | 3546,200 |
| January.......... | ...do. | 19,880 | 15,266 | 562,740 |
| February. | do. | 19,444 | 15,358 | 555,547 |
| March. | do. | 19,152 | 15,415 | 557,610 |
| April. | do. | 20,035 | 14,863 | 565,948 |
| May.. | . .do. | 20,423 | 14,880 | 547,762 |
| June. | . .do.. | 20,862 | 15,470 | 569,069 |
| July.. | do. | 20,404 | 15,611 | 476,371 |
| August. | .do.. | 20,141 | 15,608 | 439,376 |
| September. | .do.. | 19,921 | 15,713 | 485,862 |
| October. | . .do.. | 19,814 | 15,985 | 592,178 |
| November. | .do. | 19,203 | 15,916 | 598,620 |
| December. | .do. | 18,743 | 15,899 | 603,314 |
| Man-hours. | ...1,000. . | 40,897 | 30,896 | 1,192,606 |
| January-March. | . .do.... | 9,605 | 7,564 | 291,916 |
| April-June.. | do | 10,862 | 7,620 | 305,146 |
| July-September. | do. | 10,565 | 7,740 | 268,483 |
| October-December. | .do.. | 9,865 | 7,972 | 327,061 |
| Wages... | ... \$1,000. . | 98,359 | 81,703 | 3,889,636 |
| Cost of materials, etc., total. | .do. | 250,217 | 309,463 | 23,889,431 |
| Materials, parts, containers, and supplies con | do. | 224,561 | 298,517 | 23,517,962 |
| Cost of resales. | do. | 18,774 | 6,711 | 145,091 |
| Fuels consumed. | do. | 1,456 | 1,101 | 75,221 |
| Electric energy: |  |  |  |  |
| Purchased: <br> Quantity.... | ..million kw.-hrs.. | 161 | 117 | 10,836 |
| Cost..... | ..............\$1,000. | 2,427 | 1,678 | 114,676 |
| Generated less sold. | ...million kw.-hrs.. | (D) | - | 140 |
| Contract work. | . . . . . $\$ 1,000$. | 3,147 | 1,458 | 36,481 |
| Value of shipments (including resales), total. Value of resales. | $\begin{aligned} & \text {.....do...... } \\ & \text {........ } \end{aligned}$ | $\begin{array}{r} 476,733 \\ 21,254 \end{array}$ | $\begin{array}{r} 515,661 \\ 9,992 \end{array}$ | $\begin{array}{r} 36,181,007 \\ 174,554 \end{array}$ |
| Value added by manufacture, adjusted. | .do. | 229,472 | 205,475 | 12,345,630 |
| Manufacturers' inventories: |  |  |  |  |
| Beginning of year, total.. | . .do.. |  |  | $2,330,197$ |
| Finished products.... | .do. . ${ }^{\text {do. }}$ | 12,168 27,363 | 12,186 13,676 | $\begin{aligned} & 432,026 \\ & 984,940 \end{aligned}$ |
| Work-in-process.................... Materials, supplies, fuel, etc. | . .do... | 27,363 28,223 | 13,676 56,278 | $\begin{aligned} & 984,940 \\ & 913,221 \end{aligned}$ |
| End of year, total.. | .do. | 74,333 | 82,091 | 2,470,815 |
| Finished products. | . .do... | 13,772 | 13,153 | 407,777 |
| Work-in-process............... | .do.... | 28,715 | 11,986 | 1,064,213 |
| Materials, supplies, fuel, etc | do.... | 31,846 | 56,952 | 998,825 |
| Expenditures for plant and equipment, total | .do | 6,943 | 5,885 | 682,490 |
| New, total.................................. | do | 6,554 | 5,265 | 643,555 |
| New structures and additions to plant. | do | 3,064 | 1,189 | 140,729 |
| New machinery and equipment........... | do | 3,490 | 4,076 | 502,826 |
| Used plant and equipment. | .do.. | 389 | 620 | 45,627 |
| Selected operating ratios: |  |  |  |  |
| Payroll/Total employment. |  | 5,448 | 5,810 | 7,612 |
| Production workers/Total employment. |  | . 81 | . 80 | . 82 |
| Man-hours/Production workers..... |  | 2,074 | 1,999 | 2,226 |
| Production worker wages/Man-hours.. |  | 2.41 | 2.64 | 3.26 |
| Cost of materials and payrolls/Total value of | pments. | . 80 | . 82 | . 80 |
| Cost of materials/Total value of shipments.... |  | . 52 | . 60 | . 66 |
| Adjusted value added/Total employment.... |  | 9,379 | 10,576 | 18,995 |
| Salaries and wages/Adjusted value added........ |  | . 58 | . 55 | . 40 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies
(NA) Not available
(X) Not

## applicable.

${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.
${ }^{3}$ Differs from the production worker figure appearing in tables 1, 2, and 8 because the figures in those tables are based on employment for the payroll periods ended nearest the 15 th of March, May, August and November. In this table they represent the average of 12 monthly figures.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | 5 to 9 employees | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | 2,500 employees and over |
|  | INDUSTRY 3713.-TRUCK AND BUS BODIES |  |  |  |  |  |  |  |  |  |  |
| Establishments............... number. . <br> All employees: | 610 | 156 | 99 | 147 | 119 | 44 | 23 | 14 | 5 | 3 | - |
| Total..................... . . do. . | 24,466 | 309 | 714 | 2,070 | 3,679 | 3,137 |  |  |  |  |  |
| Pay roll. . . . . . . . . . . . . . . $\$ 1,000$. . | 133,300 | 1,394 | 3,324 | 9,957 | 19,855 | 16,898 | 17,844 | 4,869 27,067 | 2,818 14,699 | $\begin{array}{r}3,333 \\ 22,262 \\ \hline\end{array}$ | - |
| Value added, adjusted.......do.... | 229,472 | 2,806 | 5,980 | 17,523 | 35,540 | 18,538 | 17,627 | 42,724 | 14,699 26,902 | 22,262 36,832 | - |
| Value of shipments..........do.... | 476,733 | 6,120 | 12,656 | 35,701 | 70,292 | 62,239 | 61,301 | 95,566 | 59,013 | 73,845 |  |
| Capital expenditures, new...do.... | 6,554 | 109 | 162 | 502 | 942 | 936 | 706 | 1,136 | 1,652 | +409 | - |
|  | INDUSTRY 3715.-TRUCK TRAILERS |  |  |  |  |  |  |  |  |  |  |
| Establishments............... number. . | 197 | 45 | 14 | 33 | 31 | 29 | 21 | 17 | 4 |  |  |
| All employees: |  |  |  |  |  | 29 | 21 | 17 | 4 | 3 | - |
| Total $\qquad$ do.... <br> Payroll \$1,000 | 19,429 | $\begin{array}{r}87 \\ 4 \\ \hline\end{array}$ | 94 |  | $\begin{array}{r}992 \\ 50 \\ \hline\end{array}$ |  |  |  |  | (D) | - |
| Payroll................. $\$ 1,000$. . Value added, adjusted......do... | 112,876 205,475 | 439 | 426 | 2,148 | 5,529 | 12,524 | 18,684 | 32,017 | 41,109 | (D) | - |
| Value of shipments..........dd..... | 205,475 515,661 | 772 1,773 | 931 2,510 | 4,502 8,940 | 9,432 21,778 | 20,407 45,711 | 28,101 | 59,384 | -81,946 | (D) | - |
| Capital expenditures, new...do.... | 515,661 5,265 | 1,773 36 | 2,510 52 | 8,940 88 | 21,718 475 | $\begin{array}{r}45,711 \\ \hline 994\end{array}$ | 76,635 617 | 152,341 1,110 | $\frac{206,033}{1,893}$ | (D) | - |
|  | INDUSTRY 3717.-MOTOR VEHICIES AND PARTS |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total......................d. do.... | 649,926 | 963 | 1,815 | 3,422 | 9,384 | 12,091 | 21,141 | 29,352 | 41,739 | 138,097 | 391,922 |
| Payroll..................\$1,000.. | 4,947,271 | 4,682 | 9,180 | 17,391 | 49,178 | 64,939 | 116,885 | 172,328 | 272,698 | 1,116,895 | 3,123,095 |
| Value added, adjusted.......do.... | 12,345,630 | 10,272 | 19,013 | 33,791 | 96,583 | 140,619 | 235,305 | 371,417 | 573,212 | 3,318,970 | 7,546,448 |
| Value of shipments..........do.... | ${ }^{136,181,007}$ | 20,651 | 37,939 | 65,097 | 196,358 | 291,566 | 465,200 | 739,584 | 1,329,061 | 11,072,255 | 21,963,296 |
| Capital expenditures, new...do.... | 643,555 | 27,684 | 8,209 | 8,325 | 13,332 | 19,608 | 18,236 | 20,785 | 16,294 | 11,00,074 | 21, 371,008 |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
${ }^{1}$ Value of shipments for Industry 3717 include extension duplication. See text for more complete discussion.
${ }^{2}$ Includes capital expenditures for plants under construction but not in operation which constitute a small proportion of the total for the size class.


## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Total } \\ & (\$ 1,000) \end{aligned}$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio <br> Col. B <br> Col. B+C <br> (percent) | Total, made in all industries <br> $(\$ 1,000)$ | Made in this industry <br> $(\$ 1,000)$ | Made in other industries <br> $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3713 | Truck and bus bodies............ ${ }^{\text {1963.. }}$ 1958.. | $\begin{aligned} & 476,733 \\ & 307,769 \end{aligned}$ | $\begin{aligned} & 362,470 \\ & 242,010 \end{aligned}$ | $\begin{aligned} & 56,197 \\ & 36,131 \end{aligned}$ | $\begin{aligned} & 58,066 \\ & 29,628 \end{aligned}$ | 88 87 | $\begin{aligned} & 419,747 \\ & 274,893 \end{aligned}$ | $\begin{aligned} & 362,470 \\ & 239,345 \end{aligned}$ | $\begin{aligned} & 57,277 \\ & 35,548 \end{aligned}$ | 86 87 |
| 3715 | $\begin{array}{r} \text { Truck trailers........................ } 1963 . . \text {. } \\ \text { 1958.. } \end{array}$ | $\begin{aligned} & 515,661 \\ & 334,724 \end{aligned}$ | $\begin{aligned} & 449,610 \\ & 264,550 \end{aligned}$ | $\begin{aligned} & 39,377 \\ & 48,483 \end{aligned}$ | $\begin{aligned} & 26,674 \\ & 21,691 \end{aligned}$ | 92 84 | $\begin{aligned} & 484,678 \\ & 283,998 \end{aligned}$ | $\begin{aligned} & 449,610 \\ & 264,550 \end{aligned}$ | $\begin{aligned} & 35,068 \\ & 19,448 \end{aligned}$ | $\begin{aligned} & 93 \\ & 93 \end{aligned}$ |
| 3717 | Motor vehicles and parts.........1963.. | $\begin{aligned} & 36,181,007 \\ & 20,830,059 \end{aligned}$ | $\begin{aligned} & 34,837,455 \\ & 19,710,460 \end{aligned}$ | $\begin{aligned} & 984,717 \\ & 780,958 \end{aligned}$ | $\begin{aligned} & 358,835 \\ & 338,641 \end{aligned}$ | $\begin{aligned} & 197 \\ & \mathbf{1}_{96} \end{aligned}$ | $\begin{aligned} & 35,413,168 \\ & 19,863,333 \end{aligned}$ | $\begin{aligned} & 34,837,455 \\ & 19,710,460 \end{aligned}$ | $\begin{aligned} & 575,713 \\ & 152,873 \end{aligned}$ | $\begin{aligned} & 398 \\ & 399 \end{aligned}$ |

Note: See Introduction for an explanation of terms used.
${ }^{1}$ The percentages show, although correct to the extent that they are mathematical calculations, are not meaningful because of duplication in the value of shipments. See introductory text for this industry.

## table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" columin shows the total value of shipments of the nrimary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary nroducts) (b) products classified in other industries (secondary products). and (c) miscellaneous
receıpts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.
table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


Note: Data shown parenthetically above are expressed in millions of dollars.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures of individual companies.
(NA) Not available.
(x) Npt applicable.
n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| Product code | Product | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity (number) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity <br> (number) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3713- -- | TRUCK, BUS, AND OTHER VEHICLE (EXCEPT PASSENGER CAR) BODIES FOR SALE SEPARATELY (INCLUDING THOSE MADE ON PURCHASED CHASSIS), AND COMPLETE VEHICLES (EXCEPT PASSENGER CARS) PRODUCED ON PURCHASED CHASSIS, TOTAL, <br> Truck, bus and other vehicle (except passenger car) bodies sold separately: ${ }^{1}$ <br> To motor vehicle manufacturers. | (X) | 419,747 | (X) | 274,893 |
|  |  |  |  |  |  |
|  |  | 71,293 | 45,765 | (NA) | 14,543 |
| 3713031 | Van.... | 30,61215,678 | $\begin{aligned} & 43,997 \\ & 18,941 \end{aligned}$ | 15,5856,310 | 22,866 |
| 3713032 | Panel delivery and pick up |  |  |  |  |
| 3713033 | Dump................ | 31,730 | 30,345 | 21,388 | 18,0796,768 |
| 3713034 | Stake and platform.............................. . . . . . . . . . . . . . . . . . . . | 24,069 | 9,27334,170 | 19,483 |  |
| 3713036 | Utility, including service and line construction, and repair types.. | 28,297 |  | ) (NA) | 6,768 |
| 3713037 | Tank, including street flushing, petroleum, and other tank types.... | 1,403 | 4,25522,106 |  | 48,628 |
| 3713038 | Refuse and garbage (packer type)......................................... | 23,003 |  |  |  |
| 3713039 | Other. . . . . . . . . . . . . . . . . . . . . . . . |  | 32,524 |  |  |
| $3713051$ | Bus bodies............................................................... | 18,270 | 41,345 | 20,842 | 45,652 |
|  | department, etc.)................................................. | 9,526 | 17,644 | (NA) | 33,209 |
| 3713071 | Complete vehicles (except passenger cars) produced on purchased chassis: Ambulances $\qquad$ | 2,309 | 15,918 |  | 7,675 |
| 3713075 | Hearses and undertakers' vehicles (except limousines) Fire department vehicles. | 1,308 | 15,788 | 1,134 1,170 | 9,438 |
| 3713077 |  | 1,277 | 13,556 | 1,038 | 11,380 |
| 3713079 | Fire department vehicles. Busses (body mounted on purchased chassis), including military, but excluding trolley busses. |  |  | $\left\{\begin{array}{l}553 \\ (X)\end{array}\right.$ | 4,805 |
| 3713098 | All other highway vehicles, including trucks (platform, stake, van, tank, dump, etc.), street cleaning apparatus, rotary and blow-type snowplows, pick-up sweepers, noncombat amphibious vehicles, etc......... <br> Vehicles, except passenger cars, produced on purchased chassis (including value of chassis), n.s.k.. | (X) | 42,341 |  | 18,427 |
| 3713099 |  | ( X ) | 10,136 | (X) | 7,327 |
| 3713000 | Truck and bus bodies, n.s.k.................................................. . | (X) | 27,643 | ( X ) | 18,450 |
| 3715- -- | TRUCK TRAILERS, TOTAL. | (X) | 484,678 | (X) | 283,998 |
| 3715011 | Truck trailers ( 5 ton capacity and over) as reported in census of manufactures ${ }^{2}$ | (X) | 451,276 | (X) | 270,521 |
|  | Truck trailers (5 ton capacity and over) as reported on Census form M374 ${ }^{2}$. Vans, total Insulated, semi-insulated, and refrigerated, total. Steel. <br> Aluminum. | 78,764 46,620 | 428,486 261,503 | 50,484 26,198 | $\begin{aligned} & 271,733 \\ & 151,550 \end{aligned}$ |
|  |  | 8,856 | 70,418 | 4,029 | 30,8963,732 |
|  |  | 1,0927,764 | $\begin{array}{r} 6,033 \\ 64,385 \end{array}$ |  |  |
|  |  |  |  |  | 27,164 |
|  | Furniture, total. | 2,5512,056 | 14,227 | 1,485 | 6,5315,793 |
|  | Steel........... |  | 11,3502,877 | 1,325 |  |
|  | Aluminum. . . . . . | 495 |  |  |  |
|  | All other closed-top vans, total. | $\begin{array}{r} 31,900 \\ 7,866 \\ 24,034 \end{array}$ | $\begin{array}{r} 159,913 \\ 35,723 \\ 124,190 \end{array}$ | $\begin{array}{r} 18,311 \\ 6,189 \\ 12,122 \end{array}$ | $\begin{array}{r} 101,976 \\ 28,864 \\ 73,112 \end{array}$ |
|  | Steel..... |  |  |  |  |
|  | Aluminum. |  |  |  |  |
|  | Open-top, total. | 3,313 | 16,945 | 2,373 | 12,147 |
|  | Steel.... | 1,128 | 5,487 | $\begin{aligned} & 1,016 \\ & 1,357 \end{aligned}$ | 4,6907,457 |
|  | Aluminum. | 2,185 | 11,458 |  |  |
|  | Tank, total......................... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 5,767 | 58,259 | 5,635 | 47,640 |
|  | Non- and low-pressure: |  | 33,087 | 4,010 |  |
|  | Petroleum and aircraft refuelers, total............................... | 3,428 |  |  | 31,04715,158 |
|  | Carbon and alloy steel (except stainless) | 1,002 | 7,314 | 2,329 |  |
|  | Aluminum......................... | 2,044 | 20,617 | 1,454 | 2,550 |
|  | Chemical, food, and sanitary............................................. | $\begin{array}{r} 713 \\ 1,188 \end{array}$ | $\begin{array}{r} 8,030 \\ 11,318 \end{array}$ | $\begin{aligned} & 545 \\ & 704 \end{aligned}$ | $\begin{aligned} & 6,009 \\ & 6,155 \end{aligned}$ |
|  | Dry materials (cement, flour, feed, fertilizer, etc.)................. |  |  |  |  |
|  | High pressure (LPG, anhydrous ammonia, chemicals, etc.).. | 438 | 5,824 | 376 | 4,429 |
|  | Pole and logging, total........................................................ . . . | $\begin{array}{r} 1,069 \\ 129 \\ 940 \end{array}$ | $\begin{array}{r} 3,927 \\ 220 \\ 3,707 \end{array}$ | $\begin{aligned} & 927 \\ & 318 \\ & 609 \end{aligned}$ | $\begin{array}{r} 2,577 \\ 424 \\ 2,153 \end{array}$ |
|  | Single axle...... |  |  |  |  |
|  | Tandem axle.. |  |  |  |  |

[^265]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity (number) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity (number) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 37175 -- | Parts and accessories shipped to motor vehicle manufacturers for passenger cars, trucks, busses, and trailers (excluding rough steel forgings, rough castings and accessories such as leaf and coil springs, meters for motor vehicles, radios, distributors, generators and alternators, cranking motors, and selected motor vehicle indicating instruments)-Continued |  |  |  |  |
| 3717500 | Automotive gasoline engines, new ${ }^{12}$ $\qquad$ Parts and accessories shipped to motor vehicle manufacturers for | (X) | 30,935 | (X) | 17,512 |
| 3717500 | passenger cars, trucks, busses and tractors, n.s.k............................ | (X) | 5,980 | (X) | 3,581 |
| 37176 -- | Parts and accessories for passenger cars, trucks and busses shipped to other than motor vehicle manufacturers. | (X) | ${ }^{12} 1,753,675$ | (X) | 121,140,806 |
| 3717611 | Replacement parts and accessories for cars, trucks, busses, and trailers for domestic use, including purchased parts. (Includes shipments to distributors, dealers, jobbers, wholesalers, service stations, direct to fleet operators, governments and other consumers of motor vehicles, and subassembly rebuilders other than motor vehicle and motor vehicle parts manufacturers who also rebuild subassemblies. Does not include interplant transfers within a company; shipments to motor vehicle, body, parts, and accessory manufactures; or export shipments of any kind, including bodies for mounting on old chassis) ${ }^{10}$ | (X) | 861,378 | (X) | 542,786 |
| 3717615 | Convertible tops for autombiles ${ }^{11}$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | 22,892 | (X) | $\left({ }^{13}\right)$ |
| 3717621 | Export shipments of parts and accessories for passenger cars, trucks, busses, and trailers, including purchased parts ${ }^{10}$.......................... | (X) | 79,085 | (X) | 85,672 |
| 3717631 | Other parts and accessories for passenger cars, trucks, busses, and trailers ${ }^{11}$ | (X) | 758,436 | (X) | 439,623 |
| 3717600 | Replacement parts and accessories for cars, trucks, busses, and trailers for domestic use, including purchased parts, n.s.k............ | (X) | 31,884 | (X) | 1372,725 |
| $\begin{aligned} & 3717711 \\ & 3717000 \end{aligned}$ | Rebuilt motor vehicle engines and parts (except carburetors) ${ }^{11}$ $\qquad$ <br> Motor vehicle parts, n.s.k.............................................................. | (X) | 188,295 9 921,998 | (X) | $\begin{array}{r}79,891 \\ 965,344 \\ \hline\end{array}$ |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
n.s.k. Not specified by kind.
${ }_{1}$ Truck and bus bodies built by garages, service stations and other establishments primarily engaged in nonmanufacturing activities are excluded.
${ }^{2}$ For these products, figures were also collected in the Bureau of the Census conmodity survey program. In lieu of asking for detailed statistics on these products in the census of manufactures, respondents were asked to report only value of shipments for specified groups of products for which separate figures had previously been collected in the commodity survey. In most cases, the value figures reported in the census of manufactures for each group of products agreed closely with the corresponding figures reported in the conmodity survey. However, there were differences between the census figures and the commodity survey figures. These variations were due primarily to the following reasons:
a. Better coverage in the census of manufactures program. This includes many small establishments excluded from the monthly survey.
b. Use of different reporting periods (calendar year vs. fiscal year).
c. Use of estimates in reporting figures on the comodity survey, whereas census of manufactures figures generally represent more exact shipment figures.
${ }^{3}$ Includes small capacity trailers of special construction for the Defense Department, as well as auto transport, public utility trailers, converter dollies, and hoppers.
${ }^{4}$ The total value of shipments of products classified in industry 3717 includes extensive duplication arising from shipments between establishments in the same industry classification.
${ }^{5}$ Includes station wagons, ambulances, hearses, and taxicabs if produced on passenger car chassis. Velue includes extra equipment billed with vehicles.
${ }^{6}$ Includes trucks such as pick-up, sedan delivery, panel, or other commercial cars made on passenger car chassis if these chassis were of own manufacture. Includes station wagons, hearses, and taxicabs if produced on truek chassis. Includes all truck chassis whether or not to be used for transportation of property, such as fire apparatus, street sprinklers, school busses, ambulances, etc. Excludes specialized road construction machinery and off-the-highway trucks.
${ }^{7}$ The sum of values reported for basic chassis and bodies (codes 3717201 through 3717218 ) and bodies and other equipment billed with basic chassis (codes 3717233 , 3717236, and 3717239 ) represents the total value received from the sale of trucks, truck tractors, and truck chassis. Amounts reported for basic chassis values are based on average wholesale prices realized during 1963 and 1958. The amount reported for bodies and other equipment billed with basic chassis represents (1) the value received for bodies and other equipment shipped with the basic chassis; and (2) any plus or minus differences not included in the amounts reported for basic chassis due to the use of average wholesale prices for computing the values of the basic chassis.
${ }^{8}$ Separate figures are shown for fire department vehicles produced on purchased chassis (code 3713077 ) and for fire department vehicles produced on chassis of own manufacture (code 3717321). A small number of fire department vehicles, however, are produced on chassis furnished by customers.
${ }^{9}$ Product code 3717411 combined with 3717000 for security reasons, on advice from the Bureau of the Budget.
${ }^{10}$ Data are limited to establishments of companies producing motor vehicles or bodies.
${ }_{12}$ Data are limited to establishments of companies which do not produce motor vehicles or bodies.
${ }^{12}$ This figure is limited to shipments of products classified in industry 371.7. There were additional shipments of motor vehicle parts by parts producers to other than motor vehicle manufacturers. This includes spark plugs, ignition coils, storage batteries, carburetors, pistons and piston rings, headlights, springs, and hardware which are classified outside the 3717 grouping and which approximated $\$ 564$ million in 1963 and $\$ 498$ million in 1958. Therefore, the total for 1963 was $\$ 2,318$ million. The comparable 1958 total was $\$ 1,639$ million.
${ }^{13}$ For 1958, product code 3717615 is combined with product code 3717600.

# TABLE 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958 

(Indexes of production and unit value are not shown for this area pending further review of the quantity data and associated values pertaining to these products.)

## table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| (In thousands of dollars) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Product class | 1963 | $1962{ }^{\text {I }}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | $1959{ }^{\text { }}$ | 1958 | 1954 | 1947 |
| 37730 | Truck and bus bodies. | 419,747 | 419,695 | 312,784 | 341,084 | 327,953 | 274,893 | 215,184 | 197,464 |
| 37150 | Truck trailers. | 484,678 | (S) | (S) | (S) | (S) | 283,998 | 262,012 | 139,413 |
| 3717 | Motor vehicles and parts. | 35,413,168 | 31,856,689 | 25,136,202 | 29,110,103 | 25,685,228 | 19,863,333 | (NA) | (NA) |
| 37171 | Passenger cars, knocked down or assembled and chassis for sale separately............ | 16,768,338 | 15,052,678 | 11,787,593 | 14,009,262 | 11,998,836 | 9,217,694 | 9,471,779 | 4,085,547 |
| 37172 | Truck tractors, truck chassis and trucks (chassis of own manufacture). | 3,376,245 | 3,009,641 | 2,375,828 | 2,572,695 | 2,490,117 | 1,933,722 | 1,732,114 | 1,619,773 |
| 37173 | Motor coaches, except trolly busses and fire department vehicles (chassis of own manufacture). | 182,453 | 161,310 | 154,574 | 157,418 | 107,339 | 99,216 | 103,496 | 239,624 |
| 37174 | Combat vehicles... |  |  |  |  |  |  |  | (NA) |
| 37175 | Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers. | 12,922,164 | 11,650,233 | 9,138,661 | 10,687,796 | 9,481,696 | 7,326,660 | (NA) | (NA) |
| 37176 | Parts and accessories for passenger cars, trucks, and busses, shipped to other than motor vehicle manufacturers.................. | 1,753,675 | 1,727,868 | 1,442,596 | 1,486,029 | 1,439,398 | 1,140,806 | (NA) | (NA) |
| 37177 | Rebuilt automotive parts, excluding carburetors. | 188,295 | 110,413 | 101,505 | 99,091 | 96,443 | 79,891 | 56,683 | (NA) |
| 37170 | Motor vehicles and parts, n.s.k. | 2221,998 | (S) | (S) | (S) | (S) | 265,344 | (NA) | (NA) |

(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
n.s.k. Not specified by kind.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
${ }^{2}$ Product class 37174 combined with 37170 for security reasons, on advice from the Bureau of the Budget.

# TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in tootnote 1


[^266](NA) Not available.
(x) Not
${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 37130, Kentucky, Mississippi, Arkansas, Oklahoma; 37171, Massachusetts, New York, New Jersey, Ohio, Indiana, Illinois, Wisconsin, Minnesota, Missouri, Kansas, Delaware, Maryland, Virginia, Georgia, Kentucky, Texas; 37172, Connecticut, New York, New Jersey, Pennsylvania, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Missouri, Maryland, Virginia, Georgia, Kentucky, Texas, Washington, Oregon, Califormia; 37173, Massachusetts, New York, Pennsylvania, Ohio, Indiana, Michigan, Wisconsin, Georgia; 37174, Connecticut, Pennsylvania, Ohio, Indiana; 37175, Maine, Massachusetts, Rhode Island, Connecticut, Minnesota, Iowa, Missouri, Nebraska, Delaware, Maryland, West Virginia, Georgia, Mississippi, Arkansas, Colorado, California; 37176, Rhode Island, Minnesota, Nebraska, Maryland, Virginia, North Carolina, Kentucky, Alabama, Washington; 37177, Massachusetts, New York, Kansas, South Carolina, Florida, Tennessee, Washington, Oregon.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.
${ }^{3}$ For 1958, figures for product class 37175 are combined with those for product class 37776.

## TABLE 6E. Production and Use of Selected Parts of the Type Used for Passenger Cars, Trucks, and Busses: 1963 and 1958

| Product | Total number of units $(1,000)$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1963 |  |  | 1958 |  |  |
|  | Produced ${ }^{1}$ | Used in the assembly of new vehicles | For replacement, export, and other purposes ${ }^{2}$ | Produced ${ }^{1}$ | Used in the assembly of new vehicles | For replacement, export, and other purposes ${ }^{2}$ |
| Ingines, new (with or without cylinder heads, fuel pumps, water pumps, and other standard accessories): <br> Gasoline. <br> Diesel and semi-Diesel ${ }^{3}$ | 9,584 | 8,922 59 | 662 4 | 5,370 | 5,032 25 | $\begin{array}{r} 338 \\ 6 \end{array}$ |
| Cylinder heads........................................................... . | 13,611 | 13,298 | 313 | (NA) | (NA) | (NA) |
| Pistons: <br> Aluminum* <br> All other | 75,866 1,908 | 64,745 617 | 11,121 1,291 | (NA) | (NA) | (NA) (NA) |
|  | 176,758 544,616 | 72,916 144,449 | 103,842 400,167 | 135,312 307,897 | 37,295 73,035 | $\begin{array}{r} 98,017 \\ 234,862 \end{array}$ |
| Valves (intake and exhaust)*. | 177,530 | 130,724 | 46,806 | (NA) | (NA) | (NA) |
| Carburetors*.................. | 14,908 | 9,041 | 5,867 | 9,750 | 5,032 | 4,778 |
| Fuel pump assemblies (excluding kits and rebuilts)................. | 17,942 | 8,981 | 8,961 | 10,989 | 5,057 | 5,932 |
| Water pump assemblies (excluding kits and rebuilts)............... | 10,593 | 8,683 | 1,910 | 6,875 | 5,057 | 1,818 |
| Radiators, complete. | 9,008 | 8,683 | 325 | 5,351 | 5,057 | 294 |
| V-belts.. | 45,399 | 23,315 | 22,084 | (NA) | (NA) | (NA) |
| Oil filter elements. | 157,180 | 8,922 | 148,258 | 99,377 | 5,032 | 94,345 |
| Exhaust systems: <br> Mufflers, including regular or standard, sports or glass pack and resonators. $\qquad$ <br> Pipes, including exhaust, tail, intermediate, connecting and crossover | 33,343 | 11,521 | 21,822 | 430,686 | 46,946 | ${ }^{4} 23,740$ |
|  | 61,884 | 19,597 | 42,287 | ${ }^{4} 29,059$ | 46,946 | 42,113 |
| Transmissions (except auxiliary): |  |  |  |  |  |  |
| Passenger car type: Conventional transmissions... | 2,261 | 1,952 | 309 | 1,174 | 1,038 | 136 |
| Automatic transmissions (ineluding semiautomatic)............. | 6,049 | 5,671 | 378 | 3,383 | 3,224 | 159 |
| Truck and bus type: <br> Conventional transmissions. <br> Automatic transmissions (inoludins semiautomatic) ............... | 1,354 107 | 1,277 81 | 77 26 | 983 49 | 916 22 | 57 27 |
| Clutch disc and facing assemblies. | 14,305 | 3,229 | 11,076 | 8,932 | 1,954 | 6,978 |
| Universal joints. | 25,271 | 20,418 | 4,853 | 13,904 | 11,569 | 2,335 |
| Rear axle shafts. | 17,715 | 17,030 | 685 | 9,940 | 9,304 | 636 |
| Wheels for passenger cars. | 40,439 | 38,832 | 1,607 | 28,707 | 22,101 | 6,606 |
| Wheels for trucks and busses. | 8,197 | 7,102 | 1,095 | (NA) | (NA) | (NA) |
| Shock absorbers.. | 48,706 | 34,016 | 14,690 | (NA) | (NA) | (NA) |
| Ignition coils* ${ }^{3}$ <br> Spark plugs* ${ }^{3}$ | $\begin{array}{r} 18,354 \\ 528,607 \end{array}$ | 8,922 65,362 | $\begin{array}{r} 9,432 \\ 463,245 \end{array}$ | 9,637 396,064 | 5,032 38,040 | $\begin{array}{r} 4,605 \\ 358,024 \end{array}$ |
| Regulators for battery charging generators: <br> Passenger car and light truck type........................................ <br> Heavy duty truck and bus types. | 14,686 1,448 | 8,474 507 | 6,212 | 10,237 1,121 | 4,740 409 | 5,497 712 |
| Condensers*. | 54,725 | 15,425 | 39,300 | 39,934 | 6,830 | 33,104 |
| Breaker point sets: <br> Contact arms* <br> Contact supports and serews* | $\begin{gathered} 102,268 \\ (\mathrm{NA}) \end{gathered}$ | 8,852 8,852 | $\begin{array}{r} 93,416 \\ (\mathrm{NA}) \end{array}$ | 49,726 34,926 | 3,690 3,690 | $\begin{aligned} & 46,036 \\ & 31,236 \end{aligned}$ |
| Headlights, sealed beam units....................................... | 78,569 | 38,519 | 40,050 | 53,050 | 19,724 | 33,326 |

[^267]table 7A. Materials by Kind: 1963 and 1958


[^268]
# table 7A. Materials by Kind: 1963 and 1958-Continued 

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost $(\$ 1,000)$ | Quantity | Delivered cost $(\$ 1,000)$ |
| $\begin{aligned} & 331021 \\ & 331029 \end{aligned}$ | Mill shapes and forms (except castings) - Continued Alloy steel (except stainless): <br> Bars and bar shapes. | Short tons...... <br> ...do............. | INDUSTRY 3715.--TRUCK TRAILERS--Continued |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  | 7 |  | [ 3,046 | 488 |
|  | All other alloy steel mill shapes and forms..................... |  | \} 25,900 | 9,022 | 4,801 | 982 |
| 331031 | Stainless steel.............................................................. | ...do............ |  |  | 1,056 | 1,234 |
|  | Copper and copper-base alloy: <br> Insulated wire and cable. | $\begin{aligned} & \text { 1,000 lbs. } \\ & \text { copper content. } \end{aligned}$ |  |  |  |  |
| 335790 |  |  | 773 | 433 | 148 | 122 |
| 335102 | Rod, bar, and mechanical wire including extruded and/or drawn shapes. | 1,000 lbs....... |  |  |  |  |
| $\begin{aligned} & 335123 \\ & 335127 \end{aligned}$ | Plate, sheet,and strip, including military cups and discs...... <br> Pipe and tube | ...do............ | 605 | 256 | 259 | 159 |
|  | Aluminum and aluminum-base alloy: |  |  |  |  |  |
| 335202 | Sheet, plate and foil............................................ | . .do. | 52,472 | 22,298 | 27,849 | 13,860 |
| $\begin{aligned} & 335205 \\ & 335209 \end{aligned}$ | Extruded shapes, including extruded rod, bar, pipe, tube, etc. All other aluminum mill shapes and forms (wire, rolled rod, | . .do............ | 54,857 | 20,010 | \} 19,958 |  |
|  | All other aluminum mill shapes and forms (wire, rolled rod, bar, powder, welded tubing, etc.). | ...do | 292 | 238 | \} 19,958 | 9,469 |
| 331051 | Pig iron (excluding silvery iron). | Short tons...... | (D) | (D) | (NA) | (NA) |
| 999811 | Scrap (excluding home scrap): Iron and steel | ...do. | (D) | (D) | (NA) | NA) |
| 999808 | Aluminum and aluminum-base alloy | . ${ }^{\text {do }}$ | (D) | (D) | (NA) | (NA) |
|  | Castings (rough and semifinished): |  |  |  |  |  |
| 332011 | Iron (gray and malleable). | ...do........... | 713 | 673 | 668 | 310 |
| 332300 | Steel.................... | ...do........... | 13,280 | 6,836 | 5,197 | 3,039 |
| 336100 | Aluminum and aluminum-base alloy.................................. | 1,000 lbs....... | 566 | 367 | 281 | 315 |
|  | Forgings: |  |  |  |  |  |
| 339100 | Iron and steel....................................................... | Short tans...... | (D) | (D) | 68 | 144 |
| 339200 | Aluminum and aluminum-base alloy................................... | 1,000 lbs....... | 168 | 110 | (NA) | (NA) |
| 356218356228 | Bearings: |  |  |  |  |  |
|  | Ball..................................................................... . . |  | (X) | 284 | (X) | 651 |
| 970099 | All other materials and components, parts, containers, and supplies consumed. |  |  |  |  |  |
| 976000 |  |  | (X) | 169,484 | (X) | 124,946 |
|  | Materials, parts, containers and supplies, n.s.k. ${ }^{\text {a }}$. ${ }^{\text {a }}$.............. |  | (X) | 29,904 | (X) | 17,654 |
|  |  |  | INDUSTRY 3717. - MOTOR VEHICLES AND PARTS |  |  |  |
|  | Materials, parts, containers, and supplies, total............. |  | (X) | 23,517,962 | (x) | 14,188,996 |
|  | Mill shapes and forms (except castings): Carbon steel: |  |  |  |  |  |
| 331011 | Bars and bar shapes................................................ | Short tans...... | 1,006,392 | 164,965 | 770,277 | 126,930 |
| 331012 | Sheet and strip. | ...do............ | 11,215,348 | 1,635,877 | 6,615,120 | 934,845 |
| 331013 | Plates......... | ...do. | 333,775 | 48,140 | 220,096 | 33,043 |
| 331015 | Structural shapes.................................................. | ...do. | 26,782 | 4,189 | 44,815 | 9,460 |
| 331017 | Wire and wire products............................................ | ...do........... | 149,399 | 35,017 | 95,792 | 22,080 |
| 331019 | All other carbon steel mill shapes and forms.......................... | ...do............ | 280,386 | 58,331 | 122,071 | 32,031 |
| $\begin{aligned} & 331021 \\ & 331029 \end{aligned}$ | Alloy steel (except stainless): |  |  |  |  |  |
|  | Bars and bar shapes........... | ...do............ | 534,059 | 111,701 | 334,202 | 70,211 |
|  |  | .do | 81,156 | 37,838 | 162,490 | 35,252 |
| 331031 | Stainless steel......................................................... | ...do............ | 37,698 | 31,657 | 24,231 | 26,781 |
| $\begin{aligned} & 335728 \\ & 335790 \end{aligned}$ | Copper and copper-base alloy: | l,000 lbs....... | 1,731 | 1,130 | 1,560 | 770 |
|  | Bare wire for electrical conduction.................................... <br> Insulated wire and cable.................................................... | 1,000 lbs....... |  |  |  |  |
|  | Rod, bar, and mechanical wire, including extruded and/or drawn shapes. <br> Plate, sheet, and strip. <br> Pipe and tube. | copper content. | 31,304 | 15,484 | 6,034 | 4,951 |
| 335102 |  | 1,000 lbs....... | 50,432 | 18,329 |  |  |
| $\begin{aligned} & 335123 \\ & 335127 \end{aligned}$ |  | ...do............ | 163,608 | 74,415 | \} 167,955 | 78,078 |
|  |  | ...do............ | 13,112 | 7,523 |  |  |
|  | Aluminum and aluminum-base alloy: <br> Sheet, plate, and foil. <br> Extruded shapes, including extruded rod, bar, pipe, tube, etc. All other aluminum mill shapes and forms (wire, rolled rod, bar, powder, welded tubing, etc.). |  | $\begin{aligned} & 77,452 \\ & 22,785 \end{aligned}$ <br> 17,342 |  | ) $\begin{aligned} & 19,162 \\ & 31,123\end{aligned}$ |  |
| 335202 |  |  |  | $\begin{array}{r} 33,393 \\ 11,196 \\ 5,274 \end{array}$ |  | 10,761 |
| 335205 335209 |  |  |  |  |  | 11,391 |
|  |  |  |  |  |  | 11,391 |

[^269]
## table 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost <br> $(\$ 1,000)$ | Quantity | Delivered cost $(\$ 1,000)$ |
| $\begin{aligned} & 331051 \\ & 333401 \end{aligned}$ | Primary metals: <br> Pig iron (excluding silvery iron) <br> Aluminum and aluminum-base alloy. | Short tons...... <br> ...do............. | INDUSIRY 3717. -MOTOR VEHICLES AND PARTS-Continued |  |  |  |
|  |  |  | $\begin{gathered} 239,048 \\ 33,331 \end{gathered}$ | $\begin{aligned} & 13,869 \\ & 13,418 \end{aligned}$ | $\begin{array}{r} 222,568 \\ 2,425 \end{array}$ | $\begin{array}{r} 15,447 \\ 1,622 \end{array}$ |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Scrap (purchased scrap only) : |  | 330,649128 | 13,34654 | $\begin{array}{r} 409,387 \\ 3,920 \end{array}$ | $\begin{aligned} & 9,541 \\ & 1,773 \end{aligned}$ |
| $\begin{aligned} & 999811 \\ & 999808 \end{aligned}$ | Iron and steel.......................................................... Aluminum and aluminum-base alloy........................... | ...do............ |  |  |  |  |
|  | Castings (rough and semifinished): |  | 2,979,003 |  | 1,907,070 | 466,939 |
| 332011 | Iran (gray and malleable)²............................................ | ...do............ |  | 751,493 |  |  |
| 332300 | Steel.................................. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | ...do............ | 59,296 | 27,723 | 62,827 | 23,349 |
| 336100 | Aluminum and aluminum-base alloy................................... | 1,000 lbs....... | 430,205 | 225,288 | 146,993 | 71,612 |
| 336200 | Copper and copper-base alloy.......................................... | ...do............ | 8,131 | 5,590 | 4,037 | 2,487 |
|  | Forgings: |  | 999,5281,403 | 390,967 | $\begin{array}{r} 654,194 \\ \text { (NA) } \end{array}$ | 221,968(NA) |
| 339100 | Iron and steel ${ }^{3}$. ${ }^{\text {a }}$................................................... | Short tons...... |  |  |  |  |
| 339200 | Aluminum and aluminum-base alloy.................................... | 1,000 lbs....... |  | 974 |  |  |
| 362115 | Fractional horsepower electric motors. Bearings: | Thousands....... | 7,233 | 20,968 | 6,726 | 22,126 |
|  |  |  |  |  |  |  |
| $\begin{aligned} & 356218 \\ & 356228 \end{aligned}$ | Ball........ Roller. | ...................... | $\begin{aligned} & (X) \\ & (X) \end{aligned}$ | $\begin{array}{r} 47,724 \\ 108,978 \end{array}$ | (X) | 90,264 |
| 229501 | Coated, impregnated or laminated fabrics.............................. | 1,000 lin. yds.. | 18,590 | 18,333 | 11,026 | 18,051 |
|  | Uncoated broad-woven fabrics: <br> Cotton. |  |  |  |  |  |
| $\begin{aligned} & 221103 \\ & 220119 \end{aligned}$ |  | ...do............ | $\begin{aligned} & 4,948 \\ & 5,201 \end{aligned}$ | $\begin{array}{r} 1,395 \\ 11,247 \end{array}$ | $\begin{aligned} & 2,912 \\ & 3,327 \end{aligned}$ | 2,469 9,294 |
| 282130 | Thermoplastic resins........................................................ | 1,000 lbs....... | 22,096 | 9,5739,722 | (NA)(NA) | (NA) |
| 282140 | Thermosetting resins..................................................... |  |  |  |  |  |
| 970099 | All other materials and components, parts, containers, and supplies consumed. |  | 22,133 | $\begin{array}{r} 18,824,923 \\ 727,918 \end{array}$ | (x) | 11,835,470 |
| 976000 | Materials, parts, containers, and supplies, n.s.k. ${ }^{1}$.................. |  | (X) |  |  |  |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
${ }^{1}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."
${ }^{2}$ Establishments in industry 3717 produced 663,642 tons of iron castings in 1963 for incorporation into other items produced at the same establishment. In 1958 this figure was 479,177 tons.
${ }^{3}$ Establishments in industry 3717 produced 300,184 tons of iron and steel forgings in 1963 for incorporation into other items produced at the same establishment.

## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Truck and bus bodies (SIC 3713) | Truck trailers (SIC 3715) | Motor vehicles and parts (SIC 3717) |
| :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy.............................. $\$ 1,000$. . | 3,913 | 3,324 | 180,326 |
| Total cost of purchased fuels........................................................do.... | 1,515 | 1,309 | 72,902 |
| Bituminous coal, lignite, and anthracite: |  |  |  |
|  | 19 177 | 10 90 | 3,069 24,142 |
| Coke and breeze: |  |  |  |
|  | - | (S) | (S) |
| Fuel oil (distillate and residual): Quantity. .......................................................... 1,000 barrels of 42 gallons. Cost.. | 72 324 | (S) | (S) |
| Gas (natural, manufactures, still, blast furnace, and coke oven): |  |  |  |
|  | 1,115 741 | 681 | 45,464 24,522 |
| Other fuels............................................................................do.... | 273 | 207 | 11,739 |
| Electric energy: |  |  |  |
| Purchased: <br> Quantity..................................................................................... |  | 179 | 9,898 |
|  | 2,398 | 2,015 | 107,424 |
| Generated less sold....................................................million kw.-hrs.. | - | - | 195 |
| Aggregate horsepover of prime movers and electric motors driven by purchased energy (December 31, 1962), total............................... , 000 hp. . | 81 | 120 | 5,851 |
| Prime movers, total.....................................................................do.... | 6 | 26 | 690 |
| Driving generators. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 2 | 11 | 111 |
| Not driving generators......... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 4 | 15 | 579 |
| Electric motors, total..................................................................do.... | 75 | 95 | 5,251 |
| Driven by purchased energy.........................................................do.... | 75 | 95 | 5,161 |
| Driven by energy generated at establishment.......................................do.... | - | - | 90 |
| Aggregate horsepo er per 100 production workers.................................................. . | - | - | 1,144 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for l962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishrents. The standard errors associated with these estimates are published in the reports "Fuels and Electric Fnergy Consumed in Manufacturing Industries in l962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962, "MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(x) Not applicable
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistencey review.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | $20 \text { or }$ more |
| Ferrous foundry. <br> Nonferrous foundry (except die casting) <br> Nonferrous die casting. <br> Forging-presses, hammers, or upsetters (excluding <br> manufacture of nuts, bolts, etc.) <br> Electroplating and other plating. <br> Automatic screw machine department. <br> Machine shop. <br> Tool and die shop. <br> Foundry pattern shop. <br> Plate or structural fabrication. <br> Stamping, blanking and forming of metals. <br> Painting, lacquering and enameling on metals <br> Plastics molding. <br> Assembly of product. <br> Shipping department, including packing and crating. | Industry 3713.-TRUCK AND buS bodies |  |  |  |  |  |  |  |
|  | 1 | 1 |  | - | (D) | (D) |  |  |
|  | 1 | 1 |  | - | (D) | (D) |  |  |
|  | 1 |  |  |  | (D) | (D) | - |  |
|  | 8 | 6 | 2 | - |  | (D) | (D) |  |
|  | 1 | 1 | - | - | (D) | (D) | (D) |  |
|  | 2 | 1 | 1 | - | (D) | (D) | (D) |  |
|  | 50 | 32 | 12 | 6 | 551 | 60 | 132 | 359 |
|  | 22 | 9 | 12 | 1 | 121 | 13 | (D) | (D) |
|  | 75 | 5 | 2 | - | 25 | (D) | (D) |  |
|  | 75 | 46 | 22 | 7 | 514 | 85 | 207 | 222 |
|  | 101 | 59 | 20 | 22 | 1,528 | 116 | 196 | 1,216 |
|  | 174 | $\begin{array}{r}127 \\ 6 \\ \hline\end{array}$ | $\begin{array}{r}34 \\ 3 \\ \hline\end{array}$ | 13 | 1,086 | 237 | 265 | 584 |
|  | 164 | 30 | 77 | 57 | 6,229 | 40 | 788 | 5,401 |
|  | 106 | 81 | 22 | 3 | -433 | 134 | 173 | , 126 |
|  | Industry 3715.-TRUCK TRAITERS |  |  |  |  |  |  |  |
| Ferrous foundry <br> Forging-presses, hanmers, or upsetters (excluding <br> manufacture of nuts, bolts, etc.). <br> Electroplating and other plating.. <br> Galvanizing and other hot dip coating. <br> Heat treating of metals. <br> Machine shop. <br> Tool and die shop. <br> Foundry pattern shop. <br> Plate or structural fabrication. <br> Stamping, blanking and forming of metals. <br> Painting, lacquering and enameling on metals. <br> Plastics molding. <br> Assembly of product. <br> Shipping department, including packing and crating.. | 1 | - |  | 1 | (D) | - | - | (D) |
|  | 1 |  | 1 | - |  |  | (D) |  |
|  | 2 |  | 1 | - | (D) | (D) | (D) | - |
|  | 1 | 1 | - | - | (D) |  |  |  |
|  | 位 | 2 |  | 1 | (D) | (D) | - | (D) |
|  | 4 | 23 | 13 | 8 | 491 | 47 | 153 |  |
|  | 12 | 7 | 3 | 2 | 92 | (D) | 27 | (D) |
|  | ${ }_{5}^{4}$ | 2 | 2 | - | 18 | (D) | (D) |  |
|  | 52 | 16 | 21 | 15 |  |  | 213 | 677 |
|  | 53 73 | 18 | 23 | 12 | 875 | $\begin{array}{r}40 \\ 106 \\ \hline\end{array}$ | 246 | 589 <br> 254 <br> 1 |
|  | $\begin{array}{r}73 \\ 5 \\ \hline\end{array}$ | 52 4 4 | 14 | 7 1 | 471 | (D) | 111 | (25) |
|  | 78 |  | 22 | 47 | 7,623 | 11 | 235 |  |
|  | 57 | 43 | 12 | 2 | 214 | (D) | 93 | (D) |
|  | INDUSTRY 3717. - MOTOR VEHICLES AND PARTS |  |  |  |  |  |  |  |
| Ferrous foumdry...................................... | 19 | 4 | 1 | 14 | 6,943 | (D) | (D) | 6,930 |
| Nonferrous foundry.................................. | 13 | 3 | 5 | 5 | 339 |  | 56 |  |
| Nonferrous die casting............................... | 26 | 8 | 6 | 12 | 900 | 16 | 61 | 823 |
| Forging-presses, harmers, or upsetters (excluding manufacture of nuts, bolts, etc.)......................... | 47 | 8 | 14 |  | 3,433 | 12 |  |  |
| Electroplating and other plating....................... | 95 | 42 | 23 | 30 | 3,291 | 93 | 213 | 2,985 |
| Galvanizing and other hot dip coating. | 35 | 23 | 9 | 3 | 203 | 51 | 79 |  |
| Heat treating of metals.. | 171 | 66 | 52 | 53 | 3,915 | 140 | 486 | 3,289 |
| Automatic screw machine department................... | 140 | 51 | 46 | 43 | 3,180 | 104 | 459 | 2,617 |
| Machine shop. ..................................... | 468 | 107 | 119 | 242 | 65,026 | 196 | 1,228 | 63,602 |
| Tool and die shop................................ | 319 | 84 | 91 | 14.4 | 23,459 | 165 | 951 | 22,343 |
| Foundry pattern shop................................ | 32 | 10 | 10 | 12 | 736 | 17 | 83 | 636 |
| Plate or structural fabrication...................... | 70 | 22 | 26 | 22 | 3,241 | 46 | 252 | 2,943 |
| Stamping, blanking and forming of metals............ | 417 | 94 | 124 | 199 | 58,303 | 187 | 1,201 | 56,915 |
| Painting, lacquering and enameling on metals......... | 402 | 216 | 86 | 100 | 21,567 | 364 | 602 | 20,601 |
| Plastics molding.................................... | 26 | 9 | 12 |  | 502 | 21 | 90 |  |
| Assembly of product................................ | 590 | 111 | 114 | 365 | 244,269 | 203 | 1,189 | 242,877 |
| Shipping department, including packing and crating... | 612 | 291 | 165 | 156 | 16,236 | 586 | 1,643 | 14,007 |

Note: Very small establishnents were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
applicable.
establishment.

## AIRCRAFT AND PARTS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SlC Code and Title<br>3721-Aircraft<br>3722-Aircraft Engines and Engine Parts<br>3723-Aircraft Propellers and Propeller Parts<br>3729-Aircraft Parts and Auxiliary Equipment, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables lo 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3721 - AIRCRAFT

This industry comprises establishments primarily engaged in manufacturing or assembling complete aircraft. This industry includes establishments primarily engaged in factory type aircraft modification on a contract or fee basis. Establishments primarily engaged in manufacturing engines, propellers, and other aircraft parts and auxiliary equipment are classified in industries 3722,3723 , and 3729 . For a detailed list of products of industry 3721 , refer to table 6 A , product codes 3721111 to 3721655 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

In industry 3721 there is usually a significant difference between value of actual physical shipments and value of work done during a specified period. This is primarily due to lead time between the input of materials and labor and the shipments of completed aircraft. In evaluating the internal relationships of the Aircraft lndustry, such as the ratio of cost of materials or payrolls to output, the value of aircraft shipments for the year is generally not meaningful and value of work done is therefore substituted. For the 1963 Census of Manufactures, establishments producing military, personal, utility, and commercial aircraft were requested to report both the value of shipments of aircraft and value of work done during the year. This latter statistic included total costs (materials, labor, overhead, etc.) and reflected the value of work done during 1963, including work done on aircraft not accepted during the year, but excluding the value of work done in prior years.

Value of work done and other receipts of the Aircraft lndustry totaled $\$ 6,317$ million. This amount included work done on aircraft (primary products) valued at $\$ 4,164$ million, shipments of other products (secondary products) valued at $\$ 1,898$ million, and miscellaneous receipts (mainly resales) at $\$ 254$ million.

This industry's work done on aircraft represented 69 percent of its total product shipments. The industry specialization ratio in 1958 was 81 percent. Secondary products shipped by this industry in 1963 consisted mainly of aircraft parts and auxiliary equipment ( $\$ 714$ million), and guided missiles and space vehicles, complete ( $\$ 372$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 54 percent of the total industry shipments are represented by plants specializing in product class 37211, Complete military aircraft.

Work done on aircraft by this industry in 1963 represented 96 percent of all work done on these products ( $\$ 4,331$ million) by all industries. In 1958 the coverage ratio was 99 percent.

## 3722-AlRCRAFT ENGINES AND ENGINE PARTS

This industry comprises establishments primarily engaged in the manufacture of aircraft engines, complete missile or space vehicle engines and/or propulsion units, and their parts. For a detailed list of products of industry 3722, refer to table 6A, product codes 3722110 to 3722813.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Aircraft Engines and Parts Industry totaled $\$ 4,101$ million. This amount included shipments of aircraft engines and engine parts (primary products) valued at $\$ 3,367$ million, shipments of other products (secondary products) valued at $\$ 495$ million, and miscellaneous receipts (mainly resales) at $\$ 238$ million.

This industry's shipments of aircraft engines and engine parts represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent. Secondary products shipped by this industry in 1963 included guided missile components and subassemblies, n.e.c. ( $\$ 128$ million), and aircraft parts and auxiliary equipment, n.e.c. ( $\$ 35$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 40 percent of the total industry shipments are represented by plants specializing in product class 37221, Aircraft engines for military customers; 25 percent in product class 37226 , Receipts for research and development on complete missile or space vehicle engines and/or propulsion units; and 18 percent in product class 37224, Aircraft engine parts and accessories.

Shipments of aircraft engines and engine parts by this industry represented 93 percent of all shipments of these products ( $\$ 3,610$ million) by all industries. In 1958 the coverage ratio was also 93 percent. Other industries shipping aircraft engines and engine parts included industry 3729, Aircraft Equipment, N.E.C., $\$ 18$ million; and industry 3494, Valves and Pipe Fittings, $\$ 13$ million.

This industry comprises establishments primarily engaged in manufacturing aircraft propellers and propeller parts. For a detailed list of products of industry 3723, refer to table 6A, product codes 3723010 to 3723051 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Aircraft Propellers and Parts Industry totaled $\$ 191$ million. This amount included shipments of aircraft propellers and propeller parts (primary products) valued at $\$ 88$ million, shipments of other products (secondary products) valued at $\$ 95$ million, and miscellaneous receipts at $\$ 8$ million.

This industry's shipments of aircraft propellers and parts represented 48 percent of its total product shipments. The industry specialization ratio in 1958 was 75 percent.

Shipments of aircraft propellers and parts by this industry represented 81 percent of all shipments of these products ( $\$ 109$ million) by all industries. In 1958 the coverage ratio was 95 percent.

## 3729-AIRCRAFT PARTS AND AUXILIARY EQUIPMENT,NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing aircraft parts and auxiliary equipment, n.e.c., including nose cones for guided missiles. Establishments primarily engaged in manufacturing or assembling complete aircraft are classified in industry 3721, aircraft engines and parts in industry 3722, propellers and propeller parts in industry 3723 , aeronautical instruments in industry 3811 , and aeronautical electrical equipment in industry 3694. For a detailed list of products of industry 3729, refer to table 6A, product codes 3729113 to 3729439 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Aircraft Equipment, N.E.C., Industry totaled $\$ 3,169$ million. This amount included shipments of aircraft equipment, n.e.c. (primary products) valued at $\$ 2,254$ million, shipments of other products (secondary products) valued at $\$ 761$ million, and miscellaneous receipts at $\$ 153$ million.

This industry's shipments of aircraft equipment, n.e.c., represented 75 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent. Secondary products shipped by this industry in 1963 included research and development on guided missiles (complete) ( $\$ 108$ million), and aircraft engine parts ( $\$ 18$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 59 percent of the total industry shipments are represented by plants specializing in product class 37291 , Aircraft parts and auxiliary equipment, n.e.c.; and 25 percent in product class 37292 , Guided missile components and subassemblies, n.e.c.

Shipments of aircraft equipment, n.e.c., by this industry represented 59 percent of all shipments of these products ( $\$ 3,792$ million) by all industries. In 1958 the coverage ratio was 63 percent.

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establi shments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Cov- <br> erage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3721. -AIRCRAFT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 82 | 100 | 65 | 302,201 | 2,369,416 | 166,744 | 342,120 | 1,097,103 | 13,542,695 | 2,773,836 | 26,316,531 | 114,658 | 69 | 96 |
| $1962{ }^{3}$ | (NA) | (NA) | (NA) | 326,140 | 2,468,712 | 180, 369 | 378,192 | 1,131,358 | 13,363,486 | 2,842, 279 | 26, 205,647 | 119,655 | (NA) | (NA) |
| $1961{ }^{3}$ | (NA) | (NA) | (NA) | 305,435 | 2,205,508 | 172,942 | 351,726 | 1,023,524 | 13,046,923 | 2,953,275 | 26,000,080 | 71,816 | (NA) | (NA) |
| $1960{ }^{3}$ | (NA) | (NA) | (NA) | 302,428 | 2,084,943 | 177, 567 | 366, 374 | 1,043,943 | 13,044,749 | 2,874,174 | 25,920,180 | 62,755 | (NA) | (NA) |
| 19593 | (NA) | (NA) | (NA) | 369,253 | 2,419,610 | 225,581 | 461,834 | 1,248,162 | 13,305,013 | 3,503,653 | 26,808,666 | 89,695 | (NA) | (NA) |
| 1958 | 113 | 127 | 82 | 377,383 | 2,340,306 | 251,249 | 508,195 | 1,334,705 | 13,399,163 | 3,038,904 | ${ }^{2} 6,438,067$ | 94,167 | 81 | 93 |
| 1957 | (NA) | (NA) | (NA) | 555,735 | 3,191,272 | 358,910 | 727, 899 | 1,814,568 | 14, 54, ${ }^{1}$,653 | 3,902,226 | 28,419,451 | 191,479 | 86 | 98 |
| $1956{ }^{3}$ | (NA) | (NA) | (NA) | 501,664 | 2,880,902 | 336,538 | 699,604 | 1,683,329 | 13,880,671 | 3,026,237 | ${ }^{2} 6,846,165$ | 150,615 | ( NA ) | (NA) |
| $1955{ }^{3}$ | (NA) | (NA) | (NA) | 466,888 | 2,467,116 | 319,963 | 650,576 | 1,510,377 | 13,285,543 | 2,920,612 | 25,677,097 | 74,577 | (NA) | (NA) |
| 1954 | 46 | 72 | 69 | 457,618 | 2,277,320 | 320,445 | 654,781 | 1,441,632 | 13,368,747 | 3,193,829 | 26,562,576 | 59,446 | 89 | 99 |
| 1953 | (NA) | (NA) | (NA) | 439,390 | 2,126,719 | 315,401 | 663,082 | 1,371,973 | 2,811,927 | (NA) | (NA) | (NA) | ( NA ) | (NA) |
| 1952 | (NA) | (NA) | (NA) | 416,645 | 1,868,552 | 303,842 | 642,431 | 1,239,059 | 2,508,640 | (NA) | (NA) | (NA) | (NA) | (NA) |
| $1951{ }^{3}$ | (NA) | (NA) | (NA) | 311,505 | 1,309,261 | 231,659 | (NA) | 905,684 | 1,614,700 | (NA) | (NA) | (NA) | (NA) | (NA) |
| 1950 | (NA) | (NA) | (NA) | 186,020 | 712,427 | 136,890 | 289,833 | 480, 268 | 907,880 | (NA) | (NA) | (NA) | (NA) | (NA) |
| 1949 | (NA) | (NA) | (NA) | 168,206 | 602,545 | 125,395 | 258,941 | 406,690 | 779,552 | (NA) | (NA) | (NA) | (NA) | (NA) |
| $\begin{aligned} & 19477^{\circ} \\ & 1935^{\circ} . \end{aligned}$ | 47 | 58 | 50 | 146,625 | 462,906 | 110,332 | 221,796 | 316,795 | 605,983 | $\left(\begin{array}{l}4 \\ 4\end{array}\right.$ | $\left(\begin{array}{l}4 \\ 4\end{array}\right.$ | (NA) | (NA) | (NA) |
|  | (NA) | 4 | (NA) | (NA) | (NA) | 34,159 | (NA) | 52,813 | 112,343 | (4) | (4) | (NA) | ( NA) | (NA) |
|  | INDUSTRY 3722. - AIRCRAFT ENGINES AND PARTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 194 | 232 | 172 | 190,834 | 1,486,081 | 105,890 | 222,000 | 705,727 | 2, 244, 317 | 1,876,762 | 4,100,520 | 111,529 | 87 | 93 |
| $1962{ }^{3}$ | (NA) | (NA) | (NA) | 178,635 | 1,331,068 | 103,049 | 216,042 | 645,986 | 1,984,030 | 1,686,604 | 3,660,522 | 78,487 | (NA) | (NA) |
| $1961{ }^{3}$ | (NA) | (NA) | (NA) | 162,877 | 1,162,559 | 94,068 | 197,606 | 577,305 | 1,759,264 | 1,507,035 | 3,242,436 | 54,379 | (NA) | (NA) |
| 1960 | (NA) | (NA) | (NA) | 165,766 | 1,144,770 | 94,600 | 197,341 | 556,571 | 1,633,040 | 1,473,211 | 3,094,887 | 46,685 | (NA) | (NA) |
| 1959 | (NA) | (NA) | (NA) | 171,756 | 1,158,468 | 101,197 | 212,904 | 581, 880 | 1,813,745 | 1,676,619 | 3,507,128 | 64,093 | (NA) | (NA) |
| 1958. | 186 | 223 | 175 | 159,094 | 999, 237 | 94,531 | 194,858 | 509,724 | 1,615,671 | 1,719,082 | 3,512,073 | 55,883 | 94 | 93 |
|  | (NA) | (NA) | (NA) | 181,177 | 1,033,320 | 113,074 | 236,575 | 587,835 | 1,752,206 | 1,999,672 | 3,707,014 | 108,501 | 93 | 94 |
| $1956{ }^{3}$ | (NA) | (NA) | (NA) | 165,146 | 938,491 | 108,932 | 232,954 | 557,321 | 1,557,84,4 | 1,569,771 | 2,957,952 | 94,962 | (NA) | (NA) |
| $1955{ }^{3}$ | (NA) | (NA) | (NA) | 148,785 | 769,692 | 97,955 | 205,217 | 455,195 | 1,288,257 | 1,474,204 | 2,792,603 | 57,327 | (NA) | (NA) |
| 1954. | 202 | 234 | 183 | 167,383 | 819,181 | 117,277 | 243,536 | 522,850 | 1,435,443 | 1,753,507 | 3,268,863 | 46,689 | 93 | 91 |
| $1953{ }^{3}$ | (NA) | (NA) | (NA) | 187,426 | 919,950 | 135,443 | 292,680 | 619,590 | 1,614,748 | (NA) | (NA) | (NA) | (NA) | (NA) |
| $1952^{3}$ | (NA) | (NA) | (NA) | 153,199 | 743, 372 | 111,165 | 247,064 | 511,875 | 1,148,345 | (NA) | (NA) | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 107,242 | 499,479 | 77, 297 | 176,553 | 343,740 | 665,214 | (NA) | (NA) | (NA) | (NA) | (NA) |
| 1950 | (NA) | (NA) | (NA) | 67,603 | 278,759 | 48,464 | 104,945 | 186,219 | 447,211 | (NA) | (NA) | (NA) | (NA) | (NA) |
| 19493 | (NA) | (NA) | (NA) | 59,863 | 228,368 | 45,556 | 90,987 | 152,952 | 381,212 | 377,914 | 759,126 | (NA) | (NA) | (NA) |
| 1947. | (NA) | 59 | (NA) | 50,423 | 166,308 | 36,019 | (NA) | 110,716 | 252,254 | 212,369 | 464,623 | (NA) | 90 | 95 |
| $1939{ }^{5}$ | (NA) | 20 | (NA) | (NA) | (NA) | 9,445 | (NA) | 17,041 | 50,928 | 31,276 | 82, 204 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3723. -ATRCRAFT PROPELLERS AND PARTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 13 | 14 | ${ }^{8}$ | 11,183 | 78,712 | 6,231 | 13,515 | 37,666 | 113,433 | 69,829 | 190,761 | 6,045 | 48 | 81 |
| $1962{ }^{3}$ | (NA) | (NA) | (NA) | 9,764 | 72,260 | 5,687 | 13,053 | 36,150 | 99,055 | 63,806 | 157, 320 | 3,964 | (NA) | (NA) |
| $1961{ }^{3}$ | (NA) | (NA) | (NA) | 10,526 | 70,436 | 5,535 | 12,221 | 34, 290 | 87,543 | 60,618 | 157, 395 | 3,871 | (NA) | (NA) |
| 19603 | (NA) | (NA) | (NA) | 10,742 | 71,521 | 5,913 | 12,240 | 34, 958 | 101,434 | 65,449 | 163,692 | 2,107 | (NA) | (NA) |
| $1959{ }^{3}$. | (NA) | (NA) | (NA) | 11,384 | 72,767 | 6,852 | 14,098 | 38,732 | 95,369 | 74,726 | 173,790 | $(2,442)$ | (NA) | (NA) |
| 1958. | 17 | 18 | 10 | 15,505 | 85,635 | 9,617 | 19,363 | 49,478 | 112,301 | 106,642 | 235,270 | 5,107 | 75 | 95 |
| $1957{ }^{3}$ | (NA) | (NA) | (NA) | 17,567 | 98,415 | 11,981 | 23,493 | 60,838 | 156,119 | 115,131 | 265,871 | 14,452 | (NA) | (NA) |
| $1956{ }^{3}$. | (NA) | (NA) | (NA) | 13,655 | 80,165 | 9,417 | 19,332 | 48,542 | 126,597 | 85,462 | 195,348 | 7,580 | (NA) | (NA) |
| $1955{ }^{3}$. | (NA) | (NA) | (NA) | 12,247 | 65,263 | 8,213 | 17,225 | 39,669 | 96,939 | 72,042 | 167,906 | 2,947 | (NA) | (NA) |
| 1954. | 16 | 16 | 13 | 16,523 | 78,058 | 11,647 | 22,179 | 49,135 | 99,455 | 106,566 | 215, 213 | 4,320 | 84 | 87 |
| $1953{ }^{3}$ | (NA) | (NA) | (NA) | 18,041 | 85,506 | 13,354 | 27,334 | 59,013 | 129,601 | (NA) | (NA) | (NA) | (NA) | (NA) |
| $1952^{3}$ | (NA) | (NA) | (NA) | 13,880 | 67,4,40 | 9,944 | 21,771 | 46,233 | 70,831 | (NA) | (NA) | (NA) | (NA) | (NA) |
| $1951{ }^{3}$ | (NA) | (NA) | (NA) | 10,783 | 52,030 | 7,512 | 16,850 | 34,396 | 66,725 | (NA) | (NA) | (NA) | (NA) | (NA) |
| 1950 | (NA) | (NA) | (NA) | 8,675 | 35,602 | 5,739 | 11,672 | 21,937 | 50,468 | (NA) | (NA) | (NA) | (NA) | (NA) |
| 1949 | (NA) | (NA) | (NA) | 8,065 | 30,984 | 5,343 | 10,869 | 18,636 | 41,628 | (NA) | (NA) | (NA) | (NA) | (NA) |
| 1947 | 12 | 13 | 9 | 7,423 | 25,666 | 4,822 | 9,916 | 15,230 | 26,685 | (4) | ( ${ }^{4}$ ) | (NA) | (NA) | (NA) |
|  | INDUSTRY 3729. -AIRCRAFT EQUIPMENT, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 935 | 1,000 | 470 | 175,167 | 1,319,476 | 111,430 | 232,819 | 745,501 | 1,966,904 | 1,167,527 | 3,168,607 | 61,931 | 75 | 59 |
| $1962{ }^{3}$ | (NA) | (NA) | (NA) | 200,672 | 1,461,984 | 112,479 | 233,954 | 716,683 | 2,019,961 | 1,722,703 | 3,699,870 | 89,316 | (NA) | (NA) |
| $1961{ }^{3}$ | (NA) | (NA) | (NA) | 210,304 | 1,475,782 | 123,350 | 260,290 | 754, 319 | 2,062,888 | 1,962,980 | 3,973,754 | 96,294 | (NA) | (NA) |
| 1960 | (NA) | (NA) | (NA) | 199,800 | 1,315,011 | 131,098 | 277,467 | 763,714 | 1,799,694 | 1,427,782 | 3,181,527 | 67,553 | (NA) | (NA) |
| 1959 | (NA) | (NA) | (NA) | 200,336 | 1,284,912 | 135,008 | 287,423 | 761,795 | 1,746,413 | 1,326,708 | 3,030,598 | (S) | (NA) | (NA) |
| $1958{ }^{6}$ | 1,148 | 1,201 | 508 | 213,500 | 1,294,872 | 144,102 | 296,671 | 781,914 | 1,797,203 | 1,155,011 | 3,031,089 | 50,991 | 84 | 63 |

[^270]
## table 1. General Statistics: 1963 and Earlier Years-Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual corrpanies. (NA) Not available. (X) Not
Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual cormpanies. (NA) Not available. (X) Not
Footnotes for Table 1-37B-Continued applicable. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ For the period 1954-1963, the adjusted value added figure for the Aircraft Industry has not been adjusted for the change in inventory between the beginning and end of the year, since the figures reported by establishments in this industry are value of work done rather than value of shipments. It does include the value added by resales. For prior years this figure is unad.justed value added.
${ }^{2}$ For industry 3721 , represents value of work done rather than value of shipments.
${ }^{3}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a cormplete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures show in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{4}$ Total cost of materials and total value of shipments are not shown since these figures are not comparable to those of later years.
${ }^{5}$ No comparable figures are available for previous years.
$6_{\text {A revision }}$ in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Accordingly, the data for 19581963 are not comparable with those for earlier years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958


[^271]TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenct itures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> ( $\$ 1,000$ ) | Total <br> (number) | Manhours $(1,000)$ | Wages <br> ( $\$ 1,000$ ) |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3723. -AIRCRAFT PROPELLERS AND PARTS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 14 | 8 | 11,183 | 78,712 | 6,231 | 13,515 | 37,666 | 113,433 | 69,829 | 190,761 | 6,045 | 15,505 | 112,301 |
|  | INDUSTRY 3729. -AIRCRAFT EQUIPMENT, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |
| Total... | 1,000 | 470 | 175,167 | 1,319,476 | 111,430 | 232,819 | 745,501 | 1,966,904 | 1,167,527 | 3,168,607 | 61,931 | 213,500 | 1,797,203 |
| Middle Atlantic.... | 149 | 85 | 24,890 | 182,774 | 12,613 | 26,942 | 77,350 | 264,354 | 149,367 | 410,306 | 8,804 | 36,025 | 302,620 |
| New York. ........ | 90 | 50 | 9,362 | 61,052 | 6,585 | 13,768 | 40,221 | 93,848 | 55,618 | 143,625 | 2,530 | 23,625 | 179,701 |
| New Jersey....... | 32 | 18 | 4,209 | 29,797 | 2,384 | 5,025 | 14,822 | 45,792 | 27,567 | 773,955 | 1,454 | (3) | (3) |
| Pennsylvania..... | 27 | 17 | 11,319 | 91,925 | 3,644 | 8,149 | 22,307 | 124,714 | 66,182 | 192,726 | 4,820 | (3) | (3) |
| East North Central. | 152 18 | 76 12 | 30,189 4,380 | 224,676 29,737 | 18,864 2,831 | 39,086 5,592 | $\begin{array}{r}123,414 \\ \hline 1656\end{array}$ | 297,087 37,414 | 237,527 41,559 | 535,110 | 9,583 | 42,692 | 337, 229 |
| Illinois.......... | 18 | 12 | 4,380 5,371 | 29,737 42,117 | 2,831 3,317 | 5,592 6,794 | 16,756 23,306 | 37,414 58,701 | 41,559 31,812 | 78,681 93,688 | 911 2,133 | $(3)$ 5,905 | 43,352 |
| South Atlantic..... | 48 | 31 | 15,777 | 120,342 | 8,049 | 16,118 | 50,263 | 156,393 | 86,183 | 251,847 | 4,417 | 10,159 | 43,214 |
| Florida........... | 26 | 14 | 1,128 | 7,087 | 848 | 1,786 | 5,233 | 10,711 | 5,507 | 19,636 | 546 | 1,450 | 9,707 |
| West South Central. | 47 | 24 | 5,055 | 36,217 | 3,387 | 6,866 | 19,489 | 53,664 | 30,259 | 84,060 | 2,626 |  |  |
| Oklahoma......... | 10 | 5 | 1,694 | 13,805 | 1,266 | 2,478 | 7,835 | 14,984 | 4,767 | 20,542 | 1,701 | (3) | ${ }^{(3)}$ |
| Pacific............ | 445 | 181 | 44,442 | 344,234 | 31,996 | 70,057 | 233,355 | 527,793 | 291,397 | 823,031 | 26,265 | 88,514 | 797,748 |
| California....... | 421 | 169 | 41,559 | 323,680 | 30,103 | 66,034 | 221,234 | 501,115 | 268,983 | 777,740 | 23,638 | 87,130 | 786,094 |
| All other divisions. | 159 | 75 | 54,814 | 411,233 | 36,521 | 73,750 | 241,630 | 667,613 | 372,794 | 1,064,253 | 10,236 | 27,076 | 245,499 |
| Phode Island..... | 3 | 3 | 222 | 1,460 | 150 | 337 | 867 | 3,193 | 1,139 | 4,474 | 47 | ${ }^{(3)}$ | (3) |
| Connecticut...... | 39 | 18 | 4,991 | 36,833 | 2,945 | 6,293 | 18,067 | 45,321 | 27,183 | 71,470 | 2,588 | 1,708 | 16,413 |
| Missouri.......... | 17 | 7 | 1,154 | 7,104 | 833 | 1,782 | 4,454 | 9,321 | 6,481 | 15,889 | 484 | $\left({ }^{3}\right)$ | ${ }^{3}$ ) |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not

General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below wi th the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3721, Aircraft: New England -Massachusetts, $1(20-99)$; Connecticut, 4 (10,000 and over); Middle Atlantic-New York, 7 (37,790); Pennsylvania, 6 (10,000 and over); East North Central-Ohio, 3 (12,071); Michigan, 2 (20-99); Wisconsin, l (20-99); West North Central-Missouri, l (10,000 and over); Kansas, 5 (9,348); South Atlantic-Delaware, l (100-249); North Carolina, l (500-999); Georgia, 2 (10,000 and over); Florida, 7 (1,000-2,499); East South Central-Alabama, 3 (5,000-9,999); West South Central-Oklahoma, 5 (2,500-4,999); Mountain-Wyoming, 2 (100-249); Colorado, 1 (1-19); Pacific-Washington, 7 (61,044); Oregon, 1 (1-19); California, 23 (71, 250); A1aska, l (1-19).
SIC 3722, Aircraft Engines and Parts: New England-Maine, 3 (1,000-2,499); Vermont, 2 (500-999); Massachusetts, 8 (6, 745); Rhode Island, 2 ( $250-499$ ); Connecticut, 36 ( 41,119 ); Middle Atlantic-New York, 17 ( $5,000-9,999$ ); New Jersey, 10 ( 10,000 and over); East North CentralIndiana, 12 (13,882); Michigan, 7 (2,500-4,999); Wisconsin, 2 (200-249); West North Central-Minnesota, 2 (250-499); Iowa, 1 (250-499); Missouri, 3 (1,000-2,499); South Atlantic-Maryland, l (500-999); Virginia, l (500-999); North Carolina, 2 (250-499); Ceorgia, l (20-99); Floride, 5 ( $5,000-9,000$ ); East South Central-Alabama, 1(1,000-2,499); West South Central-Louisiana, 1 (2,500-4,999); Oklahoma, 1 (1-19); Texas, 4 (1,000-2,499); Mountain-Arizona, 3 (2,500-4,999); Utah, 3 (12,072); Pacific-Washington, 2 (20-99).
SIC 3723, Aircraft Propellers and Parts: New England-Connecticut, 2 ( $5,000-9,999$ ); Middle Atlantic-New York, 1 (20-99); New Jersey, 2 (1,0002,499); Pennsylvania, 1 (100-249); East North Central-Ohio, 2 (100-249); Michigan, 1 (250-499); South Atlantic-Florida, l (1-19); MountainColorado, l (1-19); Pacific-California, 3 (20-99).
SIC 3729, Aircraft Equipment, N. E.C.: New England-Maine, 2 (20-99); Vermont, 2 (1,000-2,499); Massachusetts, 17 (2,500-4,999); East North CentralOhio, 56 (10,000 and over); Indiana, 16 ( 6,637 ); Wisconsin, l (20-99); West North Central-Minnesota, 8 (2,500-4, 999); Nebraska, 1 (1-19); Kansas, 35 (19,290); South Atlantic-Delaware, l (250-499); Maryland, 8 (10,000 and over); Virginia, 3 (500-999); West Virginia, l (1-19); North Carolina, 2 (250-499); Georgia, 7 (233); East South Central-Kentucky, 1 (20-99); Tennessee, 3 (2,500-4, 999); Alabama, 2 (100-249); Mississippi, 2 (500-999); West South Central-Arkansas, 1 (20-99); Texas, 36 (2,500-4, 999 ); Mountain-Idaho, 1 (100-249); Colorado, 6 (10, 000 and over); New Mexico, 1 (1-19); Arizona, 18 (1,000-2,499); Nevada, 1 (1-19); Pacific-Washington, 22 (1,000-2,499); Oregon, 2 (500-999).
${ }^{2}$ For industry 3721 , represents value of work done rather than the value of shipments.
${ }^{3}$ This State or region was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report
showed the number of establishments and total erployment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

| Item | Aircraft (SIC 3721) | Aircraft engines and parts (SIC 3722) | Aircraft propellers and parts (SIC 3723) | Aircraft equipment, n.e.c. (SIC 3729) |
| :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio ${ }^{1}$. | . 69 | . 87 | . 48 | . 75 |
| Coverage ratio ${ }^{2}$...................................................... | . 96 | . 93 | . 81 | . 59 |
| Establishments, total..................................... . . . | 100 | 232 | 14 | 1,000 |
| With 1 to 19 employees. . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . | 35 | 60 | 6 | 530 |
| With 20 to 99 employees................................... . . . . | 19 | 71 | 2 | 271 |
| With 100 employees or more......................... . . . . .do. | 46 | 101 | 6 | 199 |
| Proprietors and working partners........................do. | 13 | 35 | 2 | 369 |
| All employees (average for the year).....................d. ${ }^{\text {do. }}$ | 302,201 | 190,834 | 11,183 | 175,167 |
| Payroll (all employees), total for year............... $\$ 1,000 .$. | 2,369,416 | 1,486,081 | 78,712 | 1,319,476 |
| Production workers: |  |  |  |  |
| Average for the year..................................number.. | 166,744 | 105,890 | 6,231 | 111,430 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 167,370 | 100,507 | 6,654 | 112,327 |
| Мау. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 165,736 | 100,273 | 6,625 | 110,828 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 163,552 | 120,046 | 6,040 | 110,186 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.. . . | 170,313 | 102,732 | 5,580 | 112,361 |
| Man-hours................................................... . $1,000$. . | 342,120 | 222,000 | 13,515 | 232,819 |
| January-March.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.... | 89,166 | 56,336 | 3,612 | 59,101 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 85,732 | 56,023 | 3,648 | 58,293 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 81,660 | 52,817 | 3,162 | 56,918 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 85,574 | 56,824 | 3,094 | 58,507 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 1,097,103 | 705,727 | 37,666 | 745,501 |
| Cost of materials, etc., total..........................do.. | 2,773,836 | 1,876,762 | 69,829 | 1,167,527 |
| Materials, parts, containers, and supplies consumed..do. | 2,458,694 | 1,386,229 | 64,501 | 996,750 |
| Cost of resales...........................................do. | 176,045 | 96,088 | 78 | 35,098 |
| Fuels consumed. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 6,950 | 7,244 | 368 | 6,989 |
| Electric energy: |  |  |  |  |
| Purchased: |  |  |  |  |
| Quantity...............................million kw.-hrs.. | 2,361 | 2,174 | 107 | 1,533 |
| Cost............................................... . $\$ 1,000$. . | 21,928 | 23,391 | 1,301 | 18,198 |
| Generated less sold......................million kw.-hrs.. | (D) | (D) | - | 20 |
| Contract work........................................... $\$ 1,000 .$. | 110,219 | 363,810 | 3,581 | 110,492 |
| Value of shipments (including resales), total ${ }^{3}$..........do.... <br> Value of resales.......................................................... | $6,316,531$ 229,852 | $4,100,520$ 140,420 | 190,761 91 | $3,168,607$ 44,377 |
| Value added by manufacture, adjusted ${ }^{4}$..................do.... | 3,542,695 | 2,244,317 | 113,433 | 1,966,904 |
| Manufacturers' inventories: |  |  |  |  |
| Beginning of year, total...............................do.. | 2,026,900 | 614,502 | 41,580 | 570,432 |
| Finished products...................................... . do.. | 91,157 | 110,580 | 14,866 | 43,429 |
| Work-in-process................................. . ... do... | 1,589,334 | 332,643 | 19,801 | 428,868 |
| Materials, supplies, fuel, etc......................do.... | 346,409 | 171,279 | 6,913 | 98,135 |
| End of year, total.......................................do. | 2,437,713 | 607,359 | 33,042 | 525,313 |
|  | 58,627 | 150,408 | 13,408 | 33,379 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 1,944,544 | 313,374 | 13,760 | 404,742 |
| Materials, supplies, fuel, etc.......................do.... | 434,542 | 143,577 | 5,874 | 87,192 |
| Expenditures for plant and equipment, total............do. | 124,043 | 116,651 | 6,242 | 71,960 |
| New, total.................................................do. | 114,658 | 111,529 | 6,045 | 61,931 |
| New structures and additions to plant...............d. do. | 40,662 | 45,506 | 5.401 | 15,803 |
| New machinery and equipment...........................do.... | 73,996 | 66,023 | 5,644 | 46,128 |
| Used plant and equipment.................................do.... | 9,385 | 5,122 | 197 | 10,029 |
| Selected operating ratios: |  |  |  |  |
| Payroll/Total employment.......... | 7,841 | 7,787 | 7,039 | 7,532 |
| Production workers/Total employment. | . 55 | . 55 | . 56 | . 64 |
| Man-hours/Production workers....... | 2,052 | 2,097 | 2,169 | 2,089 |
| Production worker wages/Man-hours................. . . . . . . . . . . | 3.21 | 3.18 | 2.79 | 3.20 |
| Cost of materials and payrolls/Total value of shipments.... | . 79 | . 82 | . 78 | . 78 |
| Cost of materials/Total value of shipments.................. | . 4.4 | . 46 | . 37 | . 37 |
| Adjusted value added/Total employment........................ | 11,723 | 11,761 | 10,143 | 11,229 |
| Salaries and wages/Adjusted value added...................... | . 67 | . 66 | $9^{69}$ | . 67 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufac-
turing establishments.
${ }^{3}$ For industry 3721, represents value of work done rather than value of shípments.
${ }^{4}$ See table 1, footnote 1.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | 5 to 9 employees | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 2,500 \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3721. -AIRCRAFT |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 100 | 16 | 12 | 7 | 10 | 9 | 7 | 3 | 6 | 9 | 21 |
| All employees: |  |  |  | (D) | 975 | (D) | 1,079 | 1,107 | 4,464 | 16,367 | 278,010 |
| Total......................d. ${ }^{\text {do.... }}$ | 302,201 | 31 | $\frac{168}{906}$ | (D) | 5,014 | (D) |  |  | 28,593 |  | 2,217,233 |
| Payroll................ $\$ 1,000 .$. | $2,369,416$ $3,542,695$ | 170 | 1, $\frac{906}{4,44}$ | (D) | 5,014 | (D) | 5,805 5,688 | 9,821 | 28,593 | 138,349 | 3,313,483 |
| Value added, adjusted.......do.... Value of shipments ${ }^{1}$........do... | 3,542,695 | 192 | $\frac{1,444}{2,302}$ | (D) | $\begin{array}{r}\text { 5, } 2,350 \\ 11,307 \\ \hline\end{array}$ | (D) | 10,079 | 17,545 | 59,873 | 261,174 | 5,953,961 |
| Capital expenditures, new...do.... | 114,658 | 6 | 32 | (D) | 308 | (D) | 71 | 97 | 916 | 4,741 | 108,487 |
|  | INDUSTRY 3722.-AIRCRAFT ENGINES AND PARTS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 232 | 20 | 18 | 22 | 35 | 36 | 37 | 12 | 20 | 15 | 17 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total........................do.... | 190,834 | 43 | 128 |  | 1,139 | $\begin{array}{r}2,386 \\ 17 \\ \hline 156\end{array}$ | 5,792 39,285 | 4,577 31,359 | 13,011 96,526 | 21,896 |  |
| Payroll................. $\$ 1,000 .$. | 1,486,081 | 260 399 | 835 1,154 | 2,138 3,406 | 7,941 11,088 | 17,546 | 39,285 63,871 | 31,359 43,770 | 96,526 166,277 | 171,260 | 1,118,931 |
| Value added, adjusted.......do.... | 2,24, 317 | 399 618 | 1,154 | 3,406 5,411 | 11,088 | 25,709 40,829 | 63,871 100,290 | 43,770 75,912 | 166,277 | 263,061 | 1,665,582 <br> 3,186,337 |
| Value of shipments..........dd.... Capital expenditures, new..do... | 4,100,520 | $\begin{array}{r}618 \\ 53 \\ \hline\end{array}$ | 1,679 | 5,411 | 17,651 642 | 40,829 1,392 | 100,290 2,073 | 75,912 2,265 | 26,939 7,005 | 408,854 21,927 | $\begin{array}{r} 3,186,337 \\ 76,046 \end{array}$ |
|  | INDUSTRY 3723.-AIRCRAFT PROPELLERS AND PARTS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 14 | 2 | 2 | 2 | 2 | - | 3 | 1 | - | 1 | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 11,183 | 11,183 | (D) | (D) | (D) | - | (D) | (D) | - | (D) | (D) |
| Payroll. . . . . . . . . . . . . . $\$ 1,000 .$. | 78,712 | 78,712 | (D) | (D) | (D) | - | (D) | (D) | - | (D) | (D) |
| Value added, adjusted.......do.... | 113,433 | 113,433 | (D) | (D) | (D) | - | (D) | (D) | - | (D) | (D) |
| Value of shipments..........do.... | 190,761 | $\underline{190,761}$ | (D) | (D) | (D) | - | (D) | (D) | - | (D) | (D) |
| Capital expenditures, new...do.... | 6,045 | 6, 045 | (D) | (D) | (D) | - | (D) | (D) | - |  |  |
|  | INDUSTRY 3729.-AIRCRAFT EQUIPMENT, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments. . ........... number. . | 1,000 | 245 | 117 | 168 | 168 | 103 | 88 | 47 | 29 | 25 | 10 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total. ....................... ${ }_{\text {do.... }}$ | 175,167 | $\begin{array}{r}433 \\ 4074 \\ \hline\end{array}$ | 827 4897 | 2,377 15,353 | 5,312 34,306 | 6,979 45,045 | 14,010 | 16,545 112,264 |  | 39,179 302,207 | $\begin{array}{r} 69,889 \\ 562,932 \end{array}$ |
| Payroll................. $\$ 1,000 .$. | 1,319,476 | 4,074 5,860 | 4,897 7,949 | 15,353 25,161 | 34,306 51,877 | 45,045 65,743 | 95,511 139,025 | 112,264 165,299 | 142,887 <br> 213,578 <br> 12,202 | 302,207 429,373 | $\begin{aligned} & 562,932 \\ & 863,039 \end{aligned}$ |
| Value added, adjusted.......do.... | 1,966,904 | 5,860 9,780 | 7,949 12,522 | 25,161 41,935 | 51,877 86,687 | 65,743 116,490 | 139,025 242,883 | 165,299 273,980 | 213,578 354,402 | 429,373 688,636 | $\begin{array}{r} 863,039 \\ 1,341,292 \end{array}$ |
| Value of shipments..........do.... Capital expenditures, new. .do... | $\begin{array}{r} 3,168,607 \\ 61,931 \end{array}$ | 9,780 | 12,522 471 | 41,935 1,267 | $\begin{array}{r}81,687 \\ 7,252 \\ \hline\end{array}$ | 116,490 (D) | 242,883 5,624 | 273,980 5,462 | 354,402 9,317 | 688,636 16,754 | $15,291$ |

-Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified. ${ }^{1}$ For industry 3721 , represents value of work done rather than value of shipments.

## table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. code | Industry and census year | Value of shipments ${ }^{1}$ |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\text { Col. B }}{\text { Col. B+C }}$ <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries <br> $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3721 | Aircraft. . . . . . . . . . . . . . . . . . . . . . 1963. . 1958. | $\begin{aligned} & 6,316,531 \\ & 6,438,067 \end{aligned}$ | $\begin{aligned} & 4,164,135 \\ & 4,988,297 \end{aligned}$ | $\begin{aligned} & 1,898,380 \\ & 1,148,011 \end{aligned}$ | $\begin{aligned} & 254,016 \\ & 301,759 \end{aligned}$ | $\begin{aligned} & 69 \\ & 81 \end{aligned}$ | $\begin{aligned} & 4,330,502 \\ & 5,362,680 \end{aligned}$ | $\begin{aligned} & 4,164,135 \\ & 4,988,297 \end{aligned}$ | $\begin{aligned} & 166,367 \\ & 374,383 \end{aligned}$ | 96 |
| 3722 | Aircraft engines and parts........ 1963.. | $\begin{aligned} & 4,100,520 \\ & 3,512,073 \end{aligned}$ | $\begin{aligned} & 3,366,568 \\ & 3,099,271 \end{aligned}$ | $\begin{aligned} & \text { 495,477 } \\ & 206,503 \end{aligned}$ | $\begin{aligned} & 238,475 \\ & 206,299 \end{aligned}$ | $\begin{aligned} & 87 \\ & 94 \end{aligned}$ | $\begin{aligned} & 3,609,691 \\ & 3,325,935 \end{aligned}$ | $\begin{aligned} & 3,366,568 \\ & 3,099,271 \end{aligned}$ | $\begin{aligned} & 243,123 \\ & 226,664 \end{aligned}$ | 93 93 |
| 3723 | Aircraft propellers and parts..... 1963.. 1958.. | $\begin{aligned} & 190,761 \\ & 235,270 \end{aligned}$ | $\begin{array}{r} 88,348 \\ 158,030 \end{array}$ | $\begin{aligned} & 94,880 \\ & 53,771 \end{aligned}$ | $\begin{array}{r} 7,533 \\ 23,469 \end{array}$ | $\begin{aligned} & 48 \\ & 75 \end{aligned}$ | $\begin{aligned} & 108,991 \\ & 166,952 \end{aligned}$ | $\begin{array}{r} 88,348 \\ 158,030 \end{array}$ | $\begin{array}{r} 20,643 \\ 8,922 \end{array}$ | 81 95 |
| 3729 | Aircraft equipment, n.e.c.......... 1963.. | $\begin{aligned} & 3,168,607 \\ & 3,031,089 \end{aligned}$ | $\begin{aligned} & 2,254,298 \\ & 2,365,826 \end{aligned}$ | $\begin{aligned} & 760,975 \\ & 461,067 \end{aligned}$ | $\begin{aligned} & 153,334 \\ & 204,196 \end{aligned}$ | $\begin{aligned} & 75 \\ & 84 \end{aligned}$ | $\begin{aligned} & 3,791,952 \\ & 3,750,460 \end{aligned}$ | $\begin{aligned} & 2,254,298 \\ & 2,365,826 \end{aligned}$ | $\begin{aligned} & 1,537,654 \\ & 1,384,634 \end{aligned}$ | 59 63 |

Note: See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.
${ }_{1}{ }^{2}$ For industry 3721 , represents value of work done rather than value of shipments.

## TABLE 5B. Industry-Product Analysis—Shipments by Product Class and Industry: 1963

thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products). (b) products classified in other industries (secondary products), and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


[^272]TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

| Prod. class code | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Aircraft propellers and parts (SIC 3723) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
|  | AIRCRAFT PROPELLERS AND PARTS INDUSTRY |  |  |  |
|  | Total shipments and receipts of the indust | (X) | 190,761 | (X) |
| 37230 | Aircraft propellers and parts | 108,991 | 88,348 | 20,643 |
|  | Secondary products. | (X) | 94,880 | (X) |
| 37224 | Aircraft engine parts and accessories.............................................. | (X) | (20-50) | (X) |
| 35857 | Other refrigeration and air-conditioning equipment, including soda fountain and beer dispensing equipment. ........................................................................................ | (X) | (over 2) | (X) |
| 36231 | Arc welding machines, components and accessories, except electrodes...................... | (X) | (over 2) | (X) |
| 37291 | Other aircraft parts and auxiliary equipment................................................... | (X) | (over 2) | (x) |
| 37293 | Research and development on aircraft parts..................................................... | (X) | (over 2) | (X) |
|  | Miscellaneous receipts | (X) | 7,533 | (X) |
|  | Resales. | (X) | 91 | (X) |
|  | Other miscelleneous receipt | (X) | 7,442 | (X) |
|  | Listing of other industries with over \$2 million shipments of aircraft propellers and parts: |  |  |  |
| 37230 | 3729 Aircraft equipment, n.e.c................................................................................ <br> 3722 Aircraft engines and parts. | $\begin{aligned} & (X) \\ & (X) \\ & (X) \end{aligned}$ | (X) | $\begin{array}{r} (5-10) \\ (\text { over } 2) \end{array}$ |
|  |  | All industries | Aircraft equipment, n.e.c. (SIC 3729 ) | Other industries |
|  | AIRCRAFT EQUİMENT, N.E.C., INDUSTRY |  |  |  |
|  | Total shipments and receipts of the industr | (X) | 3,168,607 | (X) |
|  | Primary products. | 3,791,952 | 2,254,298 | 1,537,654 |
| 37291 | Other aircraft parts and auxiliary equipment. | 2,215,290 | 1,254,471 | 960,819 |
| 37292 | Guided missile components and subassemblies, n.e. | 1,009,265 | 583,223 | 426,042 |
| 37293 | Research and development on aircraft parts.. | 74,541 | 15,464 | 59,077 |
| 37294 | Research and development on missile parts and components, | 420,362 | 329,001 | 91,361 |
| 37290 | Aircraft equipment, n.e.c., n.s.k................ | 72,494 | 72,139 | 355 |
|  | Secondary products. | (X) | 760,975 | (X) |
| 19253 | Research and development on guided missiles (complete). | (X) | 107,949 | (x) |
| 19255 | All other services on complete missiles and space vehicles. | (X) | 5,864 | (X) |
| 19293 | Ammunition, n.e.c...... | (X) | 2,315 | (X) |
| 19990 | Ordnance and accessories, n.e.c. | (X) | 7,227 | (X) |
| 34944 | Other metal valves and fittings except plumbers brass goods and fittings. | (X) | 2,990 | (X) |
| 34990 | Fabricated metal products, n.e.c.. | (X) | 6,606 | (X) |
| 35441 | Special dies and tools, die sets, jigs, and fixtures. | (X) | 2,688 | (X) |
| 35690 | General industrial machinery, n.e.c........... | (X) | 2,388 | (X) |
| 35712 | Computing and accounting machines, including cash registers. | (X) | 3,985 | (X) |
| 35990 | Carburetors, pistons, and other machine shop products.. | (X) | 13,488 | (X) |
| 36621 | Commercial, industrial, and military electronic communication equipment. | (X) | 2,802 | (X) |
| 36625 | Electronic search and detection apparatus, including radar, infrared, and sonar. | (X) | 16,834 | (X) |
| 36626 | Electronic, military, industrial, and commercial equipment, n.e.c..... | (X) | 9,649 | (X) |
| 36795 | Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blanks). | (X) | 13,256 | (X) |
| 3775 | Parts and accesories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers. | (X) | 5,577 | (X) |
| 37224 | Aircraft engine parts and accessories. | (X) | 17,902 | (X) |
| 38111 | Aircraft flight, nautical, and navigational instruments and automatic pilots. | (X) | 5,575 | (X) |
|  | All other secondary products. | (X) | 533,880 | (X) |
| 19110 | Guns, howitzers, mortars, and related equipment over 30 mm (or over 1.18 inches)........ | (X) | (100-200) | (X) |
| 19310 | Tanks and tank components........ | (X) | (5-10) | (X) |
| 9511 | Machine guns, 30 mm and under (or 1.18 inches and under)................................ | (X) | (over 2) | (X) |
| 30791 | Unsupported plastics film, sheets, sheeting, rods, tubes, and other stock shapes from purchased resin materials. | (X) | (5-10) | (X) |
| 30795 | Industrial plastics products....................................................................... . | (X) | (over 2) | (X) |

[^273]TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry:
1963-Continued

table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| Product code | Product | Tota! shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity (number of units) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3721- -- | AIRCRAFT. | (X) | ( ${ }^{1}$ ) | (X) | ${ }^{1}$ ) |
|  | Total value of work done ${ }^{12}$. | (X) | 4,330,502 | (X) | 5,362,680 |
| 3721110 | Value of work done on aircraft, military type, for United States military customers, excluding modifications, conversions, and other aeronautical services. $\qquad$ | (X) | 2,470,261 | ( X ) | 3,501,650 |
| 3721213 | Value of work done on aircraft, personal type, for other than United States military customers, excluding modifications, conversions, and other aeronautical services. | (X) | 157,797 | (x) |  |
| 3721313 | Value of work done on aircraft, complete commercial transport type for other than United States military customers, excluding modifications, conversions, and other aeronautical services................................... | (X) | 561,124 | \} (x) | 988,237 |
| 37214 -- | Modifications, conversions, and overhaul of previously accepted aircraft. | (X) | 465,455 | (X) | 298,800 |
| 3721411 | For United States military customers. | (X) | 430,855 | (X) | 286,265 |
| 3721451 | For other than United States military customers | (X) | 34,600 | (X) | 12,535 |
| 37216 -- | Other aeronautical services (including research and development on aircraft) | (X) | 668,386 | (X) | 573,993 |
| 3721611 | For United States military customers............ | (X) | 620,706 | (X) | 519,476 54,517 |
| 3721651 | For other than United States military customers. | (X) | 47,680 | (X) | 54,517 |
| 37219 -- | Total value of shipments ${ }^{1}$. | (X) | 2,828,003 | (X) | 3,755,870 |
|  | Aircraft, complete, accepted during the year: |  |  |  |  |
| 3721910 | For United States military customers (including airplanes, balloons, helicoptors, and autogiros).. | (X) | 2,138,951 | (X) | 3,255,741 |
|  | For other than United States military customers (including airplanes, balloons, helicopters, and autogiros) ${ }^{3}$.......................................... | 8,203 | 689,052 | 6,882 | 500,129 |
| $\begin{aligned} & 3721911 \\ & 3721912 \end{aligned}$ | Personal and utility type. <br> Commercial transport type. | $\begin{array}{r}7,927 \\ \hline 276\end{array}$ | 175,566 513,486 | \} 6,882 | 500,129 |
| 3721000 | Aircraft, n.s.k. | (X), | 7,479 | (X) | - |
| 3722- -- | ATRCRAFT ENGINES AND ENGINE PARTS, TOTAL | (X) | 3,609,691 | (X) | 3,325,935 |
| 3722110 | Aircraft engines for United States military customers. | 23,556 | 644,417 | \} (NA) | 41,399,851 |
| 3722210 | Aircraft engines for other than United States military customers ${ }^{5}$........ | 11,906 | 150,033 | J |  |
| 37224 -- | Aircraft engine parts and accessories | (X) | 932,093 | (X) | ${ }^{6} 1,261,401$ |
| 3722413 | For United States military customers........... | (x) |  | ) (x) |  |
| 3722453 | For other than United States military customers........................... | (X) | 262,947 | $\} \quad(x)$ | 1,261,401 |
| 3722400. | Aircraft engine parts and accessories, n.s.k. | (X) | 333 |  |  |
| 37225 -- | Complete missile or space vehicle engines and/or propulsion units. | (X) | 582,631 | (X) | $\left({ }^{4}\right)$ |
| 3722511 | For United States military customers | (X) | 457,946 | (X) | (NA) |
| 3722513 | For other than United States military customers. | (X) | 124,685 | (X) | (NA) |
| 37228 -- | Missile and space vehicle engine and/or propulsion unit parts or accessories. | (X) | 147,826 | (X) | ${ }^{6}$ ) |
| 3722811 | For United States military customers. | (X) | 75,077 | (X) | (NA) |
| 3722813 | For other than United States military customers. | (X) | 72,749 | (X) | (NA) |
| 37223 -- | Research and development on aircraft engines. | (X) | 385,339 | (X) | 78664,683 |
| $\begin{aligned} & 3722321 \\ & 3722323 \end{aligned}$ | Research and development work on aircraft engines: <br> For United States military customers............................................. <br> For other than United States military customers............................. | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | 326,750 $(9)$ | (X) | $\begin{array}{r} 7658,327 \\ 86,356 \end{array}$ |
| 3722331 | All other aeronautical services on aircraft engines: <br> For United States military customers. | (X) | 37,416 | (X) | (7) |
| 3722333 | For other than United States military customers | (X) | ${ }^{9} 21,173$ | (X) | $\left({ }^{8}\right)$ |
| 37226 -- | Receipts for research and development on complete missile or space vehicle engines and/or propulsion units. | (X) | 696,780 | (X) | $\left(\begin{array}{l} \\ 7 \\ 8\end{array}\right)$ |
| $3722611$ | For United States military customers... | (X) | 475,540 | (X) |  |
| 3722613 | For United States nonmilitary customers | (X) | 221,240 | (X) | (8) |

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity (number of units) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
|  | ATRCRAFT ENGINES AND ENGINE PARTS-Continued |  |  |  |  |
| 37227 -- | All other services on complete missile or space vehicle engines and/or propulsion units. | (X) | 61,721 | (X) | ) $\quad\left({ }^{78}\right)$ |
| $\begin{aligned} & 3722711 \\ & 3722713 \end{aligned}$ | For United States military customers............ For other than United States military customers. | (X) | 54,336 7,385 | ( X ) | ) (7) ${ }^{8}$ |
| 3722000 | Aircraft engines and engine parts, | (x) | 8,851 | (X) |  |
| 3723- -- | AIRCRAFT PROPELLERS AND PROPELLER PARTS, TOTAL | ( X ) | 108,991 | (X) | ) 166,952 |
| 3723010 | Complete propellers ${ }^{10}$ | 15,654 | 58,725 | 22,132 | 22 94,832 |
| $3723051$ | Propeller blades...... | 9,728 | 10,889 | 7,013 | 3 13,291 |
|  | Propeller parts, except propeller blades | (X) | 39,377 | (X) | ) 58,829 |
|  | Product |  |  | Total shipments including interplant transfers $(\$ 1,000)$ |  |
|  |  |  |  | 1963 | 1958 |
| $\begin{aligned} & 3729--- \\ & 37291 \text {-- } \end{aligned}$ | AIRCRAFT PARTS AND AUXILTARY EQUIPMENT, N.E.C., TOTAL. |  |  | 3,791,952 | 3,750,460 |
|  | Aircraft parts and auxiliary equipment....................... |  |  | 2,215,290 | 2,860,570 |
|  | Aircraft and related engines and power take-off gears: For United States military customers $\qquad$ |  |  | $\begin{array}{r} 171,409 \\ 73,970 \end{array}$ | \} 26,848 |
| 3729115 | For other than United States military customers..... |  |  |  |  |
|  | Other aircraft subassemblies and parts: <br> For United States military customers. <br> For other than United States military customers.................................. |  |  | $\begin{array}{r} 1,454,704 \\ 460,125 \end{array}$ | \} $2,833,722$ |
| 3729195 3729197 |  |  |  |  |  |
| 3729100 | Aircraft parts and auxiliary equipment, n.s.k. ${ }^{11}$ |  |  | $\begin{array}{r} 55,082 \\ 1,009,265 \end{array}$ | (11) |
| 37292 -- | Guided missile components and subassemblies, n.e.c.......................................................... |  |  |  | 509,200 |
| 3729211 | For United States Government military customers: Airframes. <br> Space capsules <br> All other. |  |  | $\begin{array}{r} 87,485 \\ 32,337 \\ 739,992 \end{array}$ | ) |
| 3729213 |  |  |  |  |  |
| 3729219 |  |  |  |  |  |
|  | For United States Government normilitary customers: <br> Airframes. |  |  | 15,90668,691 | \} 509,200 |
| 3729221 3729223 3 |  |  |  |  |  |
| 3729229 | All othsr...... |  |  |  |  |
|  | For nongovernment customers: <br> Airframes. |  |  | 10,919 | ) |
| $\begin{array}{ll} 37292 & 31 \\ 37292 & 33 \end{array}$ |  |  |  |  |  |
| 3729239 | All other...... |  |  |  |  |
| 3729200 | Guided missile cormonents and subassemblies, n.s.k. ${ }^{11}$. |  |  | 25,011 |  |
| 37293 -- | Receipts from research and development on aircraft parts ${ }^{12}$. |  |  | - 74,571 | (NA) |
| 3729313 | For United States military customers <br> For other than United States military customers. Receipts from revesrch and development on aircraft parts...... |  |  |  |  |
| 3729315 |  |  |  |  | (NA) |
| 3729300 |  |  |  |  |  |

Se fooinotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{1}$ Total value of shipments figure for aircraft differs from value of work done. See text for explanation of differences.
${ }^{2}$ Data for value of work done, including modifications, conversions, and overhaul of previously accepted aircraft, and other aeronautical services (including research and development on aircraft), represent receipts, billings, or value of work done.
${ }^{3}$ Statistics on shipments of complete civilian aircraft were collected monthly and published in Current Industrial Reports Series M37G. The figures reported in that survey for 1963 were as follows: quantity, 8,155 units; value, $\$ 685,936$ thousand.
${ }^{4}$ For 1958, data on complete missile or space vehicle engines and/or propulsion units were included with aircraft engines.
${ }^{5}$ Statistics on shipments of aircraft engines for other than United States military customers were collected monthly and published in Current Industrial Reports Series M37G. The total value reported in that survey for 1963 was $\$ 144,254$ thousand.
${ }^{6}$ For 1958, data on missile and space vehicle engine and/or propulsion unit parts or accessories were included with aircraft engine parts and accessories.
${ }^{7}$ For 1958, data on receipts for research and development on complete missile or space vehicle engines and/or propulsion units for United States military customers and all other services on aircraft, missile or space vehicle engines and/or propulsion units for United States military customers were included with receipts for research and development on aircraft engines for United States military customers.
${ }^{8}$ For 1958, data on receipts for research and development on complete missile or space vehicle engines and/or propulsion units for other than United States military customers and all other services on aircraft, missile or space vehicle engines and/or propulsion units for other than United States military customers were included with receipts for research and development on aircraft engines for other than United States military customers. ${ }^{9}$ For 1963, data on research and development on aircraft engines for other than United States military customers are included with all other aeronautical services on aircraft engines for other than United States military customers to avoid disclosing figures of individual companies.
${ }^{10}$ Statistics on complete propellers are also shown on Current Industrial Reports Series M37E, "Aircraft Propellers."
${ }^{11}$ Since much less detail was collected for these products in 1958, "Not specified by kind" was included within the specified products.
${ }^{12}$ Represents receipts or billings.
table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products, Shipped by All Producers: 1963 and 1958

TABLE 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962{ }^{1}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3721- | Aircraft ${ }^{2}$ | 4,330,502 | 4,439,052 | 4,470,499 | 4,652,957 | 5,085,226 | 5,362,680 | 5,582,476 | (NA) |
| 37211 | Complete aircraft, military type | 2,470,261 | 2,314,888 | 2,086,548 | 2,394,833 | 2,820,292 | 3,501,650 | 4,286,260 | 265,328 |
| 37212 | Complete aircraft, personal and utility type | 157,797 | 267, 556 | 291,982 |  |  |  |  | \{ 57,020 |
| 37213 | Complete aircraft, commercial transport <br> (airline passenger and cargo service)...... | 561,124 | 786,472 | 969,231 | \} $2,269,678$ | 1,229,087 | 988,237 | 291,705 | $\left\{\begin{array}{l}122,073\end{array}\right.$ |
| 37214 | Modifications, conversions, and overhaul of previously accepted aircraft.............. | 465,455 | 368,814 | 327,056 | 362,059 | 259,823 | 298,800 | 167,829 | 28,203 |
| 37216 | Other aeronautical services for aircraft | 668,386 | 701,322 | 795,682 | 626,387 | 776,024 | 573,993 | 836,682 | (NA) |
| 37210 | Aircraft, n.s.k. | 7,479 |  |  |  |  |  |  |  |
| 3722- | Aircraft engines and part | 3,609,691 | 3,223,167 | 2,966,903 | 2,779,263 | 3,176,667 | 3,325,935 | 3,190,539 | 436,567 |
| 37221 37222 | Aircraft engines for military customers..... Aircraft engines for other than military | 644,417 |  |  |  |  |  |  | $\{287,758$ |
| 37222 | Aircraft engines for other than military customers. | 150,033 | 1,366,190 | ${ }^{3} 1,233,357$ | ${ }^{3} 1,010,341$ | ${ }^{3} 1,262,204$ | ${ }^{3} 1,399,851$ | ${ }^{3} 1,511,231$ | $\left\{\begin{array}{l}\text { 49,320 }\end{array}\right.$ |
| 37223 | Research and development on aircraft engines | 385,339 | 4933,591 | 4834,951 | 4897,310 | 4917,151 | 4664,683 | 4212,365 | 63,046 |
| 37224 | Aircraft engine parts and accessories....... | 932,093 | 5923,386 | 5898,595 | 5871,612 | 5995,241 | ${ }^{5} 1,261,401$ | ${ }^{5} 1,466,943$ | 136,443 |
| 37225 | Complete missile or space vehicle engines and/or propulsion units. | 582,631 | (3) | $\left({ }^{3}\right)$ | (3) | (3) | (3) | (3) | (X) |
| 37226 | Research and development on complete missile or space vehicle engines and/or propulsion units. | 696,780 | (4) | (4) | (4) | (5) | (5) | (5) | (X) |
| 37227 | All other services on complete missile or space vehicle engines and/or propulsion units. | 61,721 | (4) | (4) | (4) | (4) | (4) | (4) | (X) |
| 37228 | Missile and space vehicle engine and/or propulsion unit parts, or accessories...... | 147,826 | $(5)$ | $(5)$ | $\left({ }^{5}\right)$ | (5) | (5) | (4) | (X) |
| 37220 | Aircraft engines and engine parts, n.s.k. | 8,851 |  |  |  |  |  |  |  |
| 37230 | Aircraft propellers and part | 108,991 | 95,776 | 96,686 | 102,069 | 102,531 | 166,952 | 191,012 | 38,984 |
| 3729- | Aircraft equipment, | 3,791,952 | 4,269,532 | 4,259,318 | 3,863,499 | 4,498,314 | 3,750,460 | 2,866,553 | 215,446 |
| 37291 | Other aircraft parts and auxiliary equipment | 2,215,290 | 2,581,628 | 2,538,698 | 2,632,304 | 3,235,854 | 2,860,570 | (NA) | (NA) |
| 37292 | Guided missile components and subassemblies, n.e.c................................................. | 1,009.265 | 1,285,013 |  |  |  | 29,200 | (NA) |  |
| 37293 | Research and development on aircraft parts.. | 74,541 | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 37294 | Research and development on missile parts and components, n.e.c........................... | 420,362 | 402,091 | 397,103 | 346,584 | 427, 156 | 380.690 | (NA) | (NA) |
| 37290 | Aircraft equipnent, n.e.c., n.s. | 72,494 |  |  |  |  |  |  |  |
| Stendard Notes: - Represents zero. <br> (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. <br> ${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manuractures volumes for this period. <br> ${ }^{2}$ For industry 3721 , represents value of work done rather than value of shipments. <br> ${ }^{3}$ For 1954-1962, data for complete missile or space vehicle engines and/or propulsion units were included with aircraft engines. <br> 4For 1954-1962, data on receipts for research and development on complete missile or space vehicle engines and/or propulsion units, and, all other services on complete missile or space vehicle engines and/or propulsion units, were included with receipts for research and development on aircraft ${ }^{\text {engines. }}{ }_{5}$ <br> ${ }_{5}$ For 1954-1962, data on missile and space vehicle engine and/or propulsion unit parts or accessories were included with aircraft engine parts and accessories. |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.


[^274]applicable. (Z) Less than \$1 million reported.
${ }^{1}{ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 37212, New York, Pennsylvania, Kansas, Georgia, Florida, Oklahoma, and Texas; 37213, Connecticut, New York, Pennsylvania, Maryland, Georgia, Texas, Washington, and California; 37214, Connecticut, Ohio, Indiana, Missouri, Kansas, North Carolina, Georgia, Florida, Alabama, Oklahoma, Texas, Wyoming, Arizona, and Washington; 37216, Connecticut, Pennsylvania, Ohio, Indiana, Missouri, Kansas, Georgia, Alabama, Texas, Arizona, Washington, and California; 37223, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Indiana, Michigan, Florida, and Califormia; 37224, Maine, Vermont, Massachusetts, New Jersey, Pennsylvania, Illinois, Wisconsin, Iowa, Florida, Arizona, Utah, and Califormia; 37291, Rhode Island, Minnesota, Delaware, Virginia, Georgia, Tennessee, Oklahoma, Idaho, Arizona, Washington, and Oregon; 37293 , Massachusetts, Connecticut, New York, Ohio, and Kansas.

## TABLE 7A. Materials by Kind: 1963 and 1958

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost $(\$ 1,000)$ | Quantity | Delivered cost <br> $(\$ 1,000)$ |
|  | Materials, components, parts, containers, and supplies, total.. <br> Mill shapes and forms: <br> Carbon steel: <br> Bars and bar shapes |  | INDUSTRY 3721.-AIRCRAFT |  |  |  |
|  |  |  | (x) | 2,458,694 | (x) | 2,547,029 |
| 331011 |  | Short tons. | 3,9198,594 | 1,9353,657 | 7,775 | 2,513 |
| 331012 | Sheet and strip. | do |  |  | 4,761 |  |
| 331013 | Plates.. | .do............ | 3,085 | 745 | 7,927 | 1,900 |
| 331015 | Structural shapes | .do............ | 3,436 | 1,059 | 5,645 | 1,441 |
| 331017 331019 | Wire and wire products...................... | ...do............ | 1,648 | 1817 1,804 | 1,678 3,928 |  |
| 331019 | All other carbon steel mill shapes and forms................... Alloy steel (except stainless): | ...do............ | 2,183 | 1,804 |  | 2,240 |
| 331021 | Bars and bar shapes. | .do | $\begin{aligned} & 5,144 \\ & 2,887 \end{aligned}$ | $\begin{aligned} & 4,189 \\ & 2,686 \end{aligned}$ |  | 3,903 |
| 331029 | All other alloy steel mill shapes and forms. | . .do |  |  | 3,045 | 3,100 |
| 331031 | Stainless steel. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | ...do............ | 2,237 | 5,249 | 5,042 | 10,305 |
|  | Copper and copper-base alloy: |  |  | 930 | 374 | 389 |
| 335728 | Bare wire (for electrical conduction only). | $\left\|\begin{array}{l} \text { 1,000 Ibs.......... } \\ \text { 1,000 Ibs. } \\ \text { (copper content) } \end{array}\right\|$ | 628 |  |  |  |
| 335790 | Insulated wire and cable..................................... |  | 3,350 | 4,474 | 4,008 | 7,219 |
| 335102 | Rod, bar, and mechanical wire, including extruded and/or drawn shapes. | 1,000 lbs........ |  |  |  |  |
| $\begin{aligned} & 335123 \\ & 335127 \end{aligned}$ | Plate, sheet, and strip, including military cups and discs..... Pipe and tube.................................................. | ...do............ . | 1898 243 | $\begin{aligned} & 580 \\ & 303 \end{aligned}$ | 659 | 645 |
|  | Aluminum and aluminum-base alloy: <br> Sheet, plate, and foil. <br> Extruded shapes (including extruded rod, bar, pipe, tube, etc.) All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, welding tubing, etc.). |  |  |  | 76,104 |  |
| 335202 |  | . do | 51,623 | 38,107 |  | 57,870 |
| $\begin{aligned} & 335205 \\ & 335209 \end{aligned}$ |  |  | 16,672 | 21,237 | 33,990 | 34,793 |
|  |  |  | 8,111 | 4,766 |  |  |
| 335601 | Titanium and titanium-base alloy. | do | 1,077 | 15,237 | (NA) | (NA) |
|  | Castings (rough and semifinished): ${ }^{1}$ |  |  |  |  |  |
| 332300 | Steel...................... | Short tons....... | 3,164 | 5,620 | 1,028 | 1,7189,986 |
| 336100 | Aluminum and aluminum-base alloy | 1,000 lbs........ | 5,394(NA) | 8,515 | 5,143 |  |
| 336200 | Copper and copper-base alloy......................................... | ...do. |  | 479 | 126 | 161 |
|  | Forgings: ${ }^{1}$ |  |  |  |  |  |
| 339100 | Iron and steel. <br> Aluminum and aluminum-base alloy. <br> Titanium and titanium-base alloy. | $\begin{array}{\|} \text { Short tons........ } \\ \text { 1,000 lbs......... } \\ \text { ‥do.............. } \end{array}$ | $\begin{array}{r} 4,160 \\ 9,754 \\ 76 \end{array}$ | $\begin{array}{r} 6,252 \\ 14,567 \\ 736 \end{array}$ | $\begin{array}{r} 3,032 \\ 12,613 \\ (\mathrm{NA}) \end{array}$ | $\begin{array}{r} 7,358 \\ 25,452 \\ \text { (NA) } \end{array}$ |
| 339200 |  |  |  |  |  |  |
| 339201 |  |  |  |  |  |  |
|  | Electric motors and generators: ${ }^{1}$ <br> Fractional horsepower electric motors (under 1 hp .) <br> Timing motors, synchronous and subsynchronous..................... <br> Other fractional horsepower electric motors (excluding timing motors). |  |  |  |  |  |
| 362110 |  | Number $\qquad$ <br> ...do. $\qquad$ | 3,2957,459 | 418 | 7,000 | 636 |
| 363115 |  |  |  | 479 |  |  |
| 362120 | Integral horsepower motors and generators ( 1 hp . and over)....... | ...do. | 726 | 445 | (NA) | (NA) |
|  | Bearings: |  |  |  | \} (x) |  |
| $\begin{aligned} & 356218 \\ & 356228 \end{aligned}$ | Ball... |  | (X) | 3,158 1,959 |  | 12,206 |
| 372911 | Hydraulic fluid power pumps, motors, and related hydraulic equipment. |  | $\begin{array}{r} (X) \\ 1,518 \end{array}$ | 25,502 |  |  |
| 220123 | Broad woven fabrics (cotton, wool, man-made fiber fabrics, etc.)... All other materials and components, parts, containers, and supplies consumed. | i,0000 lin. ${ }^{\text {and...... }}$ |  | 4,211 | (X) | 228,000 (NA) |
| 970099 |  | 1,000 lin. yds... | (x) (X) | $\begin{array}{r} 2,233,785 \\ 44,438 \end{array}$ | (x) | $\begin{array}{r} 2,327,562 \\ 4,943 \\ \hline \end{array}$ |
| 976000 | Materials, components, parts, containers, and supplies consumed, n.s.k.. |  |  |  | (X) |  |
|  |  |  | INDUSTRY 3722.-ATRCRAFT ENGINES AND PARTS |  |  |  |
|  | Materials, components, parts, containers, and supplies, total.. <br> Mill shapes and forms (except castings): <br> Carbon steel: <br> Bars and bar shapes. |  | (X) | 1,386,229 | (X) | 1,442,387 |
|  |  |  |  |  |  |  |
| 331011 |  | Short tons....... | 10,033 | 2,313 | 65,769 | 12,389 |
| 331012 | Sheet and strip........... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | . . do............. | 9,579 | 2,959 | 22,573 | 4,487 |
| 331013 | Plates........ | .do | 6,704 | 1,362 | 8,314 |  |
| 331015 | Structural shapes... | . . do............. | 302 | 84 | 1,275 | 217 |
| 331017 | Wire and wire products............................................... . | . . .do............. | 205 | 141 | 696 | 350 |
| 331019 | All other carbon steel mill shapes and forms.................... | . ..do............. | 2,883 | 1,007 | 6,507 | 4,215 |
|  | Alloy steel (except stainless) : |  |  |  |  |  |
| 331021 | Bars and bar shapes. | ...do............ | $\begin{array}{r} 18,693 \\ 4,573 \end{array}$ | $\begin{array}{r} 13,434 \\ 7,451 \end{array}$ | $\begin{aligned} & 14,217 \\ & 10,750 \end{aligned}$ | 11,040 |
| 331029 | All other alloy steel mill shapes and forms..................... . ...do............. |  |  |  |  |  |

[^275]
## TABLE 7A. Materials by Kind: 1963 and 1958-Continued



[^276]table 7A. Materials by Kind: 1963 and 1958-Continued


See footnotes at end of table.

## TABLE 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | $\begin{aligned} & \text { Delivered } \\ & \text { cost } \\ & (\$ 1,000) \\ & \hline \end{aligned}$ | Quantity | Delivered cost <br> $(\$ 1,000)$ |
|  |  |  | INDUSIRY 3729. - AIRCRAFT EQUIPMENT, N.E.C. - Continued |  |  |  |
| 372911 | Hydraulic fluid power pumps, motors, and related hydraulic equipment. |  | (X) | 21,819 | (X) | ${ }^{2} 13,000$ |
| $\begin{aligned} & 220123 \\ & 970099 \end{aligned}$ | Broad woven fabrics (cotton, wool, man-made fiber fabrics, etc.)... All other materials and components, parts, containers, and supplies | 1,000 lin. yds... | 1,285 | 2,363 | (NA) | (NA) |
|  | All other materials and components, parts, containers, and supplies consumed. |  | (X) | 732,343 | (X) | 721,291 |
| 976000 | Materials, components, parts, containers, and supplies consumed, n.s.k........................................................................... |  | (x) | 49,497 | (X) | 14,421 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
${ }^{2}$ Does not include materials produced and consumed at the same establishment.
${ }^{2}$ Represents estimates published in MC58(1)-7 (Supplement), "Selected Materials Consumed," from data collected in a supplemental survey on Form MA-131, "Consumption of Materials, Parts, Containers and Supplies During 1958." This survey was limited to large establishments in selected chemical, machinery and equipment industries and resulted in estimates which are subject to greater error than are the figures on materials consumption collected as a regular part of the census of manufactures. This material was described as pumps and compressors, including hydraulic motors.

## tABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Aircraft (SIC 3721) | Aircraft engines and parts (SIC 3722) | Aircraft propellers and parts (SIC 3723) | Aircraft equipment, n.e.c. (SIC 3729) |
| :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. | 31,477 | 27,157 | 1,650 | 24,846 |
| Total cost of purchased fuels..............................do.... | 7,969 | 7,437 | 415 | 7,418 |
| Bituminous coal, lignite, and anthracite: Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .l, 000 short tons. . Cost. .\$1,000. . | 128 884 | $\begin{array}{r} 162 \\ 1,178 \end{array}$ | - | 97 700 |
| Coke and breeze: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ., 000 short tons. . <br> cost. <br> ........... . $\$ 1,000$. . | - | - | - | (S) (S) |
| Fuel oil (distillate and residual): Quantity. ........................... 1,000 barrels of 42 gallons. cost. . | 909 2,633 | 1,201 | (S) | (S) |
| ```Gas (natural, manufactured, still, blast furnace, and coke oven): Quantity.............................................................. Cost. . ........................................................ . . $1,000.. .``` | 10,462 3,783 | 3,382 1,880 | (S) | (S) |
| Other fuels.................................................. . ${ }^{\text {do... }}$. | 669 | 663 | (S) | 1,076 |
| Electric energy: Purchased: |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million kw. -hrs. Cost. | 2,475 23,508 | 1,824 19,720 | 101 1,235 | 1,362 17,428 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . . .million kw. -hrs.. | 19 | (s) | (S) | - |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), totai.........1,000 hp.. | 971 | 1,168 | 59 | 778 |
| Prime movers, total............................................do.... | 134 | 129 | 1 | 70 |
| Driving generators........................................... . ${ }^{\text {do. }}$ | 43 | 19 | (Z) | 7 |
| Not driving generators...................................... do.... | 91 | 110 | 1 | 63 |
| Electric motors, total........................................do.... | 851 | 1,042 | 58 | 709 |
| Driven by purchased energy.................................................. Driven by energy generated at establishment........................ | 837 15 | 1,039 3 | (Z) | 708 |
| Aggregate horsepower per 100 production workers.................... | 538 | 1,133 | 1,037 | 692 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual campanies.
(NA) Not available.
(X) Not (Z) Less than 500 horsepower. n.e.c. Not elsewhere classified. applicable.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | ```Value added by manufacture, adjusted ($1,000)``` | Cost of materials <br> $(\$ 1,000)$ | Value of shipments <br> (\$1,000) | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3721- | AIRCRAFT |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry $\qquad$ Establishments with- | 100 | 302,201 | 2,369,416 | 166,744 | 342,120 | 1,097,103 | 3,542,695 | 2,773,836 | 16,316,531 | 114,658 |
|  | 90\% or more specialization.. 75-89\% specialization....... | $\begin{aligned} & 61 \\ & 18 \end{aligned}$ | $\begin{array}{r} 57,711 \\ 101,359 \end{array}$ | $\begin{aligned} & 431,562 \\ & 643,521 \end{aligned}$ | $\begin{aligned} & 34,515 \\ & 57,328 \end{aligned}$ | $\begin{array}{r} 68,500 \\ 116,884 \end{array}$ | $\begin{aligned} & 217,218 \\ & 315,711 \end{aligned}$ | $\begin{array}{r} 765,121 \\ 1,143,607 \end{array}$ | $\begin{array}{r} 423,983 \\ 1,038,256 \end{array}$ | $\begin{aligned} & 1,189,104 \\ & 2,181,863 \end{aligned}$ | $\begin{aligned} & 11,905 \\ & 38,789 \end{aligned}$ |
| 37211 | Complete aircraft, military type (primary product class of estab.) | 15 | 147,763 | 1,194,692 | 84,584 | 173,087 | 585,398 | 1,840,314 | 1,546,809 | 3,387,123 | 73,876 |
| 37214 | Modifications, conversions and overhaul of previously accepted aircraft (primary product class |  |  |  |  |  |  |  |  |  |  |
|  | of estab.)....................... | 18 | 29,683 | 220,904 | 16,350 | 32,599 | 95,067 | 320,336 | 158,257 | 478,593 | 5,541 |
|  | $90 \%$ or more specialization.. | 11 | 5,472 | 31,793 | 3,447 | 6,884 | 17,956 | 47,817 | 23,200 | 71,017 | 666 |
| 37216 | Other aeronautical services for aircraft (primary product class of estab.)............................. | 13 | 72,947 | 573,983 | 32,347 | 67,643 | 208,871 | 830,149 | 530,388 | 1,360,537 | 22,150 |
| 3722- | AIRCRAFT ENGINES AND PARTS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 232 | 190,834 | 1,486,081 | 105,890 | 222,000 | 705,727 | 2,244,317 | 1,876,762 | 4,100,520 | 111,529 |
|  | 90\% or more specialization. . 75-89\% specialization....... | 159 17 | $\begin{array}{r} 140,340 \\ 1,729 \end{array}$ | $1,082,147$ 12,156 | $\begin{array}{r} 73,081 \\ 1,249 \end{array}$ | $\begin{array}{r} 154,536 \\ 2,691 \end{array}$ | $\begin{array}{r} 480,255 \\ 8,188 \end{array}$ | $\begin{array}{r} 1,653,554 \\ 20,626 \end{array}$ | $1,434,862$ 17,487 | $3,067,669$ 39,326 | $\begin{array}{r} 89,437 \\ 509 \end{array}$ |
| 37221 | Aircraft engines for U.S. military customers (primary product class |  |  |  |  |  |  |  |  |  |  |
|  | of estab.)....................... | 14 | 66,618 | 490,874 | 40,645 | 85,737 | 263,704 | 788,120 | 842,447 | 1,641,250 | 30,958 |
|  | 90\% or more specialization.. | 5 | 197 | 1,466 | 160 | 362 | 1,208 | 1,834 | 1,216 | 3,004 | 155 |
| 37223 | Research and development on aircraft engines (primary product class of estab.)................... | 7 | 7,552 | 62,402 | 2,842 | 6,381 | 19,796 | 76,304 | 82,784 | 157,094 | 3,989 |
| 37224 | Aircraft engine parts and accessories (primary product class of |  |  |  |  |  |  |  |  |  |  |
|  | estab.). <br> Establishments with- | 116 | 39,227 | 272,834 | 26,116 | 53,936 | 168,291 | 442,043 | 269,923 | 724,166 | 14,405 |
|  | 90\% or more specialization.... <br> 75-89\% specialization. | $\begin{aligned} & 66 \\ & 22 \end{aligned}$ | $\begin{array}{r} 10,962 \\ 4,123 \end{array}$ | $\begin{aligned} & 73,872 \\ & 27,246 \end{aligned}$ | $\begin{aligned} & 8,333 \\ & 2,898 \end{aligned}$ | 17,548 6,069 | $\begin{aligned} & 51,963 \\ & 17,894 \end{aligned}$ | $\begin{array}{r} 130,785 \\ 43,770 \end{array}$ | $\begin{aligned} & 69,925 \\ & 27,991 \end{aligned}$ | $\begin{array}{r} 200,482 \\ 73,356 \end{array}$ | $\begin{aligned} & 3,186 \\ & 1,292 \end{aligned}$ |
| 37225 | Complete missile or space vehicle engines and/or proplusion units (primary product class of estab.).. | 9 | 17,716 | 131,105 | 8,519 | 17,223 | 60,898 | 213,936 | 203,789 | 413,574 | 6,249 |
| 37226 | Research and development on complete missile or space vehicle engines and/or propulsion units (primary product class of estab.) | 14 | 51,733 | 473,473 | 22,334 | 46,865 | 158,727 | 634,924 | 421,999 | 1,021,059 | 51,159 |
| 37228 | Missile and space vehicle engines and/or propulsion units parts or |  |  |  |  |  |  |  |  |  |  |
|  |  | 30 | 5,377 | 38,933 | 3,425 | 7,587 | 22,406 | 56,627 | 40,970 | 96,091 | 3,767 |
|  | Establishments with90\% or more specialization.... | 11 | 1,464 | 9,478 | 915 | 1,954 | 5,250 | 15,035 | 10,327 | 25,453 | 1,591 |
| 3729 | A.IRCRAFT EQUIPMENT, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................ | 1,000 | 175,167 | 1,319,476 | 111,430 | 232,819 | 745,501 | 1,966,904 | 1,167,527 | 3,168,607 | 61,931 |
|  | Establishments with$90 \%$ or more specialization.. 75-89\% specialization. | $\begin{array}{r} 734 \\ 59 \end{array}$ | $\begin{aligned} & 76,318 \\ & 13,639 \end{aligned}$ | $\begin{array}{r} 559,039 \\ 95,862 \end{array}$ | $\begin{array}{r} 47,560 \\ 8,656 \end{array}$ | $\begin{array}{r} 100,600 \\ 18,130 \end{array}$ | $\begin{array}{r} 302,153 \\ 54,379 \end{array}$ | $\begin{aligned} & 793,149 \\ & 125,362 \end{aligned}$ | $\begin{array}{r} 479,396 \\ 86,542 \end{array}$ | $\begin{array}{r} 1,274,266 \\ 221,471 \end{array}$ | $\begin{array}{r} 33,047 \\ 3,609 \end{array}$ |

table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | $\begin{gathered} \text { Value } \\ \text { added by } \\ \text { manufacture, } \\ \text { adjusted } \\ (\$ 1,000) \end{gathered}$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Totai (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3729- | AIRCRAFT EQUIPMENT, N.E.C.-Con. |  |  |  |  |  |  |  |  |  |  |
| 37291 | Other aircrart parts and auxiliary equipment (primary product class of estab.) $\qquad$ Establishments with- | 547 | 106,799 | 776,062 | 72,855 | 151,775 | 470,313 | 1,127,834 | 736,211 | 1,875,982 | 32,766 |
|  | $\begin{aligned} & \text { 90\% or more specialization.... } \\ & 75-89 \% \text { specialization. ......... } \end{aligned}$ | $\begin{array}{r} 372 \\ 48 \end{array}$ | $\begin{array}{r} 38,240 \\ 7,726 \end{array}$ | $\begin{array}{r} 267,813 \\ 54,301 \end{array}$ | $\begin{array}{r} 26,535 \\ 5,272 \end{array}$ | $\begin{aligned} & 55,586 \\ & 10,869 \end{aligned}$ | $\begin{array}{r} 167,418 \\ 33,434 \end{array}$ | $\begin{array}{r} 398,269 \\ 72,055 \end{array}$ | $\begin{array}{r} 266,101 \\ 45,424 \end{array}$ | $\begin{aligned} & 658,787 \\ & 117,263 \end{aligned}$ | $\begin{array}{r} 13,479 \\ 2,359 \end{array}$ |
| 37292 | Guided missile components and subassemblies, n.e.c. (primary product class of estab.).......... Establishments with- | 98 | 40,267 | 317,295 | 24,295 | 51,089 | 170,077 | 520,283 | 275,435 | 806,543 | 11,512 |
|  | 90\% or more specialization.... <br> 75-89\% specialization. ......... | $\begin{aligned} & 50 \\ & 10 \end{aligned}$ | $\begin{aligned} & 8,383 \\ & 1,205 \end{aligned}$ | $\begin{array}{r} 59,674 \\ 7,257 \end{array}$ | $\begin{array}{r} 6,192 \\ 842 \end{array}$ | $\begin{array}{r} 14,057 \\ 1,540 \end{array}$ | $\begin{array}{r} 38,422 \\ 4,279 \end{array}$ | $\begin{aligned} & 76,697 \\ & 13,192 \end{aligned}$ | $\begin{array}{r} 39,071 \\ 7,604 \end{array}$ | $\begin{array}{r} 116,830 \\ 18,977 \end{array}$ | $\begin{array}{r} 4,599 \\ 716 \end{array}$ |
| 37293 | Research and development on aircraft parts (primary product class of estab.). | 8 | 1,159 | 8,336 | 1,050 | 2,278 | 7,848 | 11,371 | 6,055 | 17,338 | 561 |
| 37294 | Research and development on missile parts and components, n.e.c. (primary product class of estab.)................................. | 29 | 21,990 | 185,286 | 9,353 | 19,688 | 72,747 | 255,718 | 125,701 | 390,171 | 14,440 |

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{gathered} 20 \text { or } \\ \text { more } \end{gathered}$ |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
|  | INDUSTRY 3721.-AIRCRAFT |  |  |  |  |  |  |  |
| Nonferrous foundry (except die casting)............. Forging-presses, hamners, or upsetters (excluding manufacture of nuts, bolts, etc.). | 11 | 3 | 5 | 3 | 165 | 9 | 42 | 114 |
|  | 6 | - | 1 | 3 | $559$ | - | (D) | (D) |
| Electroplating and other plating..................... | $\begin{array}{r}27 \\ 7 \\ \hline\end{array}$ | 10 | 103 | 7 <br> 3 |  | (D) | 101 |  |
| Calvanizing and other hot dip coating. |  |  |  |  |  |  |  | 364 105 |
| Heat treating of metals.................. | 3410 | 13 | 8 | 13 | 517 | 31 |  | 421 |
| Automatic screw machine department... |  |  | 5 | - | 51 | 12 |  | 12,820 |
| Machine shop....... | 53 | 5 10 | $\begin{array}{r}13 \\ 4 \\ \hline\end{array}$ | 30 | 12,980 | 2618 | +39 |  |
| Tool and die shop... | 38 |  |  | 27 | 8,559717 |  | (D) | 8,499 |
| Foundry pattern shop............ | 38 | 7 2 |  | 9 |  | (D) |  | 658 |
| Plate or structural fabrication... |  | 7 | 5 9 | 22 | 9,129 | 19 | 95 | 9,015 |
| Stamping, blanking and forming of metals.... | 48 | 12 | r 10 | 26 | 6,282 | 23 | 97 | 6,1622,652 |
| Paintirst, lacquering and enameling on metals | 50 | 147 | 85 | 28 | 2,768 | 29 | 8759 |  |
| Plastics molding............ | 31 |  |  | 19 | 1,85945,083 | 16 |  | $\begin{aligned} & 2,652 \\ & 1,784 \end{aligned}$ |
| Assemb? y of product............... | $52$ | 23 | 5 8 8 | 42 |  | 10 | 59 90 | 44,983 |
| Shipping department, including packing and crating. |  |  | 5 | 24 | 2,023 |  | 62 | 1,917 |
|  | INDUSTRY 3722.-AIRCRAFT ENGINES AND PARTS |  |  |  |  |  |  |  |
| Ferrous foundry. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6 | 21 | 33 | 1 |  | $\begin{aligned} & \text { (D) } \\ & \text { (D) } \end{aligned}$ |  | (D) |
| Noliferrous foundry (except die casting) Forging-presses, hanmers, or upsetters (excluding manufacture of nuts, bolts, etc.).. |  |  |  |  |  |  | (D) |  |
|  | 14 | 4 | 4 | 6 | $114$ | 13 | 37 | 691 |
| Electroplating and other plating..................... | 3688 | 14 | 133 | 922 | 640 | 287 | (D) |  |
| Galvanizing and other hot dip coating... |  |  |  |  | 83 |  |  | (D) |
| Heat treating of metals............ | 7336 | 3920 | 18 | 164 | 1,012 | 76 | $\begin{aligned} & 155 \\ & 104 \end{aligned}$ | 781149 |
| Automatic screw machine department. |  |  |  |  | 295 | 42 |  |  |
| Machine shop...... Tool and die shop. | 166 | 29 | $\begin{aligned} & 34 \\ & 32 \end{aligned}$ | 103 | 27,149 | 45 | 374303 | 26,7303,250 |
| Tool and die shop..... | 91 | $\begin{array}{r}23 \\ 4 \\ \hline\end{array}$ |  | 363 |  |  |  |  |
| Foundry pattern shop............ Plate or structural fabrication. |  |  | 4 |  | 138 | 6 | 4661 | , 86 |
| Plate or structural fabrication.......... | 2562 | 623 | 20 | 1319 |  | 38 |  | 1,500 |
| Stamping, blanking and forming of metals..... Painting, lacquering and enameling on metals. |  |  |  |  | 1,750 |  | $\begin{aligned} & 212 \\ & 128 \end{aligned}$ |  |
| Painting, lacquering and enameling on metals. Plastics molding.............................. | 5117 | 305 | 144 | 78 | 452675 | 5010 |  | 2746307791 |
| Plastics molding............................... |  |  |  |  |  |  | 125 |  |
| Assembly of product................................. | 130 | $85$ | $34$ | $11$ | $\begin{aligned} & 8,084 \\ & 1,244 \end{aligned}$ | $\begin{array}{r} 42 \\ 146 \end{array}$ | $\begin{aligned} & 251 \\ & 326 \end{aligned}$ |  |
| Shipping department, including packing and crating. |  |  |  |  |  |  |  | 7,791 772 |

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963-Continued

| Metalworking operations | Number of estabishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | 20 or more |  | 1 to 4 | 5 to 19 | 20 or more |
| Tool and die shop. <br> Foundry pattern shop. <br> Plate or structural fabrication. <br> Stamping, blanking and forming of metals.............. <br> Painting, lacquering and enameling on metals. <br> Plastics molding. <br> Assembly of product. <br> Shipping department, including packing and crating.. | INDUSTRY 3723.-AIRCRAFT PROPELIERS AND PARTS |  |  |  |  |  |  |  |
|  | 4 | 2 |  | 2 | (D) | (D) | - | (D) |
|  | 1 | 1 |  | - | (D) | (D) | - | (D) |
|  | 1 | 1 | - | - | (D) | (D) | ) |  |
|  | 3 | 1 | 1 | 1 | (D) | (D) | (D) | (D) |
|  | 4 | 2 |  | 2 | (D) | (D) | - | (D) |
|  | 3 | - | 2 | 1 | (D) | - | (D) | (D) |
|  | 6 | 1 | 2 | 3 | 425 | (D) | (D) | (D) |
|  | 6 | 4 | 1 | 1 | (D) | (D) | (D) | (D) |
|  | INDUSTRY 3729.-ATRCRAFT EQUIPMENT, N.E.C. |  |  |  |  |  |  |  |
|  |  | 34 | 21 | 35 | 183206 | (D) ${ }^{6}$ | (D) | (D) |
|  | 10 |  |  |  |  |  |  | 182 |
| Forging-presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.) | 10 | 5 | 3 | 2 | 126 | (D) | (D) | (D) |
| Electroplating and other plating..................... | 65 | 346 | 23 | 8 | 506 | 69 | 211 | 226 |
| Galvanizing and other hot dip coating. | 8 |  | 1 | 1 | 42 | (D) |  |  |
| Heat treating of metals........... | 98 | 5638 | 3019 | 12 | 588 | 95 | 262 | 231 |
| Automatic screw machine department | 65 |  |  | 8 | 765 | 71 | 161 | 533 |
| Machine shop...... | 466 | 94 | 150 | 222 | 24,082 | 141 | 1,577 | 22,364 |
| Tool and die shop.. | 159 | 71 | $\begin{array}{r}52 \\ 8 \\ \hline\end{array}$ | 36 | 4,070 | 149 | 481 | 3,440 |
| Foundry pattern shop. | 20 | 9 |  | 3 | 261 | 21 | 58 | 182 |
| Plate or structural fabrication. | 63 | 20 | 20 | 23 | 1,744 | 36 | 202 | 1,506 |
| Stamping, blanking and forming of metals. | 149 | 69 | 57 | 23 | 2,881 | 125 | 528 305 | 2,218 |
| Painting, lacquering and enameling on metals. | 153 | 110 | 33 | 1010 | 1,035 | 184 | 305 |  |
| Plastics molding.... | 37 | 20 | 7 |  | 699 |  | 58 | 599 |
| Assembly of product. | 266 | 84 | 64 | $\begin{array}{r} 118 \\ 15 \end{array}$ | 17,257 | 151 | $\begin{aligned} & 620 \\ & 629 \\ & \hline \end{aligned}$ | $\begin{array}{r}16,486 \\ 700 \\ \hline\end{array}$ |
| Shipping department, including packing and crating. | 294 | 209 | 70 |  | 1,671 |  |  |  |

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

| Item | Industry |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 3721 | 3722 | 3723 | 3729 |
| Total number of establishments in the industry | 100 | 232 | 14 | 1,000 |
| Number of establishments which reported one or more of the specified operations Percent of industry production workers in these establishments................. | 65 $90-95$ | 195 $95-100$ | 9 ${ }^{9}$ | 542 $90-95$ |
| Number of establishments which reported "none" of the operations apply.......... Percent of industry production workers in these establishnents.................. | 16 $0-5$ | 18 $0-5$ | - | 32 $0-5$ |
| Percent of industry production workers in establishments which completed the metalworking operations inquiry. | 90-95 | 95-100 | 95-100 | 90-95 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

# SHIP AND BOAT BUILDING, RAILROAD AND MISCELLANEOUS TRANSPORTATION EQUIPMENT 

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3731 -Ship Building and Repairing<br>3732-Boat Building and Repairing<br>3741-Locomotives and Parts<br>3742-Railroad and Street Cars<br>3751 -Motorcycles, Bicycles, and Parts<br>3791-Trailer Coaches<br>3799-Transportation Equipment, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4 ) with productstatistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3731-SHIP BUILDING AND REPAIRING

This industry comprises establishments primarily engaged in building and repairing all types of ships, barges, canal boats, and lighters, whether propelled by sail or motor power or towed by other craft. This industry also includes the conversion and reconversion of ships. Establishments primarily engaged in fabricating structural assemblies or components for ships, or subcontractors engaged in ship painting, joinery, carpentry work, electrical wiring installation, etc., are not classified in this industry. For a detailed list of products of industry 3731, refer to table 6A, product codes 3731110 to 3731659 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

The total value of work done and other receipts of the Ship Building and Repairing Industry totaled $\$ 1,680$ million. This amount included receipts from primary activities (ship building and repairing) valued at $\$ 1,508$ million, shipments of products primary to other industries (secondary products) valued at $\$ 118$ million, and miscellaneous receipts at $\$ 54$ million.

The value of ship building and repairing represents value of work done during the year. This provides a more adequate measure of the activity in this industry than value of vessels completed and delivered, primarily because of length of the production cycle, which
may be several years for some vessels. Value of shipments (deliveries) would result in a distortion for establishments working on a vessel all year, but not completing it during the year or, conversely, for establishments completing and delivering a vessel during a year when most of the work was performed in previous years. Respondents were requested to compute the value of work done by including the cost of labor, the cost of purchased materials and parts received during 1963, overhead and profits by one of the following methods: (1) estimating the percentage of completion during 1963, (2) reporting net billings for work done during 1963, or (3) reporting payments received for work done during 1963.

This industry's receipts for ship building and repairing represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 include fabricated structural iron and steel ( $\$ 36$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8 . Approximately 51 percent of the total value of work done is represented by plants specializing in self-propelled U.S. military ships, and 16 percent in self-propelled nonmilitary ships.

Shipments of ship building and repairing by this industry represented 99 percent of all shipments of these products ( $\$ 1,518$ million) by all industries. In 1958 the coverage ratio was also 99 percent.

## 3732-BOAT BUILDING AND REPAIRING

This industry comprises establishments primarily engaged in building and repairing all types of boats, except rubber boats (industry 3069). Establishments primarily engaged in cleaning and storing boats and in the rental of dock space, and yacht clubs are classified in nonmanufacturing industries. For a detailed list of products of industry 3732, refer to table 6A, product codes 3732111 to 3732421 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Boat Building and Repairing Industry totaled $\$ 360$ million. This amount included shipments of newly constructed boats and receipts for boat repairs (primary products) valued at $\$ 322$ million, shipments of other products (secondary products) valued at $\$ 12$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 27$ million.

This industry's shipments of newly constructed boats and receipts for repair of boats represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 include repair of nonmilitary ships ( $\$ 3$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8 . Approximately 33 percent of the total industry shipments are represented by plants specializing in inboard motor boats; and 28 percent in outboard motor boats.

Shipments of newly constructed boats and receipts for repair of boats by this industry represented 95 percent of all shipments of these products ( $\$ 338$ million) by all industries. In 1958 the coverage ratio was also 95 percent. Another industry shipping newly constructed boats and repairing boats was industry 3731, Ship Building and Repairing, over \$2 million.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3732 , e.g., boat repair, 83 percent, and all other boats, 90 percent.

The production index for the primary products of the industry increased to 185 in 1963 from the 1958 level of 146 . The unit value index for 1963 was 114 compared to 126 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3741-LOCOMOTIVES AND PARTS

This industry comprises establishments primarily engaged in building and rebuilding locomotives (including frames and parts, n.e.c.) of any type or gauge. Railroad shops rebuilding and repairing locomotives or building new locomotives are classified in Major Group 40. For a detailed list of products of industry 3741, refer to table 6A, product codes 3741141 to 3741351 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Locomotives and Parts Industry totaled $\$ 438$ million. This amount included shipments of locomotives and parts (primary products) valued at $\$ 342$ million, shipments of other products (secondary products) valued at $\$ 70$ million, and miscellaneous receipts at $\$ 25$ million.

This industry's shipments of locomotives and parts represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was 85 percent. Secondary products shipped by this industry in 1963 include land transportation motors, generators, and control equipment and parts (over $\$ 20$ million), and diesel and semidiesel engines (over $\$ 2$ million).

Shipments of locomotives and parts by this industry represented 90 percent of all shipments of these products ( $\$ 378$ million) by all industries. In 1958 the coverage ratio was 90 percent. Other industries shipping locomotives and parts include industry 3742, Railroad and Street Cars, over $\$ 5$ million; and industry 3323, Steel Foundries, over \$2 million.

The production index for the primary products of the industry decreased to 86 in 1963 from the 1958 level of 89 . The unit value index for 1963 was 119 compared to 109 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3742-RAILROAD AND STREET CARS

This industry comprises establishments primarily engaged in building and rebuilding railroad, street, and rapid transit cars and car equipment for operation on rails for freight and passenger service. This industry also includes establishments primarily engaged in manufacturing trackless trolley busses. Establishments primarily engaged in manufacturing mining cars are classified in industry 3532. Repair shops, owned and operated by railroads or local transit companies, rebuilding or repairing cars, or building new cars for their own account, are classified in Major Groups 40 and 41. For a detailed list of products of industry 3742 , refer to table 6A, product codes 3742111 to 3742351.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Railroad and Street Cars Industry totaled \$927 million. This amount included shipments of railroad and street cars (primary products) valued at $\$ 813$ million, shipments of other products (secondary products) valued at $\$ 83$ million, and miscellaneous receipts (including products bought and resold) at $\$ 30$ million.

This industry's shipments of railroad and street cars represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 include fabricated metal products, n.e.c. (over $\$ 5$ million), and other construction machinery and equipment including construction machinery parts, n.e.c. (over $\$ 5$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into subindustries represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 64 percent of the total industry shipments are represented by plants specializing in freight train cars, new; and 31 percent in street cars and parts and accessories for railroad and street cars, and rebuilt passenger and freight train cars.

Shipments of railroad and street cars by this industry represented 93 percent of all shipments of these products ( $\$ 871$ million) by all industries. In 1958 the coverage ratio was 90 percent. Other industries shipping railroad and street cars and parts include industry 3323, Steel Foundries, $\$ 17$ million; and industry 3717, Motor Vehicles and Parts, \$7 million.

The production index for the primary products of the industry increased to 125 in 1963 from the 1958 level of 87 . The unit value index for 1963 was 149 compared to 129 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3751-MOTORCYCLES, BICYCLES, AND PARTS

This industry comprises establishments primarily engaged in manufacturing motorcycles, bicycles, and similar equipment and parts. Establishments primarily engaged in assembling motorcycles or bicycles from purchased parts are also included in this industry. Establishments primarily engaged in manufacturing children's vehicles, except bicycles, are classified in industry 3943. For a detailed list of products of industry 3751, refer to table 6A, product codes 3751013 to 3751081 .
The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Motorcycles, Bicycles, and Parts Industry totaled $\$ 193$ million. This amount included shipments of motorcycles, bicycles, and parts (primary products) valued at $\$ 152$ million, shipments of other products (secondary products) valued at $\$ 32$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 9$ million.

This industry's shipments of motorcycles, bicycles, and parts represented 83 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent. Secondary products shipped by this industry in 1963 include baby carriages and children's vehicles, except bicycles (over $\$ 10$ million), and lawn mowers and parts (over $\$ 2$ million).

Shipments of motorcycles, bicycles, and parts by this industry represented 93 percent of all shipments of these products ( $\$ 163$ million) by all industries. In 1958 the coverage ratio was also 93 percent. Other industries shipping motorcycles, bicycles, and parts include industry 3717, Motor Vehicles and Parts, over $\$ 2$ million; and industry 3943, Children's Vehicles, over $\$ 2$ million.

The production index for the primary products of the industry increased to 226 in 1963 from the 1958 level of 130 . The unit value index for 1963 was 81 compared to 92 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3791-TRAILER COACHES

This industry comprises establishments primarily engaged in manufacturing trailer coaches (mobile dwellings) for attachment to passenger cars. For a detailed list of products of industry 3791 , refer to table 6A, product codes 3791021 to 3791041.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Trailer Coaches Industry totaled $\$ 713$ million. This amount included shipments of trailer coaches, housing types (primary products), valued at $\$ 686$ million, shipments of other products (secondary products) valued at $\$ 15$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 12$ million.

This industry's shipments of trailer coaches, housing types, represented 98 percent of its total product shipments. The industry specialization ratio in 1958 was 99 percent.

Shipments of trailer coaches, housing types, by this industry represented 99 percent of all shipments of these products ( $\$ 690$ million) by all industries. In 1958 the coverage ratio was also 99 percent.

The production index for the primary products of the industry increased to 279 in 1963 from the 1958 level of 195 . The unit value index for 1963 was 110 compared to 105 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3799-TRANSPORTATION EQUIPMENT, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing transportation equipment, n.e.c. Establishments primarily engaged in manufacturing industrial trucks, tractors, trailers, and stackers are classified in industry 3537, and children's vehicles, except bicycles, in industry 3943. For a detailed list of products of industry 3799, refer to table 6A, product codes 3799115 to 3799298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Transportation Equipment, N.E.C., Industry totaled $\$ 167$ million. This amount included shipments of transportation equipment, n.e.c. (primary products) valued at $\$ 142$ million, shipments of other products (secondary products) valued at $\$ 17$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 9$ million.

This industry's shipments of transportation equipment, n.e.c., represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 include parts and accessories for passenger cars, trucks, and busses shipped to other than motor vehicle manufacturers ( $\$ 3$ million).

Shipments of transportationequipment, n.e.c., by this industry represented 75 percent of all shipments of these products ( $\$ 190$ million) by all industries. In 1958 the coverage ratio was 73 percent. Other industries shipping transportation equipment, n.e.c., consisted
mainly of industry 3522, Farm Machinery and Equipment, $\$ 25$ million; and industry 3791, Trailer Coaches, $\$ 4$ million.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3799, e.g., Automobile trailers, excluding housing type coaches, 89 percent; and Other transportation equipment, 62 percent.

SHIP AND BOAT BUILDING: SIC 373
Value Added by Manufacture by State: 1963



## MOTORCYCLES, BICYCLES, AND PARTS: SIC 375

Value Added by Manufacture by State: 1963

U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS


TABLE 1. General Statistics: 1963 and Earlier Years

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3731. -SHIP BUILDING AND REPAIRING |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963.......... | 305 | 334 | 200 | 114,649 | 782,299 | 96,527 | 193,512 | 610,250 | ${ }^{1} 1,009,690$ | 670,075 | ${ }_{2}^{2} 1,679,765$ | 24,477 | 92 | 99 |
| $1962{ }^{3}$ | (NA) | (NA) | (NA) | 111, 613 | 732,722 | 94,065 | 186,243 | 577,392 | ${ }^{1} 953,857$ | 716,345 | ${ }^{2} 1,670,202$ | 23,014 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 114,215 | 728,708 | 95,730 | 187,625 | 569,244 | 1919,666 | 701,187 | ${ }^{2} 1,621,204$ | 31,648 | (NA) | (NA) |
| $1960{ }^{3}$ | (NA) | (NA) | (NA) | 107,694 | 670,470 | 90,132 | 179,721 | 521,641 | ${ }^{1} 860,050$ | 600,638 | ${ }^{2} 1,460,688$ | 28,868 | (NA) | (NA) |
| $1959{ }^{3}$ | (NA) | (NA) | (NA) | 116,272 | 673,230 | 96,291 | 186,089 | 519,390 | ${ }^{1} 951,950$ | 614,111 | ${ }^{2} 1,566,061$ | 33,762 | (NA) | (NA) |
| 1958. | 286 | 319 | 222 | 119,147 | 669,826 | 101,153 | 197,707 | 537,814 | ${ }^{1} 913,687$ | 711,937 | ${ }^{2} 1,625,624$ | 38,737 | 93 | 99 |
| 1957 | (NA) | (NA) | (NA) | 121,738 | 653,534 | 106,115 | 207,898 | 542,450 | 1842,193 | 672,675 | ${ }^{2} 1,514,367$ | 57,985 | 91 | 99 |
| $1956{ }^{3}$ | (NA) | (NA) | (NA) | 107,245 | 545,725 | 93,056 | 181,155 | 449,593 | 1685,898 | 497,906 | ${ }^{2} 1,183.289$ | 36,465 | (NA) | (NA) |
| $1955{ }^{3}$. | (NA) | (NA) | (NA) | 101,767 | 486,797 | 88,148 | 172,520 | 404,535 | ${ }^{1} 651,516$ | 401,413 | ${ }^{2} 1,052,463$ | 19,439 | (NA) | (NA) |
| 1954. | 328 | 355 | 245 | 109,451 | 504,470 | 96,196 | 187,982 | 421,791 | 1692,796 | 391,445 | ${ }^{2} 1,084,242$ | 19,316 | 92 | 99 |
| $1953{ }^{3}$ | (NA) | (NA) | (NA) | 136,562 | 602,169 | 120,686 | 241,576 | 512,191 | 802,794 | 511,064 | 1,313,858 | (NA) | (NA) | (NA) |
| $1952{ }^{3}$ | (NA) | (NA) | (NA) | 140,669 | 592,603 | 123,814 | 246,734 | 503,233 | 774,775 | 561,823 | 1,336,598 | (NA) | (NA) | (NA) |
| $1951{ }^{3}$ | (NA) | (NA) | (NA) | 107,694 | 416,074 | 92,217 | 180,691 | 334,671 | 501,997 | 382,839 | 884,836 | (NA) | (NA) | (NA) |
| $1950{ }^{3}$ | (NA) | (NA) | (NA) | 74,938 | 253,730 | 62,334 | 116,635 | 194,855 | 326,767 | 239,582 | 566,349 | (NA) | (NA) | (NA) |
| $1949{ }^{3}$. | (NA) | (NA) | (NA) | 90,969 | (NA) | 76,673 | 145,491 | (NA) | 390,862 | 310,294 | 701,156 | (NA) | (NA) | (NA) |
| 1947....... | 272 | 302 | (NA) | 130,805 | 417,829 | 115,232 | 234,103 | 352,401 | 520,363 | 282,198 | 802,561 | (NA) | 94 | 98 |
|  | INDUSTRY 3732. - BQAT BUILDING AND REPAIRING |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 1,596 | 1,626 | 268 | 24,861 | 116,140 | 20,867 | 42,011 | 91,443 | 183,059 | 183,207 | 360,208 | 13,472 | 97 | 95 |
| $1962{ }^{3}$. | (NA) | (NA) | (NA) | 22,659 | 104,328 | 18,804 | 39,993 | 80,707 | 148,051 | 174,482 | 314,400 | $(12,420)$ | (NA) | (NA) |
| $1961{ }^{3}$. | (NA) | (NA) | (NA) | 22,671 | 100,641 | 18,717 | 39,980 | 77,485 | 138,146 | 175,847 | 316,608 | $(17,852)$ | (NA) | (NA) |
| $1960{ }^{3}$. | (NA) | (NA) | (NA) | 26,048 | 110,070 | 21,991 | 42,914 | 85,037 | 154,413 | 205,643 | 360,670 | $(22,523)$ | (NA) | (NA) |
| $1959{ }^{3}$ | (NA) | (NA) | (NA) | 29,056 | 121,538 | 24,862 | 49,875 | 96,537 | 176,409 | 216,424 | 389,381 | $(16,622)$ | (NA) | (NA) |
| 1958. | 1,626 | 1,651 | 277 | 25,295 | 103,603 | 21,156 | 40,346 | 81,356 | 157,309 | 178,803 | 329,009 | 15,298 | 93 | 95 |
| $1957{ }^{3}$ | (NA) | (NA) | (NA) | 22,416 | 89,727 | 19,587 | 40,127 | 71,561 | 156,235 | 146,104 | 298,542 | 5,396 | 94 | 90 |
| $1956{ }^{3}$ | (NA) | (NA) | (NA) | 21,243 | 80,464 | 18,764 | 38,554 | 65,722 | 144,883 | 130,497 | 268,275 | (S) | (NA) | (NA) |
| 1955 ${ }^{3}$. | (NA) | (NA) | (NA) | 20,848 | 68,141 | 17,871 | 35,560 | 56,151 | 118,064 | 94,936 | 207,686 | (s) | (NA) | (NA) |
| 1954 | 1,146 | 1,154 | 189 | 16,900 | 57,599 | 14,709 | 28,630 | 47,112 | 86,305 | 77,422 | 163,626 | 4,804 | 93 | 85 |
| $1953{ }^{3}$ | (NA) | (NA) | (NA) | 12,352 | 41,306 | 10,929 | 22,689 | 35,174 | 60,215 | 62,532 | 122,747 | (NA) | (NA) | (NA) |
| $1952{ }^{3}$ | (NA) | (NA) | (NA) | 11,195 | 37,330 | 9,608 | 18,626 | 31,248 | 54,971 | 45,988 | 100,959 | (NA) | (NA) | (NA) |
| $1951{ }^{3}$ | (NA) | (NA) | (NA) | 8,856 | 29,326 | 7,670 | 14,886 | 24,285 | 45,466 | 31,426 | 76,892 | (NA) | (NA) | (NA) |
| $1950{ }^{3}$ | (NA) | (NA) | (NA) | 11,706 | 35,679 | 10,188 | 20,310 | 29,645 | 52,924 | (NA) | (NA) | (NA) | (NA) | (NA) |
| $1949{ }^{3}$ | (NA) | (NA) | (NA) | 11,486 | (NA) | 8,741 | 18,342 | ( NA ) | 46,955 | (NA) | (NA) | (NA) | (NA) | (NA) |
| 1947. | 798 | 808 | (NA) | 18,850 | 49,756 | 16,801 | 35,013 | 41,970 | 66,195 | 48,179 | 114,374 | (NA) | 83 | 88 |


| 1939. | INDUSTRIES 3731 AND 3732. - TOTAL FOR SHIP BUILDING AND REPAIRING, AND BOAT BUILDING AND REPAIRING FOR 1939 AND EARLIER YEARS ${ }^{4}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (NA) | 608 | (NA) | 78,127 | 130,047 | 69,241 | (NA) | 107,570 | 179,898 | 158,374 | 338,272 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 544 | (NA) | 69,887 | 112,977 | 62,274 | (NA) | 93,746 | 149,045 | 101,412 | 250,457 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 556 | (NA) | 51,321 | 70,309 | 44,830 | (NA) | 55,422 | 93,791 | 61,109 | 154,900 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 395 | (NA) | 34,753 | 41,384 | 30,885 | (NA) | 33,890 | 61,524 | 31,172 | 92,696 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 518 | (NA) | (NA) | (NA) | 45,262 | (NA) | 62,028 | 114,671 | 72,322 | 186,993 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 624 | (NA) | 61,024 | 103,992 | 55,089 | (NA) | 88,274 | 145,451 | 85,849 | 231,300 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 559 | (NA) | 60,494 | 101,688 | 55,014 | (NA) | 87,081 | 132,501 | 78,626 | 271,127 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 565 | (NA) | 55,383 | 87,324 | 50,224 | (NA) | 74,275 | 110,883 | 66,299 | 177,182 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 567 | (NA) | 67,999 | 105,248 | 62,287 | (NA) | 90,720 | 128,674 | 84,558 | 213,232 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 640 | (NA) | 114,257 | 179,844 | 106,445 | (NA) | 155,943 | 231,466 | 169,368 | 400,834 | (NA) | (NA) | (NA) |
| 1919. | (NA) | 1,075 | (NA) | 412,420 | 662,561 | 387,446 | (NA) | 597,447 | 911,838 | 710,523 | 1,622,361 | (NA) | (NA) | (NA) |
| 1914. | (NA) | 1,147 | (NA) | 47,475 | 37,690 | 44,489 | (NA) | 32,931 | 50,085 | 38,597 | 88,682 | (NA) | (NA) | (NA) |
| 1909. | (NA) | 1,353 | (NA) | 43,486 | 29,303 | 40,506 | (NA) | 25,268 | 42,146 | 31,214 | 73,360 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 1,097 | (NA) | 53,234 | 32,581 | 50,754 | (NA) | 29,241 | 45,306 | 37,463 | 82,769 | (NA) | (NA) | (NA) |
| 1899. | (NA) | 1,107 | (NA) | 48,152 | 26,832 | 46,747 | (NA) | 24,825 | 41,057 | 33,475 | 74,332 | (NA) | (NA) | (NA) |



See footnotes at end of table.

# table 1．General Statistics： 1963 and Earlier Years－Continued 

| Year | Com－ panies | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture， adjusted $(\$ 1,000)$ | Cost of materials | Value of shipments | Capital expend－ itures， new | Spe－ cial－ ization ratio | Cov－ erage ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total （number） | With 20 employ－ ees or more （number） | Total <br> （number） | Payroll <br> $(\$ 1,000)$ | Total <br> （number） | Man－hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |


1963.
19613．．．．．．．．．．．．．．．
1959³．．．．．．．．．．．．．．．
$19587^{3}$
$1956^{3}$
1955
$1953^{3} \ldots \ldots \ldots$
$1952^{3} \ldots \ldots \ldots$
$1951^{3} \ldots \ldots \ldots$
$1950^{3} \ldots \ldots \ldots$
$\qquad$
1947.
$\qquad$
1935．．
$\qquad$


| 85 | 88 <br> $(\mathrm{NA})$ |
| ---: | ---: |
| $(\mathrm{NA})$ |  |
| （NA） | （NA） |
| （NA） | （NA） |
| （NA） | （NA） |
| 49 | 51 |
| （NA） | （NA） |
| （NA） | （NA） |
| （NA） | （NA） |
| 44 | 46 |
|  |  |
| （NA） | （NA） |
| （NA） | （NA） |
| （NA） | （NA） |
| （NA） | （NA） |
| （NA） | （NA） |
| 75 | 76 |
| （NA） | 36 |
| （NA） | 29 |
| （NA） | 23 |
| （NA） | 19 |
| （NA） | 19 |
| （NA） | 21 |
| （NA） | 29 |
| （NA） | 36 |
| （NA） | 39 |
| （NA） | 46 |
| （NA） | 51 |
| （NA） | 78 |
| （NA） | 95 |
| （NA） | 101 |
| （NA） | 312 |


| 33 | 9,662 |
| ---: | ---: | ---: |
| $(\mathrm{NA})$ | 9,028 |
| （NA） | 8,232 |
| （NA） | 8,341 |
| （NA） | 8,664 |
| 29 | 7,578 |
| （NA） | 8,419 |
| （NA） | 7,584 |
| （NA） | 8,088 |
| 29 | 7,061 |
|  |  |
| （NA） | 9,340 |
| （NA） | 10,178 |
| （NA） | 9,448 |
| （NA） | 10,895 |
| （NA） | 9,531 |
| 40 | 15,615 |
| （NA） | 8,302 |
| （NA） | 7,816 |
| （NA） | 5,773 |
| （NA） | 3,433 |
| （NA） | （NA） |
| （NA） | 5,114 |
| （NA） | 4,594 |
| （NA） | 4,962 |
| （NA） | 7,531 |
| （NA） | 5,213 |
| （NA） | 12,184 |
| （NA） | 7,706 |
| （NA） | 4,939 |
| （NA） | 3,680 |
| （NA） | 19,559 |

48,425
42,944
38,249
37,460
38,687
33,020
35,205
31,580
32,443
28,060
36,808
43,391
37,185
35,547
31,269
45,661
11,863
10,076
6,562
3,204
$(\mathrm{NA})$
8,019
6,984
7,317
10,236
6,921
14,964
5,913
3,491
2,322
9,943

| 7,912 |  |
| ---: | ---: |
| 7,314 |  |
| 6,630 |  |
| 6,749 |  |
| 7,108 |  |
| 6,179 |  |
| 6,972 |  |
| 6,337 |  |
| 6,589 |  |
| 5,979 |  |
| 8,068 |  |
| 8,720 |  |
| 8,034 |  |
| 8,565 |  |
| 7,986 |  |
| 13,659 |  |
| 6,973 |  |
| 6,938 |  |
| 5,093 |  |
| 3,038 |  |
|  | 3,294 |
| 4,392 |  |
| 3,897 |  |
| 4,193 |  |
| 6,576 |  |
| 4,308 |  |
| 10,886 |  |
| 6,680 |  |
| 4,437 |  |
| 3,319 |  |
| 17,525 |  |

15,152
13,974
12,774
12,555
13,820
12,213
13,374
12,240
12,804
11,121
15,686
17,800
16,231
17,218
14,880
28,245
（NA）
（NA）
（NA）
（NA）
（NA）
（NA）
（NA）
（NA）
（NA）
（NA）
（NA）
（NA）
（NA）
（NA）
（NA）

| 34,398 |
| :--- |
| 30,072 |
| 26,220 |
| 26,704 |
| 28,551 |
| 24,115 |
| 27,24 |
| 24,843 |
| 25,646 |
| 21,639 |
|  |
| 29,717 |

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－
INDUSTRY 3791．—TRAIIER COACHES

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| :---: | :---: |
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See footnotes at end of table．

TABLE 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Cov- <br> erage <br> ratio <br> (per- <br> cent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | with 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3799.-TRANSPORTATION EQUIPMENT, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 507 | 522 | 108 | 8,032 | 37,547 | 6,652 | 13,183 | 27,788 | 68,823 | 99,379 | 167,375 | 3,710 | 89 | 75 |
| $1962{ }^{3}$ | (NA) | (NA) | (NA) | 5,796 | 28,117 | 4,743 | 9,163 | 18,535 | 45,193 | 78,300 | 122,959 | (926) | (NA) | (NA) |
| $1961{ }^{3}$ | (NA) | (NA) | (NA) | 5,850 | 27,391 | 4,595 | 9,495 | 17,541 | 40,636 | 70,792 | 111,148 | 1,062 | (NA) | (NA) |
| $1960{ }^{3}$. | (NA) | (NA) | (NA) | 5,958 | 28,303 | 4,908 | 9,619 | 18,890 | 43,025 | 73,768 | 115,852 | 2,293 | (NA) | (NA) |
| $1959{ }^{3}$. | (NA) | (NA) | (NA) | 5,488 | 24,859 | 4,330 | 8,869 | 17,385 | 40,721 | 73,951 | 113,390 | $(2,316)$ | (NA) | (NA) |
| 1958 (new SIC) ${ }^{5}$ | 253 | 256 | 69 | 4,761 | 20,448 | 3,795 | 7,360 | 14,173 | 38,215 | 55,095 | 92,811 | 2,430 | 86 | 73 |
| 1958 (old SIC) ${ }^{5}$ | (NA) | 133 | 40 | 2,530 | 10,802 | 1,997 | 4,072 | 7,505 | 17,672 | 26,660 | 44,066 | 1,305 | (NA) | (NA) |
| 1957 ${ }^{3}$......... | (NA) | (NA) | (NA) | 1,655 | 7,123 | 1,215 | 2,693 | 4,439 | 14,225 | (NA) | (NA) | 5,013 | (NA) | (NA) |
| $1956{ }^{3}$ | (NA) | (NA) | (NA) | 1,626 | 6,685 | 1,310 | 2,681 | 4,689 | 11,322 | 13,826 | 24,951 | (NA) | (NA) | (NA) |
| 1955 ${ }^{3}$ 。 | (NA) | (NA) | (NA) | 1,651 | 6,269 | 1,347 | 2,935 | 4,584 | 12,703 | 15,163 | 26,978 | (NA) | (NA) | (NA) |
| 1954.......... |  |  | 21 | 1,636 | 5,637 | 1,359 | 2,786 | 4,135 | 10,042 | 11,724 | 21,870 | 561 | 92 | 4 |
| $1952^{3} \ldots . . . .$. | (NA) | (NA) | (NA) | 1,950 | 7,261 | 1,683 | 3,680 | 5,623 | 13,560 | 17,777 | 31,337 | 920 | (NA) | (NA) |
| 1950 ${ }^{3} \ldots \ldots . .$. | (NA) | (NA) | (NA) | 2,774 | 8,866 | 2,252 | 4,848 | 6,433 | 14,439 | 19,382 | 35,899 | 1,986 | (NA) | (NA) |
| 1949 ${ }^{\circ}$......... | (NA) | (NA) | (NA) | 3,152 | 9,035 | 2,519 | 4,986 | 6,122 | 13,397 | 17,861 | 31,258 | 954 | (NA) | (NA) |
| 1947........... | (NA) | 168 | (NA) | 4,584 | 11,658 | 3,890 | (NA) | 8,794 | 20,663 | 26,180 | 46,843 | 1,227 | 75 | 65 |
| 1939. | (NA) | 41 | (NA) | 1,543 | 1,725 | 1,252 | (NA) | 1,150 | 3,145 | 3,124 | 6,269 | (NA) | (NA) | (NA) |
| 1937.. | (NA) | 43 | (NA) | 2,122 | 2,321 | 1,823 | (NA) | 1,723 | 4,505 | 4,633 | 9,138 | (NA) | (NA) | (NA) |
| 1935........... | (NA) | 45 | (NA) | 1,858 | 1,767 | 1,592 | (NA) | 1,284 | 3,162 | 3,683 | 6,845 | (NA) | (NA) | (NA) |
| 1933........... | (NA) | 53 | (NA) | 1,610 | 1,196 | 1,409 | (NA) | 922 | 2,403 | 2,350 | 4,753 | (NA) | (NA) | (NA) |
| 1931........... | (NA) | 70 | (NA) | (NA) | (NA) | 1,321 | (NA) | 1,199 | 2,666 | 2,494 | 5,160 | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of foroduction workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unad justed value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustnent is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further nanufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipnents: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.
$(S)$ Withineld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ For the period $1954-1963$ the adjusted value added figure for the ship building and repairing industry has not been adjusted for the change in inventory between the beginning and end of the year, since the figures reported by establishments in this industry are value of work rather than value of shipments. It does include the value added by resales. For prior years, this figure is unadjusted value added.
${ }_{3}^{2}$ Represents value of work done rather than value of shipments.
${ }^{3}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{4}$ For 1939 and prior years separate industry figures for "Ship building and repairing" and "Boat building and repairing" are not available. However, for the period 1899-1939 combined data for the two industries are shown.
${ }^{5}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that data for prior years are not strictly comparable.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufac ture,adjusit adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new | All employee <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | $\begin{array}{\|l\|l} \text { With } 20 \\ \text { employ- } \\ \text { ees } \\ \text { or more } \\ \text { (number) } \end{array}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Man- } \\ & \text { hours } \\ & (1,000) \end{aligned}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total.......... | Imdustry 3731.-SHIP butiding and repairing |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 334 | 200 | 114,649 | 782,299 | 96,527 | 193,512 | 610,250 | ${ }^{2} 1,009,690$ | 670,075 | ${ }^{3} 1,679,765$ | 24,477 | 119,147 | ${ }^{2} 913,687$ |
| New England.. | 33 | 15 | 23,271 | 183,647 | 16,651 | 36,86 | 109,599 | 229,588 | 134,632 | 364,220 | 6,554 | 21,288 | 198,651 |
| Middle Atlantic.... New York....... | 77 45 | 4 | 16,455 3,718 7 | 113,831 25,036 | 14,345 <br> 3,123 | 27,904 5,963 | 94,053 20,246 | 144,817 35,997 | 85,057 21,478 | 229,874 57,475 | 2,396 | 22,921 6,535 | 171,980 49,908 |
| New Jersey..... | 23 | 14 | 7,944 | 56,735 | 7,218 | 13,874 | 20, 4 ,118 | 35,972 | 21,478 31,735 | 57,475 104,947 | 1,545 | 6,535 12,060 | 49,908 91,396 |
| Pennsylvania...... |  | 7 | 4,793 | 32,060 | 4,004 | 8,067 | 24,689 | 35,608 | 31,844 | 67,452 | 610 | 4,326 | 30,676 |
| East North Central. Wisconsin. | 27 7 | 15 | 3,806 1,585 | 22,320 8,836 | 3,275 1,369 | 6,499 2,747 | 18,087 7,079 | 31,538 14,001 | 30,339 10,534 | 61,877 24,535 | 824 390 | $\begin{array}{r} (4) \\ 2,087 \end{array}$ | $\begin{array}{r} (4) \\ 16,319 \end{array}$ |
| West North Central. | 6 | 3 | 145 | 753 | 124 | 229 | 585 | 1,428 | 518 | 1,946 | 21 | ${ }^{4}$ ) | $\left.{ }^{4}\right)$ |
| South Atlantic..... North Carolina... | 64 5 | 4 | 34,660 326 | 227,603 1,177 | $\begin{array}{r}31,035 \\ \hline 208 \\ \hline\end{array}$ | $\begin{array}{r}60,846 \\ \hline 494\end{array}$ | 197,323 1,007 1,03 | 289,731 1,819 | 145,181 1,679 | 434,912 3,498 4,4 | 5,538 | 30,876 4 4 | 221,960 |
| Florida.......... | 28 | 15 | 3,496 | 18,649 | 3,129 | 6,151 | 16,031 | 25,343 | 17,243 | 42,586 | 616 | 3,907 | 21,797 |
| East South Central. | 16 | 12 | 8,764 | 53,389 | 7,456 | 14,091 | 40,832 | 53,567 | 57,809 | 111,376 | 2,747 | 13,587 | 89,350 |
| West South Central. Louisiana........ | 50 26 | $\begin{aligned} & 32 \\ & 17 \end{aligned}$ | $\begin{gathered} 11,977 \\ 7,189 \end{gathered}$ | $\begin{aligned} & 75,415 \\ & 45,902 \end{aligned}$ | $\begin{array}{r} 10,337 \\ 6,317 \end{array}$ | $\begin{aligned} & 21,607 \\ & 13,935 \end{aligned}$ | $\begin{aligned} & 62,532 \\ & 39,401 \end{aligned}$ | 106,515 64,831 | $\begin{aligned} & 90,819133 \\ & 58,133 \end{aligned}$ | $\begin{aligned} & 197,334 \\ & 122,964 \end{aligned}$ | $\begin{aligned} & 3,291 \\ & 1,952 \end{aligned}$ | $\begin{aligned} & 9,924 \\ & 5,835 \end{aligned}$ | $\begin{aligned} & 74,767 \\ & 41,225 \end{aligned}$ |
| Pacific. <br> Oregon. <br> Califormia $\qquad$ | 61 | 35 | 15,577 | 105,341 | 13,30 | 25,470 | 87,239 | 152,506 | 125,7 | 278, | 3,106 |  |  |
|  | 5 | 3 | 1,977 | 11,829 | 1,565 | 2,836 | 8,951 | 19,716 | 15,934 | 275,650 | 3,337 | (4) |  |
|  | 37 | 24 | 9,254 | 63,787 | 7,875 | 14,998 | 52,138 | 92,636 | 72,201 | 164,837 | 688 | 8,254 | 63,703 |
|  | INDUSTRY 3732. - Boat building and repatring |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 1,626 | 268 | 24,861 | 116,140 | 20,867 | 42,011 | 1,443 | 183,059 | 183,207 | 360,20 | 3,472 | 25,295 | 157,309 |
| New England.........Mane...........Rhode Island..... | 196 | $\begin{array}{r} 33 \\ 8 \\ 4 \\ 5 \\ \hline \end{array}$ | $\begin{array}{r} 2,497 \\ 494 \\ 434 \\ 294 \end{array}$ | $\begin{array}{r} 11,639 \\ 1,797 \\ 1,877 \\ 1,541 \end{array}$ | $\begin{array}{r} 2,121 \\ 406 \\ 362 \\ 242 \end{array}$ | $\begin{array}{r} 4,437 \\ 843 \\ 731 \\ 505 \end{array}$ | 9,1641,1481,318 | $\begin{array}{r} 19,447 \\ 2,649 \\ 3,69 \\ 2,844 \end{array}$ | 16,437 | 35,679 | 1,424 | $\begin{gathered} 1,890 \\ \left.\begin{array}{c} 557 \\ (4) \end{array}\right) \end{gathered}$ | 10,844 $\stackrel{2,276}{(4)}$ <br> 1,832 |
|  | $\begin{aligned} & 56 \\ & 20 \\ & 20 \end{aligned}$ |  |  |  |  |  |  |  | $\begin{array}{r} 2,396 \\ 3,608 \end{array}$ | 5,015 7,350 | $\begin{array}{r} 225 \\ 200 \\ \hline \end{array}$ |  |  |
|  |  |  |  |  |  |  |  |  | 3,608 1,928 | 7,350 4,751 | 200 471 | ( ${ }^{4}$ |  |
| Middle Atlantic.... <br> New York.......... <br> Pennsylvania..... | 2241099718 | 442317 | $\begin{aligned} & 3,790 \\ & 1,759 \\ & 1,247 \\ & 784 \end{aligned}$ | $\begin{array}{r} 18,141 \\ 8,137 \\ 6,179 \\ 3,708 \end{array}$ | $\begin{aligned} & 3,143 \\ & 1,455 \\ & 1,075 \\ & 613 \end{aligned}$ | $\begin{aligned} & 6,302 \\ & 2,890 \\ & 2,1411 \\ & 1,277 \end{aligned}$ | $\begin{gathered} 14,338 \\ 6,572 \\ 5,081 \\ 2,685 \end{gathered}$ | $\begin{array}{r} 28,758 \\ 12,915 \\ 9,563 \\ 6,280 \end{array}$ | $\begin{gathered} 25,314 \\ 9,633 \\ 7,705 \end{gathered}$ | $\begin{aligned} & 52,656 \\ & 21,843 \\ & 17,112 \end{aligned}$ | $\begin{array}{r} 1,927 \\ 927 \\ 647 \end{array}$ | 3,4901,6681,108 | $\begin{array}{r} 17,395 \\ 5,778 \\ 6,752 \\ 4,825 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 7,976 | 13,701 | 353 | -714 |  |
| East North Central.Ohio.............Michigan.........Wisconsin....... | 169245341 | $\begin{array}{r} 40 \\ 7 \\ 12 \end{array}$ | $\begin{aligned} & 4,636 \\ & 50 . \\ & 1,894 \end{aligned}$ | $\begin{array}{r} 23,126 \\ 2,855 \\ 9,079 \\ 3,481 \end{array}$ | $\begin{aligned} & 3,847 \\ & 431 \\ & 1,662 \end{aligned}$ | $\begin{aligned} & 7,761 \\ & 832 \\ & 3,220 \end{aligned}$ | $\begin{array}{r} 17,840 \\ 2,109 \\ 7,656 \end{array}$ | $\begin{array}{r} 35,420 \\ 3,975 \\ 14,369 \end{array}$ | 40,702 | 74,756 | 1,888 | (4) | $(4)$5,933 |
|  |  |  |  |  |  |  |  |  | 3,648 | 7,764 | 90 | 825 |  |
|  |  |  |  |  |  |  |  |  | 16,4525,52 | 10,778 | 123 | 2,012 | 11,781 |
|  |  |  |  |  | -688 | 1,398 | 2,622 | 5,450 |  |  |  | -847 |  |
| West North Central.Minnesota...... | 6433 | $\begin{array}{r}12 \\ 8 \\ 8 \\ \hline\end{array}$ | $\begin{array}{r} 7,029 \\ 750 \end{array}$ | $\begin{aligned} & 4,145 \\ & 3,170 \end{aligned}$ | $\begin{aligned} & 830 \\ & 606 \end{aligned}$ | $\begin{aligned} & 1,732 \\ & 1,265 \end{aligned}$ | $\begin{aligned} & 3,117 \\ & 2,360 \end{aligned}$ | $\begin{aligned} & 7,351 \\ & 4,978 \end{aligned}$ | 8,3435,904 | $\begin{aligned} & 15,159 \\ & 10,520 \end{aligned}$ | 413 | $1,043$ | $\begin{aligned} & \left(4_{4}\right. \\ & 8,126 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South Atlantic Maryland. Virginia. North Carolina South Carolina... Florida. | 38576493615183 | 57 | -2,097 | 27,740 | 5,229 | 10,5033,537 | 22,0858,927 | 43,49016,530 | 44,976 | 87,13533,697 | 2,644 | 5,495 | 31,660 ${ }_{(4)}$ |
|  |  | 12 |  | 10,109 |  |  |  |  | 17,560 |  | 558 | (4) |  |
|  |  | 5 | 548 | 2,206 | 475 | 907 | 1,757 | 3,854 | 3,384 | 7,098 | 236 |  | $(4)$ $(4)$ |
|  |  | 6 | 563 | 2,105 | 522 107 | 1,100 | 1,748 | 3,516 | 5,160 | 8,623 1,523 | 357 68 | (4) | (4) |
|  |  | 29 | 2,517 | 11,983 | 1,993 | 4,272 | 8,615 | 17,664 | 16,158 | 32,957 | 1,372 | 2,442 | 12,163 |
| East South Central. <br> West South Central. Arkansas. Louisiana $\qquad$ | 56 | 11 | 1,047 | 3,89 | 917 | 1,612 | 3,263 | 7,233 | 7,767 | 15,250 | 2,430 | 632 | 4,679 |
|  | 174 | 31 | 2,609 | 10,880 | 2,119 | 4,494 | 7,987 | 14,533 | $\begin{array}{r} 17,065 \\ 2,528 \\ 5,396 \end{array}$ | $\begin{gathered} 31,384 \\ 4,793 \\ 10,975 \end{gathered}$ | 1,269138529 | $\begin{array}{r} 3,185 \\ (4) \\ 630 \end{array}$ | $\begin{array}{r} 17,009 \\ (4) \\ 3,606 \end{array}$ |
|  | $\begin{array}{r}13 \\ 65 \\ \hline\end{array}$ | 10 | 472849 | $\begin{aligned} & 2,196 \\ & 3,577 \end{aligned}$ | $\begin{aligned} & \text { ' } \\ & 7762 \end{aligned}$ | $\begin{array}{r} 765 \\ 1,784 \end{array}$ | $\begin{aligned} & 1,483 \\ & 2,926 \end{aligned}$ | $\begin{aligned} & 1,97 \\ & 6,334 \end{aligned}$ |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mountain.. | 22 | 1 | 111 | 491 | 93 | 196 | 384 | 832 | 914 | 1,732 | 61 | 103 | 777 |
| $\begin{aligned} & \text { Pacific.............. } \\ & \text { Washington...... } \\ & \text { Oregon............ } \\ & \text { California........ } \end{aligned}$ | 336 | $\begin{array}{r} 39 \\ 13 \\ 1 \\ 23 \end{array}$ | $\begin{array}{r} 3,012 \\ 891 \\ 138 \\ 1,874 \end{array}$ | $\begin{array}{r} 16,081 \\ 4,436 \\ 734 \\ 10,247 \end{array}$ | $\begin{array}{r} 2,568 \\ 758 \\ 125 \\ 1,596 \end{array}$ | $\begin{aligned} & 4,974 \\ & 1,4+20 \\ & 239 \\ & 3,143 \end{aligned}$ | $\begin{array}{r} 13,265 \\ 3,781 \\ 666 \\ 8,284 \end{array}$ | $\begin{array}{r} 25,995 \\ 7,113 \\ 1,172 \\ 16,722 \end{array}$ | $\begin{array}{r} 21,689 \\ 6,2477 \\ 74,012 \\ 14,011 \end{array}$ | $\begin{aligned} & 46,457 \\ & 13,002 \\ & 1,892 \\ & 29,893 \end{aligned}$ | $\begin{array}{r} 1,416 \\ 291 \\ 55 \\ 1,021 \end{array}$ | $\begin{array}{r} 3,968 \\ (4) \\ (4) \\ 2,736 \end{array}$ | $\begin{array}{r} 33,314 \\ (4) \\ (4) \\ 24,925 \end{array}$ |
|  | 103 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 187 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | INDUSTRY 3741.-LOCOMOTIVES AND PARTS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | 24 | 12 | 14,337 | 99,696 | 10,648 | 20,803 | 67,405 | 186,241 | 249,785 | 437,872 | 7,195 | 15,282 | 152,086 |
| Northeast and North Central........... | 24 | 12 | 14,337 | 99,696 | 10,648 | 20,803 | 67,405 | 186,241 | 249,785 | 437,872 | 7,195 | 15,269 | 151,756 |

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total (number) | Payroll $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total........... | INDUSTRY 3742.-RAILROAD AND STREET CARS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 78 | 58 | 30,742 | 201,999 | 24,254 | 47,246 | 150,135 | 355,230 | 591,023 | 927,184 | 10,877 | 24,309 | 167,576 |
| Northeast and North Central Pennsylvania..... Ohio. $\qquad$ | 66 | 48 | 25,464 | 167,442 | 19,997 | 38,716 | 123,919 | 284,488 | 455,731 | 723,705 | 8,647 | 21,228 | 154,852 |
|  | 15 | 11 | 8,507 | 55,453 | 6,686 | 12,062 | 41,124 | 97,631 | 140,110 | 223,550 | 3,202 | 8,898 | 64,904 |
|  | 9 | 8 | 2,953 | 20,895 | 2,422 | 4,911 | 16,683 | 31,596 | 46,047 | 79,963 | 739 | 2,530 | 23,561 |
| South and West..... | 12 | 10 | 5,278 | 34,557 | 4,257 | 8,530 | 26,216 | 70,742 | 135,292 | 203,479 | 2,230 | 3,081 | 12,724 |
| Total........... | INDUSTRY 3751.-MOTORCYCLES, BICYCLES, AND PARTS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 88 | 33 | 9,662 | 48,425 | 7,912 | 15,152 | 34,398 | 82,245 | 112,157 | 192,851 | 3,152 | 7,578 | 52,125 |
| Northeast... | 18 | 8 | 1,418 | 6,267 | 1,189 | 2,205 | 4,708 | 11,725 | 15,814 | 27,459 | 140 | 1,462 | 9,097 |
| North Central...... | 25 | 12 | 4,030 | 22,629 | 3,059 | 5,992 | 15,741 | 35,576 | 47,542 | 82,428 | 1,378 | 3,650 | 27,205 |
| Ohio.. | 9 | 3 | 489 | 2,407 | 435 | 841 | 2,022 | 6,968 | 11,072 | 16,895 | 50 | 592 | 4,906 |
| Indiana. | 3 | 3 | 389 | 1,609 | 314 | 585 | 1,111 | 2,623 | 4,045 | 6,829 | 16 | (4) | $\left(\begin{array}{c}4 \\ 4\end{array}\right.$ |
| Michigan. | 5 | 1 | 116 | 601 | 68 | 117 | 497 | 536 | 1,133 | 1,683 | 40 | $\left.{ }^{4}\right)$ | (4) |
| South and West..... Califormia........ | 45 | 13 | 4,214 | 19,529 | 3,664 | 6,955 | 13,949 | 34,944 | 48,801 | 82,964 | 1,634 | 2,467 | 15,823 |
|  | 24 | 5 | 513 | 2,663 | 402 | 776 | 1,770 | 4,366 | 7,874 | 12,472 | 99 | (4) | (4) |
|  | INDUSTRY 3791. -TRAILER COACHES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 413 | 252 | 25,669 | 125,002 | 21,901 | 43,390 | 94,078 | 232,460 | 482,751 | 713,119 | 9,584 | 18,717 | 127,683 |
| New England........ | 5 | 1 | 30 | 68 | 27 | 51 | 64 | 130 | 238 | 355 | 5 | 5 | 14 |
| Middle Atlantic.... | 24 | 17 | 1,557 | 7,105 | 1,343 | 2,555 | 5,379 | 13,789 | 26,785 | 39,989 | 988 | 348 | 2,322 |
| East North Central. | 130 | 79 | 9,356 | 51,972 | 7,738 | 15,581 | 37,277 | 93,433 | 199,456 | 292,750 | 3,805 | 8,620 | 64,847 |
| Ohio.............. | 8 | 5 | 661 | 3,277 | 548 | 1,081 | 2,292 | 6,674 | 13,428 | 20,051 | 223 | 371 | 2,762 |
| Indiana........... | 63 | 47 | 4,245 | 23,911 | 3,496 | 6,740 | 16,908 | 44,792 | 101,269 | 145,855 | 1,898 | 3,441 | 27,326 |
| Michigan.......... | 46 | 20 | 3,593 | 21,175 | 2,940 | 6,142 | 15,309 | 37,038 | 72,096 | 109,609 | 1,572 | (4) | $\left({ }^{4}\right)$ |
| West North Central. | 33 | 21 | 2,327 | 10,647 | 1,991 | 4,030 | 8,518 | 23,593 | 44,277 | 67,271 | 638 | 1,319 | 12,065 |
| Iowa............. | 4 | 3 | 261 | 1,130 | 218 | 431 | 843 | 1,680 | 4,600 | 6,169 | 15 | (4) | (4) |
| Missouri... | 8 | 3 | 165 | 622 | 145 | 271 | 471 | 1,074 | 2,428 | 3,434 | 71 | $(4)$ | $\left(\begin{array}{l}4 \\ 4\end{array}\right.$ |
| Nebraska......... | 5 | 4 | 555 | 2,267 | 505 | 963 | 1,949 | 4,927 | 10,698 | 15,669 | (D) | (4) | $(4)$ |
| Kansas........... | 10 | 8 | 1,108 | 5,660 | 923 | 1,938 | 4,509 | 13,485 | 22,822 | 35,805 | 358 | ${ }^{4}$ | (4) |
| South Atlantic..... | 45 | 31 | 3,298 | 13,952 | 2,888 | 5,789 | 10,726 | 31,562 | 64,73? | 95,612 | 1,221 | (4) | $(4)$ |
| North Carolina... | 6 | 4 | 377 | 1,100 | 306 | 529 | 812 | 2,284 | 5,171 | 7,392 | 54 | (4) | (4) |
| Georgia.......... | 15 | 11 | 1,492 | 6,582 | 1,325 | 2,767 | 5,031 | 16,676 | 31,736 | 47,942 | 649 | (4) | (4) |
| Florida.. | 19 | 12 | 924 | 4,116 | 798 | 1,578 | 3,208 | 8,386 | 17,565 | 25,843 | 362 | 345 | 2,242 |
| East South Central. | 7 | 6 | 796 | 2,786 | 691 | 1,363 | 2,138 | 4,365 | 13,861 | 18,163 | 246 | (4) | (4) |
| West South Central. | 42 | 23 | 1,737 | 6,873 | 1,500 | 3,019 | 5,201 | 13,582 | 27,962 | 41,799 | 337 | $(4)$ | $(4)$ |
| Arkansas......... | 6 | 3 | 174 | 736 | 156 | 300 | 610 | 2,050 | 2,369 | 4,643 | 23 | (4) | (4) |
| Oklahoma.......... | 8 | 6 | 454 | 1,802 | 398 | 807 | 1,254 | 3,828 | 7,728 | 11,610 | 108 | (4) | (4) |
| Texas............. | 28 | 14 | 1,109 | 4,335 | 946 | 1,912 | 3,337 | 7,704 | 17,865 | 25,546 | 206 | 1,712 | 7,765 |
| Mountain............ | 37 | 13 | 976 | 4,561 | 824 | 1,657 | 3,412 | 7,301 | 15,516 | 22,762 | 504 | 603 | 3,177 |
| Idaho............. | 6 | 5 | 405 | 1,928 | 347 | 722 | 1,397 | 3,896 | 7,510 | 11,305 | 267 | 166 | 608 |
| Colorado.......... | 13 | 2 | 179 | 841 | 146 | 274 | 664 | , 959 | 3,048 | 4,142 | 154 | (4) | (4) |
| Arizona........... | 9 | 3 | 200 | 893 | 171 | 341 | 703 | 1,173 | 2,387 | 3,464 | 55 | (4) | (4) |
| Pacific............ | 90 | 61 |  | 27,038 |  | 9,345 |  |  | 89,919 |  | 1,840 |  |  |
| Washington....... | 9 | 3 5 | 155 | 27, 642 | 137 | 230 | , 510 | 956 | 1,496 | 2,434 | - 38 | 3, ${ }^{4}$ | (4) |
| Oregon............ | 8 7 | $\begin{array}{r}5 \\ 5 \\ \hline\end{array}$ | -322 | 1,555 | , 278 | 503 | 1,216 | 2,401 | 4,936 | 7,300 | 76 | (4) | (4) |
| California....... | 73 | 53 | 5,115 | 24,841 | 4,484 | 8,612 | 19,637 | 41,348 | 83,487 | 124,684 | 1,726 | (4) | (4) |
|  |  |  |  |  | INDUS | TRY 3799 | -TRANSPOR | TION EQUIP | ENT, N.E.C |  |  |  |  |
| Total.......... | 522 | 108 | 8,032 | 37,547 | 6,652 | 13,183 | 27,788 | 68,823 | 99,379 | 167,375 | 3,710 | 4,761 | 38,215 |
| Northeast. ......... | 51 | 10 | 953 | 4,916 | 772 | 1,505 | 3,491 | 10,404 | 12,195 | 22,677 | 511 | 620 | 7,152 |
| Pennsylvania..... | 22 | 5 | 475 | 2,481 | 393 | 769 | 1,896 | 6,576 | 5,077 | 11,578 | 265 | 450 | 3,435 |
| East North Central. | 123 | 33 | 2,074 | 10,427 | 1,715 | 3,559 | 7,757 | 17,798 | 29,033 | 46,687 | 947 | 1,466 |  |
| Ohio............. | 32 | 10 | 761 | 4,016 | 619 | 1,314 | 2,886 | 6,227 | 8,423 | 14,559 | 119 | (4) | (4) |
| Indiana........... | 34 | 10 | 634 | 3,731 | 517 | 1,191 | 2,761 | 7,050 | 13,198 | 20,210 | 495 | 490 | 3,737 |
| Illinois......... | 16 | 3 | 161 | 606 | 131 | 234 | 442 | 1,186 | 1,653 | 2,871 | 79 | 292 | 2,148 |
| Michigan......... | 29 | 4 | 227 | 1,014 | 203 | 363 | 877 | 1,707 | 2,333 | 4,028 | 146 | 241 | 1,811 |
| Wisconsin........ | 12 | 6 | 291 | 1,060 | 245 | 457 | 791 | 1,628 | 3,426 | 5,019 | 108 | (4) | ${ }^{(4)}$ |

See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | All employees <br> (number) | Valueadded by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 <br> employ- <br> ees <br> or more <br> (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3799.-TRANSPORTATION EQUIPMENT, N.E.C.-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
| West North Central. | 78 | 16 | 1,533 | 6,667 | 1,280 | 2,552 | 4,873 | 12,801 | 12,410 | 24,652 | 486 | 857 | 6,364 |
| Iowa.............. | 21 | 8 | 681 | 3,170 | 580 | 1,154 | 2,290 | 5,296 | 5,030 | 10,294 | 189 | $(4)$ | (4) |
| Missouri......... | 13 | 1 | 226 | 949 | 189 | 389 | 775 | 2,529 | 1,973 | 4,357 | 49 | $(4)$ | (4) |
| Nebraska. . . . . . . . | 7 | 1 | 168 | 708 | 140 | 300 | 541 | 1,397 | 1,535 | 2,756 | (D) | (4) | (4) |
| Kansas........... . | 20 | 5 | 339 | 1,421 | 272 | 510 | 938 | 2,771 | 2,971 | 5,615 | 124 | $\left.{ }^{4}\right)$ | (4) |
| South Atlantic.... | 45 | 7 | 563 | 2,517 | 453 | 880 | 1,747 | 4,070 | 6,133 | 10,208 | 207 |  |  |
| North Carolina. . | 7 | 2 | 130 | 332 | 110 | 205 | 204 | 598 | 1,239 | 1,827 | 63 |  |  |
| Florida.......... | 26 | 3 | 243 | 1,416 | 182 | 358 | 953 | 2,231 | 2,727 | 5,054 | 101 |  |  |
| East South Central. | 12 | 4 | 227 | 971 | 191 | 383 | 743 | 1,467 | 2,614 | 3,970 | 112 |  | 5,540 |
| West South Central. | 71 | 11 | 778 | 2,969 | 670 | 1,282 | 2,323 | 6,152 | 11,368 | 17,319 | 482 |  |  |
| Oklahoma. . . . . . . | 15 | , | 123 | 412 | 103 | 204 | 330 | 760 | 1,477 | 2,206 | 49 | (4) | (4) |
| West............... | 142 | 27 | 1,904 | 9,080 | 1,571 | 3,022 | 6,854 | 16,131 | 25,626 | 41,868 | 965 | 928 | 7,291 |
| Idaho............. | 6 | 1 | 118 | 328 | 97 | 180 | 250 | 693 | 999 | 1,674 | 74 | (4) | (4) |
| Califormia....... | 85 | 18 | 1,196 | 6,231 | 984 | 1,901 | 4,676 | 10,456 | 19,386 | 30,050 | 571 | (4) | (4) |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ General statistics for sone producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3731, Ship Building and Repairing: New England-Maine, 8 (2,626); Vermont, 1 (1-19); Massachusetts, 12 (4,613); Rhode Island, 2 (20-99); Connecticut, 10 (15,932); East North Central-Ohio, 9 (707); Indiana, 3 (611); Illinois, 3 (166); Michigan, 5 (737); West North Central-Minnesota, 2 (1-19); Iowa, 1 (20-99); Missouri, 3 (102); South Atlantic-Delaware, 2 (100-249); Maryland, 9 (8,027); Virginia, 13 (20,847); West Virginia, 1 (500-999); South Carolina, 5 (402); Georgia, 1 (500-999); East South Central-Kentuc ky, 1 (200-249); Tennessee, 1 (500-999); Alabama, 7 (2,500-4,999); Mississippi, 7 (5,084); West South Central-Oklahoma, 1 (1-19); Texas, 23 ( $2,500-4,999$ ); Pacific -Washington, 17 (2,500-4,999); Alaska, 1 (1-19); Hawaii, i (1-19).
SIC 3732, Boat Building and Repairing: New England-New Hampshire, 8 (20-99); Vermont, 1 (1-19); Massachusetts, 81 (1,181); East North CentralIndiana, 26 (974); Illinois, 25 (440); West North Central-Iowa, 3 (1-19); Missouri, 16 (207); South Dakota, 2 (1-19); Nebraska, 1 (1-19); Kansas, 9 (20-99); South Atiantic -Delaware, 5 (1-19); District of Columbia, 1 (1-19); Georgia, 20 (250-499); East South Central-Kentucky, 6 (20-99); Tennessee, 20 (500-999); Alabama, 17 (20-99); Mississippi, 13 (100-249); West South Central-0klahoma, 11 (20-99); Texas, 85 (1,000-2,499); Mountain-Montana, 4 (20-99); Idaho, 2 (1-19); Colorado, 2 (1-19); New Mexico, 1 (1-19); Arizona, 3 (20-99); Utah, 9 (20-99); Nevada, 1 (1-19); Pacific-Alaska, 8 (20-99); Hawaii, 4 (20-99).
SIC 3741, Locomotives and Parts: Middle Atlantic-New York, 1 (1,000-2,499); New Jersey, 1 (1-19); Pennsylvania, 6 (4,555); East North CentralOhio, 3 (260); Indiana, 1 (1-19); Illinois, 7 (7,671); Michigan, 1 (1-19); Wisconsin, 2 (100-249); West North Central-Minnesota, 1 (20-99); Nebraska, 1 (1-19).
SIC 3742, Railroad and Street Cars: Middle Atlantic-New York, 5 (1,660); New Jersey, 3 (538); East North Central-Indiana, 5 (2,500-4,999); Illinois, 18 (2,747); Michigan, 3 (1,000-2,499); Wisconsin, 2 (20-99); West North Central -Minnesota, 1 (20-99); Iowa, 1 (20-99); Missouri, 2 (2,500-4,999); Kansas, 2 (250-499); South Atlantic-West Virginia, 1 (500-999); Georgia, 2 (20-99); East South Central-Kentucky, 1 (100-249); Alabama, 2 (1,000-2,499); West South Central-Texas, 2 (100-249); Pacific-Washington, 1 (1,000-2,499); California, 3 (248).
SIC 3751, Motorcycles, Bicycles, and Parts: New England-Massachusetts, 2 (250-499); Connecticut, l (20-99); Middle Atlantic-New York, 8 (873);
New Jersey, 4 (20-99); Pennsylvania, 3 (1-19); East North Central-Illinois, 4 (500-999); Wisconsin, 3 (1,000-2,499); West North CentralNebraska, 1 (500-999); South Atlantic-Georgia, 2 (20-99); Florida, 2 ( $1-19$ ); East South Central-Kentucky, 2 (250-499); Tennessee, 2 ( $1,000-2,499$ ); West South Central—Arkansas, 3 (500-999); Louisiana, 1 (20-99); 0klahoma, 2 (1-19); Texas, 1 (1-19); Mountain-Colorado, 1 (1-19); Utah, 4 (20-99); Pacific—Oregon, 1 (1-19).
SIC 3791, Trailer Coaches: New England-Maine, 2 (20-99); New Hampshire, 1 (1-19); Massachusetts, 1 (1-19); Connecticut, 1 (1-19); Middle AtlanticNew Jersey, 1 (20-99); Pennsylvania, 23 (1,000-2,499); East North Central-Illinois, 3 (1-19); Wisconsin, 10 (851); West North Central-Minnesota, 4 (100-249); South Dakota, 2 (100-249); South Atlantic Maryland, 2 (100-249); Virginia, 1 (100-249); South Carolina, 2 (100-249); East South Cen-tral-Kentucky, 1 (20-99); Tennessee, 3 (177); AIabama, 2 (250-499); Mississippi, 1 (200-249); Mountain-New Mexico, 1 (1-19); Utah, 8 (100-249).
SIC 3799, Transportation Equipment, N.E.C.: New England-Vermont, 2 (20-99); Massachusetts, 7 (20-99); Connecticut, 4 (20-99); Middle Atlantic -
New York, 12 ( $250-499$ ); New Jersey, 4 (20-99); West North Central-Minnesota, 12 (100-249); North Dakota, 4 (1-19); South Dakota, 1 (1-19);
South Atlantic-Maryland, 1 (20-99); Virginia, 2 (20-99); South Carolina, 3 (1-19); Georgia, 6 (20-99); East South Central-Kentucky, 2 (20-99);
Tennessee, 6 (20-99); Alabama, 2 (20-99); Mississippi, 2 (1-19); West South Central-Arkansas, 4 (20-99); Louisiana, 5 (20-99); Texas, 47 (498); Mountain-Montana, 2 (20-99); Wyoming, 1 (1-19); Colorado, 13 (20-99); New Mexico, 2 (1-19); Arizona, 7 (20-99); Utah, 5 (100-249); Pacific-Washing ton, 13 (20-99); Oregon, 7 (100-249); Alaska, 1 (1-19).
${ }^{2}$ See footnote 1, table 1.
${ }^{3}$ Represents value of work done rather than value of shipments.
${ }^{4}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.
table 3. Detailed Statistics: 1963

| Item | Ship building and repairing (SIC 3731) | Boat building and repairing (SIC 3732) | Locomotives and parts (SIC 3741) | Railroad and street cars (SIC 3742) | Motorcycles, bicycles, and parts (SIC 3751) | Trailer coaches (SIC 3791) | Transportation equipment, n.e.c. (SIC 3799) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio ${ }^{1}$. | . 92 | . 97 | . 83 | . 91 | . 83 | . 98 | . 89 |
| Coverage ratio ${ }^{2}$................... | . 99 | . 95 | . 90 | . 93 | . 93 | . 99 | . 75 |
| Establishments, total.................................... . number.. | 334 | 1,626 | 24 | 78 | 88 | 413 | 522 |
| With 1 to 19 employees...................................do. | 134 | 1,358 | 12 | 20 | 55 | 161 | 414 |
| With 20 to 99 employees................................ do. | 96 | 222 | 5 | 22 | 17 | 164 | 92 |
| With 100 employees or more.............................d. ${ }^{\text {d }}$ | 104 | 46 | 7 | 36 | 16 | 88 | 16 |
| Proprietors and working partners........................do... | 92 | 1,148 | 7 | 7 | 13 | 139 | 277 |
| All employees (average for the year)....................do.... | 114,649 | 24,861 | 14,337 | 30,742 | 9,662 | 25,669 | 8,032 |
| Payroll (all employees), total for year............... $\$ 1,000 .$. | 782,299 | 116,140 | 99,696 | 201,999 | 48,425 | 125,002 | 37,547 |
| Production workers: |  |  |  |  |  |  |  |
| Average for the year...................................number.. | 96,527 | 20,867 | 10,648 | 24,254 | 7,912 | 21,901 | 6,652 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 99,853 | 21,360 | 10,790 | 24,222 | 7,549 | 19,917 | 6,240 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 99,054 | 23,246 | 10,694 | 22,388 | 8,149 | 21,812 | 7,167 |
| August.... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 95,127 | 19,219 | 10,752 | 24,839 | 8,431 | 22,914 | 6,610 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.... | 92,089 | 19,831 | 10,348 | 25,554 | 7,525 | 22,965 | 6,620 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 193,512 | 42,011 | 20,803 | 47,246 | 15,152 | 43,390 | 13,183 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 49,404 | 10,895 | 5,321 | 10,737 | 3,429 | 9,358 | 2,982 |
| April-June.............................................. . . . . do. | 50,230 | 11,852 | 5,317 | 11,355 | 4,073 | 11,135 | 3,573 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 48,841 | 9,823 | 4,751 | 12,123 | 4,013 | 11,561 | 3,381 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 46,090 | 10,347 | 5,414 | 13,043 | 3,660 | 11,398 | 3,450 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 610,250 | 91,443 | 67,405 | 150,135 | 34,398 | 94,078 | 27,788 |
| Cost of materials, etc., total...........................do. | 670,075 | 183,207 | 249,785 | 591,023 | 112,157 | 482,751 | 99,379 |
| Materials, parts, containers, and supplies consumed..do. | 612,467 | 167,519 | 233, 289 | 575,511 | 102,722 | 471,898 | 94,750 |
| Cost of resales.........................................do. | 6,748 | 10,749 | 13,374 | 6,266 | 6,323 | 6,900 | 1,391 |
| Fuels consumed........................................... . ${ }^{\text {do. }}$ | 5,772 | 1,143 | 1,658 | 3,583 | 724 | 861 | 497 |
| Electric energy: |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |
| Quantity..............................million kw.-hrs.. | 990 | 88 | 117 | 279 | 75 | 51 | 35 |
| Cost................................................ $\$ 1,000 .$. | 11,317 | 1,667 | 1,246 | 3,547 | 877 | 1,173 | 676 |
| Generated less sold......................million kw.-hrs.. | (D) | (D) | (D) | (D) | - | (D) | (D) |
| Contract work.......................................... $\$ 1,000 .$. | 33,771 | 2,126 | 218 | 2,116 | 1,511 | 1,009 | 2,065 |
| Value of shipments (including resales), total ${ }^{3}$..........do.... <br> Value of resales. | $\begin{array}{r} 1,679,765 \\ 7.173 \end{array}$ | $\begin{array}{r} 360,208 \\ 15.379 \end{array}$ | 437, 872 | 927,184 8,480 | 192,851 7,572 | 713,119 9,313 | 167,375 3,585 |
| Value added by manufacture, adjusted ${ }^{4}$. | 1,009,690 | 183,059 | 186,241 | 355,230 | 82,245 | 232,460 | 68,823 |
| Manufacturers' inventories: |  |  |  |  |  |  |  |
| Beginning of year, total...............................d. ${ }^{\text {do. }}$ | 387,297 | 72,496 | 86,112 | 155,297 | 34,852 | 59,003 | 24,664 |
| Finished products...................................... do. | 8,519 | 23,358 | 15,761 | 15,650 | 9,500 | 15,373 | 7,897 |
| Work-in-process........... . . . . . . . . . . . . . . . . . . . . . . . do | 334,020 | 16,965 | 65,405 | 95,192 | 15,926 | 6,128 | 6,616 |
| Materials, supplies, fuel, etc......................do | 44,758 | 32,173 | 4,946 | 44,455 | 9,426 | 37,492 | 10,151 |
| End of year, total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 344,057 | 78,640 | 83,784 | 186,222 | 36,006 | 63,118 | 26,272 |
| Finished products.................. . . . . . . . . . . . . . . . . do. | 7,641 | 26,004 | 13,744 | 16,575 | 11,398 | 16,943 | 8,416 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 291,319 | 20,377 | 65,576 | 113,336 | 15,579 | 6,464 | 6,928 |
| Materials, supplies, fuel, etc.......................do. | 45,097 | 32,259 | 4,464 | 56,311 | 9,029 | 39,711 | 10,928 |
| Expenditures for plant and equipment, total............do. | 34,319 | 22,745 | 7,546 | 11,803 | 3,437 | 10,043 | 4,282 |
| New, total............... . . . . . . . . . . . . . . . . . . . . . . . . . do. | 24,477 | 13,472 | 7,195 | 10,877 | 3,152 | 9,584 | 3,710 |
| New structures and additions to plant...............do.. | 10,141 | 5,673 | 694 | 2,729 | 540 | 4,820 | 1,189 |
| New machinery and equipment..........................do.... | 14,336 | 7,799 | 6,501 | 8,148 | 2,612 | 4,764 | 2,521 |
| Used plant and equipment............................... ${ }^{\text {do. }}$ | 9,842 | 9,273 | 351 | 926 | 285 | 459 | 572 |
| Selected operating ratios: |  |  |  |  |  |  |  |
| Payroll/Total employment.. | 6,823 | 4,672 | 6,954 | 6,571 | 5,012 | 4,870 | 4,675 |
| Production workers/Total employment. | . 84 |  | . 74 | . 79 | . 82 | . 85 | . 83 |
| Man-hours/Production workers. | 2,005 | 2,013 | - 1,954 | 1,948 | 1,915 | 1,981 | 1,982 |
| Production worker wages/Man-hours............................ | 3.15 | 2.18 |  | 3.18 | 2.27 | 2.17 | 2.11 |
| Cost of materials and payrolls/Total value of shipments.... | . 86 | . 83 | . 80 | . 86 | . 83 | . 85 | . 82 |
| Cost of materials/Total value of shipments. | . 40 | . 51 | . 57 | . 64 | . 58 | . 68 | . 59 |
| Adjusted value added/Total employment. | 8,427 | 7,363 | 12,990 | 11,555 | 8,512 | 9,053 | 8,569 |
| Salaries and wages/Adjusted value added........ | . 81 | . 63 | . 54 | . 57 | . 59 | . 54 | . 55 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of tiousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable.
${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufac-
turing establishments.
${ }_{4}^{3}$ Represents value of work done rather than value of shipments.
${ }^{4}$ See footnote 1 , table 1.

# table 4. Selected Statistics, by Employment Size of Establishments: 1963 



[^277]
# TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958 


#### Abstract

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such


as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\text { Col. B }}{\text { Col. B+C }}$ <br> (percent) | Total, made in all industries <br> $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3731 | Ship building and repairing.......1963.. | $\begin{aligned} & 1_{1}, 679,765 \\ & 1_{1}, 625,624 \end{aligned}$ | $\begin{aligned} & 1,507,891 \\ & 1,452,734 \end{aligned}$ | $\begin{aligned} & 117,950 \\ & 110,688 \end{aligned}$ | $\begin{aligned} & 53,924 \\ & 62,202 \end{aligned}$ | $\begin{aligned} & 92 \\ & 93 \end{aligned}$ | $11,518,015$ ${ }^{1} 1,467,381$ | $\begin{aligned} & 1,507,891 \\ & 1,452,734 \end{aligned}$ | $\begin{aligned} & 10,124 \\ & 14,647 \end{aligned}$ | 99 99 |
| 3732 | Boat building and repairing.......1963.. | $\begin{aligned} & 360,208 \\ & 329,009 \end{aligned}$ | $\begin{aligned} & 321,665 \\ & 284,485 \end{aligned}$ | $\begin{aligned} & 11,649 \\ & 20,332 \end{aligned}$ | $\begin{aligned} & 26,894 \\ & 24,192 \end{aligned}$ | $\begin{aligned} & 97 \\ & 93 \end{aligned}$ | $\begin{aligned} & 338,118 \\ & 300,143 \end{aligned}$ | $\begin{aligned} & 321,665 \\ & 284,485 \end{aligned}$ | $\begin{aligned} & 16,453 \\ & 15,658 \end{aligned}$ | 95 95 |
| 3741 | Locomotives and parts............. 1963.. | $\begin{aligned} & 437,872 \\ & 407,540 \end{aligned}$ | $\begin{aligned} & 341,955 \\ & 321,162 \end{aligned}$ | $\begin{aligned} & 70,476 \\ & 56,016 \end{aligned}$ | $\begin{aligned} & 25,441 \\ & 30,362 \end{aligned}$ | $\begin{aligned} & 83 \\ & 85 \end{aligned}$ | $\begin{aligned} & 378,088 \\ & 355,168 \end{aligned}$ | $\begin{aligned} & 341,955 \\ & 321,162 \end{aligned}$ | $\begin{aligned} & 36,133 \\ & 34,006 \end{aligned}$ | 90 90 |
| 3742 | Railroad and street cars......... ${ }^{\text {1963.. }}$ 1958.. | $\begin{aligned} & 927,184 \\ & 562,190 \end{aligned}$ | $\begin{aligned} & 813,394 \\ & 474,469 \end{aligned}$ | $\begin{aligned} & 83,395 \\ & 68,928 \end{aligned}$ | $\begin{aligned} & 30,395 \\ & 18,793 \end{aligned}$ | $\begin{aligned} & 91 \\ & 87 \end{aligned}$ | $\begin{aligned} & 870,972 \\ & 528,598 \end{aligned}$ | $\begin{aligned} & 813,394 \\ & 474,469 \end{aligned}$ | $\begin{aligned} & 57,578 \\ & 54,129 \end{aligned}$ | 93 90 |
| 3751 | Motorcycles, bicycles, and parts..1963.. | $\begin{aligned} & 192,851 \\ & 121,527 \end{aligned}$ | $\begin{array}{r} 151,967 \\ 98,813 \end{array}$ | $\begin{aligned} & 31,789 \\ & 18,631 \end{aligned}$ | $\begin{aligned} & 9,095 \\ & 4,083 \end{aligned}$ | $\begin{aligned} & 83 \\ & 84 \end{aligned}$ | $\begin{aligned} & 163,355 \\ & 105,821 \end{aligned}$ | $\begin{array}{r} 151,967 \\ 98,813 \end{array}$ | $\begin{array}{r} 11,388 \\ 7,008 \end{array}$ | 93 93 |
| 3791 | Trailer coaches........................ 1963.. | $\begin{aligned} & 713,119 \\ & 461,053 \end{aligned}$ | $\begin{aligned} & 686,338 \\ & 441,635 \end{aligned}$ | $\begin{array}{r} 15,183 \\ 4,108 \end{array}$ | 11,598 15,310 | $\begin{aligned} & 98 \\ & 99 \end{aligned}$ | $\begin{aligned} & 690,339 \\ & 444,782 \end{aligned}$ | $\begin{aligned} & 686,338 \\ & 441,635 \end{aligned}$ | $\begin{aligned} & 4,001 \\ & 3,147 \end{aligned}$ | 99 99 |
| 3799 | Transportation equipment, n.e.c...1963.. | $\begin{array}{r} 167,375 \\ 92,811 \end{array}$ | $\begin{array}{r} 141,916 \\ 73,005 \end{array}$ | $\begin{aligned} & 16,720 \\ & 11,971 \end{aligned}$ | $\begin{aligned} & 8,739 \\ & 7,835 \end{aligned}$ | $\begin{aligned} & 89 \\ & 86 \end{aligned}$ | $\begin{array}{r} 190,438 \\ 99,954 \end{array}$ | $\begin{array}{r} 141,916 \\ 73,005 \end{array}$ | $\begin{aligned} & 48,522 \\ & 26,949 \end{aligned}$ | 75 73 |

Note: See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ Represents the value of work done.

# TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industres" column shows the total value of shipments of the primary products of the industry by all manusacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products). (b) products classified in other industries (secondary products), and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industiy reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

| Prod. <br> class <br> code |  |
| :--- | :--- |

## BOAT BUIIDING AND REPAIRING INDUSTRY

Total shipments and receipts of the industry.

| All industries | Ship building and repairing (SIC 3731) | Other industries |
| :---: | :---: | :---: |
| (X) | 1,679,765 | (X) |
| 1,518,015 | 1,507,891 | 10,124 |
| 82,238 | 81,571 | 667 |
| 681,793 | 677,208 | 4,585 |
| 242,770 | 241,712 | 1,058 |
| 221,851 | 220,794 | 1,057 |
| 277,423 | 274,666 | 2,757 |
| 11,940 | 11,940 | - |
| (X) | 117,950 | (X) |
| (X) | 6,826 | (X) |
| (X) | 3,293 | (X) |
| (X) | 25,823 | (X) |
| (X) | 3,984 | (X) |
| (X) | 78,024 | (X) |
| (X) | (over 2) | (X) |
| (X) | (2-5) | (X) |
| (X) | (2-5) | (X) |
| (X) | (2-5) | (X) |
| (X) | (5-10) | (X) |
| (X) | (2-5) | (X) |
| (X) | (2-5) | (X) |
| (X) | (over 2) | (X) |
| (X) | (5-10) | (X) |
| (X) | (over 2) | (X) |
| (X) | 53,924 | (X) |
| (X) | 8,180 | (X) |
| (X) | 7,173 | (X) |
| (X) | 4,862 | (X) |
| (X) | 33,709 | (X) |
| (X) | (X) | 2,522 |
| All industries | Boat building and repairing (SIC 3732) | Other industries |
| (X) | 360,208 | ( X ) |
| 338,118 | 321,665 | 16,453 |
| 125,893 | 122,634 | 3,259 |
| 79,600 | 77,622 | 1,978 |
| 36,527 | 33,028 | 3,499 |
| 42,630 | 35,229 | 7,401 |
| 53,468 | 53,152 | 316 |
| (X) | 11,649 | (X) |
| (X) | 2,522 | (X) |
| (X) | 9,127 | (X) |
| (X) | 26,894 | (X) |
| (X) | 2,102 | (X) |
| (X) | 15,379 | (X) |
| (X) | 9,413 | (X) |
| (X) | (X) | (over 2) |

37321
37322
37323
37324
37320

37316

37324

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry:

1963-Continued


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
(NA) Not available.
(X) Not

TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


[^278]table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958--Continued


See footnotes at end of table.

## TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



# table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 



[^279]TABLE 6A-2. New and Rebuilt Passenger and Freight Train Cars Shipped by Shops of Operating Railroads: 1963 and 1958

| Product code | Product ${ }^{1}$ | Total shipments including interplant transfers |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  |  | 1958 |  |  |
|  |  | Quantity (number of units) | Weight (short tons) | Value <br> $(\$ 1,000)$ | Quantity (number of units) | Weight (short tons) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3742--- | NEW AND REBUILT ${ }^{2}$ PASSENGER AND FREIGHT TRAIN CARS, TOTAL ${ }^{3}$. <br> New passenger train cars. $\qquad$ <br> Coach (excluding coach combination). $\qquad$ <br> Other passenger train cars. $\qquad$ <br> New freight train cars. $\qquad$ | 18,255 | (x) | 178,489 | 17,401 | (X) | 152,562 |
| 37421 -- |  | (X) | (X) | (x) | - | - | - |
| 3742111 |  | (X) | (X) | $\left(\begin{array}{l}4 \\ 4 \\ 4\end{array}\right.$ | - | - | - |
| 3742198 |  | (X) | (X) | (4) | - | - | - |
| 37422 -- |  | (X) | (X) | (X) | ( X ) | (X) | (X) |
| 3742211 | Box. | 4,752 | 150,864 | 64,949 | (x) | (x) | ${ }^{5}$ ) |
| 3742215 | Flat. | 497 | 18,943 | 8,208 | 630 | 18,539 | 4,462 |
| 3742225 | Gondola......... | - | - | - | 3,257 | 91,564 | 34,779 |
| 3742231 3742233 | Hopper (covered). Hopper (uncovered) | 5,368 | 121,896 | 46,888 | 4,863 | 125,865 | 39,254 |
| 3742233 3742235 | Hopper (uncovered) | 5,368 | 121,896 | 46,888 |  |  |  |
| 3742241 | Refrigerator. | 921 | 39,627 | 19,123 |  |  |  |
| 3742245 | Caboose..................................................................... | (x) | (x) | (4) |  |  |  |
| 3742298 | Other freight train cars, including industrial rail cars not suitable for use on common carriers. | (X) | (X) | $\left.{ }^{4}\right)$ |  |  |  |
| 37423 -- | Rebuilt cars and other cars. | (X) | (X) | (X) | \} 8,651 | (NA) | 574,067 |
| 3742331 | Rebuilt passenger train cars. | (X) | (x) | (4) |  |  |  |
| 3742351 | Rebuilt freight train cars................................................ | 5,845 | $62,476$ | $30,483$ |  |  |  |
| 3742313 | Other cars, including railroad work equipment, street, subway, rapid transit, trackless trolleys, and interurban cars.......................... | 872 | (NA) | $48,838$ |  |  |  |

[^280]${ }^{2}$ A passenger and freight train car is defined as rebuilt when the cost of their dismantling, improvement and modernization is more than 50 percent of the replacement cost of a new unit of the same class and lind at the time of rebuilding. Conversions, reclassifications or units which were reconditioned by replacing defective parts are not included.
${ }^{3}$ Excludes parts for passenger and freight cars, made in railroad car shops.
4 The 1963 product codes 3742111 , $3742198,3742245,3742298$, and 3742331 are included with the figure for "Other cars" (code 3742313 ).
${ }^{5}$ The 1958 product code 3742211 is included in the figure of $\$ 74,067$ thousand.

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products, Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  | Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |  |  | Production | Unit value |
| 373-- | Ship and boat building...........1963.. | $(1)$ $(1)$ | $\left(\begin{array}{l}1 \\ (1) \\ \\ \\ \end{array}\right.$ | 374-- | Railroad equipment. .................. $1963 .$. 1958. . | 110 88 | $\begin{aligned} & 136 \\ & 121 \end{aligned}$ |
| 3731- | Shipbuilding and repairing........... 1963.. | $(1)$ $(1)$ | $\left(\begin{array}{l}1 \\ (1) \\ 1\end{array}\right.$ | 3741- | Locomotives and parts ${ }^{3}$............... $1963 .$. | $\begin{aligned} & 86 \\ & 89 \end{aligned}$ | 119 |
| 37311 | Nonpropelled ships (barges, etc.) new construction, nonmilitary... 1963.. | 141 138 | 1 84 100 | 37411 | Road service, road switching and switching type locomotives......... 1963.. | 47 79 | 120 109 |
| 37313 | Self-propelled ships-nonmilitary, new construction. ................... 1963. . | 132 194 | 81 100 | $3742-$ 37422 | Railroad and street fars ${ }^{4} \ldots \ldots . . .$. . $1963 .$. Freight train cars, new...........1963.. | $\begin{array}{r}125 \\ 87 \\ 154 \\ \hline\end{array}$ | 149 129 149 |
|  |  |  | 100 | 37422 | Freight train cars, new........... 1963. . | 154 | $\begin{aligned} & 149 \\ & 129 \end{aligned}$ |
| 3732- | Boat building and repairing ${ }^{2}$........ 1963.. | 185 | $\begin{aligned} & 114 \\ & 126 \end{aligned}$ | 3751- | Bicycles, motorcycles, motorbikes, motor scooters, and parts.............1963.. | 226 | 81 |
| 37321 | Inboard motor boats (all types).... 1963.. | 163 | 135 |  | 1958. . | 130 | 92 |
| 37322 | Outboard motor boats (all types including prefabricated kits.......1963.. | 99 423 | 128 | 379-- | $\text { Transportation equipment, n.e.c. } \begin{array}{r} 1963 . . \\ 1958 . . \end{array}$ | $(5)$ $(5)$ | $(5)$ $(5)$ |
|  | 1958. . | 523 | 130 | 3791- | Trailer coaches, housing type.........1963.. |  |  |
| 37323 | All other boats (sailboats, rowboats, canoes etc.).................. 1963.. | 233 65 | 77 117 | 3799 - | Transportation equipment, $n . e . c . . . . .1958 .$. $1958 .$. | 195 $(5)$ $(5)$ | 105 $(5)$ $(5)$ |

n.e.c. Not elsewhere classified.
${ }^{1}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.
${ }_{3}^{2}$ Adjusted to include boat repair-military and nonmilitary (product class 37324 ) as well as boat building and repairing, n.s.k.
${ }^{3}$ Adjusted to include parts for locomotives, for sale separately, and rebuilt locomotives (product class 37413), as well as mining and industrial type locomotives (product class 37412).
${ }^{4}$ Indexes exclude cars shipped by shops of operating railroads. Production indexes have been adjusted to include product class 37421 (passenger train cars, new) and product class 37423 (street cars, parts and accessories for railroad cars and street cars, and rebuilt passenger and freight train cars.
${ }^{5}$ Not shown pending further review of data covering automobile trailers, excluding housing type coaches (product class 37991 ) and selected items in product class 37992 (other transportation equipment).

# table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963 

| Code | Product class | 1963 | 1962 1 | 19611 | 19601 | 19591 | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3731- | Ship building and repairing ${ }^{2}$. | 1,518,015 | 1,400,008 | 1,360,038 | 1,215,744 | 1,447,149 | 1,467,381 | 970, 279 | 756,510 |
| 37311 | Nonpropelled ships (barges, etc.) new construction ${ }^{2}$. | 82,238 | 52,794 | 50,423 | 54, 320 | 77,050 | 95,266 | 69,138 | 25,549 |
| 37312 | Self-propelled U.S. military ships, new construction ${ }^{2}$ $\qquad$ | 681,793 | 507,283 | 500,980 | 405,978 | 563,687 | 469,965 | 296,263 | 52,168 |
| 37313 | Self-propelled nonmilitary ships, new construction ${ }^{2}$ | 242,770 | 378,539 | 329,361 | 350,587 | 378,347 | 441,220 | 227,424 | 132,009 |
| 37314 | Ship repair, U.S. military ${ }^{2}$ | 221,851 | 171,479 | 165,304 | 121,795 | 119,118 | 123,838 | 133, 315 | 48,452 |
| 37316 | Repair of nonmilitary ships ${ }^{2}$ | 277,423 | 278,764 | 296, 328 | 274,352 | 301,103 | 326,778 | 239,884 | 491,104 |
| 37310 | Ship building and repairing, n.s. | 11,940 | $(11,149)$ | $(17,642)$ | $(8,712)$ | $(7,844)$ | 10,314 | 4,255 | 7,228 |
| 3732- | Boat building and repairing. | 338,118 | 294,978 | 290,012 | 331,203 | 341,816 | 300,143 | 163,605 | 105,446 |
| $\begin{aligned} & 37321 \\ & 37322 \end{aligned}$ | Inboard motorboats (all types)............. Outboard motorboats (all types including | 125,893 | 91,539 | 87,032 | 99,914 | 87,373 | 76,095 | 60,335 |  |
|  | prefabricated kits)......................... | 79,600 | 90,870 | 102,544 | 128,684 | 134,638 | 108,360 | 15,942 | 65,279 |
| 37323 | All other boats (sailboats, rowboats, canoes, etc.). | 36,527 | (S) | (S) | (S) | (S) | 15,497 | 20,370 |  |
| 37324 | Boat repair, military and nonnilitary. | 42,630 | 53,497 | 49,266 | 46,133 | 51,071 | 55,086 | 46,722 | 30,787 |
| 37320 | Boat building and repairing | 53,468 | (S) | (S) | (S) | (S) | 45,105 | 20,236 | 9,380 |
| 3741- | Locomotives and parts. | 378,088 | 402,447 | 294,527 | 333,352 | 351,725 | 355,168 | 365,169 | 396,635 |
| 37411 | Locomotives, new, railroad, road service type and switching type. $\qquad$ | 132,699 | 194, 374 | 146,866 | 161,424 | 193,778 | 204,912 | 237,788 | 285,232 |
| 37412 | Other new locomotives, industrial and mining type.................................. | 8,715 | $(5,992)$ | $(7,714)$ | 10,349 | 11,632 | 14,796 | 14,882 | 15,511 |
| 37413 | Parts for locomotives, for sale separately, and rebuilt locomotives | 236,674 | 202,081 | 139,947 | 161,579 | 146,315 | 135,460 | 112,499 | 95,892 |
| 3742- | Railroad and street cars. | 870,972 | 647,588 | 519,507 | 752,774 | 514,616 | 528,598 | 468,233 | ${ }^{3} 713,269$ |
| $\begin{aligned} & 37421 \\ & 37422 \end{aligned}$ | Passenger train cars, new Freight train cars, new.. | $\begin{array}{r} 36,470 \\ 522,992 \end{array}$ | $\begin{array}{r} 16,561 \\ 369,570 \end{array}$ | $\begin{array}{r} 18,132 \\ 263,588 \end{array}$ | 39,253 | 12,210 | $\begin{array}{r} 11,416 \\ 4319,262 \end{array}$ | $\begin{array}{r} 96,180 \\ 4227,093 \end{array}$ | $\begin{array}{r} 377,216 \\ 3393,258 \end{array}$ |
| 37423 | Street cars and parts and accessories for railroad and street cars; rebuilt passenger and freight train cars. | 310,227 | 257,776 | 234,432 | 710,203 | 499,088 | $\left\{\begin{array}{l}17,262 \\ 496,539\end{array}\right.$ | 4144,960 | 393,258 3242,795 |
| 37420 | Railroad and street cars, n.s.k............... | 1,283 | $(3,681)$ | $(3,355)$ | $(3,318)$ | $(3,318)$ | 1,381 | , | , |
| 37510 | Bicycles, motorcycles, motorbikes, scooters and parts. | 163,355 | 142,251 | 125,975 | 123,230 | 133,639 | 105,821 | 88,340 | 158,652 |
| 37910 | Trailer coaches, housing types................ | 690,339 | 499,989 | 447,653 | 505,089 | 464,073 | 5444,782 | ${ }^{5} 216,909$ | 121,834 |
| 3799- | Transportation equipment, n.e.c. | 190,438 | 119,870 | 118,429 | 112,446 | 120,223 | 99,954 | 58,497 | 70,016 |
| 37991 | Automobile trailers, excluding housing type coaches. $\qquad$ | 67,645 | $(40,344)$ | $(26,173)$ | $(37,045)$ | $(34,804)$ | 22,653 | 14,615 | 14,016 |
| $\begin{aligned} & 37992 \\ & 37990 \end{aligned}$ | Other transportation equipment............. Transportation equipment, n.e.c., n.s.k... | 107,459 15,334 | 79,526 | 92,256 | 75,401 | 85,419 | 77,301 | 43,882 | 56,000 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
(S) Withheld because the estimate did not meet publication standards on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ Represents value of work done rather than value of shipments.
${ }^{3}$ Data include value of new and rebuili railroad cars made in railroad car shops. The 1947 total and detailed statistics include $\$ 37.9$ million of new railroad cars shipped by railroad repair shops. Value of railroad cars built by railroads for own use represent amounts at which they were written into property accounts.

4product class 37422 includes an undetermined value from product class 37423.
${ }^{5}$ Includes an undetermined dollar amount of other automobile trailers (boat, camping, commercial display, etc.).

## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.


See footnotes at end of table.

TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued
 Standard Notes: - Represents zero
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(x) Not applicable. (Z) Shipments of less than $\$ 1$ million reported.
${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 37311, Pennsylvania, Ohio, Indiana, Wisconsin, Maryland, Kentucky, Tennessee, Alabama, Oregan, Califormia; 37312, Maine, Massachusetts, Connecticut, New York, New Jersey, Illinois, Michigan, Wisconsin, Virginia, West Virginia, Alabama, Mississippi, Louisiana, Texas, Oregon, California; 37313, Massachusetts, Pennsylvania, Ohio, Maryland, Virginia, North Carolina, Florida, Alabama, Mississippi, Washington, California; 37314, Massachusetts, Connecticut, New Jersey, Pennsylvania, Maryland, North Carolina, South Carolina, Georgia, Florida, Alabama, Texas, Washington, Oregon; 37316, Ohio, Illinois, Wisconsin, Maryland, Virginia, Georgia, Kentucky, Alabama, Oregan; 37321, New Hampshire, New York, Pennsylvania, Illinois, Michigan, North Carolina, Tennessee, Louisiana, Texas, Washington; 37322, Pennsylvania, Missouri, Virginia, Arkansas; 37422, New York, New Jersey, Pennsylvania, Indiana, Illinois, Missouri, West Virginia, Kentucky, Alabama, Texas, Washington, Oregon; 37423 , New York, New Jersey, Ohio, Wisconsin, Minnesota, Missouri, Kansas, West Virginia, Alabama, Texas; 37510, Massachusetts, Connecticut, Ohio, Illinois', Wisconsin, Nebraska, Georgia, Kentucky, Tennessee, Arkansas, Utah, Califormia; 37991, New York, Maryland, Idaho, Colorado; 37992, Massachusetts, New York, New Jersey, Kentucky, Tennessee, Alabama, Arkansas, Utah.
${ }^{2}$ Represents value of work done.
${ }^{3}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.
table 7A. Materials by Kind: 1963 and 1958


See footnotes at end of table.
table 7A. Materials by Kind: 1963 and 1958-Continued

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Code} \& \multirow[b]{2}{*}{Material.} \& \multirow[b]{2}{*}{Unit of measure} \& \multicolumn{2}{|c|}{1963} \& \multicolumn{2}{|c|}{1958} \& \multicolumn{2}{|c|}{1963} \& \multicolumn{2}{|c|}{1958} \\
\hline \& \& \& Quantity \& \begin{tabular}{l}
Delivered cost \\
\((\$ 1,000)\)
\end{tabular} \& Quantity \& \begin{tabular}{l}
Delivered cost \\
\((\$ 1,000)\)
\end{tabular} \& Quantity \& \begin{tabular}{l}
Delivered cost \\
\((\$ 1,000)\)
\end{tabular} \& Quantity \& \begin{tabular}{l}
Delivered cost \\
\((\$ 1,000)\)
\end{tabular} \\
\hline \multirow[b]{8}{*}{\[
\begin{aligned}
\& 331011 \\
\& 331012 \\
\& 331013 \\
\& 331015 \\
\& 331017 \\
\& 331019
\end{aligned}
\]} \& \multirow[b]{8}{*}{\begin{tabular}{l}
Materials, parts, containers, and supplies, total.......................... \\
Mill shapes and forms (except castings): \\
Carbon steel: \\
Bars and bar shapes......... \\
Sheet and strip............... \\
Plates........................... \\
Structural shapes............ \\
Wire and wire products..... \\
All other carbon steel mill \\
shapes and forms...........
\end{tabular}} \& \multirow[b]{8}{*}{Snort tons..
...do.......
\(\ldots\) do......
\(\ldots\) do.......
\(\ldots\).............} \& \multicolumn{4}{|l|}{INDUSTRY 3741.-LOCOMOTIVES AND PARTS} \& \multicolumn{4}{|l|}{INDUSTRY 3742.-RAILROAD AND STREET CARS} \\
\hline \& \& \& \multirow{7}{*}{(X)

11,054
28,785
58,653
17,962} \& \multirow[t]{2}{*}{233,289} \& \multirow[t]{2}{*}{(X)} \& \multirow[t]{2}{*}{205,480} \& \multirow[t]{2}{*}{(X)} \& \multirow[t]{2}{*}{575,511} \& \multirow[t]{2}{*}{(X)} \& \multirow[t]{2}{*}{301,258} <br>
\hline \& \& \& \& \& \& \& \& \& \& <br>
\hline \& \& \& \& 1,860 \& 10,616
17,944 \& 1,746 \& 159,902
225,927 \& 23,747
32,435 \& 48,230
75,030 \& 6,764
11,139 <br>
\hline \& \& \& \& 8,485 \& 44,242 \& 5,813 \& 554,031 \& 83,698 \& 294,296 \& 38,854 <br>
\hline \& \& \& \& \& [ 13,001 \& 1,785 \& 236,559 \& 34,469 \& 113,708 \& 15,907 <br>
\hline \& \& \& \& 2,459 \& \{ \} 9,888 \& \& 1 1,495 \& 489 \& 657 \& 232 <br>
\hline \& \& \& \& \& (\} 9,888 \& 2,475 \& $\left\{\begin{array}{l}\text { 62,858 }\end{array}\right.$ \& 13,465 \& 45,728 \& 10,120 <br>

\hline $$
\begin{aligned}
& 331020 \\
& 331031
\end{aligned}
$$ \& Alloy steel (except stainless). Stainless steel \& \[

$$
\begin{aligned}
& \text {.do......... } \\
& \text {.do........ }
\end{aligned}
$$
\] \& 1,788 \& 953 \& $\left\{\begin{array}{r}1,362 \\ 406\end{array}\right.$ \& 420

591 \& 19,545
1,641 \& 3,955
1,845 \& 5,057
408 \& 974
579 <br>
\hline \& Copper and copper-base alloy: \& \& \& \& \& \& \& \& \& <br>
\hline 335728 \& Bare wire (for electrical conduction only)........... \& 1,000 lbs... \& (D) \& (D) \& 2,087 \& 916 \& (D) \& (D) \& \& <br>
\hline 335790 \& Insulated wire and cable... \& 1,000 lbs. (copper \& \& \& \& \& \& \& \& <br>
\hline \& \& content)... \& (D) \& (D) \& 4,491 \& 2,985 \& (D) \& (D) \& \& <br>
\hline 335102 \& Rod, bar and mechanical wire, including extruded and/or drawn shapes....... \& 1,000 lbs... \& (D) \& (D) \& \& \& (D) \& (D) \& 188 \& 124 <br>
\hline 335123

335127 \& | Plate, sheet, and strip, (including military cups and discs) $\qquad$ |
| :--- |
| Pipe and tube $\qquad$ | \& ...do....... \& (D) \& (D) \& \} 6,014 \& 3,502 \& $\left\{\begin{array}{l}\text { (D) } \\ \text { (D) }\end{array}\right.$ \& (D) \& \& <br>

\hline \[
$$
\begin{aligned}
& 335202 \\
& 335205 \\
& 335209
\end{aligned}
$$

\] \& | Aluminum and aluminum-base alloy: |
| :--- |
| Sheet, plate and foil...... |
| Extruded shapes.............. |
| All other aluminum mill shapes and forms. | \& do \& 535 \& 296 \& 379 \& 156 \& $\left\{\begin{array}{l}6,337 \\ 4,344\end{array}\right.$ \& 5,938

2,633 \& 4,228
201 \& 2,312
159 <br>
\hline 331051 \& Pig iron.......................... \& Short tons.. \& (D) \& (D) \& (NA) \& (NA) \& (D) \& (D) \& 13,956 \& 849 <br>

\hline 999811 \& Iron and steel scrap........... \& ...do....... \& - \& - \& (NA) \& (NA) \& $$
35,721
$$ \& 865 \& 25,815 \& 921 <br>

\hline \& Castings (rough and semifinished): \& \& \& \& \& \& \& \& \& <br>
\hline 332011
332300 \& Iron (gray and malleable) ${ }^{1}$... \& ...do....... \& \& \& 14,468
17,583 \& 7,905
9,802 \& 71,640
95,809 \& 30,133
40,426 \& 22,188
76,390 \& 10,268
27,064 <br>

\hline 332300 \& Steel ${ }^{1}$. \& \& (D) \& (D) \& 17,583 \& 9,802 \& 95,809 \& 40,426 \& 76,390 \& $$
27,064
$$ <br>

\hline 336100 \& | Aluminum and aluminum-base |
| :--- |
|  | \& 1,000 lbs... \& (D) \& (D) \& 934 \& 992 \& (D) \& (D) \& 444 \& 382 <br>

\hline 339100 \& Iron and steel forgings ${ }^{1}$....... \& Short tons.. \& (D) \& (D) \& 13,185 \& 5,355 \& 21,179 \& 7,891 \& 53,359 \& 14,632 <br>
\hline 351920 \& Diesel and semidiesel engines ${ }^{1}$ \& Number...... \& (D) \& (D) \& 431 \& 12,726 \& (D) \& (D) \& (NA) \& (NA) <br>
\hline 362120 \& Integral horsepower electric motors and generators ( 1 hp . and over $)^{1}$.......................... \& do \& (D) \& (D) \& 4,000 \& 20,196 \& (D) \& (D) \& (NA) \& (NA) <br>

\hline $$
\begin{aligned}
& 356218 \\
& 356228
\end{aligned}
$$ \& Bearings:

$\quad$ Ball..............................
-Roller............................ \&  \& (X) \& (D) \& (X) \& 2,887 \& (X) \& 15,168 \& (X) \& 3,221 <br>
\hline 970099 \& All other materials and components, parts, containers, and supplies consumed.......... \& \& (X) \& 213,117 \& (X) \& 103,432 \& (X) \& 270,791 \& (X) \& 154,968 <br>
\hline 976000 \& Materials, parts, containers, and supplies, n.s.k. ${ }^{2}$.......... \& \& (X) \& 1,301 \& (X) \& 18,842 \& (x) \& 7,563 \& (X) \& 1,789 <br>
\hline
\end{tabular}

See footnotes at end of table.

## TABLE 7A. Materials by Kind: 1963 and 1958-Continued



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## table 7A. Materials by Kind: 1963 and 1958-Continued



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
n.e.c. Not elsewhere classified. n.s.k. Not specified by kind
${ }^{1}$ In addition materials listed below were produced and incorporated into products at the same establishment:

| Code | Item | $\begin{gathered} \text { Unit } \\ \text { of } \\ \text { measure } \end{gathered}$ | $\begin{gathered} \text { Industry } \\ 3731 \end{gathered}$ |  | $\begin{gathered} \text { Industry } \\ 3732 \end{gathered}$ |  | $\begin{gathered} \text { Tndustry } \\ 3741 \end{gathered}$ |  | $\begin{gathered} \text { Industry } \\ 3742 \end{gathered}$ |  | $\begin{gathered} \text { Industry } \\ 3791 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 | 1958 | 1963 | 1958 | 1963 | 1958 | 1963 | 1958 | 1963 | 1958 |
|  | Castings (rough and semifinished): |  |  |  |  |  |  |  |  |  |  |  |
| 332011 | Iron (gray and malleable)...... | Short tons... | (NA) | (NA) | ( X ) | (NA) | (NA) |  |  | (D) | (X) |  |
| 332300 | Steel............................ | . . .do. | (D) | 3,819 | - | (NA) | (NA) | (D) | (D) | (D) | - | (D) |
| 336100 | Aluninum and aluminum-base <br> alloy. | 1,000 lb | (NA) | (NA) |  | (NA) | (NA) | (D) | (D) | (D) |  | (D) |
| 336200 | Copper and copper-base alloy... | ...do........ |  | 1,131 |  | (NA) | (X) | (D) | (X) | (D) | (X) | (X) |
| 339100 | Irori and steel forgings. | Short tons... | (NA) | (NA) | (x) | (NA) | (NA) | (NA) | (D) | (NA) | (x) | (x) |
| 351920 | Diesel and semidiesel engines... | Number | (NA) | (NA) | (NA) | (NA) | (NA) | (D) | (NA) | (NA) | ( X ) | (X) |
| 351901 | Gasoline and other carburetor engines |  | (NA) | (NA) | (D) | 1,368 | (X) | (X) | (X) | (X) | (X) | (X) |
| 362120 | Integral horsepower electric |  |  |  |  |  |  |  |  |  |  |  |
|  | over) | . . .do........ | (NA) | (NA) | (NA) | (NA) | (NA) | (D) | (NA) | (NA) | (X) | (x) |

${ }^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials an "standard forms."

## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Ship building and repairing (SIC 3731) | Boat building and repairing (SIC 3732) | Locomotive and parts (SIC 3741) | Railroad and street cars (SIC 3742) | Motorcycles, bicycles, and parts (SIC 3751) | Trailer coaches (SIC 3791) | Transportation equipment, n.e.c. (SIC 3799) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy........ $\$ 1,000 .$. | 17,067 | 2,998 | 2,562 | 6,569 | 1,374 | 1.813 | 962 |
| Total cost of purchased fuels. . . . . . . . . . . . . . . . . . . . . . . do | 6,021 | 1,163 | 1,284 | 3,611 | 617 | 894 | 384 |
| Bituminous coal, lignite, and anthracite: <br> Quantity.............................................. . 1,000 short tons.. | 62 | 19 | 141 | 1.37 | (S) | (S) | (S) |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1.000 .0$. | 604 | 111 | 811 | 946 | (S) | (S) | (S) |
| Coke and breeze: <br> Quantity 1,000 short tons. | 3 | - | - | (S) | $-$ | - | - |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 65 | - | - | (S) | - | - | - |
| Fuel oil (distillate and residual): <br> Quantity. ........................... 1,000 barrels of 42 gallons.. | 906 | 55 | 108 | 251 | 29 | (S) | 14 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 2,655 | 279 | 287 | 1,060 | 117 | (S) | 71 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |  |
| Quantity......................................................... Cost. ............. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. | 1,974 1,682 | 475 291 | 263 185 | $\begin{aligned} & 2,605 \\ & 1,304 \end{aligned}$ | 4217 | 372 213 | 115 |
| Other fuels. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 1,015 | 482 | (S) | 184 | (S) | 219 | 70 |
| Electric energy: Purchased: |  |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million kw. -hrs. . | 949 | 94 | 120 | 232 | 65 | 45 | 29 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 11,046 | 1,835 | 1,278 | 2,958 | 757 | 919 | 578 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . . million kw. -hrs.. | 17 | - | 83 | 18 | - | - | - |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total.........l, $000 \mathrm{hp}$. . | 981 | 77 | 120 | 379 | 55 | - | - |
| Prime movers, total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 195 | 15 | 36 | 68 | 3 | - | - |
| Driving generators..................... . . . . . . . . . . . . . . . .do. . . . | 55 | 4 | 27 | 18 | - | - | - |
| Not driving generators. . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 140 | 11 | 9 | 50 | 3 | - | - |
| Electric motors, total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 796 | 62 | 164 | 333 | 53 | - | - |
| Driven by purchased energy. . . . . . . . . . . . . . . . . . . . . . . . . . .do. | 786 | 62 | 84 | 311 | 53 | - | - |
| Aggregate horsepower per 100 production workers. | 1,043 | 409 | 1,123 | 1,814 | 752 | - | - |

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 "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
(Z) Less than 500 horsepower.
(S) Witheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated
 consistency review.

## table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to totai product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for estabishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


See footnotes at end of table.

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| Industry <br> or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3742- | RAILROAD AND STREET CARS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. $\qquad$ Establishments with- | 78 | 30,742 | 201,999 | 24,254 | 47,246 | 150,135 | 355,230 | 591,023 | 927,184 | 10,877 |
|  | $90 \%$ or more specialization. | 62 | 22,741 | 149,482 | 18,427 | 36,152 | 114,988 | 267,335 | 448,979 | 704,446 | 9,193 |
| 37422 | Freight train cars, new (primary product class of estab.)......... Establishments with- | 24 | 17,252 | 111,780 | 14,251 | 27,684 | 38,862 | 201,881 | 441,819 | 593,657 | 5,423 |
|  | 90\% or more specialization... | 14 | 11,322 | 74,606 | 9,594 | 19,262 | 61,385 | 138,305 | 264,576 | 389,852 | 4,055 |
| 3751- | MOTORCYCLES, BICYCLES, AND PARTS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................. <br> Establishments with - | 88 | 9,662 | 48,425 | 7,912 | 15,152 | 34,398 | 82,245 | 112,157 | 192,851 | 3,152 |
|  | 90\% or more specialization. 75-89\% specialization...... | 73 5 | $\begin{array}{r} 5,470 \\ 998 \end{array}$ | $\begin{array}{r} 28,376 \\ 4,860 \end{array}$ | $\begin{array}{r} 4,298 \\ 783 \end{array}$ | $\begin{aligned} & 8,325 \\ & 1,449 \end{aligned}$ | $\begin{array}{r} 20,029 \\ 3,355 \end{array}$ | $\begin{array}{r} 43,916 \\ 8,587 \end{array}$ | $\begin{aligned} & 58,349 \\ & 13,585 \end{aligned}$ | $\begin{array}{r} 102,190 \\ 22,110 \end{array}$ | $\begin{array}{r} 1,896 \\ 99 \end{array}$ |
| 3799- | TRANSPORTATION EQUIPMENT, NoE.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................ <br> Establishments with- | 522 | 8,032 | 37,547 | 6,652 | 13,183 | 27,788 | 68,823 | 99,379 | 167,375 | 3,710 |
|  | 90\% or more specialization. 75-89\% specialization...... | $\begin{array}{r} 457 \\ 14 \end{array}$ | $\begin{array}{r} 5,801 \\ 648 \end{array}$ | $\begin{array}{r} 26,234 \\ 3,341 \end{array}$ | $\begin{array}{r} 4,799 \\ 533 \end{array}$ | $\begin{aligned} & 9,521 \\ & 1,132 \end{aligned}$ | $\begin{array}{r} 19,700 \\ 2,246 \end{array}$ | $\begin{array}{r} 47,986 \\ 4,962 \end{array}$ | $\begin{array}{r} 73,994 \\ 6,957 \end{array}$ | $\begin{array}{r} 121,568 \\ 11,694 \end{array}$ | $\begin{array}{r} 2,867 \\ 197 \end{array}$ |
| 37991 | Automobile trailers, excluding housing type coaches (primary product class of estab.)......... Establishments with- | 80 | 2,874 | 14,293 | 2,440 | 4,878 | 10,949 | 26,283 | 42,572 | 68,803 | 1,391 |
|  | $90 \%$ or more specialization... <br> 75-89\% specialization. ........ | $\begin{array}{r} 63 \\ 7 \end{array}$ | $\begin{array}{r} 1,995 \\ 383 \end{array}$ | $\begin{aligned} & 9,947 \\ & 1,859 \end{aligned}$ | $\begin{array}{r} 1,709 \\ 314 \end{array}$ | 3,407 659 | $\begin{aligned} & 7,817 \\ & 1,260 \end{aligned}$ | $\begin{array}{r} 17,695 \\ 2,735 \end{array}$ | $\begin{array}{r} 31,911 \\ 4,004 \end{array}$ | $\begin{array}{r} 49,701 \\ 6,602 \end{array}$ | $\begin{array}{r} 1,067 \\ 164 \end{array}$ |
| 37992 | ```Other transportation equipment (primary product class of estab.). Establishments with-``` | 197 | .3,857 | 18,781 | 3,110 | 6,200 | 13,189 | 35,474 | 45,142 | 79,969 | 1,575 |
|  | 90\% or more specialization... <br> 75-89\% specialization......... | $\begin{array}{r} 158 \\ 12 \end{array}$ | $\begin{array}{r} 2,391 \\ 283 \end{array}$ | $\begin{array}{r} 11,558 \\ 1,459 \end{array}$ | $\begin{array}{r} 1,901 \\ 238 \end{array}$ | $\begin{array}{r} 3,847 \\ 460 \end{array}$ | $\begin{array}{r} 8,116 \\ 951 \end{array}$ | $\begin{array}{r} 22,312 \\ 2,320 \end{array}$ | $\begin{array}{r} 29,948 \\ 3,317 \end{array}$ | $\begin{array}{r} 51,890 \\ 5,567 \end{array}$ | $\begin{array}{r} 1,117 \\ 42 \end{array}$ |

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## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | 20 or more |  | 1 to 4 | 5 to 19 | 20 or more |
|  | INDUSTRY 3731. - SHIP BUILDING AND REPAIRING |  |  |  |  |  |  |  |
| Ferrous foundry. | 3 | 2 |  |  | (D) | (D) | - | (D) |
| Nonferrous foundry (except die casting)............. | 6 | - | 3 | 3 | 229 | - | 22 | 207 |
| Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.)....................... | 24 | 18 | 4 | 2 | 124 | 36 | (D) | (D) |
| Heat treating of metals. . . . . . . . . . . . . . . . . . . . . . . . . . | 24 | 15 | 7 | 2 | 877 | (D) | (D) | (D) |
| Machine shop..... | 138 | 48 | 47 | 43 | 4,827 | 73 | 492 | 4,262 |
| Tool and die shop. | 13 | 7 | 4 | 2 | 156 | 13 | (D) | (D) |
| Foundry pattern shop. | 16 | 9 | 5 | 2 | 101 | 9 | (D) | (D) |
| Plate or structural fabrication. | 107 | 25 | 20 | 62 | 13,403 | 45 | 225 | 13,133 |
| Stamping, blanking and forming of metals.... | 19 | 9 | 5 | 5 | 793 | 12 | 42 | 739 |
| Painting, lacquering and enameling on metals. | 78 | 28 | 24 | 26 | 2,413 | 44 | 232 | 2,137 |
| Plastics molding........... | 6 | 1 | 4 | 1 | 45 | (D) | (D) | (D) |
|  | INDUSTRY 3732. -BOAT BUILDING AND REPATRING |  |  |  |  |  |  |  |
| Ferrous foundry. | - | - | - | - | - | - | - | - |
| Nonferrous foundry (except die casting)............. | 2 | 1 | 1 | - | (D) | (D) | (D) | - |
| Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.)..................... | 4 | 3 | 1 | - | 12 | (D) | (D) | - |
| Heat treating of metals............................... . | 4 | 4 |  | - | 6 | 6 | - | - |
| Machine shop........ | 98 | 68 | 25 | 5 | 459 | 124 | 180 | 155 |
| Tool and die shop. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 11 | 8 | 2 | 1 | 74 | 14 | (D) | (D) |
| Foundry pattern shop. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 18 | 17 | 1 | - | 35 | (D) | (D) | - |
| Plate or structural fabrication....................... | 48 | 31 | 12 | 5 | 365 | 71 | 113 | 181 |
| Stamping, blanking and forming of metals........... | 28 | 20 | 6 | 2 | 246 | 50 | (D) | (D) |
| Painting, lacquering and enameling on metals........ | 71 | 54 | 13 | 4 | 329 | 103 | 119 | 107 |
| Plastics molding............ | 49 | 15 | 19 | 15 | 992 | 30 | 193 | 769 |
|  | INDUSTRY 3741. -LOCOMOTIVES AND PARTS |  |  |  |  |  |  |  |
| Ferrous foundry.......................................... | - | - | - | - | - | - | - | - |
| Nonferrous foundry (except die casting)............. | - | - | - | - | - | - | - | - |
| Forging--presses, hamers, or upsetters (excluding manufacture of nuts, bolts, etc.)....................... | - | - | - | - | - | - | - | - |
| Automatic screw machine department. . . . . . . . . . . . . . . . | 2 | - | 2 | - | (D) | - | (D) | - |
| Machine shop........................................................ | 10 | 3 | 1 | 6 | 2,014 | (D) | (D) | 1,999 |
| Tool and die shop........ . . . . . . . . . . . . . . . . . . . . . . . . | 5 | - | 1 | 4 | 452 | - | (D) | (D) |
| Plate or structural fabrication....................... | 5 | 1 | - | 4 | 1,581 | (D) | - | (D) |
| Stamping, blanking and forming of metals........... | 7 | - | 3 | 4 | 275 | - | 29 | 246 |
| Painting, lacquering and enameling on metals........ | 7 | 4 | - | 3 | 170 | 5 | - | 165 |
| Assembly of product. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 11 | 4 | 3 | 4 | 1,855 | 11 | 33 | 1,811 |
|  | INDUSTRY 3742. -RAILROAD AND STREET CARS |  |  |  |  |  |  |  |
| Ferrous foundry. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 4 | - | - | 4 | 864 | - | - | 864 |
| Nonferrous foundry (except die casting)............. | 1 | - | - | 1 | (D) | - | - | (D) |
| Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.)...................... | 23 | 2 | 13 | 8 | 596 | (D) | (D) | 434 |
| Automatic screw machine department. . . . . . . . . . . . . . . . | 3 | - | 1 | 2 | 56 | - | (D) | (D) |
| Machine shop............. | 34 | 8 | 11 | 15 | 2,332 | 20 | 131 | 2,181 |
|  | 23 | 5 | 11 | 7 | 510 | 12 | 132 | 366 |
| Plate or structural fabrication........................ | 33 | 3 | 4 | 26 | 3,233 | 2 | 33 | 3,198 |
| Starming, blanking and forming of metals........... | 31 | 5 | 11 | 15 | 1,317 | 8 | 130 | 1,179 |
| Painting, lacquering and enameling on metals........ | 37 | 15 | 7 | 15 | 1,330 | 25 | 72 | 1,233 |
| Assembly of product. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 40 | 5 | 9 | 26 | 8,225 | 8 | 101 | 8,116 |
|  | INDASTRY 3751. -MOTORCYCLES, BICYCLES AND PARTS |  |  |  |  |  |  |  |
| Electroplating and other plating. | 11 | 1 | 5 | 5 | 279 | (D) |  | 243 |
| Automatic screw machine department........................ | 7 | 2 | 2 | 3 | 124 | (D) | (D) | 98 |
| Machine shop. . . . . . . . . . | 17 | 6 | 8 | 3 | 429 | 13 | 88 | 328 |
| Tool and die shop....... | 14 | 6 | 5 | 3 | 256 | 10 | 56 | 190 |
| Stanping, blanking and forming of metals............ | 24 | 5 | 6 | 13 | 871 | 7 | 66 | 798 |
| Painting, lacquering and enameling on metals........ | 26 | 11 | 9 | 6 | 482 | 21 | 93 | 368 |
| Assembly of product. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 28 | 4 | 7 | 17 | 1,614 | 7 | 49 | 1,558 |

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963-Continued

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{\text {² }}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
| Ferrous foundry. <br> Nonferrous foundry (except die casting). Nonferrous die casting. <br> Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.). <br> Electroplating and other plating. <br> Galvanizing and other hot dip coating. <br> Heat treating of metals <br> ............ <br> Automatic screw machine department. <br> Machine shop. <br> Tool and die shop <br> Foundry pattern shop.... <br> Plate or structural fabrication. <br> Staming, blanking and forming of metals. <br> Painting, lacquering and enameling on metals <br> Assembly of product. | INDUSTRY 3791. -TRAILER COACHES |  |  |  |  |  |  |  |
|  | 2 | 2 | - | - | - | - | - | - |
|  | 1 | 1 | - | - | (D) | (D) | - | - |
|  | - |  |  | - | - | - | - | - |
|  | - | - |  | - | - | - | - | - |
|  | - | - | - | - | - | - | - | - |
|  | - | - | - | - | - | - | - | - |
|  | - | - | - | - | - | - | - | - |
|  | - | - | - | - | (D) | ${ }^{-}$ | - | - |
|  | 2 | 2 |  | - | (D) | (D) | - | - |
|  | 1 | 1 | - | - | (D) | (D) | - | - |
|  | 1 | 1 | - | - | (D) | (D) | (D) | (D) |
|  | 20 | 11 | 8 | 1 | 133 | 30 | (D) | (D) |
|  | 34 | 17 | 15 | 2 | 443 | 29 | (D) | (D) |
|  | 43 | 35 | 7 | 1 | 378 | 60 | (D) | (D) |
|  | 110 | 33 | 16 | 61 | 5,873 | 39 | 161 | 5,673 |
|  | INDUSTRY 3799.-TRANSPORTATION EQUIPMENT, N.E.C. |  |  |  |  |  |  |  |
| Ferrous foundry........................................... | - | - | - | - | - | - | - | - |
| Nonferrous foundry (except die dasting)................ <br> Nonferrous die casting.......................................... | - | - | - | - | - | - | - | - |
|  | - | - | - | - | - | - | - | - |
| Forging--presses, hammers, or upsetters (excluding manufacture of nuts, bolts, etc.)....................... | - | - | - | - | - | - | - | - |
| Electroplating and other plating....................... | 1 | 1 | - | - | (D) | (D) | - | - |
| Galvanizing and other hot dip coating. Heat treating of metals. | - | - | - | - | ) | - | - | - |
|  | - | - | - | - | - | - | - | - |
| Heat treating of metals................................ ${ }^{\text {a }}$. Automatic screw machine department. . . . . . . . | 5 | 4 | 1 | - | 12 | (D) | (D) | - |
| Automatic screw machine department...................... Machine shop....................................... | 46 | 30 | 12 | 4 | 307 | 54 | 90 | 163 |
| Machine shop <br> Tool and die shop. | 25 | 18 | 6 | 1 | 112 | 31 | 56 | 25 |
| Foundry pattern shop............. | 1 | 1 | - | - | (D) | (D) | - | - |
|  | $5{ }^{-}$ | - | - | - | ${ }_{572}$ | - | - | - |
| Stamping, blanking and forming of metals............... Painting, lacquering and enameling on metals.......... | 58 | 31 | 14 | 13 | 572 | 54 | 113 | 405 |
|  | 81 | 67 | 13 | 1 | 243 | 101 | (D) | (D) |
| Assembly of product. . . . . . . . . . . . . . . . . . . . . . . . . . . .Shipping department, including packing and crating. | 91 | 34 | 32 | 25 | 1,391 | 67 | 280 | 1,044 |
|  | 1 | - | 1 | - | (D) | - | (D) | - |

Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments


| Item | Industry |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3731 | 3732 | 3741 | 3742 | 3751 | 3791 | 3799 |
| Total number of establishments in the industry. | 334 | 1,626 | 24 | 78 | 88 | 413 | 522 |
| Number of establishments which reported one or more of the specified operations. | 175 | 233 | 17 | 52 | 33 | 147 | 117 |
| Percent of industry production workers in these establishments...... | 85-90 | 50-55 | 95-100 | 95-100 | 90-95 | 60-65 | 50-55 |
| Number of establishments which reported "none" of the operations apply | 48 | 139 | 0 | 6 | 4 | 80 | 24 |
| Percent of industry production workers in these establishments..... | 0-5 | 10-15 | 0 | 0-5 | 0-5 | 20-25 | 5-10 |
| Percent of industry production workers in establishments which completed the metalworking operations inquiry................................... | 90-95 | 65-70 | 95-100 | 95-100 | 90-95 | 80-85 | 60-65 |

Standard Notes: - Represents zero
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment

# Instruments and Related Products 

38A. Instruments; surgical, dental and ophthalmic goods<br>38B Photogranhic equipment; clocks, watch and watchcases

This major group covers establishments primarily engaged in manufacturing mechanical measuring, engineering, laboratory, and scientific research instruments; optical instruments and lenses; surgical, medical, and dental instruments, equipment and supplies; ophthalmic goods; photographic equipment and supplies; and, watches and clocks. Dental laboratories making dentures and artificial teeth to order for the dental profession, and establishments grinding ophthalmic lenses on an individual prescription basis, are classified in trade industries.

During the period 1958 to 1963, reports received from some large establishments indicated a change from the manufacture primarily of such individual instruments as those used for indicating air speed, rate-of-climi, angle-of-yaw and similar flight characteristics, and gyroscopes which are sold separately, to the manufacture primarily of complete instrumentation systems for navigation, guidance, check-out, etc. The major impact of this change has been on the classification of products and, consequently, the SIC coding of these large establishments. This change in reporting was brought to light by the initiation, by the Census Bureau, of detailed commodity surveys in the fields of electronic products and instrumentation. The electronic and associated products report (MA36 N ) was started covering the year 1961 and the instruments series (MA-38B) was broadened for 1963 to encompass most types of instruments
following an introductory report for 1961 and 1962 covering industrial process instruments and test and measuring equipment. Annual statistics from both reports are published in the Current Industrial Reports Series.

In both the 1958 Census of Manufactures and the Annual Survey of Manufactures from 1959 through 1962, the classification of systems was not sufficiently spelled out in the product inquiries of these programs, especially at the 5 -digit product class level. However, with the introduction, in the MA-36N and MA-38B surveys, of detailed 7 -digit product information which itself is used to build up to broader 5-digit product class totals, these totals, although they should be the same as those reported on Form MA-100 (Annual Survey of Manufactures), have differed. The respondents affected have identified the proportion of earlier years' output which consisted of systems rather than instruments as such, which was the manner in which the items were originally reported.

In view of the above, the annual data for 19581962 have been revised. Because of the shift in recent years from instruments which are classified in industry 3811 to complete systems which are classified in industry 3662 , the year-to-year changes are of dubious validity for the industries considered separately. The two industries taken in combination however, would yield significant measures of activity in the general area.

table 1. General Statistics: 1963 and Earlier Years

| Year and item | Establishments |  | All employees ${ }^{1}$ |  | Production workers |  |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials ${ }^{3}$$(\$ 1,000)$ |  | Value of shipments ${ }^{3}$$(\$ 1,000)$ |  | $\begin{gathered} \begin{array}{c} \text { Capital } \\ \text { expenditures, } \\ \text { new } \end{array}{ }^{4} \\ (\$ 1,000) \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> (number) | with 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours $(1,000)$ |  | Wages $(\$ 1,000)$ |  |  |  |  |  |  |
| ALL MANUFACTURING ESTABLISHMENTS, TOTAL: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 . . . . | 4028 | 1391 | 316443 | 2010423 | 208448 | 416555 | 1 | 100718 | 3922131 |  | 171108 |  | 117889 | 191865 |
| $1958{ }^{\text {. - . }}$ | 3584 | 1225 | 293787 | 1564037 | 197985 | 389569 |  | 897467 | 2781017 |  | (NA) |  | 418690 | 114608 |
| $1954{ }^{5}$. - | (NA) | ( NA) | 277895 | 1234016 | 195597 | 391403 |  | 759459 | 2130958 |  | (NA) |  | ( NA) | 94008 |
| ADMINISTRATIVE AND AUXILIARY UNITS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1963{ }^{6}$. . . | 79 | 48 | 10991 | 97951 | (x) | (x) |  | (x) | (x) |  | $(x)$ |  | (x) | ( $x$ ) |
| $1958^{6}$. | 66 | 36 | 7436 | 54512 | (x) | (x) |  | $(x)$ | (x) |  | $(x)$ |  | $(x)$ | $(x)$ |
| $1954^{6}$. | (NA) | (NA) | 5309 | 33694 | (x) | (x) |  | $(x)$ | (x) |  | (x) |  | (x) | $(x)$ |
| OPERATING MANUFACTURING ESTABLISHMENTS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. . . . | 3949 | 1343 | 305452 | 1912472 | 208448 | 416555 | 1 | 100718 | 3992131 | 2 | 171108 |  | 117889 | 191865 |
| 1958 . | 3518 | 1189 | 286351 | 1509525 | 197985 | 389569 |  | 897467 | $\begin{array}{llll}2 & 781 & 017\end{array}$ |  | (NA) |  | 418690 | 114608 |
| 1954 - | 3141 | 984 | 272586 | 1200322 | 195597 | 391403 |  | 759459 | 2130958 |  | (NA) |  | (NA) | 94008 |
| OPERATING MANUFACTURING ESTABLI SHMENTS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1962^{7}{ }^{8}$. . . . | (NA) | (NA) | 308487 | 1871008 | 206383 | 415611 | 1 | 051413 | 3690006 |  | 049916 |  | 674315 | 177604 |
| $1961{ }^{7} 8$. | (NA) | (NA) | 316330 | 1908435 | 208233 | 415140 | 1 | 036799 | 3573976 |  | 054969 |  | 607429 | 178665 |
| $1960{ }^{7}$. | (NA) | (NA) | 325576 | 1907606 | 217964 | 437056 | 1 | 066704 | 3641114 |  | (NA) |  | (NA) | 162359 |
| $19597^{8}$. | (NA) | (NA) | 310534 | 1782725 | 214415 | 432421 | 1 | 032504 | 3410054 |  | (NA) |  | (NA) | 144976 |
| $1957{ }^{8}$. | (NA) | (NA) | 307207 | 1570906 | 211968 | 428000 |  | 946647 | 2872262 |  | (NA) |  | (NA) | 145691 |
| $1956{ }^{8}$. | (NA) | (NA) | 296701 | 1458264 | 211135 | 426332 |  | 896525 | 2690477 |  | ( NA) |  | (NA) | 145053 |
| $1955{ }^{8}$. | (NA) | (NA) | 282697 | 1295200 | 202447 | 406402 |  | 813731 | 2366783 |  | (NA) |  | (NA) | 106402 |
| $1953^{8}$. . . . . . . | ( NA) | (NA) | 285469 | 1232467 | 212102 | 433752 |  | 823564 | $\begin{array}{llll}2 & 169 & 354\end{array}$ |  | (NA) |  | (NA) | 90272 |
| $1952^{8}$. . . . . . . . . . . | (NA) | (NA) | 278531 | 1179955 | 205384 | 420014 |  | 778584 | 1994805 |  | (NA) |  | (NA) | (NA) |
| $1951^{8} 8^{\circ}$. . . . . . . . . | 2686 | (NA) | 253081 | 1001301 | 189659 | 389773 |  | 670732 | 1608236 |  | (NA) |  | (NA) | 85004 |
| $1950{ }^{8}$. . . . . . . . . . . | 2697 | (NA) | 226375 | 812468 | 169447 | 341716 |  | 531761 | 1388930 |  | ( NA) |  | (NA) | 64446 |
| $1949{ }^{\text {8 }}$. . . . . . . . . . | (NA) | (NA) | 204823 | 682733 | 156221 | 305469 |  | 447118 | 1122649 |  | (NA) |  | (NA) | 57944 |
| $1947{ }^{5}$. | 2605 | (NA) | 244872 | 706055 | 194303 | 389940 |  | 502168 | 1140499 |  | (NA) |  | (NA) | 56000 |
| $19399^{\circ}{ }^{\circ}$ | 1292 | (NA) | (NA) | (NA) | 84867 | (NA) |  | 107704 | - 333409 |  | (NA) |  | (NA) | (NA) |
| $1937{ }^{10}$ | 1026 | (NA) | (NA) | (NA) | 83814 | (NA) |  | 112732 | 298304 |  | (NA) |  | ( NA) | (NA) |
| $1935{ }^{17}$ | 1000 | (NA) | 83744 | 108306 | 67530 | (NA) |  | 74242 | 200113 |  | (NA) |  | ( NA) | ( NA) |
| 1933 | 830 | (NA) | ( NA) | (NA) | 49564 | (NA) |  | 46219 | 142434 |  | (NA) |  | (NA) | (NA) |
| $1931{ }_{12}$ | 1029 | (NA) | (NA) | (NA) | 59892 | (NA) |  | 66423 | 200739 |  | (NA) |  | (NA) | (NA) |
| $1929{ }^{12}$ | 1109 | (NA) | 98061 | 148996 | 81905 | (NA) |  | 107890 | 300866 |  | (NA) |  | (NA) | (NA) |
| 1927 | 1108 | (NA) | ( NA) | (NA) | 78946 | (NA) |  | 102876 | 273695 |  | (NA) |  | (NA) | (NA) |
| 1925 . . . . . . . . . | 1286 | (NA) | 88011 | 124355 | 73033 | (NA) |  | 91040 | 263078 |  | (NA) |  | (NA) | (NA) |
| $1923{ }^{14}$. . . . . . . . | 1593 | (NA) | 93189 | 127340 | $76 \quad 639$ | (NA) |  | 91754 | 244873 |  | (NA) |  | (NA) | (NA) |
| 1921 . . | 1592 | (NA) | 82931 | 108794 | 67218 | (NA) |  | 77786 | 188781 |  | (NA) |  | (NA) | (NA) |
| 1919 | 2037 | (NA) | 108711 | 124837 | 90615 | (NA) |  | 93001 | 235639 |  | (NA) |  | (NA) | (NA) |
| 1914 . . . . . . . . . | 1572 | (NA) | 70958 | 50017 | 59850 | (NA) |  | 35848 | 97644 |  | (NA) |  | (NA) | (NA) |
| $1909{ }^{15}$. . . . . . . . | 1239 | (NA) | ( NA) | (NA) | 50848 | (NA) |  | 28071 | $73 \quad 127$ |  | (NA) |  | (NA) | (NA) |
| 1904. | 1027 | (NA) | 46377 | 26297 | 41907 | (NA) |  | 21292 | 46325 |  | (NA) |  | (NA) | (NA) |
| 1899 . . . . . . . . . . . | 1101 | (NA) | 34847 | 18196 | 32060 | (NA) |  | 15247 | 31637 |  | (NA) |  | (NA) | (NA) |

Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies. (NA) Not applicable
${ }^{1}$ The figures for 1939 through 1963 include data for employees of manufacturing establishments who are engaged in distribution and construction work. The extent to whic
$2^{2}$ for such employees are included in the figures for earlier years is not known.
for the period 1954 to 1963, figures represent adjusted value added by manufacture shipments (including resales of finished products) less cost of finished products, value of materials, supplies, fuel, electric energy and contract work, plus the net change in value of finished products and work-in-process inventories between the beginning and end of of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. See Introduction, "Value Added by Manufacture."
The total value of shipments and cost of materials for industry groups (2- and 3digit) include extensive duplication arising from shipments between establishments in the same industry classification. For a more complete explanation, see Introduction. not yet in inures for 1958 to 1963 include expenditures for plants under construction and ${ }^{n}{ }_{5}$ The figures for $i$
in the in the manufacture of automatic temperature controls.
or manufacturing central administrative offices and figures for employment and payroll for manutacturing central administrative offices and auxiliary units are shown for the are not available for the years 1955 to 1957 , 1959 to 1962 , or prior to 1949.
${ }^{7}$ Figures for 1958 to 1963 for operating manufacturing establishments are not strictly comparable with prior years due to revisions of the Standard Industrial classification System. Prior to 1958, data for the following cormodities were excluded: laboratory precision balances; laboratory furniture; revolution counters; operating room and other hospital furniture; surgical corsets; and hearing aids. Establishments primarily en
gaged in the manufacture of sanitary napkins and tampons are included prior to 1958 . ${ }^{8}$ These figures represent estimates derived from a representative sample of manufac-
turing establishments canvassed in the annual survey of manufactures. These estimates, consequently, may differ from the results that would have been obtained from a complete canvass of all macturing establishmel survey of manufactures volumes for this period
estimates are published in the annual survey of manuf actures volumes for this period
arlier years. Statistics for 1939 and later years (a) include data for establishments earlier years. Statistics for 1939 and later years (a) include data for establishment establishments primarily engaged in the manufacture of time-recording stamps and machines. Value added by manufacture for 1939 on a basis strictly comparable with 1937 was $\$ 314.1$ million.
${ }^{10}$ The figures for 1937 to 1954 include, whereas those for earlier years exclude, data for establishments primarily engaged in the manufacture of certain mechanical measuring instruments. Value added by manufacture for 1937, excluding data for these establishments and on a basis comparable with 1935, was $\$ 294.5$ million
${ }^{11}$ The figures for 1935 to 1954 include, whereas those for 1933 and earlier years exclude, data for establishments primarily engaged in manuf acture of certain dental equipment and supplies (chairs, cabinets, and electrical devices).
${ }^{12}$ The figures for 1929 to 1954 exclude, whereas those for earlier years include, data for establishments primarily engaged in manufacture of gas machines. Value added by manufacture for 1929, including data for these establishments and on a basis comparable with 1927, was $\$ 306.3$ million.
13 The figures for 1927 to 19
The figures for 1927 to 1954 exclude, whereas those for earlier years include, data for dental laboratories operating on a custom basis. Value added by manufacture for 1927 including data for these laboratories and on a basis comparable with 1925, was
$\$ 280.3$ million. $\$ 280.3$ million.
for for 1899 to 1923 include, whereas those for later years exclude, data for establishments primarily engaged in grinding lenses for spectacles and eyeglasses to individual prescription. 1909 exclude, whereas those for 1914 and later years include data for establishments primarily engaged in manufacture of motion-picture machines Value added by manuf acture for 1914, excluding data for such establishments, was $\$ 96.4$ million.
table 2. General Statistics, by Geographic Areas: 1963 and 1958


TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


## table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Code | Industry group and geographic area | 1963 |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Capital <br> expendi- <br> tures, <br> new $(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted (\$1,000) |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 385 | OPHTHALMIC GOODS, TOTAL ${ }^{1}$. . . . . | 229 | 109 | 20296 | 96361 | 16467 | 32771 | 68954 | 177898 | 9085 | 18223 | 136696 |
| 386 | PHOTOGRAPHIC EQUIPMENT, TOTAL. . . . | 538 | 187 | 64937 | 498828 | 39248 | 77753 | 251566 | 1270132 | 79626 | 60262 | 738750 |
| 387 | WATCHES, CLOCKS ANO WATCHCASESITOTAL | 220 | 98 | 29753 | 157594 | 23285 | 45719 | 102779 | 307271 | 9230 | 26157 | 183556 |
|  | NORTHEAST • . . . . . . . . . . | 152 | 66 | 16529 | 94732 | 12315 | 24137 | 58139 | 185923 | (D) | 15220 | 112356 |
|  | NEW ENGLAND . . . | 22 | 16 | 8216 3 | 43700 17395 | 6 133 | 11862 4698 | $\begin{array}{lll}27 & 837 \\ 11 & 679\end{array}$ | $\begin{array}{ll}96 & 733 \\ 45 & 177\end{array}$ | (D) $1 \quad 106$ | $\begin{array}{ll}8 & 479 \\ 2 & 502\end{array}$ | $\begin{aligned} & 54823 \\ & 22899 \end{aligned}$ |
|  | MASSACHUSETTS. . . . . | 10 | 6 | 3284 | 17395 | 2462 | 4698 | 11679 | 45177 | 1106 | 2502 | $22899$ |
|  | midole atlantic. | 130 | 50 | 8313 | 51032 | 6182 | 12275 | 30302 | 89190 | (D) | $\begin{array}{r}6741 \\ \\ \hline 101\end{array}$ | 57533 (0) |
|  | NEW JERSEY . . . . . . . | 10 | 5 | 440 | 2279 | 267 | 568 | 1131 | 4190 | 682 | (0) | (0) |
|  | NORTH CENTRAL . . . . . | 39 | 22 | 8460 | 45238 | 6647 | 13045 | 30 557 <br> 23 255 | 82569 | 2815 | 7 <br> 600 | 39250 |
|  | ILLINOIS . . . . . . . . . . | 24 | 14 | 6385 | 34305 | 5040 | 9789 | 23255 | 61 2 | 2074 | $\begin{array}{r}7445 \\ \hline 347\end{array}$ | 31891 2061 |
|  | MICHIGAN . . . . . . . | 4 | 3 | 372 | 1759 | 319 | 624 | 1199 | 2462 | 22 |  |  |
|  | SOUTH . . . . . . . . . . . | 20 | 9 | 4683 | 17074 | 4277 | 8479 | 13951 | 38037 | (D) | 3148 | 30963 |
|  | WEST. . . . . . . . . . . . . . | 9 | 1 | 81 | 550 | 46 | 58 | 132 | 742 | (0) | 89 | 987 |
|  | PACIFIC . . . . . . . . . . - | 9 | 1 | 81 | 550 | 46 | 58 | 132 | 742 | (D) | (0) | (0) |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual comparies. (NA) Not available. (X) Not applicable.
${ }^{1}$ This industry group consists of a single 4 -digit industry. Detailed data by State are included in the 4 -digit industry tables.
table 3. Detailed Statistics: 1963

| Item | Instruments and related products (SIC 38) | Scientific instruments (SIC 381) | Mechanical measuring devices (SIC 382 ) | Optical instruments and lenses (SIC 383) | Medical instruments and supplies (SIC 384) | Ophthalmic goods (SIC 385) | Photographic equipment (SIC 386) | Watches, clocks, and watchcases (SIC 387) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ESTAGL IShMENTS, TOTAL . . . . . . . . Number. | 3949 | 594 | 774 | 280 | 1314 | 229 | 538 | 220 |
| With 1 to 19 emplorees. . . . . . . . . . 00. | 2606 | 381 | 462 | 201 | 969 | 120 | 351 | 122 |
| WITH. 20 TU 99 EMPLOYEES . . . . . . . . . 00. | 868 | 154 | 176 | 51 | 237 | 75 | 119 | 56 |
| With 100 empluyees or more. . . . . . . . 00. | 475 | 59 | 136 | 28 | 108 | 34 | 68 | 42 |
| Proprietors ano working partners. . . . . . 00. | 1410 | 188 | 223 | 112 | 546 | 70 | 181 | 90 |
| all employees (average for the year). . . . DO. | 305452 | 33084 | 94038 | 11924 | 51420 | 20296 | 64937 | 29753 |
| Payroll (all employees), total for year $\$ 1,000$. | 1912472 | 208171 | 581175 | 79131 | 291212 | 96361 | 498828 | 157594 |
| PRODUCTIUN WORKERS: |  |  |  |  |  |  |  |  |
| average fur the year. . . . . . . . . number. | 208448 | 22184 | 62682 | 8306 | 36276 | 16467 | 39248 | 23285 |
| MARCH . . . . . . . . . . . . . . . . . 00. | 204765 | 22358 | 62447 | 8196 | 35658 | 16415 | 37694 | 21997 |
| MAY . . . . . . . . . . . . . . . . . . Do. | 206679 | 22041 | 62702 | 8166 | 36188 | 16705 | 38329 | 22548 |
| august. . . . . . . . . . . . . . . . . do. | 210573 | 22291 | 62811 | 8345 | 36255 | 16067 | 40598 | 24206 |
| novemeer. . . . . . . . . . . . . . . . do. | 211537 | 22046 | 62721 | 8509 | 36824 | 16689 | 40369 | 24379 |
| Man-hours . . . . . . . . . . . . . . .1,000. | 416555 | 44584 | 126969 | 16728 | 72031 | 32771 | 77753 | 45719 |
| January-march . . . . . . . . . . . . . Do. | 102744 | 11054 | 31719 | 4196 | 17773 | 8030 | 18987 | 10985 |
| april-June. . . . . . . . . . . . . . . DO. | 104602 | 11194 | 31900 | 4174 | 18341 | 8470 | 19303 | 11220 |
| JuLY-SEPTEMBER. . . . . . . . . . . . . 00. | 101063 | 10946 | 30673 | 3958 | 17521 | 7566 | 19311 | 11088 |
| october-december. . . . . . . . . . . . do. | 108146 | 11390 | 32677 | 4400 | 18396 | 8705 | 20152 | 12426 |
| wages . . . . . . . . . . . . . . . . \$1,000. | 1100718 | 119836 | 344980 | 47149 | 165454 | 68954 | 251566 | 102779 |
| COSt uf materials, etc., total ${ }^{1}$. . . . . . 00. | 2171108 | 200034 | 573946 | 66557 | ${ }^{2} 409677$ | 96611 | 580544 | 243739 |
| MATERIALS, PARTS, CONTAINERS, ANC SUPPLIES CONSUMED. . . . . . . . . . . . DO. | 1821986 | 166172 | 500149 | 53059 | 313233 | 87247 |  | 219419 |
| cost of resales . . . . . . . . . . . . . do. | 237872 | 21195 | 44692 | 5050 | 69746 | 4564 | 72111 | 20514 |
| fuels consumed. . . . . . . . . . . . . . do. | 16207 | 1048 | 3109 | 385 | 2006 | 1071 | 7888 | 700 |
| electric-energy: PURCHASED: |  |  |  |  |  |  |  |  |
| OUANTITY. . . . . . . . .MILLION KW. -hrs . | 1661 | 177 | 532 | 53 | 249 | 141 | 398 | 111 |
| cust. . . . . . . . . . . . . . . $\mathrm{s}_{1,000}$. | 23902 | 2747 | 7599 | 1182 | 3603 | 1793 | 5219 | 1759 |
| generated less solo . . . .million kw. -hrs. | 3733 | - | (D) | (D) | (D) | (D) | (D) | (D) |
| COntract work . . . . . . . . . . . . $\$ 1,000$. | 71143 | 8872 | 18397 | 6881 | 21089 | 1936 | 12619 | 1349 |
| value of shipments (including resales), <br> total 1 |  |  | 1670774 |  | 11028485 |  |  |  |
| value uf resales. . . . . . . . . . . . . oo. | 365062 | 32928 | 162800 | 8700 | 104855 | 6235 | + 126486 | 23058 |
| value added by manufacture, aojusted. . . . do. | 3992131 | 358588 | 1111620 | 131917 | 634705 | 177898 | 1270132 | 307271 |
| manufacturers inventories: |  |  |  |  |  |  |  |  |
| beginning uf year, total. . . . . . . . . do. | 1121632 | 115571 | 348811 | 40151 | 175393 | 70683 | 279302 | 91721 |
| FINISHEO PRODUCTS . . . . . . . . . . . DO. | 340057 | 21829 | 84824 | 10337 | 57452 | 32413 | 97155 | 36047 |
| WORK-IN-PROCESS . . . . . . . . . . . DO. | 480026 | 64545 | 164697 | 24477 | 61845 | 25592 | 98887 | 39983 |
| materials, supplies, fuel, etc. . . . . do. | 301549 | 29197 | 99290 | 5337 | 56096 | 12678 | 83260 | 15691 |
| eno of year, total. . . . . . . . . . . . do. | 1177942 | 122106 | 367296 | 42960 | 187954 | 72663 | 289511 | 95452 |
| finished products . . . . . . . . . . . Do. | 348167 | 22455 | 87613 | 10676 | 65552 | 33195 | 89046 | 39630 |
| WORK-IN-PROCESS . . . . . . . . . . . . DO. | 518271 | 69721 | 176605 | 26590 | 69642 | 26632 | 106459 | 42622 |
| Materials, supplies, fuel, etc. . . . . do. | 311504 | 29930 | 103078 | 5694 | 52760 | 12836 | 94006 | 13200 |
| EXPENDItURES FOR PLANT and eouipment, total 00. | 199387 | 18825 | 43025 | 6861 | 31879 | 9352 | 79590 | 9855 |
| NEW, TOTAL. . . . . . . . . . . . . . . . 00. . | 191865 | 16244 | 41437 | 6163 | 31080 | 9085 | 78626 | 9230 |
| new Structures and additions to plant . do. | 52324 | 6219 | 13362 | 2140 | 10. 260 | 851 | 17859 | 1633 |
| new machinery and eouipment . . . . .i. 00. | 139541 | 10025 | 28075 | 4023 | 20820 | 8234 | 60767 | 7597 |
| used plant and eouipment. . . . . . . . . do. | 7522 | 2581 | 1588 | 698 | 799 | 267 | 964 | 625 |
| SELECTED operating ratios: <br> PAYROLL TOTAL EMPLOYMENT | 6261 | 6292 |  | 6636 | 5653 | 4748 | 7682 | 5297 |
| PAYROLL/TOTAL EMMLOYMENT. ${ }^{\text {PRODUCTION WORERS/TOTAL EMPLOYMENT }}$ | . 68 | . 67 | . 67 | . 70 | . 71 | . 81 | . 60 | 5.78 |
| MAN-HOURS/PRODUCTION WORKERS. . . . . . . . | 1998 | 2010 | 2026 | 2014 | 1986 | 1990 | 1981 | 1963 |
| Proouct ion worker wages/man-hours | 2.64 | 2.69 | 2.72 | 2.82 | 2.30 | 2.10 | 3.24 | 2.25 |
| cost of materials and payrolls/total value of |  |  |  |  |  |  |  |  |
| SHIPMENTS. . . . . . . . . . . . . . . | . 67 | . 74 | . 69 | . 74 | . 68 | . 74 | . 58 | . 74 |
| cost of materials/total value of shipments. | . 35 | . 36 | . 34 | . 34 | . 40 | . 35 | . 31 | . 45 |
| adjusted value adoed/total employment | 13070 | 10839 | 11821 | 11063 | 12344 | 8675 | 19559 | 10327 |
| salaries ano wages/adjusteo value added | . 48 | . 58 | . 52 | . 60 | . 46 | . 54 | . 39 | . 51 |

Siancare llotes: - Pepresents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. ( $x$ ) Not applicable.
The value of shipments anj cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between estailisinents in the same
inóvsiry. For a more complete explanation, see Introduction.


## INSTRUMENTS; SURGICAL, DENTAL, AND OPHTHALMIC GOODS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3811-Engineering, Laboratory, and Scientific and Research Instruments and Associated Equipment<br>3821-Mechanical Measuring and Controlling Instruments, Except Automatic Temperature Controls<br>3822-Automatic Temperature Controls<br>3831 -Optical Instruments and Lenses<br>3841-Surgical and Medical Instruments and Apparatus<br>3842 --Orthopedic, Prosthetic, and Surgical Appliances and Supplies<br>3843-Dental Equipment and Supplies<br>3851-Ophthalmic Goods

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4 ) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

Each of these industries is characterized by a wide variety of products. However, most of the individual establishments tend to specialize in a single product or group of similar products. Many of the categories include hundreds of different specific products. For example, data for most types of laboratory and scientific instruments and apparatus are presented as a single item. The products included in many of these items are highly diversified and range from very simple hand tools to highly complex instruments such as mapping equipment.

Establishments in the instrument industries (particularly industries 3811, 3821, and 3831 covered in this report and industry 3611 , Electric Measuring Instruments, which includes plants primarily engaged in manufacturing instruments for indicating, measuring, and recording electrical quantities and characteristics), produce a wide variety of complex items requiring skilled workmanship and an unusually high degree of precision. Plants of this type have a higher ratio of wages to value of shipments than are found in other industries. The instrument industries have also experienced significant technological advances which have intensified even further the need for the high degree of precision.

Industries 3842, Surgical Appliances and Supplies, and 3843, Dental Equipment and Supplies, include many establishments which specialize in a single line of appliances or
supplies. These establishments perform a wide variety of manufacturing processes and consume different types of materials. However, they are brought together into these two industries by the use to which their products are put.

Separate descriptions of these industries are given below.

## 3811 -ENGINEERING, LABORATORY, AND SCIENTIFIC AND RESEARCH INSTRUMENTS AND ASSOClATED EQUIPMENT

This industry comprises establishments primarily engaged in manufacturing laboratory, scientific, and engineering instruments such as nautical, navigational, aeronautical, surveying, drafting, and instruments for laboratory work and scientific research (except optical instruments--industry 3831). Establishments primarily engaged in manufacturing surgical and medical instruments are classified in industry 3841 ; dental instruments and equipment in industry 3843; mechanical measuring and controlling instruments in industry 3821; machinists' precision measuring tools in industry 3545; instruments for indicating, measuring, and recording electrical quantities and characteristics in industry 3611; watches and clocks in industry 3871 ; and measuring and dispensing pumps in industry 3586. For a detailed list of products of industry 3811, refer to tables 6A-1 and 6A-2.
The code number as well as the definition of this industry was unchanged between 1958 and 1963.

During the period 1958-1963 reports received from some large establishments indicated a change from the manufacture primarily of such individual instruments as those used for indicating air speed, rate-of-climb, angle-of-yaw and similar flight characteristics, and gyroscopes which are sold separately, to primarily manufacturing complete instrumentation systems for navigation, guidance, check-out, etc. The major impact of this change has been on the classification of products and, consequently, the SIC coding of these large establishments. This change in reporting was brought to light by the initiation by the Census Bureau of detailed commodity surveys in the fields of electronic products and instrumentation. The electronic and associated products report (MA-36N) was started covering the year 1961 and the instruments series (MA-38B) was broadened for 1963 to encompass most types of instruments following an introductory report for 1961 and 1962 covering industrial process instruments and test and measuring equipment. Annual statistics from both reports are published in the Current Industrial Reports Series.
ln both the 1958 Census of Manufactures and the Annual Survey of Manufactures from 1959 through 1962 the classification of systems was not sufficiently spelled out in the product inquiries of these programs, especially at the 5 -digit product class level. However, with the introduction in the MA-36N and MA-38B surveys of detailed 7 -digit product information which itself is used to build up to broader 5-digit product class totals, these totals, although they should be the same as those reported on Form MA-100 (Annual Survey of Manufactures), have differed. The respondents affected have identified the proportion of earlier years' output which consisted of systems rather than instruments as such, which was the manner in which the items were originally reported.

In view of the above, the annual data for 1958-1962 have been revised, as indicated with the symbol " $r$ " in the appropriate tables. Because of the shift in recent years from instruments which are classified in industry 3811 to complete systems which are classified in industry 3662, the year-to-year changes are of dubious validity for the industries considered separately. The two industries taken in combination however, would yield significant measures of activity in the general area.

Value of shipments and other receipts of the Scientific Instruments Industry totaled $\$ 554$ million. This amount included shipments of scientific instruments (primary products) valued at $\$ 406$ million, shipments of other products (secondary products) valued at $\$ 80$ million, and miscellaneous receipts (mainly resales) at $\$ 68$ million.

This industry's shipments of scientific instruments represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 78 percent. Secondary products shipped by this industry in 1963 consisted mainly of industrial process instruments ( $\$ 6$ million), and aircraft engine instruments, except flight ( $\$ 6$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8 . Approximately 46 percent of the total industry shipments are represented by plants specializing in product class 38111, Aircraft, flight, nautical and navigational instruments and automatic pilots; 28 percent in 38112, Laboratory and scientific instruments; and 23 percent in 38113 , Surveying and drafting instruments and laboratory furniture.

Shipments of scientific instruments by this industry represented 56 percent of all shipments of these products ( $\$ 722$ million) by all industries. In 1958 the coverage ratio was 67 percent. Other industries shipping scientific instruments consisted mainly of industry 3662, Radio, TV Communications Equipment, $\$ 175$ million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3811, e.g., Aircraft, flight, nautical, and navigational instruments and automatic pilots (38111), 44 percent; and Surveying and drafting instruments and laboratory furniture (38113), 91 percent.

## 3821--MECHANICAL MEASURING AND CONTROLLING INSTRUMENTS, EXCEPT AUTOMATIC TEMPERATURE CONTROLS

This industry comprises establishments primarily engaged in the manufacture of industrial process instruments for indicating, recording, measuring and controlling temperature (except automatic temperature controls-industry 3822), pressure and vacuum, fluid flow and liquid level, mechanical motion, rotation, humidity, density, acidity, alkalinity, and combustion; dial pressure gauges; physical property testing apparatus such as hardness, tension, compression, torsion, ductility; and elasticity testing apparatus. For a detailed list of products of industry 3821, refer to tables 6A-1 and 6A-2.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Mechanical Measuring Devices Industry totaled $\$ 1,143$ million. This amount included shipments of mechanical measuring devices (primary products) valued at $\$ 819$ million, shipments of other products (secondary products) valued at $\$ 207$ million, and miscellaneous receipts (mainly resales) at $\$ 117$ million.
This industry's shipments of mechanical measuring devices represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 86 percent. Secondary products shipped by this industry in 1963 consisted mainly of carburetors, pistons, and other machine shop products ( $\$ 20-\$ 50$ million), and miscellaneous electrical measuring instruments ( $\$ 17$ million).
While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 52 percent of the total industry shipments are represented by plants specializing in industrial process instruments (38213).
Shipments of mechanical measuring devices by this industry represented 83 percent of all shipments of these products ( $\$ 984$ million) by all industries. In 1958 the coverage ratio was 76 percent. Other industries shipping mechanical measuring devices consisted mainly
of industry 3494, Valves and Pipe Fittings, $\$ 9$ mi!lion; and industry, 3811, Scientific Instruments, $\$ 13$ million.

The coverage ratio for individual product classes varies significantly from that for the 4-digit industry for the following product classes of industry 3821, e.g., integrating meters, nonelectrical type (38212), 98 percent; motor vehicle instruments, except electric (38214), 66 percent; and aircraft engine instruments, except flight ( 38211 ), 62 percent.

## 3822-AUTOMATIC TEMPERATURE CONTROLS

This industry comprises establishments primarily engaged in manufacturing automatic temperature controls activated by pressure, temperature, level, flow, time, or humidity (including pneumatic controls) of the type principally used as components of air conditioning, refrigeration, and comfort heating, or as components of household appliances. Establishments primarily engaged in manufacturing industrial electric controls are classified in industry 3622. For a detailed list of products of industry 3822, refer to table 6A-2, product codes 3822014 to 3822018 .
The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Automatic Temperature Controls Industry totaled $\$ 527$ million. This amount included shipments of automatic temperature controls (primary products) valued at $\$ 409$ million, shipments of other products (secondary products) valued at $\$ 91$ million, and miscellaneous receipts (mainly resales) at $\$ 27$ million.

This industry's shipments of automatic temperature controls represented 82 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent. Secondary products shipped by this industry in 1963 consisted mainly of industrial controls ( $\$ 13$ million), and metal valves for piping systems ( $\$ 7$ million).

Shipments of automatic temperature controls by this industry in 1963 represented 95 percent of all shipments of these products ( $\$ 432$ million) by all industries. In 1958 the coverage ratio was 94 percent. Other industries shipping automatic temperature controls consisted mainly of industry 3821, Mechanical Measuring Devices, $\$ 10$ million; and industry 3494, Valves and Pipe Fittings, $\$ 2$ million.

## 3831-OPTlCAL INSTRUMENTS AND LENSES

This industry comprises establishments primarily engaged in the production of optical lenses and prisms, and in manufacturing optical instruments such as microscopes, telescopes, field and opera glasses; and optical measuring and testing instruments such as refractometers, spectrometers, spectroscopes, colorimeters, and polariscopes. Establishments primarily engaged in manufacturing eyeglass lenses, frames, or fittings are classified in industry 3851; and those engaged in manufacturing sighting and fire-control instruments, but not engaged in manufacturing optical components, in industry 1941. For a detailed list of products of industry 3831, refer to table 6A-2, product codes 3831131 to 3831262 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Optical Instruments and Lenses Industry totaled $\$ 196$ million. This amount included shipments of optical instruments and lenses (primary products) valued at $\$ 165$ million, shipments of other products (secondary products) valued at $\$ 17$ million, and miscellaneous receipts (mainly resales) at $\$ 14$ million.

This industry's shipments of optical instruments and lenses represented 90 percent of its total product shipments. The industry specialization ratio in 1958 also was 90 percent. Secondary products shipped by this industry in 1963 consisted mainly of still picture equipment ( $\$ 3$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by ach of the different product classes. The extent of this specialization is indicated in table 8. Approximately 75 percent of the total industry shipments are represented by plants specializing in product classes 38311 , Optical and analytical instruments and lenses; and 21 percent in 38312, Sighting and fire-control equipment made from lenses, prisms, etc., produced in the same plant.

Shipments of optical instruments and lenses by this industry represented 61 percent of all shipments of these products ( $\$ 270$ million) by all industries. In 1958 the coverage ratio was 66 percent. Other industries shipping optical instruments and lenses consisted mainly of industry 3662, Radio, TV Communications Equipment, \$10-\$20 million.

## 3841-SURGICAL AND MEDICAL INSTRUMENTS AND APPARATUS

This industry comprises establishments primarily engaged in manufacturing medical, surgical, ophthalmic, and veterinary instruments and apparatus. Establishments primarily engaged in manufacturing surgical and orthopedic appliances are classified in industry 3842; and electrotherapeutic, electromedical, and X-ray apparatus in industry 3693. For a detailed list of products of industry 3841, refer to table 6A-1, product codes 3841012 to 3841095 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Surgical and Medical Instruments Industry totaled $\$ 284$ million. This amount included shipments of surgical and medical instruments (primary products) valued at $\$ 215$ million, shipments of other products (secondary products) valued at $\$ 29$ million, and miscellaneous receipts (mainly resales) at $\$ 40$ million.

This industry's shipments of surgical and medical instruments represented 88 percent of its total product shipments. The industry specialization ratio in 1958 was 83 percent. Secondary products shipped by this industry in 1963 consisted mainly of surgical, orthopedic, and prostheticappliances and supplies (\$3 million), and furniture and fixtures, n.e.c. (\$3 million).

Shipments of surgical and medical instruments by this industry represented 74 percent of all shipments of these products ( $\$ 291$ million) by all industries. In 1958 the coverage ratio was 76 percent. Other industries shipping surgical and medical instruments consisted mainly of industry 2834, Pharmaceutical Preparations, $\$ 22$ million; and industry 3842, Surgical Appliances and Supplies, $\$ 6$ million.

The production index for the primary products of the industry increased to 254 in 1963 from the 1958 level of 117 . The unit value index for 1963 was 109 compared to 112 in 1958. Both indexes were computed on a basis of $1954=100$.

3842-ORTHOPEDIC, PROSTHETIC, AND SURG1CAL APPL1ANCES AND SUPPLIES
This industry comprises establishments primarily engaged in manufacturing orthopedic, prosthetic, and surgical appliances and supplies, arch supports, and other foot appliances; fracture appliances, elastic hosiery, abdominal supporters, braces, and trusses; bandages; surgical gauze and dressings; sutures; adhesive tapes and medicated plasters; and personal
safety appliances and equipment. Establishments primarily engaged in manufacturing surgical and medical instruments are classified in industry 3841. Establishments primarily engaged in manufacturing appliances and in the personal fitting to the individual prescription of a physician are classified in trade industries. For a detailed list of products of industry 3842 , refer to table 6 A-1, product codes 3842111 to 3842400 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Surgical Appliances and Supplies Industry totaled $\$ 597$ million. This amount included shipments of surgical appliances and supplies (primary products) valued at $\$ 415$ million, shipments of other products (secondary products) valued at $\$ 105$ million, and miscellaneous receipts (mainly resales) at $\$ 77$ million.

This industry's shipments of surgical appliances and supplies represented 80 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent. Secondary products shipped by this industry in 1963 consisted mainly of pharmaceutical preparations affecting parasitic and infective diseases, for human use ( $\$ 10-\$ 20$ million), and cosmetic and toilet preparations (\$10-\$20 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 73 percent of the total industry shipments are represented by plants specializing in product class 38421 ; Surgical, orthopedic and prosthetic appliances and supplies; and 18 percent in 38423 , Personal industrial safety devices.

Shipments of surgical appliances and supplies by this industry represented 90 percent of all shipments of these products ( $\$ 462$ million) by all industries. In 1958 the coverage ratio was also 90 percent. Other industries shipping surgical appliances and supplies consisted mainly of industry 2641, Paper Coating and Glazing, $\$ 10$ million; and industry 3851, Ophthalmic Goods, $\$ 5$ million.

The production index for the primary products of the industry increased to 155 in 1963 from the 1958 level of 118 . The unit value index for 1963 was 104 compared to 107 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3843-DENTAL EQUIPMENT AND SUPPLIES

This industry comprises establishments primarily engaged in manufacturing artificial teeth, dental metals, alloys and amalgams, and a wide variety of equipment, instruments, and supplies used by dentists, dental laboratories, and dental colleges. Dental laboratories constructing artificial dentures, bridges, inlays and other dental restorations on specifications from dentists are classified in service industries. For a detailed list of products of industry 3843 , refer to table 6A-1, product codes 3843011 to 3843098.
The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Dental Equipment and Supplies Industry totaled $\$ 148$ million. This amount included shipments of dental equipment and supplies (primary products) valued at $\$ 128$ million, shipments of other products (secondary products) valued at $\$ 9$ million, and miscellaneous receipts (mainly resales) at $\$ 11$ million.
This industry's shipments of dental equipment and supplies represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 consisted mainly of surgical and medical instruments ( $\$ 2-\$ 5$ million).

Shipments of dental equipment and supplies by this industry represented 92 percent of all shipments of these products ( $\$ 140$ million) by all industries. In 1958 the coverage ratio was 92 percent. Other industries shipping dental equipment and supplies consisted mainly of industry 3842, Surgical Appliances and Supplies, $\$ 5-\$ 10$ million.

The production index for the primary products of the industry increased to 134 in 1963 from the 1958 level of 118 . The unit value index for 1963 was 131 compared to 118 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3851—OPHTHALMIC GOODS

This industry comprises establishments primarily engaged in manufacturing ophthalmic frames, lenses, and sunglass lenses. Establishments primarily engaged in manufacturing slit lamps are classified in industry 3841, and molded glass blanks in industry 3229. Establishments primarily engaged in grinding lenses and fitting glasses to prescription are classified in trade. For a detailed list of products of industry 3851, refer to table $6 \mathrm{~A}-1$, product codes 3851012 to 3851098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Ophthalmic Goods Industry totaled $\$ 273$ million. This amount included shipments of ophthalmic goods (primary products) valued at $\$ 226$ million, shipments of other products (secondary products) valued at $\$ 37$ million, and miscellaneous receipts (mainly resales) at $\$ 10$ million.

This industry's shipments of ophthalmic goods represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 87 percent. Secondary products shipped by this industry in 1963 consisted mainly of personal industrial safety devices ( $\$ 5$ million).

Shipments of ophthalmic goods by this industry represented 92 percent of all shipments of these products ( $\$ 244$ million) by all industries. In 1958 the coverage ratio was 98 percent. Other industries shipping ophthalmic goods consisted mainly of industry 2821, Plastics Materials and Resins, and industry 3861, Photographic Equipment, both over $\$ 2$ million each.

The production index for the primary products of the industry increased to 139 in 1963 from the 1958 level of 109. The unit value index for 1963 was 126 compared to 113 in 1958. Both indexes were computed on a basis of $1954=100$.

SCIENTIFIC INSTRUMENTS: SIC 381
Value Added by Manufacture by State: 1963

U.S. DEPARTMENT OF COMMERCE


MEDICAL INSTRUMENTS AND SUPPLIES: SIC 384
Value Added by Manufacture by State: 1963


table 1. General Statistics: 1963 and Earlier Years

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> ( $\$ 1,000$ ) | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | with 20 employRes or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> (\$1,000) | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3811.-SCIENTIFIC INSTRUMENTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 571(NA)(NA)(NA)(NA)539 | $\begin{array}{r} 594 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 559 \end{array}$ | $\begin{array}{r} 213 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 202 \end{array}$ | $\begin{aligned} & 33,084 \\ & 51,005 \\ & 68,128 \\ & 72,891 \\ & 72,786 \\ & 57,249 \end{aligned}$ | $\begin{aligned} & 208,177 \\ & 313,229 \\ & 453,601 \\ & 469,352 \\ & 461,475 \\ & 330,209 \end{aligned}$ | $\begin{aligned} & 22,184 \\ & 35,121 \\ & 44,498 \\ & 46,943 \\ & 49,185 \\ & 38,758 \end{aligned}$ | $\begin{array}{r} 44,584 \\ 71,087 \\ 88,786 \\ 97,178 \\ 102,956 \\ 78,017 \end{array}$ | $\begin{aligned} & 119,836 \\ & 194,780 \\ & 244,440 \\ & 261,412 \\ & 273,728 \\ & 198,450 \end{aligned}$ | $\begin{aligned} & 358,588 \\ & 503,466 \\ & 687,711 \\ & 742,838 \\ & 729,465 \\ & 481,166 \end{aligned}$ | 200 | 553,920 | 16,244 |  | 56 |
|  |  |  |  |  |  |  |  |  |  | 236,804 | 748,902 | 28,698 | (NA) | (NA) |
|  |  |  |  |  |  |  |  |  |  | 385,979 | 1,097,610 | 27,172 | (NA) | (NA) |
|  |  |  |  |  |  |  |  |  |  | 427,906 | 1,166,000 | 29,366 | (NA) | (NA) |
|  |  |  |  |  |  |  |  |  |  | 416,833 | 1,133,707 | 21,008 | (NA) | (NA) |
|  |  |  |  |  |  |  |  |  |  | 283,104 | 752,542 | 16,580 | 78 | 67 |
| 1958 (old) ${ }^{2} \mathrm{r}$ | (NA) | 489 | 171 | 53,258 | 312,292 | 35,862 | 72,060 | 187,238 | 450,695 | 257,606 | 697,456 | 15,926 | (NA) | (NA) |
| 1957¹........ | (NA) | (NA) | (NA) | 58,913 | 339,987 | 38,343 | 82,740 | 200,507 | 505,709 | 295,778 | 761,248 | 23,769 | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 52,321 | 291,909 | 36,040 | 75,046 | 177, 266 | 440,340 | 239,666 | 637,954 | 19,733 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 46,095 | 236,965 | 31,460 | 65,631 | 145,050 | 343,877 | 193,461 | 516,417 | 10,080 | (NA) | (NA) |
| $1954{ }^{3}$. | (NA) | 370 | 131 | 45,315 | 217,831 | 30,797 | 64,264 | 134,801 | 340,146 | 224,203 | 580,916 | 8,615 | 77 | 64 |
| $1953{ }^{1} 3$ | (NA) | (NA) | (NA) | 31,394 | 146,693 | 22,418 | 48,711 | 100,026 | 238,702 | 136, 962 | 375,664 | 8,176 | (NA) | (NA) |
| $1952^{1}{ }^{3}$ | (NA) | (NA) | (NA) | 41,494 | 202,587 | 27,615 | 60,493 | 124,627 | 277,293 | 211,032 | 488,325 | 8,751 | (NA) | (NA) |
| $1951{ }^{1} 3$ | (NA) | (NA) | (NA) | 36,724 | 169,528 | 23,952 | 51,925 | 102,447 | 180,579 | 142,588 | 323,176 | 14,690 | (NA) | (NA) |
| $1950{ }^{1} 3$ | (NA) | (NA) | (NA) | 25,592 | 104,447 | 16,425 | 34,392 | 60,006 | 128,951 | 59,923 | 188,874 | 6,594 | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 15,357 | 54,846 | 10,706 | 21,295 | 34,861 | 77,677 | 36,213 | 113,890 | 2,285 | (NA) | (NA) |
| $1947^{3} \ldots . . .$. | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ |  |  | $\begin{array}{r} 18,419 \\ (\mathrm{NA}) \end{array}$ | $\begin{array}{r} 56,015 \\ \text { (NA) } \end{array}$ | 13,526 | 30,099 | 37,738 | 75,922 | 41,390 | 117,312 | 4,489 | 81 | 82 |
|  |  |  |  |  |  | 6,529 | (NA) | 10,067 | 30,627 | 11,624 | 42,251 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3821. -MECHANICAL MEASURTNG DEVICES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1963 . \ldots \ldots .$.$1962^{1}, \ldots \ldots .$.$1961^{1 r}$$1960^{1} \ldots \ldots \ldots$.$1959^{1} \ldots \ldots \ldots$.$1958^{4} \ldots \ldots \ldots$. | $\begin{gathered} 510 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 586 \end{gathered}$ | $\begin{array}{r} 670 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 627 \end{array}$ | $\begin{array}{r} 258 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 229 \end{array}$ | $\begin{aligned} & 62,353 \\ & 65,077 \\ & 60,067 \\ & 59,701 \\ & 52,779 \\ & 50,049 \end{aligned}$ | $\begin{aligned} & 388,874 \\ & 376,233 \\ & 340,262 \\ & 340,524 \\ & 288,414 \\ & 258,488 \end{aligned}$ | $\begin{aligned} & 40,383 \\ & 41,264 \\ & 37,047 \\ & 37,505 \\ & 34,534 \\ & 32,123 \end{aligned}$ | $\begin{aligned} & 81,510 \\ & 85,572 \\ & 73,904 \\ & 76,709 \\ & 66,767 \\ & 62,982 \end{aligned}$ | $\begin{aligned} & 222,826 \\ & 205,410 \\ & 176,707 \\ & 183,594 \\ & 158,438 \\ & 144,873 \end{aligned}$ | $\begin{aligned} & 732,529 \\ & 673,981 \\ & 591,017 \\ & 599,992 \\ & 535,978 \\ & 457,126 \end{aligned}$ | 415,855 406,882 <br> 377,789 <br> 365,217 <br> 301,037 <br> 262,571 | $\begin{array}{r} 1,143,416 \\ 1,073,753 \\ 965,369 \\ 948,679 \\ 824,656 \\ 726,823 \end{array}$ | $\begin{array}{r} 30,914 \\ 29,626 \\ 25,069 \\ 24,394 \\ \text { (S) } \\ 18,215 \end{array}$ | $\begin{array}{r} 90 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 86 \end{array}$ | $\begin{array}{r} 83 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 76 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | INDUSTRY 3822.-AUTOMATIC TEMPERATURE CONTROLS |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{array}{r} 89 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 71 \end{array}$ | $\begin{gathered} 104 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 83 \end{gathered}$ | $\begin{array}{r} 54 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 44 \end{array}$ | $\begin{aligned} & 31,685 \\ & 28,732 \\ & 28,251 \\ & 28,083 \\ & 28,181 \\ & 25,513 \end{aligned}$ | $\begin{aligned} & 192,301 \\ & 167,448 \\ & 158,752 \\ & 152,040 \\ & 151,322 \\ & 128,974 \end{aligned}$ | 22,299 | 45,459 | 122,154 | 379,091 | 158,091 | 527,358 | 10,523 | 82 | 95 |
|  |  |  |  |  |  | 18,787 | 38,097 | 95,412 | 335,527 | 124,972 | 448,287 | 9,505 | ( NA ) | (NA) |
|  |  |  |  |  |  | 18,807 | 38,614 | 93,690 | 324,568 | 114, 855 | 418,097 | 13,393 | (NA) | (NA) |
|  |  |  |  |  |  | 19,161 | 38,270 | 90,249 | 303,721 | 108,291 | 395,548 | 15,540 | (NA) | (NA) |
|  |  |  |  |  |  | 19,190 | 39,299 | 91,802 | 287,681 | 108,534 | 392,091 | $(13,941)$ | (NA) | (NA) |
|  |  |  |  |  |  | 18,049 | 35,599 | 81,083 | 258,969 | 103,775 | 359,430 | 5,989 | 88 | 94 |
| 19584......... | INDUSTRY 3831.-OPTICAL INSTRUMENTS AND LENSES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963......... | 272 | 280(NA) | ( 79 | 11,924 | 79,13159,019 | 8,3065,878 | 16,72812,030 | 47,14933,800 | 131,917 | 66,55746,502 | $\begin{aligned} & 196,022 \\ & 134,153 \end{aligned}$ | 6,1638,190 | 90(NA) | (NA) |
| 1962 ${ }^{\text {ri}}$......... | (NA) |  |  | 8,318 |  |  |  |  |  |  |  |  |  |  |
| 1961 |  | (NA) | (NA) | 7,881 | 51,214 | 5,428 | 10,684 | 29,129 | 65,731 | 37,856 | 103,363 | $\begin{aligned} & 8,556 \\ & 3,614 \end{aligned}$ | (NA) | (NA) |
| $1960{ }^{1 \mathrm{r}}$ | (NA) | (NA) | (NA) | 8,041 | 51,136 | 5,727 | 11,629 | 30,610 | 79,406 | 49,099 | 124,247 |  | (NA) |  |
| $1959{ }^{1 r}$ | (NA) | (NA) | (NA) | 8,7207,184 | 50,742 |  | 13,775 | 31,654 | 81,515 | 56,389 | 134,764 | (S) | (NA) | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ |
| 1958........... | 222 | 224 | 58 |  | 37,586 | 5,141 | 10,485 |  | 60,387 | 42,679 | 102,966 | 3,438 | 90 | 66 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 8,717 | 44,873 | 6,182 | 13,219 | 26,690 | 81,150 | 37,344 | 111,343 | (s) | ( NA ) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 7,564 | 37,987 | 5,628 | 11,593 | 23,716 | 70,039 | 26,698 | 94,692 | 2,865 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 8,115 | 36,143 | 6,139 | 12,629 | 23,759 | 60,052 | 23,217 | 87,002 | (S) | (NA) | (NA) |
| $1954{ }^{3} \cdot$ | 202 | 204 | 60 | 8,749 | 38,352 | 6,683 | 13,426 | 25,624 | 55,371 | 24,840 | 83,339 | 3,816 | 91 | 59 |
| $1953{ }^{13}$ | (NA) | (NA) | (NA) | 16,419 | 73,732 | 12,494 | 25,472 | 49,483 | 112,699 | 37,531 | 150,230 | 6,023 | (NA) | (NA) |
| $1952^{1} 3$ | (NA) | (NA) | (NA) | 13,552 | 58,017 | 10,599 | 22,091 | 42,130 | 84,172 | 38,523 | 122,695 | 2,194 | (NA) | (NA) |
| $1951{ }^{1} 3$ | (NA) | (NA) | (NA) | 12,432 | 50,610 | 9,699 | 19,996 | 35,997 | 66,944 | 27,899 | 94,843 | 2,779 | (NA) | (NA) |
| $1950{ }^{1} 3$ | (NA) | (NA) | (NA) | 9,077 | 47,040 | 6,769 | 18,317 | 23,638 | 47,890 | 16,496 | 64,386 | 2,532 | (NA) | (NA) |
| $19491{ }^{3}$ | (NA) | (NA) | (NA) | 7,167 | 25,422 | 5,327 | 10,957 | 17,131 | 31,856 | 11,626 | 43,482 | 1,243 | (NA) | (NA) |
| 1947 ${ }^{3}$........ | (NA) | 115 | $\begin{array}{r} 35 \\ \text { (NA) } \end{array}$ | $\begin{aligned} & 8,478 \\ & 3,016 \end{aligned}$ | 24,7374,684 | 6,682 | 10,820 | 17,965 | 34,090 | 11,254 | 45,344 | 1,520 | 93 | 75 |
| 19393....... | (NA) | 31 |  |  |  | 2,209 |  | 3,266 | 7,159 | 1,531 | 8,690 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3841.-SURGICAL AND MEDICAL INSTRUMENTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 256 <br> (NA) <br> (NA) <br> (NA) <br> (NA) <br> 223 | $\begin{gathered} 294 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 231 \end{gathered}$ | $\begin{gathered} 117 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 888 \end{gathered}$ | $\begin{aligned} & 15,145 \\ & 12,373 \\ & 11,741 \\ & 11,630 \\ & 10,240 \\ & 10,293 \end{aligned}$ | $\begin{aligned} & 83,332 \\ & 66,998 \\ & 61,637 \\ & 58,134 \\ & 50,402 \\ & 44,878 \end{aligned}$ | $\begin{array}{r} 11,538 \\ 9,217 \\ 8,893 \\ 8,810 \\ 7,685 \\ 8,061 \end{array}$ | $\begin{aligned} & 22,916 \\ & 18,214 \\ & 17,576 \\ & 17,604 \\ & 15,447 \\ & 16,162 \end{aligned}$ | $\begin{aligned} & 52,520 \\ & 40,787 \\ & 38,791 \\ & 36,824 \\ & 31,550 \\ & 31,039 \end{aligned}$ | $\begin{array}{r} 168,556 \\ 129,182 \\ 106,966 \\ 96,778 \\ 84,309 \\ 85,153 \end{array}$ | $\begin{array}{r} 126,856 \\ 93,804 \\ 74,010 \\ 64,161 \\ 57,876 \\ 48,944 \end{array}$ | $\begin{aligned} & 284,014 \\ & 216,740 \\ & 181,514 \\ & 159,588 \\ & 141,961 \\ & 130,477 \end{aligned}$ | $\begin{array}{r} 10,514 \\ 6,753 \\ 4,780 \\ 4,397 \\ 2,538 \\ 2,812 \end{array}$ | $\begin{array}{r} 88 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 83 \end{array}$ | $\begin{gathered} 74 \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ \text { (NA) } \\ 76 \end{gathered}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| ${ }_{1963}{ }^{\text {irr }} \text {............. }$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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See footnotes at end of table.
table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted (\$1,000) | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Cov- <br> erage <br> ratio <br> (per- <br> cent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 <br> employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| $\begin{aligned} & 1961^{1 r} \\ & 1960^{1 r} \ldots . . . \\ & 1959^{1 r} \ldots . . \\ & 1958^{4} \ldots . . . \end{aligned}$ | INDUSTRY 3842.-SUPGICAL APPLIANCES AND SUPPLIES-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | (NA) | (NA) | (NA) | 27,868 | 164,968 | 17,118 | 34,913 | 73,677 | 357,119 | 225,579 | 556,545 | (30,421) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 27,311 | 158,396 | 17,312 | 34,736 | 72,860 | 365,023 | 226,117 | 571,583 | 12,069 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 26,458 | 148,478 | 17,561 | 35,638 | 71,104 | 331,665 | 216,996 | 547,620 | (S) | (NA) | (NA) |
|  | 553 | 590 | 161 | 24,179 | 114,867 | 16,277 | 31,460 | 62,122 | 257,640 | 200,377 | 461,846 | 9,110 | 84 | 90 |
|  | INDUSTRY 3843.-DENTAL EQUIPMENT AND SUPPLIES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 267 | 316 | 66 | 8,008 | 46,080 | 5,751 | 11,211 | 27,144 | 95,876 | 52,767 | 147,805 | 2,735 | 94 | 92 |
| $1962^{1 r}$ | (NA) | (NA) | (NA) | 7,281 | 39,062 | 5,113 | 9,976 | 22,620 | 88,006 | 51,848 | 139,558 | 1,887 | (X) | (X) |
| 1961 ${ }^{1 r}$........ | (NA) | (NA) | (NA) | 7,387 | 38,057 | 5,226 | 10,048 | 22,222 | 76,278 | 48,265 | 124,047 | 1,286 | (X) | (X) |
| 19601r........ | (NA) | (NA) | (NA) | 7,525 | 38,072 | 5,411 | 10,320 | 23,185 | 79,503 | 48,309 | 125,546 | 2,819 | (X) | (X) |
| $19591 r$. | (NA) | (NA) | (NA) | 7,240 | 36,322 | 5,231 | 10,210 | 22,096 | 74,972 | 44,052 | 118,221 | 1,764 | (X) | (X) |
| 1958. | 240 | 249 | 55 | 7,242 | 34,773 | 5,227 | 10,188 | 21,077 | 71,574 | 44,940 | 115,667 | 1,517 | 95 | 92 |
| $1957^{1}$ | (NA) | (NA) | (NA) | 6,796 | 30,391 | 4,746 | 9,688 | 19,872 | 70,685 | 43,100 | 111,316 | 1,426 | 96 | 93 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 6,802 | 28,894 | 4,894 | 9,781 | 18,930 | 67,200 | 38,103 | 102,869 | 1,544 | (NA) | (NA) |
| $1955^{1}$ | (NA) | (NA) | (NA) | 6,917 | 28,039 | 4,927 | 9,984 | 18,421 | 56,489 | 33,722 | 86,844 | 1,442 | (NA) | (NA) |
| $1954^{3} \ldots$ | 193 | 197 | 49 | 7,103 | 28,206 | 5,107 | 10,366 | 17,974 | 53,290 | 30,706 | 79,171 | 1,434 | 95 | 94 |
| $1952^{1} 3$ | (NA) | (NA) | (NA) | 7,988 | 30,678 | 6,067 | 11,996 | 19,248 | 52,105 | 30,293 | 82,398 | (NA) | (NA) | (NA) |
| 1951 ${ }^{3}$ | (NA) | (NA) | (NA) | 8,266 | 29,295 | 6,311 | 12,544 | 18,399 | 47,229 | 31,252 | 78,481 | (NA) | (NA) | (NA) |
| $1950^{1} 3 \ldots \ldots$ | (NA) | (NA) | (NA) | 7,117 | 23,482 | 5,230 | 10,136 | 14,297 | 42,980 | 27,259 | 70,239 | (NA) | (NA) | (NA) |
| $1949^{1} 3 \ldots \ldots$ | (NA) | (NA) | (NA) | 7,205 | 21,869 | 5,547 | 10,635 | 13,767 | 40,588 | 25,808 | 66,396 | (NA) | (NA) | (NA) |
| 19473 ${ }^{3} \ldots .$. | (NA) | 213 | 50 | 9,074 | 25,625 | 7,132 | 14,247 | 17,304 | 42,925 | 28,177 | 71,102 | 2,386 | 97 | 94 |
| $1939{ }^{3}$ | (NA) | (NA) | (NA) | 5,708 | 8,499 | 4,245 | (NA) | 4,825 | 18,289 | 13,258 | 31,547 | (NA) | (NA) | (NA) |
| $1937{ }^{3}$. | (NA) | (NA) | (NA) | 5,626 | 7,952 | 4,574 | (NA) | 5,347 | 18,162 | 12,717 | 30,879 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3851. - OPHTHALMIC GOODS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 211 | 229 | 109 | 20,296 | 96,361 | 16,467 | 32,771 | 68,954 | 177,898 | 96,611 | 272,687 | 9,085 | 86 | 92 |
| $1962{ }^{11}$ | (NA) | (NA) | (NA) | 21,068 | 93,744 | 17,764 | 35,553 | 70,240 | 159,919 | 81,690 | 241,475 | 7,133 | (NA) | (NA) |
| $19611{ }^{17}$ | (NA) | (NA) | (NA) | 19,272 | 83,677 | 15,988 | 31,725 | 61,104 | 147,618 | 72,226 | 217,790 | 8,974 | (NA) | (NA) |
| $1960{ }^{1 r}$ | (NA) | (NA) | (NA) | 20,662 | 84,237 | 17,135 | 33,708 | 63,142 | 152,830 | 74,319 | 225,473 | 5,685 | (NA) | (NA) |
| 19591 T | (NA) | (NA) | (NA) | 19,488 | 78,935 | 16,398 | 32,399 | 59,381 | 146,321 | 70,881 | 214,811 | 5,057 | (NA) | (NA) |
| 1958.. | 226 | 246 | 104 | 18,223 | 71,465 | 15,272 | 29,988 | 53,525 | 136,696 | 62,010 | 194,446 | 5,367 | 87 | 98 |
| $1954^{3} \ldots \ldots$ | 223 | 238 | 101 | 18,464 | 64,536 | 15,355 | 29,960 | 48,332 | 107,059 | 48,306 | 159,061 | 5,042 | 83 | 94 (NA) |
| $1953{ }^{1} 3 \ldots$ | (NA) | (NA) | (NA) | 20,620 | 70,966 | 17,047 | 33,666 | 54,182 | 116,436 | 56,031 | 172,467 | 3,974 | (NA) | (NA) |
| $1952^{1} 3 . \ldots \ldots$ | (NA) | (NA) | (NA) | 20,414 | 70,318 | 17,182 | (NA) | 53,467 | 117,161 | 56,175 | 173,336 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 20,261 | 66,620 | 17,367 | 35,949 | 52,748 | 107,022 | 50,283 | 157,305 | 3,645 | (NA) | (NA) |
| $1949^{1} 3$ | (NA) | (NA) | (NA) | 21,904 | 60,189 | 18,337 | 35,274 | 44,165 | 98,386 | 55,263 | 153,649 | (S) | (NA) | (NA) |
| $1947^{3} \ldots .$. | 175 | 184 | 97 | 22,562 | 57,112 | 19,847 | 39,441 | 46,507 | 87,205 | 33,948 | 121,153 | (NA) | 86 | 97 |
| $1939^{3} \ldots \ldots$. | (NA) | 91 | (NA) | 13,497 | 19,271 | 10,252 | (NA) | 12,246 | 30,745 | 14,210 | 44,955 | (NA) | (NA) | (NA) |
| $1937^{3} \ldots . .$. | (NA) | 79 | (NA) | (NA) | (NA) | 10,906 | (NA) | 12,968 | 30,058 | 13,462 | 43,520 | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All erployees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacturc, processing or assembly. For 1939 and prior years, except. 1929, the figures represent value of production rather than shipments.
Standard Notes: - Represents zoro. (D) Withheld to avoid disclosing figures for individual conpanies. (NA) Not available. (X) Not
applicable. revised.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.

These ligures represent estinates derived from a representative sample of manufacturing establishnents canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishnents. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures show in parentheses either have associated standard errors excceding 15 percent or are not consistent with other census series and related data. See text for explanation concerning shift from individual instruments to systens.
${ }^{2} A$ revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification so that the industry is not
comparable. The 1957 and earlier figures are on the old SIC definition of the industry.
${ }^{3}$ Data for Alaska and Hawaii are not included.
${ }^{4}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Accordingly, the data for 1958-1963 are not comparable with those for earlier years.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expencitures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{gathered} \begin{array}{c} \text { Man- } \\ \text { hours } \\ (1,000) \end{array} \\ \hline \end{gathered}$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3811.-SCIENTIFIC INSIRUNENTS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 594 | 213 | 33,084 | 208,171 | 22,184 | 44,584 | 119,836 | 358,588 | 200,034 | 553,920 | 16,244 | $r_{57,249}$ | $r_{481,166}$ |
| New England......... Massachusetts.... Connecticut...... | 663521 | 24147 | $\begin{aligned} & 3,465 \\ & 2,747 \end{aligned}$ | 16,978 | $\begin{aligned} & 2,204 \\ & 1,722 \end{aligned}$ | $\begin{aligned} & 4,450 \\ & 3,476 \end{aligned}$ | $\begin{array}{r} 11,666 \\ 8,860 \end{array}$ | 34,727 27,092 | 16,669 | 51,442 38,773 | 1,831 | 3,974 2,519 | $\begin{array}{r} 31,338 \\ 21,398 \\ 8,514 \end{array}$ |
|  |  |  | 535 | 3,489 | 337 | 694 | 2,090 | 5,771 | 3,741 | 9,393 | -285 | 1,291 |  |
| Middle Atlantic.... | 159 | 56 | $\begin{aligned} & 7,874 \\ & 4,875 \end{aligned}$ | $\begin{aligned} & 51,337 \\ & 33,553 \end{aligned}$ | $\begin{aligned} & 5,052 \\ & 2,735 \end{aligned}$ | 9,9035,222 | 27,51015,700 | 89,11556,646 | 41,25219,248 | 124,62670,168 | 2,0741,002 | ${ }_{\text {r }}$ 27,774 | $\begin{aligned} & r_{229,488} \\ & r^{98,191} \end{aligned}$ |
| New York......... | 7347 | 22 |  |  |  |  |  |  |  |  |  |  |  |
| New Jersey....... |  | 19 | $\begin{aligned} & 4,875 \\ & 2,007 \end{aligned}$ | 12,324 | 1,552 | 3,202 | $\begin{aligned} & 8,222 \\ & 3,588 \end{aligned}$ | 20,249 | 14,3937,611 | 34,19220,266 | 783 | 13,866 | $\begin{array}{r} 114,877 \\ 16,420 \end{array}$ |
| Pennsylvania.... . | 39 | 15 | 992 | 5,460 | 765 | 1,479 |  | 12,220 |  |  | 289 | 2,014 |  |
| North Central...... Ohio. Illinois Michigan. | $\begin{array}{r} 142 \\ 24 \\ 56 \\ 23 \end{array}$ | $\begin{array}{r} 48 \\ 3 \\ 22 \\ 12 \end{array}$ | $\begin{array}{r} 11,565 \\ 294 \\ 3,019 \\ 4,548 \end{array}$ | $\begin{array}{r} 72,150 \\ 1,496 \\ 17,537 \\ 32,233 \end{array}$ | $\begin{array}{r} 7,956 \\ 227 \\ 1,989 \\ 3,379 \end{array}$ | $\begin{array}{r} 15,779 \\ 464 \\ 3,981 \\ 6,406 \end{array}$ | 44,9199609,91122,693 | $\begin{array}{r} 121,430 \\ 3,339 \\ 36,719 \\ 50,930 \end{array}$ | $\begin{array}{r} 76,773 \\ 1,864 \\ 24,524 \\ 33,018 \end{array}$ | $\begin{array}{r} 198,049 \\ 5,162 \\ 60,355 \\ 83,941 \end{array}$ | $\begin{array}{r} 8,302 \\ 98 \\ 2,057 \\ 3,493 \end{array}$ | $\begin{array}{r} 15,044 \\ 452 \\ 2,229 \\ 4,230 \end{array}$ | $\begin{array}{r} 134,582 \\ 42,221 \\ 22,212 \\ 44,324 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| South Atlantic..... Maryland.......... Florida. $\qquad$ | $\begin{array}{r} 44 \\ 14 \\ 8 \end{array}$ | $\begin{array}{r} 20 \\ 7 \\ 2 \end{array}$ | $\begin{array}{r} 2,865 \\ 770 \\ 254 \end{array}$ | $\begin{array}{r} 14,212 \\ 4,533 \\ 1,219 \end{array}$ | $\begin{array}{r} 2,084 \\ 548 \\ 187 \end{array}$ | $\begin{array}{r} 4,256 \\ 1,049 \\ 363 \end{array}$ | $\begin{array}{r} 8,685 \\ 2,964 \\ 688 \end{array}$ | $\begin{array}{r} 27,561 \\ 7,369 \\ 2,305 \end{array}$ | $\begin{array}{r} 20,628 \\ 4,648 \end{array}$ | 46,79612,501 | $\begin{aligned} & \text { (D) } \\ & 98 \\ & 44 \end{aligned}$ | $\left({ }^{2}\right)$1,489 | $(2)$10,961 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 723 | 3,046 |  | 239 | 690 |
| East South Central. | 8 | 3 | 180 | 747 | 137 | 293 | 433 | 1,380 | 1,240 | 2,638 |  |  | (D) (2) (2) |
| West South Central. | 4640 | $\begin{aligned} & 18 \\ & 15 \end{aligned}$ | 1,9411,740 | $\begin{array}{r} 10,441 \\ 9,335 \end{array}$ | $\begin{aligned} & 1,490 \\ & 1,360 \end{aligned}$ | $\begin{aligned} & 2,924 \\ & 2,672 \end{aligned}$ | $\begin{aligned} & 7,326 \\ & 6,736 \end{aligned}$ | $\begin{aligned} & 16,409 \\ & 13,228 \end{aligned}$ | $\begin{aligned} & 11,414 \\ & 10,530 \end{aligned}$ | $\begin{aligned} & 27,592 \\ & 23,626 \end{aligned}$ | (D) | $\begin{array}{r} \left({ }^{2}\right) \\ 2,466 \end{array}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 17,263 \end{array}$ |
| Texas. |  |  |  |  |  |  |  |  |  |  | 512 |  |  |
| Mountain. . . . . . . . . | 14 | 6 | 1,645 | 12,944 | 782 | 1,955 | 4,907 | 28,968 | 9,823 | $\begin{aligned} & 40,418 \\ & 62,357 \\ & 60,520 \end{aligned}$ | 824 | 534 | 5,952 |
| Pacific............. California....... | 115 | $\begin{aligned} & 38 \\ & 36 \end{aligned}$ | $\begin{aligned} & 3,549 \\ & 3,414 \end{aligned}$ | $\begin{aligned} & 24,830 \\ & 24,027 \end{aligned}$ | $\begin{aligned} & 2,479 \\ & 2,389 \end{aligned}$ | $\begin{aligned} & 5,024 \\ & 4,860 \end{aligned}$ | 14,390 | 38,998 | 22,235 |  | 1,284 | 4,089 | 39,307 |
|  |  |  |  |  |  |  | 13,950 | 37,774 | 21,591 |  | 1,255 | 4,003 | 38,627 |
|  | INDUSTRY 3821.-MECHANICAL MEASURING DEVICES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. . . . . . . . | 670 | 258 | 62,353 | 388,874 | 40,383 | 81,510 | 222,826 | 732,529 | 415,855 | 1,143,416 | 30,914 | 50,049 | 457,126 |
| New England........ | 79 | 39 | 14,642 | 93,651 | 8,457 | 17,058 | 46,012 | 163,939 | 82,895 | 247,166 | 7,525 | 12,527 | 112,247 |
| Middle Atlantic.... | 209 | 82 | 20,770 | 131,971 | 14,165 | 28,299 | 80,649 | 257,993 | 129,218 |  |  |  |  |
| Pennsylvania..... | 54 | 30 | 11,483 | 77,130 | 7,539 | 15,311 | 44,856 | 158,969 | 77,068 | 232,166 | $5,817$ | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ |
| East North Central. | 156 | 64 | 18,921 | 117,974 | 12,733 | 25,853 | 69,985 | 222,686 | 149,044 | 366,945 | 10,791 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Ohio.............. | 32 | 16 | 4,927 | 28,108 | 2,334 | 4,472 | 10,245 | 46,842 | 29,445 | 75,807 | 4,278 | 3,998 | 33,117 |
| Illinois. | 56 | 25 | 6,737 | 38,836 | 4,848 | 9,747 | 24,002 | 86,280 | 44,629 | 129,132 | 2,047 | 4,144 | 41,399 |
| West North Central. | 23 | 6 | 956 | 4,744 | 775 | 1,652 | 3,526 | 13,005 | 6,888 | 19,885 | 300 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Missouri......... | 5 | 2 | 108 | 541 | 94 | . 161 | 427 | 1,001 | 600 | 1,623 | 69 | (2) | ${ }^{2}$ ) |
| South and West..... | 203 | 67 | -7,064 | 40,534 | 4,253 | 8,648 | 22,654 | 74,906 | 47,810 | 127,425 | 3,560 | 5,209 | 52,315 |
| Maryland......... | 14 | 3 | 208 | 1,406 | 152 | 308 | 661 | 2,479 | 1,119 | 3,490 | 169 | 104 | 967 |
| Oklahoma.. | 12 |  | 475 | 2,563 | 340 | 726 | 1,691 | 5,076 | 2,597 | 8,358 | 176 | ${ }^{2}$ ) | ${ }^{(2)}$ |
| Texas. | 26 | 9 | 483 | 2,742 | 333 | 687 | 1,791 | 7,356 | 5,060 | 12,593 | . 85 | 459 | 6,521 |
|  |  |  |  |  |  | STRY 382 | - Automat | TEMPERAT | CONTROTS |  |  |  |  |
| Total.. | 104 | 54 | 31,685 | 192,301 | 22,299 | 45,459 | 122,154 | 379,091 | 158,091 | 527,358 | 10,523 | 25,513 | 258,969 |
| New England. | 10 | 6 | 2,620 | 14,389 | 1,709 | 3,884 | 8,865 | 26,025 | 10,224 | 36,081 | 640 | 2,223 | 16,406 |
| Midale Atlantic.... | 19 | 9 | 2,649 | 14,977 | 2,022 | 3,866 | 10,296 | 25,671 | 12,469 | 37,886 | 408 | $2,280$ | $17,831$ |
| New York. | 8 | 4 | 268 | 1,209 | 230 | 442 | 939 | 2,262 | 1,965 | 4,086 | 77 | ${ }^{(2)}$ | ${ }^{2}$ ) |
| East North Central. | 39 | 21 | 12,751 | 76,825 | 8,906 | 17,785 | 47,907 | 156,958 | 68,688 | 221,784 | 4,479 | ${ }^{2}$ ) | (2) |
| Ohio............. | 13 | 9 | 2,979 | 16,952 | 2,367 | 4,621 | 11,585 | 31,078 | 11,634 | 43,027 | 1,100 | 2,010 | 17,443 |
| Illinois. | 13 | 5 | 5,617 | 34,879 | 3,591 | 7,395 | 19,935 | 76,630 | 26,607 | 101,415 | 2,494 | 3,634 | 47,574 |
| West North Central. | 7 | 3 | 7,217 | 48,753 | 4,669 | 9,486 | 27,552 | 101,464 | 36,265 | 133,682 | 2,216 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| South and West..... | 29 | 15 | 6,448 | 37,357 | 4,993 | 10,438 | 27,534 | 68,973 | 30,445 | 97,925 | 2,780 | 5,543 | 59,003 |

See footnotes at end of table.
table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


Standard Notes: - Represents zero
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. Revised.
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown
below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3811, Scientific Instruments: New England-Maine, l (20-99); New Hampshire, 1 (1-19); Vermont, 3 (20-99); Rhode Island, 5 (110); East North
Central-Indiana, 8 (20-99); Wisconsin, 7 (1,809); West North Central-Minnesota, 4 (361); Iowa, 3 (1,077); Missouri, 11 (145); South Dakota,
l (1-19); Nebraska, 2 (20-99); Kansas, 3 (222); South Atlantic—Delaware, 2 (20-99); District of Columbia, l (1-19); Virginia, 10 (523);
West Virginia, 3 (148); North Carolina, 5 (I,041); Georgia, 1 (20-99); East South Central-Kentucky, l (1-19); Tennessee, 4 (114); Alabama, 1 (1-19); Mississippi, 2 (20-99); West South Central-Louisiana, 2 (100-249); Oklahoma, 4 (20-99); Mountain-Idaho, 1 (1-19); Wyoming, 2 (20-99); Colorado, 6 (168); Arizona, 5 (1,403); Pacific-Washington, 1 (20-99); Oregon, 3 (100-249).
 Rhode Island, 4 (500-999); Connecticut, 31 (5,000-9,999); Middle Atlantic-New York, 102 (5,000-9,999); New Jersey, 53 (2,565); East North Central-Indiana, 15 (500-999); Michigan, 38 (5,696); Wisconsin, 15 (500-999); West North Central--Minnesota, 8 (20-99); Iowa, 8 (500-999); Nebraska, 1 (100-249); Kansas, 1 (1-19); South Atlantic—Delaware, 1 (1-19); District of Columbia, l (1-19); Virginia, 2 (20-99); West Virginia
 Tennessee, 5 (20-99); Alabama, 1 (1-19); Mississippi, 1 (1-19); West South Central-Arkansas, 3 (20-99); Mountain-Montana, 1 (20-99); Wyoming, 1 (1-19); Colorado, 5 (20-99); New Mexico, 2 (100-249); Arizona, 3 (1-19); Utah, 1 (1-19); Pacific-Washington, 4 (20-99); Oregon, 4 (100-249); California, 98 (4,492).
 3 (250-499); Middle Atlantic-New Jersey, 6 (551); Pennsylvania, 5 (1,830); East North Central-Indiana, 3 (1,000-2,499); Michigan, 6 (851); Wisconsin, 4 (1,000-2,499); West North Central-Minnesota, 2 (5,000-9,999); Iowa, 2 (1-19); Missouri, 2 (1,000-2,499); Kansas, 1 (1-19); South

 $(4,612)$.

## table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

## Footnotes for table 2-38A-Continued

SIC 3831, Optical Instruments and Lenses: New England-New Hampshire, 1 (250-499); Massachusetts, 25 (1,249); Rhode Island, 2 (1-19); Connecticut, 6 (1,927); East North Central—Ohio, 8 (20-99); Indiana, 2 (1-19); Michigan, 7 (250-499); Wisconsin, 4 (20-99); West North Central-Minnesota, 7 (20-99); Nebraska, 1 (1-19); South Atlantic-Maryland, 5 (20-99); West Virginia, 4 (278); Florida, 4 (145); East South Central-Mississippi, 1 (1-19); West South Central-Arkansas, 1 (1-19); Oklahoma, 1 (1-19); Texas, 5. (245); Mountain-Colorado, 3 (1-19); Arizona, 2 (1-19); PacificWashington, 3 (20-99); Oregon, 4 (1-19).
SIC 3841, Surgical and Medical Instruments: New England-New Hampshire, 2 (20-99); Vermont, 1 (1-19); Rhode Island, 2 (20-99); Connecticut, 9 (1,223); Middle Atlantic-New Jersey, 23 (2,210); Pennsylvania, 15 (600); East North Central—Michigan, 8 (281); Wisconsin, 3 (286); West North Central-Minnesota, 6 (20-99); Iowa, 2 (1-19); Missouri, 11 (685); Nebraska, 4 (1,002); South Atlantic-Maryland, 2 (1-19); District of Columbia, 1 (1-19); West Virginia, 1 (1-19); North Carolina, 2 (1-19); South Carolina, 2 (1-19); Georgia, 2 (20-99); Florida, 6 (588); East South CentralTennessee, 3 (250-499); Mississippi, 2 (20-99); West South Central-Arkansas, 1 (1-19); Oklahoma, 1 (1-19); Texas, 6 (20-99); Mountain-Colorado, 6 (20-99); Utah, 1 (1-19); Pacific-Washington, 5 (1-19).
SIC 3842, Surgical Appliances and Supplies: New England-New Hampshire, 6 (20-99); Vermont, 1 (1-19); Massachusetts, 36 (1,000-2,499); Rhode Island, 8 (500-999); Middle Atlantic-New Jersey, 29 (4,746); Pennsylvania, 44 (3,360); East North Central-Indiana, 6 (20-99); West North Central-Iowa, 6 (20-99); North Dakota, l (1-19); South Dakota, 1 (1-19); Nebraska, 5 (20-99); Kansas, 6 (20-99); South Atlantic-Maryland, 8 (20-99); District of Columbia, 3 (20-99); Virginia, 3 (1-19); West Virginia, 7 (250-495); North Carolina, 13 (711); South Carolina, 5 (1,000-2,499); Georgia, 7 (20-99); Florida, 27 (156); East South Central-Kentucky, 9 (100-249); Tennessee, 12 (182); Alabama, 5 (20-99); Mississippi, 2 (1-19); West South Central-Arkansas, 1 (1-19); Oklahoma, 3 (1-19); Texas, 23 ( 424 ); Mountain-Colorado, 10 (100-249); New Mexico, 1 (1-19); Arizona, 2 (20-99); Utah, 6 (20-99); Pacific-Washington, 5 (1-19); Oregon, 5 (20-99); Alaska, 1 (1-19).
SIC 3843, Dental Equipment and Supplies: New England-Maine, 1 (1-19); Massachusetts, 11 (100-249); Connecticut, 4 (419); Middle Atlantic-New Jersey, 11 (159); Pennsylvania, 27 (1,640); East North Central-Indiana, 7 (20-99); Michigan, 7 (212); Wisconsin, 4 (1-19); West North CentralMinnesota, 2 (1-19); Iowa, 3 (20-99); Missouri, 6 (20-99); South Dakota, 1 (1-10); South Atlantic—Delaware, 2 (250-499); Maryland, 5 (101); District of Columbia, 2 (1-19); Virginia, 3 (117); North Carolina, l (100-249); Florida, 3 (1-19); East South Central-Kentucky, 2 (20-99); Tennessee, 2 (1-19); Alabama, 2 (1-19); West South Central—Oklahoma, 1 (1-19); Texas, 10 (20-99); Mountain-Montana, 4 (20-99); Idaho, 1 (1-19); Arizona, 2 (1-19); Utah, 2 (1-19); Pacific-Washington, 4 (1-19); Oregon, 4 (100-249).
SIC 3851, Ophthalmic Goods: New England-Maine, 1 (1-19); Vermont, 1 (250-499); Massachusetts, 13 (3,988); Connecticut, 3 (250-499); East North Central-Indiana, 5 (250-499); Michigan, 5 (20-99); Wisconsin, 2 (20-99); West North Central-Minnesota, 8 (250-499); Iowa, 2 (20-99); Nebraska, 1 (1-19); South Atlantic-Maryland, 2 (250-499); Virginia, 2 (500-999); North Carolina, 3 (1-19.); South Carolina, 1 (250-499); Georgia, 1 (20-99); East South Central-Kentucky, 3 (20-99); Tennessee, 2 (1-19); West South Central-Louisiana, 1 (1-19); Oklahoma, 1 (1-19); Texas, 6 (251); Mountain-Colorado, 1 (1-19); Pacific-Washington, 1 (20-99); Califormia, 9 (100-249).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.
tABLE 3. Detailed Statistics: 1963

| Item | Scientific instruments (SIC 3811) | Mechanical measuring devices (SIC 3821) | Automatic temperature controls (SIC 3822) | Optical instruments and lenses (SIC 3831) | Surgical and medical instruments (SIC 3841) | Surgical appliances and supplies (SIC 3842) | Dental equipment and supplies (SIC 3843) | Ophthalmic goods (SIC 3851) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio.. | . 84 | . 90 | . 82 | . 90 | . 88 | . 80 | . 94 | . 86 |
| Coverage ratio. ${ }^{\text {a }}$. . | . 56 | .83 | . 95 | . 61 | . 74 | . 90 | . 92 | . 92 |
| Establishments, total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . number. . | 594 | 670 | 104 | 280 | 294 | 704 | 316 | 229 |
| With 1 to 19 employees. . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 381 | 412 | 50 | 201 | 177 | 542 | 250 | 120 |
| With 20 to 99 employees. . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 154 | 155 | 21 | 51 | 82 | 108 | 47 | 75 |
| With 100 employees or more..............................d. ${ }^{\text {do.... }}$ | 59 | 103 | 33 | 28 | 35 | 54 | 19 | 34 |
| Proprietors and working partners.........................do.... | 188 | 207 | 16 | 112 | 79 | 315 | 152 | 70 |
| All employees (average for the year).....................do.... | 33,084 | 62,353 | 31,685 | 11,924 | 15,145 | 28,267 | 8,008 | 20,296 |
| Payroll (all employees), total for year............... $\$ 1,000$. | 208,171 | 388,874 | 192,301 | 79,131 | 83,332 | 161,800 | 46,080 | 96,361 |
| Production workers: |  |  |  |  |  |  |  |  |
| Average for the year. . . . . . . . . . . . . . . . . . . . . . . . . . . number. . | 22,184 | 40,383 | 22,299 | 8,306 | 11,538 | 18,987 | 5,751 | 16,467 |
| March. | 22,358 | 40,338 | 22,109 | 8,196 | 11,570 | 18,364 | 5,724 | 16,415 |
| May. | 22,041 | 40,367 | 22,335 | 8,166 | 11,626 | 18,987 | 5,575 | 16,705 |
| August . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 22,291 | 40,459 | 22,352 | 8,345 | 11,635 | 19,010 | 5,610 | 16,067 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 22,046 | 40,315 | 22,406 | 8,509 | 11,348 | 19,588 | 5,888 | 16,689 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .1,000. . | 44, 584 | 81,510 | 45,459 | 16,728 | 22,916 | 37,904 | 11,211 | 32,771 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 11,054 | 20,486 | 11,233 | 4,196 | 5,753 | 9,194 | 2,826 | 8,030 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 11,194 | 20,474 | 11,426 | 4,174 | 5,806 | 9,699 | 2,836 | 8,470 |
| July-September | 10,946 | 19,467 | 11,206 | 3,958 | 5,532 | 9,292 | 2,697 | 7,566 |
| October-December . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 11,390 | 21,083 | 11,594 | 4,400 | 5,825 | 9,719 | 2,852 | 8,705 |
| Wages . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | 119,836 | 222,826 | 122,154 | 47,149 | 52,520 | 85,790 | 27,144 | 68,954 |
| Cost of materials, etc., total............................ do. | 200,034 | 415,855 | 158,091 | 66,557 | 126,856 | 230,054 | 52,767 | 96,6.11 |
| Materials, parts, containers, and supplies consumed..do. | 166,172 | 358,337 | 141,812 | 53,059 | 91,949 | 175,762 | 45,522 | 87,247 |
| Cost of resales. | 21,195 | 34,511 | 10,181 | 5,050 | 28,755 | 35,759 | 5,232 | 4,564 |
| Fuels consumed..............................................do. | 1,048 | 2,155 | 954 | 385 | 532 | 1,091 | 383 | 1,071 |
| Electric energy: |  |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . .million kw. -hrs. . | 177 | 355 | 177 | 53 | 62 | 158 | 29 | 141 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 2,747 | 5,224 | 2,375 | 1,182 | 1,100 | 1,944 | 559 | 1,793 |
| Generated less sold.....................million kw. -hrs. . | - | (D) | - | (D) | - | - | (D) | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. . | 8,872 | 15,628 | 2,769 | 6,881 | 4,520 | 15,498 | 1,071 | 1,936 |
| Value of shipments (including resales), total..........do. |  | 1,143,416 | 527,358 | 196,022 | 284,014 | 596,666 | 147,805 | 272,687 |
| Value of resales..................... . . . . . . . . . . . . . . . . do. | 32,928 | 47,579 | 15,221 | 8,700 | 34,184 | 62,226 | 8,445 | 6,235 |
| Value added by manufacture, adjusted. . . . . . . . . . . . . . . . do. | 358,588 | 732,529 | 379,091 | 131,917 | 168,556 | 370,273 | 95,876 | 177,898 |
| Manufacturers' inventories: |  |  |  |  |  |  |  |  |
| Beginning of year, total................................do. | 115,571 | 250,064 | 98,747 | 40,151 | 47,279 | 95,290 | 32,824 | 70,683 |
| Finished products. . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 21,829 | 54,203 | 30,621 | 10,337 | 16,842 | 30,891 | 9,719 | 32,413 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 64,545 | 115,649 | 49,048 | 24,477 | 13,901 | 31,887 | 16,057 | 25,592 |
| Materials, supplies, fuel, etc.......................do.. | 29,197 | 80,212 | 19,078 | 5,337 | 16,536 | 32,512 | 7,048 | 12,678 |
| End of year, total.......................... . . . . . . . . . .do. . . . | 122,106 | 256,524 | 110,772 | 42,960 | 54,096 | 100,187 | 33,671 | 72,663 |
| Finished products.......... . . . . . . . . . . . . . . . . . . . . . do. . . . | 22,455 | 48,565 | 39,048 | 10,676 | 22,526 | 31,885 | 11,141 | 33,195 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 69,721 | 126,160 | 50,445 | 26,590 | 19,615 | 34, 554 | 15,473 | 26,632 |
| Materials, supplies, fuel, etc.......................do.... | 29,930 | 81,799 | 21,279 | 5,694 | 11,955 | 33,748 | 7,057 | 12,836 |
| Expenditures for plant and equipment, total...........do.... | 18,825 | 31,840 | 11,185 | 6,861 | 10,713 | 18,364 | 2,802 | 9,352 |
| New, total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 16,244 | 30,914 | 10,523 | 6,163 | 10,514 | 17,831 | 2,735 | 9,085 |
| New structures and additions to plant..............do. . . | 6,219 | 11,914 | 1,448 | 2,140 | 3,253 | 6,375 | 632 | 851 |
| New machinery and equipment. . . . . . . . . . . . . . . . . . . . do. . . . | 10,025 | 19,000 | 9,075 | 4,023 | 7,261 | 11,456 | 2,103 | 8,234 |
| Used plant and equipment. . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 2,581 | 926 | 662 | 698 | 199 | 533 | 67 | 267 |
| Selected operating ratios: |  |  |  |  |  |  |  |  |
| Payroll/Total employment. | 6,292 | 6,237 | 6,050 | 6,636 | 5,502 | 5,724 | 5,754 | 4,748 |
| Production workers/Total employment. . . . . . . . . . . . . . . . . . . . . . | . 67 | . 65 | . 71 | . 70 | . 76 | . 67 | . 72 | . 81 |
| Man-hours/Production workers. | 2,010 | 2,018 | 2,008 | 2,014 | 1,986 | 1,996 | 1,949 | 1,990 |
| Production worker wages/Man-hours. . . . . . . . . . . . . . . . . . . . . . . | 2.69 | 2.73 | 2.69 | 2.82 | 2.29 | 2.26 | 2.42 | 2.10 |
| Cost of materials and payrolls/Total value of shipments.... | . 74 | . 70 | . 66 | . 74 | .74 | . 66 | . 67 | . 74 |
| Cost of materials/Total value of shipments................... | . 36 | . 36 | . 30 | . 34 | . 45 | . 39 | . 36 | . 35 |
| Adjusted value added/Total employment......................... | 10,839 | 11,748 | 11,964 | 11,063 | 11,129 | 13,088 | 11,973 | 8,675 |
| Salaries and wages/Adjusted value added....................... | . 58 | . 53 | . 51 | . 60 | . 49 | . 44 | . 48 | . 54 |

Note: Detailed figures maj not add to totals because of independent rounding on indepenuent dropping of fractions of t:ousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheid to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable
${ }^{1}$ The proportion of product chiprients (both pritary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufac-
uring establiss ents.

# table 4. Selected Stattistics, by Employment Size of Establishments: 1963 



See footnotes at end of table.

# TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963-Continued 

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ \text { 2,499 } \\ \text { employees } \end{gathered}$ | $\begin{aligned} & \text { 2,500 } \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3851.-OPHTHALMIC GOODS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 229 | 56 | 34 | 30 | 34 | 41 | 16 | 15 | 1 |  | 2 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total. . . . . . . . . . . . . . . . . do. . . | 20,296 | 117 | 230 | 422 | 1,047 | 2,852 | 2,541 | 13,087 | (D) |  | (D) |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 96,361 | 514 | 1,028 | 1,818 | 4,946 | 12,321 | 10,979 | 64,755 | (D) |  | (D) |
| Value added, adjusted.......do.... | 177,898 | 929 | 1,851 | 3,306 | 8,683 | 22,146 | 20,585 | 120,398 | (D) |  | (D) |
| Value of shipments..........do.... | 272,687 | 1,596 | 2,938 | 5,725 | 14,837 | 37,613 | 32,613 | 177,365 | (D) |  | (D) |
| Capital expenditures, new...do.... | 9,085 | 38 | 58 | 96 | 216 | 782 | 825 | 7,070 | (D) |  | (D) |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.


# table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958 


as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary produc ts $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\text { Col. B }}{}$ <br> $\overline{\mathrm{Col} . \mathrm{B}+\mathrm{C}}$ (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000) .$ | Coverage ratio <br> Col. B <br> Col. F <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3811 | Scientific instruments............ ${ }^{1963} 1958^{\text {r }}$. | $\begin{aligned} & 553,920 \\ & 752,542 \end{aligned}$ | $\begin{aligned} & 405,944 \\ & 509,632 \end{aligned}$ | $\begin{array}{r} 79,972 \\ 146,608 \end{array}$ | $\begin{aligned} & 68,004 \\ & 96,302 \end{aligned}$ | $\begin{aligned} & 84 \\ & 78 \end{aligned}$ | $\begin{aligned} & 722,105 \\ & 758,639 \end{aligned}$ | $\begin{aligned} & 405,944 \\ & 509,632 \end{aligned}$ | $\begin{aligned} & 316,161 \\ & 249,007 \end{aligned}$ | 56 67 |
| 3821 | Mechanical measuring devices......1963.. | $1,143,416$ 726,823 | $\begin{aligned} & 818,673 \\ & 578,728 \end{aligned}$ | $\begin{array}{r} 207,267 \\ 92,618 \end{array}$ | $\begin{array}{r} 117,476 \\ 55,477 \end{array}$ | 90 86 | $\begin{aligned} & 983,840 \\ & 760,780 \end{aligned}$ | $\begin{aligned} & 818,673 \\ & 578,728 \end{aligned}$ | $\begin{aligned} & 165,167 \\ & 182,052 \end{aligned}$ | 83 76 |
| 3822 | Automatic temperature controls....1963.. | $\begin{aligned} & 527,358 \\ & 359,430 \end{aligned}$ | $\begin{aligned} & 409,472 \\ & 301,780 \end{aligned}$ | $\begin{aligned} & 90,573 \\ & 40,609 \end{aligned}$ | $\begin{aligned} & 27,313 \\ & 17,041 \end{aligned}$ | $\begin{aligned} & 82 \\ & 88 \end{aligned}$ | $\begin{aligned} & 431,612 \\ & 319,855 \end{aligned}$ | $\begin{aligned} & 409,472 \\ & 301,780 \end{aligned}$ | $\begin{aligned} & 22,140 \\ & 18,075 \end{aligned}$ | 95 94 |
| 3831 | Optical instruments and lenses....1963.. | $\begin{aligned} & 196,022 \\ & 102,966 \end{aligned}$ | $\begin{array}{r} 164,965 \\ 75,958 \end{array}$ | $\begin{array}{r} 17,446 \\ 8,243 \end{array}$ | $\begin{aligned} & 13,611 \\ & 18,765 \end{aligned}$ | 90 90 | $\begin{aligned} & 269,528 \\ & 115,481 \end{aligned}$ | $\begin{array}{r} 164,965 \\ 75,958 \end{array}$ | $\begin{array}{r} 104,563 \\ 39,523 \end{array}$ | 61 |
| 3841 | Surgical and medical instruments..1963.. | $\begin{aligned} & 284,014 \\ & 130,477 \end{aligned}$ | $\begin{array}{r} 214,934 \\ 98,707 \end{array}$ | 29,129 20,930 | $\begin{aligned} & 39,951 \\ & 10,840 \end{aligned}$ | 88 83 | $\begin{aligned} & 290,621 \\ & 130,570 \end{aligned}$ | $\begin{array}{r} 214,934 \\ 98,707 \end{array}$ | $\begin{aligned} & 75,687 \\ & 31,863 \end{aligned}$ | 74 76 |
| 3842 | Surgical appliances and supplies..1963.. | $\begin{aligned} & 596,666 \\ & 461,846 \end{aligned}$ | $\begin{aligned} & 414,545 \\ & 326,400 \end{aligned}$ | $\begin{array}{r} 105,379 \\ 63,908 \end{array}$ | $\begin{aligned} & 76,742 \\ & 71,538 \end{aligned}$ | 80 84 | $\begin{aligned} & 461,819 \\ & 362,029 \end{aligned}$ | $\begin{aligned} & 414,545 \\ & 326,400 \end{aligned}$ | $\begin{aligned} & 47,274 \\ & 35,629 \end{aligned}$ | $\begin{aligned} & 90 \\ & 90 \end{aligned}$ |
| 3843 | Dental equipment and supplies......1963.. 1958.. | $\begin{aligned} & 147,805 \\ & 115,667 \end{aligned}$ | $\begin{aligned} & 127,693 \\ & 101,848 \end{aligned}$ | $\begin{aligned} & 8,801 \\ & 5,139 \end{aligned}$ | $\begin{array}{r} 11,311 \\ 8,680 \end{array}$ | $\begin{aligned} & 94 \\ & 95 \end{aligned}$ | $\begin{aligned} & 139,532 \\ & 110,680 \end{aligned}$ | $\begin{aligned} & 127,693 \\ & 101,848 \end{aligned}$ | $\begin{array}{r} 11,839 \\ 8,832 \end{array}$ | $\begin{aligned} & 92 \\ & 92 \end{aligned}$ |
| 3851 | $\text { Ophthalmic goods........................ . } 1963 . .$ | $\begin{aligned} & 272,687 \\ & 194,446 \end{aligned}$ | $\begin{aligned} & 225,702 \\ & 164,658 \end{aligned}$ | $\begin{aligned} & 37,421 \\ & 24,137 \end{aligned}$ | $\begin{aligned} & 9,564 \\ & 5,651 \end{aligned}$ | $\begin{aligned} & 86 \\ & 87 \end{aligned}$ | $\begin{aligned} & 244,143 \\ & 167,951 \end{aligned}$ | $\begin{aligned} & 225,702 \\ & 164,658 \end{aligned}$ | $\begin{array}{r} 18,441 \\ 3,293 \end{array}$ | $\begin{aligned} & 92 \\ & 98 \end{aligned}$ |

Note: See Introduction for an explanation of terms used.
Standard Noteş: - Represents zerc. (D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. Revised.

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary nroducts). (b) mroducts classified in other industries (secondary products). and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

| Prod. <br> class <br> code | Class of products and <br> miscellaneous receipts |
| :--- | :---: |
|  |  |



Sighting and fire-control equipment made from lenses, prisms, etc., produced in this plant.
Surgical and medical instruments and apparatus
Miscellaneous receipts.

## Contract <br> Resales

Receipts for installation (or construction of products of this establishment)
Receipts for research and development work.
Receipts for repair work...
Other miscellaneous receipts.
Listing of other industries with over $\$ 2$ million shipments of each primary product class:
3611 Electric measuring instruments..
3621 Motors and generators
3662 Radio, TV communications equipment
3679 Electronic components, n.e.c..
3721 Aircraft.
3729 Aircraft equipment, n.e.c
3742 Railroad and street cars....
3821 Mechanical measuring devices.
3871 Watches and clocks.

38213
38214
38216
38216
38210

Integrating meters, nonelectrical type...
MECHANICAL MEASURING DEVICES INDUSTRY
Total shipments and receipts of the industry.
$\qquad$
Aircraft engine instruments, except flight
Industrial process instruments.
Motor vehicle instruments, except electric
Other mechanical measuring and controlling instrument
Mechanical measuring devices


See footnotes at end of table.
table 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

| Prod. class code | Class of products and miscellaneous receipts | All industries | Mechanical measuring devices (SIC 3821) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
|  | MECHANICAL MEASURING DEVICES INDUSTRY--Continued |  |  |  |
|  | Secondary products..................................................................................... | (X) | 207,267 | (X) |
| 34941 | Metal valves for piping systems (except plumbing and heating valves). | (x) | 8,305 | (X) |
| 35712 | Computing and accounting machines, including cash registers.................................. | (X) | 4,245 | (x) |
| 36112 | Test equipment for testing electrical, radio, and communication circuits, and motors........ | (X) | 4,932 | (X) |
| 36113 | Other electrical measuring instruments............................................................. | (X) | 16,991 | (X) |
| 36626 | Electronic military, industrial, and commercial equipment, n.e.c............................. | (X) | 6,916 | (X) |
| 38111 | Aircraft, flight, nautical, and navigational instruments and automatic pilots............... | (X) | 11,726 | (X) |
| 38112 | Laboratory and scientific instruments................................................................ | (X) | 9,775 | (X) |
| 38220 | Automatic temperature controls........ | (X) | 9,525 | (X) |
| 38311 | Optical instruments and lenses, except sighting and fire-control equipment.................... | (X) | 3,470 | (X) |
|  | Other secondary products | (X) | 131,382 | (x) |
| 34295 | Other hardware | (x) | (over 2) | (x) |
| 34432 | Fabricated steel plate, including stacks and weldments | (X) | (2-5) | (X) |
| 34618 | Other stamped and pressed metal end products. | (x) | (2-5) | (X) |
| 354.41 | Special dies and tools, die sets, jigs, and fixtures | (X) | (2-5) | (X) |
| 35663 | Other mechanical power transmission equipment... | (x) | (over 2) | (X) |
| 35690 | General industrial machinery, n.e.c..... | (x) | (2-5) | (X) |
| 35990 | Carburetors, pistons, and other machine shop products | (x) | (20-50) | (X) |
| 36211 | Fractional horsepower motors . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | (over 2) | (X) |
| 36795 | Other electronic components and accessories, n.e.c., including parts for electron tubes (except glass blocks) | (X) | (5-10) | (x) |
| 36930 | X-ray equipment, includes X-ray tubes, and electrotherapeutic apparatus............ | (X) | (2-5) | (X) |
| 36942 | Battery charging generators. | (X) | (over 2) | (X) |
| 36946 | Components and parts for engine electrical equipment | (X) | (over 2) | (X) |
| $\begin{aligned} & 37175 \\ & 37176 \end{aligned}$ | Parts and accessories for passenger cars, trucks, and busses shipped to: Motor vehicle manufactures. Other than motor vehicié manufactures | (X) | (over 2 ) $(2-5)$ | (x) |
| 37224 | Aircraft engine parts and accessories | (X) | (2-5) | (x) |
|  | Miscellaneous receipts | ( X ) | 117,476 | (X) |
|  | Contract work. | (x) | 4,135 | (x) |
|  | Copper and copper-base alloy production scrap | (X) | 2,002 | (x) |
|  | Aluminum and aluminum-base alloy production | (X) | 190 | (x) |
|  | All other scrap and refuse | (x) | 1,189 | (x) |
|  | Installation. | (x) | 24,075 | (X) |
|  | Research and developmental wor | (x) | 5,439 | (x) |
|  | Repair work. | (X) | 18,077 | (X) |
|  | Resales. | (X) | 47,579 | (x) |
|  | Other miscellaneous receipts | (X) | 14,790 | (X) |
|  | Listing of other industries with over \$2 million shipments of each primary product class: |  |  |  |
| 38211 | 3662 Radio, TV communications equipment. | (X) | (x) | (over 2) |
| 38213 | 3811 Scientific instruments... | (x) | (x) | 6,385 |
|  | 3494 Valves and pipe fittings.. | (x) | (x) | 8,670 |
|  | 3542 'Metal-forming machine tools. | (X) | (x) | (over 2) |
|  | 3548 Metalworking machinery, n.e.c. | (X) | (X) | (2-5) |
|  | 3559 Special industry machines, n.e | (X) | (X) | (over 2) |
|  | 3567 Industrial furnaces and ovens. | (X) | (x) | (over 2) |
|  | 3571 Computing and related machines | (X) | (X) | (2-5) |
|  | 3582 Commercial laundry equipment. | (X) | (x) | (over 2) |
|  | 3611 Electric measuring instruments................................................................ | (X) | (x) | 5,651 |
|  | 3662 Radio, TV communications equipment.......................................................... | (X) | (x) | 2,129 |
|  | 3679 Electronic components, n.e.c................................................................... | (X) | (X) | 4,401 |
|  | 3693 X-ray apparatus and tubes..................................................................... | (X) | (X) | (2-5) |
|  | 3811 Scientific instruments......................................................................... | (X) | (x) | 6,452 |
|  | 3841 Surgical and medical instruments... | (X) | (x) | (5-10) |
|  | 3842 Surgical appliances and supplies................................................................. | (X) | (X) | (2-5) |
| 38214 | 3599 Miscellaneous machinery......................................................................... | (X) | (x) | (2-5) |
|  | 3717 Motor vehicles and parts..................................................................... | (X) | (x) | (over 2) |
| 38216 | 3611 Electric measuring instruments................................................................ | (X) | (x) | 2,013 |
|  | 3613 Switchgear and switchboards.................................................................. | (X) | (x) | (2-5) |
|  | 3662 Radio, TV cormunications equipment.......................................................... | (x) | (x) | 4,028 |
|  | 3693 X-ray apnaratus and tubes.................................................................... | (X) | (X) | (over 2) |
|  | 3822 Automatic temperature controls............................................................... . . | (X) | (X) | (5-10) |

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# TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued 

| Prod. class code | Class of products and miscellaneous receipts | All industries | Automatic temperature controls (SIC 3822) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
|  | AUTOMATIC TEMPERATURE CONTROLS INDUSTRY |  |  |  |
|  | Total shipments and receipts of the indust | (X) | 527,358 | (X) |
| 38220 | Automatic temperature control | 431,612 | 409,472 | 22,140 |
|  | Secondary products | (x) | 90,573 | (X) |
| $\begin{aligned} & 34941 \\ & 36220 \end{aligned}$ | Metal valves for piping systems (except plumbing and heating valves) General industry power circuit devices and controls................. | (X) | 8,794 13,375 | (X) |
|  | Other secondary produc | (x) | 68,404 | (X) |
| 34443 34618 |  | (X) | (5-10) | (X) |
| 34618 35451 | Other stamped and pressed metal end products................................................ | (X) | (over 2) | (X) |
| 36113 | Other electrical measuring instruments................ | (X) | (5-10) | (X) |
| 36132 | Circuit breakers......... | (X) | (2-5) | (X) |
| 36215 | Motor generator sets and other rotating equipment. | (X) | (over 2) | (X) |
| 36740 | Solid state semiconductor devices............................................................. | (X) | (over 2) | (X) |
| 37176 | Parts and accessories for passenger cars, trucks, and busses shipped to other than motor vehicle manufactures. | (X) | (over 2) | (x) |
| 38216 | Other mechanical measuring and controlling instruments.................................. | (X) | (5-10) | (X) |
| 38711 | Clocks................... | (X) | (5-10) | (X) |
|  | Miscellaneous receipts | (X) | 27,313 | (X) |
|  | Contract work. | (X) | 140 | (X) |
|  | Resales... | (X) | 15,221 | (X) |
|  | Copper and copper-base alloy production scrap. | (X) | 1,252 | (X) |
|  | Aluminum and aluminum-base alloy production scrap.................................................... | (X) | 286 | (X) |
|  | All other scrap and refuse.. | (X) | 617 5,048 | (X) |
|  | Other miscellaneous receipts | (X) | 4,749 | (X) |
| 38820 | Listing of other industries with over $\$ 2$ million shipnents of autonatic temperature control: <br> 3494 Valves and pipe fittings............................................................................................ <br> 3622 Industrial controls................................................................................................ <br> 3662 Radio, TV communications equipment. $\qquad$ <br> OPTICAL INSTRUMENTS AND LENSES INDUSTRY <br> Total shipments and receipts of the industry................................................................... |  |  |  |
|  |  | (X) | (X) | 2,078 |
|  |  | (X) | (X) | $(2-5)$ $(2-5)$ |
|  |  | (X) | (X) | 9,525 |
|  |  | All industries | Optical instruments and lenses (SIC 3831) | Other industries |
|  |  |  |  |  |
|  |  | (X) | 196,022 | ( X ) |
|  | Frimary products................................................................................................. | 269,528 | 164,965 | 104,563 |
| $\begin{aligned} & 38311 \\ & 38312 \end{aligned}$ | Optical instruments and lenses, except sighting and fire-control equipment....................... Sighting and fire-control equipment made from lenses, prisms, etc., produced in the same plant. | 212,768 | 127,573 | 85,195 |
|  |  | 51,062 | 31,839 | 19,223 |
| 38310 | Optical instruments and lenses, n.s.k.............................................................. | 5,698 | 5,553 | 145 |
|  | Secondary products....................................................................................... | (X) | 17,446 | (X) |
| 38611 | Still picture equipment. $\qquad$ <br> Other secondary products. $\qquad$ X-ray equipment, including X-ray tubes, and electrotherapeutic apparatus. $\qquad$ | (X) | 3,098 | (X) |
|  |  | (X) | $\begin{aligned} & 14,348 \\ & \text { (over 2) } \end{aligned}$ | (X) |
| 36930 | Miscellaneous receipts.................................................................................... | (X) | 13,611 | (X) |
|  | Contract work................................................................................................. | (X) | 1,831 | (X) |
|  |  | (X) $(\mathrm{X})$ | 8,700 3,080 | (X) |
|  | Listing of other industries with over \$2 million shipments of each primary product class: <br> 1941 Sighting and fire-control equipment. <br> 3231 Products of purchased glass. <br> 3611 Electric measuring instruments. <br> 3662 Radio, TV communications equipment. <br> 3679 Electronic components, n.e.c............................................ <br> 3729 Aircraft equipment, n.e.c | (X) | (X) | (2-5) |
| 38311 |  | (X) | (X) | (over 2) |
|  |  | (X) | (X) | (over 2) |
|  |  | (X) | (X) | 12,223 |
|  |  | (X) | (X) | (10-20) |
|  |  |  |  |  |

See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

| Prod. class code | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Optical instruments and lenses (SIC 3831) | Other industries |
| :---: | :---: | :---: | :---: | :---: |
|  | OPTICAL INSTRUMENTS AND LENSES INDUSTRY--Continued <br> Listing of other industries with over $\$ 2$ million shipments of each primary product class--Con. |  |  |  |
| $\begin{gathered} 38311-- \\ \text { Con. } \end{gathered}$ | \} 3811 Scientific instruments................................................................... | (X) | (x) | 2,024 |
|  | 3821 Mechanical measuring devices <br> 3851 Ophthalmic goods <br> 3861 Photographic equipment. | $\begin{aligned} & (X) \\ & (X) \\ & (X) \\ & (X) \end{aligned}$ | $\begin{aligned} & (x) \\ & (x) \\ & (X) \\ & \text { (X) } \end{aligned}$ | $\begin{array}{r} 3,470 \\ \text { (over } 2 \text { ) } \\ 5,450 \end{array}$ |
| 38312 | 3662 Radio, TV communications equipment. <br> 3811 Scientific instruments. | $\begin{aligned} & (X) \\ & (x) \end{aligned}$ | $\begin{aligned} & (x) \\ & (x) \end{aligned}$ | $\begin{array}{r} (\text { over } 2) \\ (2-5) \end{array}$ |
|  |  | All industries | ```Surgical and medical instruments (SIC 3841)``` | Other industries |
|  | SURGICAL AND MEDICAL INSTRUMENTS INDUSTRY |  |  |  |
|  | Total shipments and receipts of the industry................................................ | (X) | 284,014 | (X) |
| 38410 | Surgical and medical instruments and apparatus.................................................... | 290,621 | 214,934 | 75,687 |
| $\begin{aligned} & 38421 \\ & 25990 \end{aligned}$ | Secondary products....................................................................................... | (x) | 29,129 | (x) |
|  | Surgical, orthopedic, and prosthetic appliances and supplies Furniture and fixtures, n.e.c <br> Other secondary products. | (X) | 3,063 2,777 | (X) |
|  |  | (x) | 23,289 | (X) |
| 25142 | Metal kitchen furniture. | (x) | (over 2) | (X) |
| $\begin{aligned} & 28347 \\ & 38213 \end{aligned}$ |  | (x) | (over 2) $(5-10)$ | (X) |
|  |  | (X) | 39,951 | (x) |
|  | Contract work. | (X) | 3,601 | (X) |
|  |  | (X) | 34,184 2,166 | (X) |
|  | Listings of other industries with over $\$ 2$ million shipments of surgical and medical instruments: |  |  |  |
| 38410 |  |  |  |  |
|  |  | (x) | (X) | $(5-10)$ |
|  |  | (X) | (X) | 22,095 |
|  |  | (x) | (x) | (2-5) |
|  |  | (X) | (x) | 5,718 |
|  |  | (X) | (X) | $\begin{array}{r} (2-5) \\ \text { (over } 2) \end{array}$ |
|  |  | (X) | (X) | (over ${ }^{\text {(over }}$ ) |
|  |  | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Surgical appliances and supplies (SIC 3842) | Other industries |
|  | SURGICAL APPLIANCES AND SUPPLIES INDUSTRY |  |  |  |
|  | Total shipments and receipts of the industry. | (X) | 596,666 | (X) |
|  | Primary products........................................................................................... | 461,819 | 414,545 | 47,274 |
| 38421 | Surgicai, orthopedic, and prosthetic appliances and supplies................................. | 318,218 | 293,813 | 24,405 |
| 38423 | Personal industrial safety devices................................................................. | 97,354 | 79,896 | 17,458 |
| 38424 | Electrical hearing aids................................................................................ | 35,285 | 30,618 | 4,667 |
| 38420 | Surgical appliances and supplies, n.s.k................................................................ | 10,962 | 10,218 | 744 |
|  | Secondary products. | (x) | 105,379 | (x) |
| 23422 | Corsets, girdles, combinations and accessories............................................................. | (x) | 2,033 | (X) |
| 23990 | Fabricated textile products, n.e.c. | (x) | 3,064 | (X) |
| 38410 | Surgical and medical instruments and apparatus...................................................... | (X) | 5,718 | (X) |

[^285]TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry:
1963-Continued


Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

## TABLE 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| Product code | Product | Value of shipments including interplant transfers $(\$ 1,000)$ |  |
| :---: | :---: | :---: | :---: |
|  |  | 1963 | 1958 |
| 3811- -- | SCIENTIFIC INSTRUMENTS, TOTAL. | 722,105 | $\mathrm{r}_{758,639}$ |
| 3811110 | Aircraft, flight, nautical, and navigational instruments and automatic pilots: <br> As reported in the census of manufactures. <br> As reported on Census Annual Form MA-38B (see table 6A-2) | $\begin{array}{ll}1 & 2 \\ 1 \\ 1 & 2410,591 \\ 246,074\end{array}$ | $\begin{array}{r} r_{509,853} \\ (x) \end{array}$ |
|  | Laboratory and scientific instruments: |  |  |
| 3811220 | As reported in the census of manufactures. <br> As reported on Census Annual Form MA-38B (see table 6A-2).......................................................... | $\begin{aligned} & 1_{195,138} \\ & 1_{186,101} \end{aligned}$ | $\begin{array}{r} 152,597 \\ (\mathrm{X}) \end{array}$ |
| 38113 -- | Surveying and drafting instruments and laboratory furniture | 104,045 | 76,463 |
| 3811331 | Surveying and drafting instruments and apparatus, except optical (including surveying instruments, transits, drawing instruments, drafting machines, slide rules, planimeters, integrators, etc.)..... | 23,295 |  |
| 3811341 | Photogrammetric equipment (excluding cameras)........................................................ | 23,295 2,150 | 16,459 |
| 3811371 | Laboratory precision balances (including accessories, attachments, and parts). | 6,538 | 3,692 |
|  | Laboratory furniture: <br> Cabinets and cases: |  |  |
| 3811381 | Wood. | 31,767 | 26,471 |
| 3811385 | Metal | 24,094 | 20,381 |
| 3811389 | Other (tables, stools, reagent shelves, etc.). | 13,041 | 9,460 |
| 3811300 | Surveying and drafting instruments and laboratory furniture, n.s.k | 3,160 |  |
| 3811000 | Scientific instruments, n.s.k | 12,331 | 19,726 |
| 3821- -- | MECHANICAL MEASURING INSTRUMENTS, TOTAL | 983,840 | 760,780 |
|  | Aircraft engine instruments, except flight: |  |  |
| 3821110 | As reported in the census of manufactures................................................................................ <br> As reported on Census Annual Form MA-38B (see table 6A-2). | $\begin{aligned} & 166,383 \\ & 1_{64,058} \end{aligned}$ | $\begin{array}{r} 55,481 \\ (\mathrm{X}) \end{array}$ |
|  | Integrating meters, nonelectrical type: |  |  |
| 3821220 | As reported in the census of manufactures. <br> As reported on Census Annual Form MA-38B (see table $6 \bar{A}-2$ )............................................................ | $\begin{aligned} & 1_{163,716} \\ & 1_{148,423} \end{aligned}$ | $\begin{array}{r} 119,358 \\ (X) \end{array}$ |
|  | Industrial process instruments: |  |  |
| 3821330 | As reported in the census of manufactures. $\qquad$ <br> As reported on Census Annual Form MA-38B (see table 6A-2). | $\begin{array}{ll}1 & 3 \\ 1 & 522,385 \\ 1 & 467,014\end{array}$ | $\begin{array}{r} 403,286 \\ (\mathrm{X}) \end{array}$ |
| 38214 -- | Motor vehicle instruments, except electric. | 95,776 | 70,787 |
| 3821411 | Speedometers for motor vehicles. | 41,833 |  |
| 3821498 | Other motor vehicle indicating instruments, except electric (fuel level, oil pressure, et | 53,373 | 70,477 |
| 3821400 | Motor vehicle instruments, except electric, n.s.k.............................. | 570 | 310 |
|  | Other mechanical measuring and controlling instruments(including nuclear radiation detection and monitoring instruments): |  |  |
| 3821660 | As reported in the census of manufactures <br> As reported on Census Annual Form MA-38B (see table 6A-2)............................................................. | 1117,171 $1_{107,461}$ | 92,721 |
| 3821000 | Mechanical measuring instruments, n.s.k. | 18,409 | 19,147 |
| 3822- -- | AUTOMATIC TEMPERATURE CONTROLS, TOTAL | 431,612 | 319,855 |
|  | Automatic temperature controls of the type principally used as components of air conditioning, refrigeration, and comfort heating, or as components of major household appliances, including pneumatic controls: |  |  |
| 3822010 | As reported in the census of manufactures............................................................................... <br> As reported on Census Annual Form MA-38B (see table 6A-2). | $\begin{aligned} & 1431,612 \\ & 1_{420,744} \end{aligned}$ | $319,855$ |
| 3831--- | OPTICAL INSTRUMENTS AND LENSES. | 269,528 | 115,481 |
|  | Optical and analytical instruments and lenses: |  |  |
| 3831110 | As reported in the census of manufactures. $\qquad$ <br> As reported on Census Annual Form MA-38B (see table 6A-2). | $\begin{aligned} & 1_{212,768} \\ & \mathbf{1}_{199,210} \end{aligned}$ | $\begin{array}{r} 415,481 \\ (X) \end{array}$ |
| 3831210 | Sighting and fire-control equipment made from lenses, prisms, etc., produced in the same plant: As reported in the census of manufactures. $\qquad$ As reported on Census Annual Form MA-38B (see table 6A-2). | $\begin{aligned} & 151,062 \\ & 149,797 \end{aligned}$ | ( X ) |
| 3831000 | Optical instruments and lenses, n.s.k... | 5,698 | (X) |

See footnotes at end of table.

# table 6A-1. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | $\begin{aligned} & \hline \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3841- -- | SURGICAL AND MEDICAL INSTRUMENTS AND APPARATUS, TOTAL........... <br> Surgical instruments, including suture needles, and eye, ear, nose, and throat instruments. Orthopedic instruments, such as bone drills, bone plates, etc., excluding eye, ear, nose, and throat instruments.. Diagnostic apparatus, including such items as metabolism and blood pressure apparatus, ophthalmoscopes, octoscopes, cystoscopes, etc................................................................... <br> Hypodermic syringes: <br> Reusable. | 1,000 units. | (x) | 290,621 | ( X ) | 130,570 |
| 3841012 |  |  | (X) | 22,341 | (X) | 10,362 |
| 3841031 |  |  | (X) | 8,146 | (X) | 5,938 |
| 3841051 |  |  | (X) | 19,180 | (X) | 9,650 |
|  |  |  |  |  |  |  |
| 3841063 |  |  | 7,911 | 11,560 |  |  |
|  | Disposable: |  |  |  | 19,628 | 14,385 |
| $\begin{aligned} & 3841066 \\ & 3841068 \end{aligned}$ | Uniquely designed for prefilling Other. ............................ | do | 115,974 389,157 | $\begin{aligned} & 11,329 \\ & 25,129 \end{aligned}$ |  |  |
|  | Hypodermic needles: |  |  |  |  |  |
| $\begin{aligned} & 3841073 \\ & 3841075 \end{aligned}$ | Risposable. | ...do........... | 30,603 834,150 | 5,388 27,508 | 182,518 | 12,510 |
| 3841081 | Other surgical and medical instruments, including anesthesia apparatus, transfusion equipment, blood donor kits, veterinary instruments. |  | (X) | 82,324 | (X) | 36,339 |
| 3841091 | Operating room furniture, including tables, cases, cabinets, etc... |  | (X) | 18,029 | (X) | 7,595 |
| 3841095 | Other hospital furniture, excluding operating equipment, beds, and instruments, but including cabinets, cases, desks, tables, bassinets, chart racks, back rests, etc.. |  | (x) | 49,835 | (X) | 24,993 |
| 3841000 | Surgical and medical instruments and apparatus, n.s.k................ |  | (X) | 9,852 | (X) | 8,798 |
| 3842- -- | ORTHOPEDIC, PROSTHETIC, AND SURGICAL APPLIANCES AND SUPPLIES, TOTAL. |  | (X) | 461,819 | (X) | 362,029 |
| 38421 -- | Surgical, orthopedic, and prosthetic appliances and supplies |  | ( X ) | 318,218 | (X) | 256,573 |
| 3842111 | Orthopedic appliances (braces), including parts................... |  | (X) | 8,099 | (X) | 9,977 |
| 3842115 | Sterilizers (hospital and surgical) (excluding dental sterilizers) |  | (X) | 15,848 | (x) | 17,010 |
| 3842122 | Surgical dressings: <br> Bandages, elastic................................................................. | 1,000 sq. yds.. | 2,011 | 6,012 | (NA) | 6,144 |
| 3842123 | Bandages, other (including muslin, plaster of Paris, etc.; but excluding self-adhering bandages). | ...do.......... | 27,277 | 10,876 | 16,718 | 8,065 |
| 3842124 | Adhesive, plaster, medicated and nonmedicated (including selfadhering bandages). |  | (X) | 53,726 | (X) | 47,835 |
| 3842127 | Cotton, including cotton balls (sterile and nonsterile)........ |  | (X) | 15,006 | (X) | 22,324 |
| 3842126 | Gauze (absorbent and packing)..................................... | 1,000 sq. yds.. | 106,458 | 5,686 | (x) |  |
| 3842129 | Other surgical dressings (including sponges, compresses, pads, etc.). |  | (x) | 30,825 | (X) | 29,854 |
| 3842133 | Sterile surgical sutures, absorbable. |  | (x) | 40,363 | (x) | 20,804 |
| 3842134 | Sterile surgical sutures, nonabsorbable |  | (X) | 10,356 | (x) | 8,198 |
| 3842135 | Artificial limbs (prosthetic) including parts |  | (X) | 7,602 | (x) | 3,345 |
| 3842138 | Elastic stockings........................... |  | (x) | 8,298 | (x) | 7,017 |
| 3842141 | Elastic braces, suspensories, and other elastic suppo |  | (x) | 7,500 | (x) | 10,556 |
| 3842145 | Arch supports and other foot appliances.... |  | (X) | 3,300 | (x) | 1,949 |
| 3842151 | Trusses............................... |  | (X) | 1,691 | (x) | 2,839 |
| 3842161 | Corn remover pads, bunion pads, ete |  | (X) | ${ }^{5}$ ) | (X) | 4,190 |
| 3842171 | Surgical corsets....................................................... . | 1,000 dozen... | 74 | 6,479 | 46 | 2,717 |
| 3842198 | Other surgical and orthopedic items not included in above categories (wheel chairs, infant incubators, respirators, splints, etc.). |  | (x) | 576,179 | (X) | 40,313 |
| 3842100 | Surgical, orthopedic, and prosthetic appliances and devices, n.s.k................................................................................ . . |  | (x) | 10,372 | (X) | 13,436 |
| 38423 -- | Personal industrial safety devices. |  | (x) | 97,354 | (x) | 56,365 |
| 3842311 | Respiratory protection equipment (including gas masks, abrasive masks, canister masks, etc.)................................................. |  | (x) | 29,984 | (X) | 13,927 |
| 3842331 | Eye and face protection devices (including face shields, hoods, and welding helmets and masks) (excluding industrial goggles and eye protectors). |  | (X) | 11,454 | (x) | 2,374 |
| 3842351 | Protective clothing, except shoes.................................... |  | (X) | 21,659 | (X) | 15,167 |
| 3842361 | First aid, snake bite and burn kits, both household and industrial types. |  | (X) | 7,023 | (x) | 5,667 |
| 3842371 | Other personal safety devices......................................... |  | (X) | 27,234 | (X) | 19,230 |
| 3842400 | Electronic hearing aids................................................. | 1,000 units.... | 355 | 35,285 | 400 | 39,517 |
| 3842000 | Orthopedic, prosthetic, and surgical appliances and supplies, n.s.k |  | (X) | 10,962 | (x) | 9,574 |

# TABLE 6A-1. Products and Product Classes-Quantity ana Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 



## Standard notes: - Represents zero,

(X) Not applicable.
${ }^{\text {Revised. }}$.
${ }^{1}$ For these products, figures were also collected in the Bureau of the Census commodity survey program. In lieu of asking for detailed statisticis on these products in the census of manufactures, respondents were asked to report only value of shipments for specified groups of products for which separate figures had previously been collected in the commodity survey. In most cases, the value figures reported in the census of manufactures for each group of products agreed closely with the corresponding figures reported in the commodity survey. However, there were minor differences between the census figures and the commodity survey figures. These variations, except as noted below were due primarily to the following reasons:
a. Better coverage in census of manufactures program. Coverage in the annual surveys will be supplemented by adding respondents not currently in the survey but making the specified product according to their census of manufactures report.
b. Use of different reporting periods (calendar year vs. fiscal year).
c. Use of estimates in reporting figures on the commodity survey, whereas census of manufactures figures generally represent more exact shipment figures.

See table 6A-2 for more detailed product data.
${ }^{2}$ The major difference between these two figures concerns the method of reporting parts and components for aircraft, flight, nautical, and navigational instruments and automatic pilots. Whereas many respondents have included such parts under the broad heading in the census, parts were not covered in the $1963 \mathrm{MA}-38 \mathrm{~B}$ survey. While the exact value of such parts cannot be derived, it is approximately represented by the difference between the two sets of figures.
${ }^{3}$ The major difference between these two figures concerns the method of reporting parts and components for industrial process instruments. Whereas many respondents have included such parts under the broad heading in the census, parts were not covered in the 1963 MA-38B survey. While the exact value of such parts cannot be derived, it is approximately represented by the difference between the two sets of figures.

41963 product class codes 38311 and 38312 were collected as a single product class in 1958.
${ }^{5}$ Product code 3842161 is included with product code 3842198, "Other surgical and orthopedic items" to avoid disclosing figures for individual companies.

TABLE 6A-2. Selected Instruments and Related Products-Quantity and Value of Shipments: 1963 and 1958


See footnotes at end of table.

TABLE 6A-2. Selected Instruments and Related Products-Quantity and Value of Shipments: 1963 and 1958 -Continued


See footnotes at end of table.

TABLE 6A-2. Selected Instruments and Related Products-Quantity and Value of Shipments: 1963 and 1958-Continued


[^286]table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 3811- | Scientific instruments............................ . . . . . $1963 .$. | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 382-- | Mechanical measuring devices..................... $1963 .$. | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3821- | Mechanical measuring instruments..................... $1963 .$. . $1958 .$. | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 38212 | Integrating meters, nonelectrical type............ $1963 .$. | 105 87 | 146 |
| 3822- | Automatic temperature controls......................... $1963 .$. | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 3831- | Optical instruments and lenses........................ $1963 .$. | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 384-- | Medical instruments and supplies................ ${ }^{\text {r }}$ 1963.. | 172 | 110 |
| 3841- | Surgical and medical instruments and apparatus......1963.. | $\begin{aligned} & 254 \\ & 117 \end{aligned}$ | $\begin{aligned} & 109 \\ & 112 \end{aligned}$ |
| 3842- | Orthopedic, prosthetic, and surgical appliances and supplies ${ }^{2}$..................................................... $1963 .$. | $\begin{aligned} & 155 \\ & 118 \end{aligned}$ | $\begin{aligned} & 104 \\ & 107 \end{aligned}$ |
| 38421 | Surgical, orthopedic, and prosthetic appliances and supplies. $\qquad$ | 132 | 113 |
| 38424 | Electrical and electronic hearing aids............ 1963.. | 102 | 117 |
|  | 1958.. | 130 | 104 |
| 3843- | Dental equipment and supplies........................1963.. | 134 | 131 |
| 3851- | 1958.. | 118 | 118 |
|  | Ophthalmic goods.......................................... $1963 .$. | 139 | 126 |
|  | 1958.. | 109 | 113 |

[^287]table 6c. Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963
(In thousands of dollars)

| Code | Product class | 1963 | $1962{ }^{1}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3811- | Scientific instruments......................... | 648,551 | $r_{1,085,345}$ | $\mathrm{r}_{1,034,974}$ | ${ }^{1} 1,027,416$ | r913,133 | $\mathrm{r}_{758,639}$ | ${ }^{2} 685,495$ | (NA) |
| 38111 | Aircraft flight, nautical and navigational instruments and automatic pilots ${ }^{3}$......... | 4346,074 | $r_{680,685}$ | $r_{635,025}$ | $r_{664,679}$ | $\mathrm{r}_{586,662}$ | $r_{509,853}$ | 536,932 | (NA) |
| $\begin{aligned} & 38112 \\ & 38113 \end{aligned}$ | Laboratory and scientific instruments. Surveying and drafting instruments and laboratory furniture. | 486,101 104,045 | \} 404,660 | 399,949 | 359,867 | 303,288 | 229,060 | 148,563 | (NA) |
| 38110 | Scientific instruments, n.s.k............... | 12,331 | - | - | $(2,870)$ | $(23,183)$ | 19,726 | (NA) | (NA) |
| 3821- | Mechanical measuring devices | 901,141 | 842,889 | 764,992 | 954,726 | 886,046 | 760,780 | 567,515 | 355,513 |
| 38211 | Aircraft engine instruments, except flight | 464,058 | 46,495 | 49,485 | 61,565 | 65,461 | 55,481 | 80,454 | 35,868 |
| 38212 | Integrating meters, nonelectrical type... | 4148,423 | 454,278 | 140,174 | 146,717 | 154,720 | 119,358 | 107,112 | 63,262 |
| 38213 | Industrial process instruments............ | 4467,014 | 4369,402 | 4338,141 | 500,297 | 443,775 | 403,286 | 280, 832 | 168,369 |
| 38214 | Motor vehicle instruments, except electric | 95,776 | 101,057 | 87,338 | 91,492 | 87,363 | 70,787 | 47,627 | 39,495 |
| 38216 | Other mechanical measuring and controlling instruments.. | 4107,461 | 151,832 | 134,419 | 131,225 | 117,329 | 92,721 |  |  |
| 38210 | Mechanical measuring devices, n.s.k...... | 18,409 | 19,825 | 15,435 | 23,430 | 17,398 | 19,147 | 51,490 | 48,519 |
| 38220 | Automatic temperature controls. | 4420,744 | 368,409 | 340,975 | 319,422 | 330,239 | 319,855 | 259,669 | 100,640 |
| 3831- | Optical instruments and lenses | 245,705 | 185,155 | 160,911 | 150,555 | 142,219 | 115,481 | 117,574 | 55,134 |
| 38311 | Optical instruments and lenses, except sighting and fire-control equipment...... | 4199,210 |  |  |  |  |  |  |  |
| 38312 | Sighting and fire-control equipment made from lenses, prisms, etc. produced in this plant. (See also code 19410)........ |  | \} (NA) | (NA) | (NA) | (NA) | (NA) | (NA) | (NA) |
| 38310 | Optical instruments and lenses, n.s.k..... | $5,698$ |  |  |  |  |  |  |  |
| 38410 | Surgical and medical instruments and apparatus. | 290,621 | 200, 539 | 179,007 | 159,952 | 150,389 | 130,570 | 99,391 | 56,441 |
| 3842- | Surgical appliances and supplies............ | 461,819 | 477,649 | 445,332 | 463,803 | 443,245 | 362,029 | 285,014 | 192,623 |
| 38421 | Surgical, orthopedic, and prosthetic appliances and supplies....................... | 318,218 | 319,766 | 311,982 | 339,763 | 316,735 | 256,573 | 220,020 | 148,071 |
| 38423 | Personal industrial safety devices........ | 97, 354 | 98, 070 | 73,910 | 64,607 | 69,509 | 56,365 | 35,962 | 27,684 |
| 38424 | Electronic hearing aids...... | 35,285 | 48,359 | 49,633 | 49,350 | 47,219 | 39,517 | 29,032 | .6,868 |
| 38420 | Surgical appliances and supplies, n.s.k... | 10,962 | $(11,454)$ | $(9,807)$ | $(10,083)$ | $(9,782)$ | 9,574 | (NA) | (NA) |
| 38430 | Dental instruments, equipment, and supplies.. | 139,532 | 133,953 | 119,584 | 123,825 | 112,611 | 110,680 | 79,482 | 72,060 |
| 38510 | Ophthalmic goods................. . . . . . . . . . . . | 244,143 | 119,686 | 176,962 | 185,9977 | 177,591 | 167,951 | 136,482 | 106,346 |

 applicable. Revised. n.s.k. Not specified by kind.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manu-




${ }_{4}^{3}$ See text for explanation regarding shift from individual instruments to systems.
4 Source: Current Industrial Reports Series $\mathrm{M}-38 \mathrm{~B}$, Selected Instruments and Related Products.

# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 

In thousands of dollars. Statistics are shown for selected product classes which are economically
significant and which have production that is geographically dispersed, provided that the disper-
sion is not approximated by the data in the geegraphic table for the industry (table 2) and they sion is not approximated by the data in the geographic table for the industry (table 2) and they
are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1 .


See footnotes at end of table.

## TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued



## TABLE 7A. Materials by Kind: 1963 and 1958



[^288]
## TABLE 7A. Materials by Kind: 1963 and 1958-Continued



## table 7A. Materials by Kind: 1963 and 1958-Continued



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind. ${ }_{1}$ Revised.
${ }^{1}$ For 1958 and 1963 material codes 331013 and 331017 are included with 331019 to avoid disclosing figures of individual companies.
${ }^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."
${ }^{3}$ For 1963,331013 combined with 331019.

## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Scientific instruments (SIC 3811) | Mechanical measuring devices (SIC 3821) | Automatic temperature controls (SIC 3822) | Optical instruments and lenses (SIC 3831) | $\left\|\begin{array}{c} \text { Surgical } \\ \text { and } \\ \text { medical } \\ \text { instruments } \\ \text { (SIC } 3841 \text { ) } \end{array}\right\|$ | Surgical appliances and supplies (SIC 3842) | $\begin{gathered} \text { Dental } \\ \text { equipment } \\ \text { and } \\ \text { supplies } \\ \text { (SIC } 3843 \text { ) } \end{gathered}$ | $\begin{aligned} & \text { Ophthalmic } \\ & \text { goods } \\ & \text { (SiC 3851). } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy.........\$1,000.. | 8,330 | 7,173 | 3,360 | 846 | 1,377 | 3,858 | 875 | 2,443 |
| Total cost of purchased fuels...............................do.... | 2,079 | 2,252 | 1,117 | 222 | 504 | 1,565 | 371 | 1,077 |
| Bituminous coal, lignite, and anthracite: <br> Quantity. ........................................... . 1,000 short tons. <br> Cost. |  | 15 162 | (S) | (S) | (S) | 10 81 | (S) | (S) |
| Coke and breeze: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ., 000 short tons. <br> Cost. <br> .\$1,000. . | - | - | - | - | - | - | (S) | (S) |
| Fuel oil (distillate and residual): <br> Quantity........................... 1,000 barrels of 42 gallons. <br> Cost. . | $\begin{aligned} & 234 \\ & 798 \end{aligned}$ | $\begin{array}{r} 303 \\ 1,011 \end{array}$ | $\begin{aligned} & 101 \\ & 360 \end{aligned}$ | $\begin{array}{r} 35 \\ 139 \end{array}$ | $\begin{array}{r} 46 \\ 177 \end{array}$ | 197 718 | 34 122 | 126 370 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . million cu.ft. . | 1,596 958 | 1,538 924 | 1,164 | 134 41 | 294 | (S) | 144 131 | 958 422 |
| Other fuels.....................................................do..... | 257 | 155 | (s) | (S) | (S) | 92 | 107 | 276 |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million kw. -hrs.. | 490 | 311 | 178 | 36 | 46 | 146 |  | 78 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000.. | 6,251 | 4,921 | 2,243 | 624 | 873 | 2,293 | 504 | 1,366 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . .million kw. -hrs. . | (S) | (S) | - | - | - | ( s ) | - | 25 |
| Aggregate horsepower of prime movers and electric motors <br> driven by purchased energy (December 31), total.........1,000 hp.. | 136 | 161 | 50 | 12 | 18 | 59 | 17 | 45 |
|  | 11 | 10 | 3 | 1 | 1 | 4 | (z) | 15 |
|  | 8 | 4 | (z) | (2) | (z) | 1 | (z) | 15 |
| Not driving generators......................................do.... | 3 | 6 | 3 | 1 | ) | 3 | (2) | ( Z ) |
| Electric motors, total..........................................do. | 125 | 152 | 47 | 11 | 17 | 54 | 17 | 34 |
| Driven by purchased energy................................................ | 125 | 150 | 47 | 11 | 17 | 54 | 17 | 30 |
| Driven by energy generated at establishment..............do.... | (2) | 2 | - | - | - | (2) | - | 4 |
| Aggregate horsepower per 100 production workers | 242 | 390 | 266 | 204 | 195 | 335 | 332 | 253 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than 500 horsepower.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specializa tion in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| $\begin{gathered} \text { Industry } \\ \text { or } \\ \text { product } \\ \text { class } \\ \text { code } \end{gathered}$ | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3811- | SCIENTIFIC INSTRUNENTS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. <br> Establishments with- | 594 | 33,084 | 208,171 | 22,184 | 44,584 | 119,836 | 358,588 | 200,034 | 553,920 | 16,244 |
|  | $90 \%$ or more specialization.. 75-89\% specialization........ | 508 23 | 20,305 2,001 | 128,444 10,192 | $\begin{array}{r} 14,449 \\ 1,307 \end{array}$ | $\begin{array}{r} 28,696 \\ 2,720 \end{array}$ | $\begin{array}{r} 78,704 \\ 5,543 \end{array}$ | $\begin{array}{r} 225,162 \\ 18,569 \end{array}$ | $\begin{array}{r} 130,858 \\ 13,042 \end{array}$ | $\begin{array}{r} 358,570 \\ 30,803 \end{array}$ | 10,292 524 |
| 38111 | Aircraft flight, nautical, and navigational instruments and automatic pilots (primary product |  |  |  |  |  |  |  |  |  |  |
|  | class of estab.) <br> Establishments with- | 80 | 15,490 | 110,670 | 9,386 | 18,768 | 58,474 | 181,817 | 73,717 | 253,458 | 7,348 |
|  | 90\% or more specialization.... 75-89\% specialization.......... | $\begin{aligned} & 45 \\ & 10 \end{aligned}$ | 8,457 734 | 61,457 4,395 | 5,494 432 | 10,904 845 | $\begin{array}{r} 35,261 \\ 2,051 \end{array}$ | $\begin{array}{r} 101,854 \\ 7,149 \end{array}$ | $\begin{array}{r} 46,709 \\ 4,641 \end{array}$ | $\begin{array}{r} 150,908 \\ 12,100 \end{array}$ | $\begin{array}{r} 4,956 \\ 81 \end{array}$ |
| 38112 | Laboratory and scientific instruments (primary product class of estab.). $\qquad$ Establishments with- | 205 | 8,048 | 49,253 | 5,657 | 11,225 | 30,309 | 95,386 | 59,992 | 154,360 | 4,325 |
|  | 90\% or more specialization.... <br> 75-89\% specialization. ......... | $\begin{array}{r} 173 \\ 10 \end{array}$ | 6,046 331 | 37,982 1,845 | 4,380 247 | 8,648 493 | $\begin{array}{r} 23,756 \\ 1,229 \end{array}$ | $\begin{array}{r} 70,366 \\ 3,031 \end{array}$ | $\begin{array}{r} 42,871 \\ 1,916 \end{array}$ | $\begin{array}{r} 114,306 \\ 4,952 \end{array}$ | 2,943 45 |
| 38113 | Surveying and drafting instruments and laboratory furniture (primary product class of estab.). Establishments with- | 102 | 8,400 | 42,195 | 6,311 | 12,965 | 27,290 | 72,110 | 58,465 | 129,157 | 4,197 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | $\begin{aligned} & 77 \\ & 11 \end{aligned}$ | $\begin{aligned} & 4,154 \\ & 1,524 \end{aligned}$ | $\begin{array}{r} 20,836 \\ 7,005 \end{array}$ | $\begin{aligned} & 3,176 \\ & 1,230 \end{aligned}$ | $\begin{aligned} & 6,346 \\ & 2,602 \end{aligned}$ | $\begin{array}{r} 13,318 \\ 5,063 \end{array}$ | $\begin{aligned} & 39,289 \\ & 11,374 \end{aligned}$ | $\begin{aligned} & 31,318 \\ & 10,056 \end{aligned}$ | $\begin{aligned} & 70,534 \\ & 19,920 \end{aligned}$ | 1,847 518 |
| 3821- | MECHANICAL MEASURING DEVICES |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 670 | 62,353 | 388,874 | 40,383 | 81,510 | 222,826 | 732,529 | 415,855 | 1,143,416 | 30,914 |
|  | $90 \%$ or more specialization.. 75-89\% specialization. . . . . . | $\begin{array}{r} 539 \\ 36 \end{array}$ | $\begin{array}{r} 32,022 \\ 8,348 \end{array}$ | $\begin{array}{r} 194,814 \\ 53,521 \end{array}$ | $\begin{array}{r} 20,432 \\ 5,726 \end{array}$ | $\begin{aligned} & 40,424 \\ & 11,712 \end{aligned}$ | $\begin{array}{r} 110,080 \\ 31,736 \end{array}$ | $\begin{array}{r} 394,801 \\ 95,453 \end{array}$ | $\begin{array}{r} 208,910 \\ 54,506 \end{array}$ | $\begin{aligned} & 598,749 \\ & 148,906 \end{aligned}$ | $\begin{array}{r} 17,639 \\ 2,362 \end{array}$ |
| 38211 | Aircraft engine instruments, except flight (primary product |  |  |  |  |  |  |  |  |  |  |
|  | class of estab.). <br> Establishments with- <br> $90 \%$ or more specialization. | 15 7 | 5,299 288 | 34,675 1,596 | 3,317 214 | 6,845 435 | 17,889 1,066 | 55,442 2,245 | 27,816 1,883 | 83,496 4,084 | 1,942 177 |
| 38212 | Integrating meters, nonelectric type (primary product |  |  |  |  |  |  |  |  |  |  |
|  | class of estab.) $\qquad$ <br> Establishments with- | 33 | 6,476 | 39,082 | 4,925 | 9,835 | 26,292 | 108,848 | 65,854 | 174,806 | 2,629 |
|  | 90\% or more specialization. | 24 | 4,406 | 27,182 | 3,258 | 6,453 | 17,629 | 77,936 | 44,870 | 121,328 | 1,774 |
| 38213 | Industrial process instruments (primary product class of estab.) Establishments with- | 287 | 33,396 | 210,483 | 20,024 | 40,187 | 111,876 | 410,836 | 189,194 | 593,962 | 16,497 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization. ......... | $\begin{array}{r} 214 \\ 24 \end{array}$ | $\begin{array}{r} 18,000 \\ 4,484 \end{array}$ | $\begin{array}{r} 112,082 \\ 27,249 \end{array}$ | $\begin{array}{r} 11,364 \\ 2,171 \end{array}$ | $\begin{array}{r} 22,421 \\ 4,235 \end{array}$ | $\begin{aligned} & 63,188 \\ & 10,245 \end{aligned}$ | $\begin{array}{r} 225,359 \\ 45,627 \end{array}$ | $\begin{array}{r} 106,432 \\ 20,786 \end{array}$ | $\begin{array}{r} 329,811 \\ 64,282 \end{array}$ | $\begin{aligned} & 8,867 \\ & 4,139 \end{aligned}$ |
| 38214 | Motor vehicle instruments, except electric (primary product class of estab.). Establishments with- | 24 | 7,981 | 52,971 | 6,546 | 13,604 | 39,653 | 85,078 | 73,205 | 156,943 | 3,804 |
|  | 90\% or more specialization.... | 13 | 223 | 903 | 189 | 308 | 671 | 2,580 | 1,691 | 4,195 | 58 |
| 38216 | Other mechanical measuring and controlling instruments (primary product class of estab.)........... Establishments with- | 86 | 7,686 | 43,565 | 4,430 | 8,618 | 21,085 | 57,595 | 52,342 | 112,363 | 4,008 |
|  | 90\% or more specialization.... 75-89\% specialization.......... | $\begin{aligned} & 55 \\ & 11 \end{aligned}$ | $\begin{array}{r} 3,264 \\ 803 \end{array}$ | $\begin{array}{r} 19,828 \\ 5,084 \end{array}$ | $\begin{array}{r} 2,055 \\ 406 \end{array}$ | $\begin{array}{r} 4,010 \\ 778 \end{array}$ | $\begin{array}{r} 10,368 \\ 2,026 \end{array}$ | $\begin{array}{r} 27,186 \\ 7,867 \end{array}$ | $\begin{array}{r} 18,175 \\ 3,326 \end{array}$ | $\begin{aligned} & 44,745 \\ & 10,658 \end{aligned}$ | $\begin{array}{r} 1,814 \\ 211 \end{array}$ |
| 3822- | AUTOMATIC TEMPERATURE CONTROLS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 104 | 31,685 | 192,301 | 22,299 | 45,459 | 122,154 | 379,091 | 158,091 | 527,358 | 10,523 |
|  | 90\% or more specialization. | 82 | 20,392 | 125,388 | 14,621 | 29,720 | 80,923 | 251,200 | 102,161 | 347,614 | 6,722 |

TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| Industry <br> or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted ( $\$ 1,000$ ) | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \\ \hline \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3831- | OPTICAL INSTRUMENTS AND LENSES |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 280 | 11,924 | 79,131 | 8,306 | 16,728 | 47,149 | 131,917 | 66,557 | 196,022 | 6,163 |
|  | 90\% or more specialization.. 75-89\% specialization....... | 244 7 | 8,015 2,096 | $\begin{aligned} & 53,559 \\ & 13,343 \end{aligned}$ | 5,549 1,472 | 11,126 2,939 | $\begin{array}{r} 31,590 \\ 8,062 \end{array}$ | 92,880 19,812 | 44,939 9,548 | 135,335 29,463 | 4,523 |
| 38311 | Optical instruments and lenses, except sighting and fire-control |  |  |  |  |  |  |  |  |  |  |
|  | of estab.) | 144 | 9,182 | 62,640 | 6,226 | 12,664 | 36,570 | 104,027 | 46,754 | 148,444 | 5,063 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | 118 8 | 5,631 1,403 | $\begin{array}{r} 39,859 \\ 8,536 \end{array}$ | 3,739 996 | 7,583 1,986 | 22,849 5,216 | $\begin{aligned} & 68,582 \\ & 12,083 \end{aligned}$ | 29,672 4,748 | $\begin{aligned} & 96,853 \\ & 16,741 \end{aligned}$ | 3,536 326 |
| 38312 | Sighting and fire-control equipment made from lenses, prisms, |  |  |  |  |  |  |  |  |  |  |
|  | (primary product class of estab.) Establishnents with- | 13 | 2,224 | 13,674 | 1,671 | 3,269 | 8,517 | 22,476 | 17,961 | 40,334 | 784 |
|  | 90\% or more specialization.... | 6 | 849 | 4,822 | 597 | 1,091 | 2,440 | 9,300 | 9,298 | 17,882 | 233 |
| 3841- | SURGICAL AND MEDICAL INSTRUMENTS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. $\qquad$ Establishments with- | 294 | 15,145 | 83,332 | 11,538 | 22,916 | 52,520 | 168,556 | 126,856 | 284,014 | 10,514 |
|  | $90 \%$ or more specialization.. | 252 |  | 48,677 | 7,517 | 15,001 | 32,747 | 120,258 | 66,608 | 178,789 | 7,653 |
|  | 75-89\% specialization....... | 11 | $2,578$ | 17,533 | 1,925 | 3,775 | 9,969 | 21,208 | 35,849 | 55,390 | 1,111 |
| 3842- | SURGICAL APPLIANCES AND SUPPLIES |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................... <br> Establishments with- | 704 | 28,267 | 161,800 | 18,987 | 37,904 | 85,790 | 370,273 | 230,054 | 596,666 | 17,831 |
|  | $90 \%$ or more specialization. . 75-89\% specialization....... | $\begin{array}{r} 639 \\ 17 \end{array}$ | $\begin{array}{r} 15,876 \\ 4,300 \end{array}$ | $\begin{aligned} & 80,601 \\ & 28,487 \end{aligned}$ | $\begin{array}{r} 11,580 \\ 2,720 \end{array}$ | $\begin{array}{r} 22,734 \\ 5,606 \end{array}$ | $\begin{aligned} & 48,258 \\ & 16,350 \end{aligned}$ | $\begin{array}{r} 173,166 \\ 89,144 \end{array}$ | $\begin{array}{r} 109,855 \\ 57,681 \end{array}$ | $\begin{aligned} & 282,125 \\ & 144,629 \end{aligned}$ | 7,473 4,774 |
| 38421 | Surgical, orthopedic and pros- |  |  |  |  |  |  |  |  |  |  |
|  | thetic appliances and supplies (primary product class of estab.) | 441 | 18,971 | 114,219 | 12,558 | 24,841 | 57,943 | 276,779 | 160,400 | 435,401 | 15,004 |
|  | Establishments with90\% or more specialization.... | 388 | 10,843 | 55,569 | 7,897 | 15,520 | 33,258 | 121,320 | 72,312 | 193,826 | 5,758 |
|  | 75-89\% specialization......... | 21 | 2,801 | 19,200 | 2,054 | 4,180 | 12,800 | 69,578 | 41,990 | 109,581 | 4,479 |
| 38423 | Personal industrial safety devices (primary product class of estab.) Establishments with- | 75 | 6,187 | 32,659 | 4,346 | 8,884 | 19,078 | 60,148 | 50,709 | 108,817 | 1,877 |
|  | 90\% or more specialization.... | 50 | 2,746 | 13,250 | 2,052 | 3,995 | 7,886 | 23,331 | 21,558 | 43,791 | 785 |
| 38424 | Electric hearing aids (primary product class of estab.).......... Establishments with- | 20 | 1,888 | 9,887 | 1,151 | 2,360 | 5,312 | 24,738 | 15,482 | 40,464 | 642 |
|  | 90\% or more specialization.... | 17 | 1,202 | 6,738 | 805 | 1,636 | 3,790 | 19,051 | 10,359 | 29,482 | 576 |
| 3851- | OPHTHAIMIC GOODS |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. | 229 | 20,296 | 96,361 | 16,467 | 32,771 | 68,954 | 177,898 | 96,611 | 272,687 | 9,085 |
|  | $90 \%$ or more specialization. . | 216 | 13,834 | 60,821 | 11,652 | 23,038 | 44,888 | 131,474 | 68,575 | 198,673 | 5,935 |

# table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963 



Note: Very small establishments were not requested to report their metalworking operations and, in some instances, a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production-worker employment on the last line of the table below:

|  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |

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## PHOTOGRAPHIC EQUIPMENT; CLOCKS, WATCHES, AND WATCHCASES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SlC Code and Title
3861 --Photographic Equipment and Supplies 3871 -Watches, Clocks, and Parts, Except Watchcases
3872-Watchcases
The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1-4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3861 -PHOTOGRAPHIC EQUIPMENT AND SUPPLIES

This industry comprises establishments primarily engaged in manufacturing (1) photographic apparatus, equipment, parts, attachments, and accessories, such as still and motion picture cameras and projection apparatus; photocopy and microfilm equipment; blueprinting and diagotype (white printing) apparatus and equipment; and other photographic equipment; and (2) sensitized film, paper, cloth, and plates and prepared photographic chemicals for use therewith. Establishments primarily engaged in manufacturing photographic paper stock (unsensitized), and paper mats, mounts, easels and folders for photographic use are classified in Major Group 26; photographic lenses in industry 3831; photographic glass in Major Group 32; chemicals for technical purposes, not specifically prepared and packaged for use in photography, in Major Group 28; and photographic flash, flood, enlarger and projection lamps in industry 3641. For a detailed list of products of industry 3861 , refer to table 6 A, product codes 3861106 to 3861811 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Photographic Equipment Industry totaled $\$ 1,851$ million. This amount included shipments of photographic equipment (primary products) valued at $\$ 1,578$ million, shipments of other products (secondary products) valued at $\$ 80$ million, and miscellaneous receipts (mainly resales) at $\$ 194$ million.

This industry's shipments of photographic equipment represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent.

Secondary products shipped by this industry in 1963 included 36112, "Testing equipment for testing electrical, radio, and communication circuits and motors" ( $\$ 2$ million), and 38311, "Optical instruments and lenses, except sighting and fire-control" (\$5 million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subirıustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 45 percent of the total industry shipments are represented by plants specializing in product classes: 38615, Photographic sensitized film and plates, and 19 percent in 38611, Still picture equipment.
Shipments of photographic equipment by this industry represented 97 percent of all shipments of these products ( $\$ 1,631$ million) by all industries. In 1958, the coverage ratio was 94 percent. An important industry shipping photographic equipment was industry 3831, Optical Instruments and Lenses, Except Sighting and Fire-control, $\$ 3$ million.

The production index for the primary products of the industry increased to 177 in 1963 from the 1958 level of 124 . The unit value index for 1963 was 119 compared to 111 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3871-WATCHES, CLOCKS, AND PARTS, EXCEPT WATCHCASES

This industry comprises establishments primarily engaged in manufacturing clocks (including electric), watches, mechanisms for clockwork operated devices, and clock and watch parts. This industry includes establishments primarily engaged in assembling clocks and watches from purchased movements and cases. Establishments primarily engaged in manufacturing watch cases are classified in industry 3872 , glass crystals in industry 3231 , and unbreakable crystals in industry 3079. For a detailed list of products of industry 3871 , refer to table 6A, product codes 3871111 to 3871589 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Watches and Clocks Industry totaled $\$ 511$ million. This amount included shipments of watches and clocks (primary products), valued at $\$ 386$ million, shipments of other products (secondary products) valued at $\$ 83$ million, and miscellaneous receipts (mainly resales) at $\$ 42$ million.

This industry's shipments of watches and clocks represented 82 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent. Secondary products shipped by this industry in 1963 included fractional horsepower motors ( $\$ 7$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 43 percent of the total industry shipments are represented by plants specializing in 38711, Clocks.

Shipments of watches and clocks by this industry represented 95 percent of all shipments of these products ( $\$ 406$ million) by all industries. In 1958, the coverage ratio was 95 percent.

The production index for the primary products of the industry increased to 130 in 1963 from the 1958 level of 93 . The unit value index for 1963 was 105 compared to 107 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3872-WATCHCASES

This industry comprises establishments primarily engaged in manufacturing watchcases, for sale as such. Establishments primarily engaged in assembling complete watches by assembling purchased movements with watchcases of their own manufacture are classified in industry 3871 . For a detailed list of products of industry 3872 , refer to table 6A, product codes 3872011 to 3872071 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Watchcases Industry totaled $\$ 34$ million. This amount included shipments of watchcases (primary products) valued at $\$ 28$ million, shipments of other products (secondary products) valued at $\$ 4$ million, and miscellaneous receipts at $\$ 1$ million.

This industry's shipments of watchcases represented 86 percent of its total product shipments. The industry specialization ratio in 1958 was 80 percent.

Shipments of watchcases by this industry represented 97 percent of all shipments of these products ( $\$ 29$ million) by all industries. In 1958, the coverage ratio was 98 percent.

The production index for the primary products of the industry increased to 92 in 1963 from the 1958 level of 72 . The unit value index for 1963 was 91 compared to 112 in 1958. Both indexes were computed on a basis of $1954=100$.


WATCHES, CLOCKS, AND WATCHCASES: SIC 387


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TABLE 1. General Statistics: 1963 and Earlier Years

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted <br> $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| INDUSTRY 3861. -PHOTOGRAPHIC EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 499 | 538 | 187 | 64,937 | 498,828 | 39,248 | 77,753 | 251,566 | 1,270,132 | 580,544 | 1,851,213 | 78,626 | 95 | 97 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 59,429 | 439,998 | 35,582 | 70,612 | 223,000 | 1,098,113 | 573,506 | 1,635,950 | 57,187 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 61,226 | 427,821 | 37,020 | 72,929 | 217,795 | 987,015 | 521,531 | 1,517,764 | 49,250 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 62,420 | 418,832 | 38,872 | 76,500 | 218,966 | 978,911 | 505,631 | 1,466,983 | 60,000 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 56,099 | 376,926 | 35,242 | 70,648 | 199,889 | 876,785 | 450,709 | 1,318,009 | 47,089 | (NA) | (NA) |
| 1958. | 450 | 480 | 159 | 60,262 | 368,970 | 38,542 | 74,256 | 201,597 | 788,750 | 412,319 | 1,204,905 | 46,770 | 94 | 94 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 68,495 | 391,182 | 45,587 | 90,384 | 225,463 | 802,831 | 398,901 | 1,134,382 | 49,635 | (NA) | (NA) |
| 1956 | (NA) | (NA) | (NA) | 67,442 | 366,137 | 45,557 | 91,475 | 217,008 | 754,040 | 345,694 | 1,074,179 | 45,997 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 64,871 | 328,749 | 43,851 | 86,908 | 197,496 | 686,178 | 331,090 | 994,711 | 41,841 | (NA) | (NA) |
| 1954. | 428 | 449 | 150 | 63,008 | 308,324 | 43,827 | 86,196 | 189,745 | 595,900 | 354,834 | 960,119 | 38,664 | 88 | 96 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 60,165 | 283,945 | 43,366 | 87,952 | 187,846 | 561,163 | 325,611 | 886,774 | 33,129 | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 54,839 | 249,054 | 39,239 | 78,741 | 157,922 | 481,696 | 249,808 | 731,504 | 24,879 | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 47,018 | 200,685 | 33,827 | 67,080 | 130,871 | 367,732 | 219,612 | 587,344 | 24,323 | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 43,198 | 167,297 | 30,470 | (NA) | 104,983 | 324,459 | 174,856 | 499,315 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 43,811 | 161,319 | 32,130 | 59,503 | 99,037 | 272,056 | 160,801 | 432,857 | 23,961 | (NA) | (NA) |
| 1947. | (NA) | 369 | (NA) | 55,624 | 172,973 | 42,365 | (NA) | 121,456 | 278,502 | 178,995 | 457,497 | (NA) | 93 | 97 |
| 1939. | (NA) | 160 | (NA) | 23,248 | 38,873 | 16,434 | (NA) | 23,868 | 87,816 | 45,236 | 133,052 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 109 | (NA) | 23,212 | 39,705 | 18,450 | (NA) | 28,876 | 79,235 | 36,653 | 115,888 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 118 | (NA) | 15,460 | 23,208 | 12,000 | (NA) | 15,807 | 47,816 | 26,150 | 73,966 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 84 | (NA) | 10,789 | 14,131 | 8,975 | (NA) | 10,155 | 41,875 | 11,985 | 53,860 | ( NA ) | (NA) | (NA) |
| 1929. | (NA) | 115 | (NA) | 16,302 | 28,371 | 12,967 | (NA) | 20,507 | 72,434 | 30,393 | 102,827 | ( NA ) | (NA) | (NA) |
| 1921. | (NA) | 136 | (NA) | 14,376 | 20,854 | 10,690 | (NA) | 13,771 | 47,759 | 22,836 | 70,595 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 187 | (NA) | 16,300 | 19,478 | 13,465 | (NA) | 14,900 | 54,586 | 33,807 | 88,393 | (NA) | (NA) | (NA) |
| 1914 | (NA) | 146 | (NA) | 11,143 | 8,706 | 8,674 | (NA) | 5,545 | 27,503 | 11,539 | 39,042 | (NA) | (NA) | (NA) |
| 1909 | (NA) | 103 | (NA) | 6,537 | 4,499 | 5,195 | (NA) | 3,037 | 15,853 | 6,708 | 22,561 | (NA) | (NA) | (NA) |
| 1899....... | (NA) | 153 | (NA) | 3,913 | 1,896 | 3,444 | (NA) | 1,441 | 4,421 | 3,378 | 7,799 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3871.-WATCHES AND CLOCKS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 150 | 167 | 76 | 27,047 | 144,179 | 20,983 | 41,171 | 92,404 | 288,053 | 230,348 | 511,168 | 8,730 | 82 | 95 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 24,029 | 127,734 | 18,053 | 35,445 | 77,890 | 240,142 | 191,560 | 427,266 | (8,031) | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 22,429 | 118,088 | 16,396 | 32,603 | 71,169 | 219,657 | 187,057 | 403,081 | $(9,365)$ | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 24,673 | 124,430 | 18,748 | 36,045 | 76,016 | 225,703 | 189,689 | 408,508 | $(5,122)$ | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 25,434 | 125,100 | 20,184 | 40,025 | 81,530 | 240,839 | 180,745 | 406,681 | 4,552 | (NA) | (NA) |
| 1958 | 153 | 168 | 65 | 23,505 | 106,739 | 18,308 | 36,080 | 70,808 | 165,158 | 158,285 | 334,928 | 4,607 | 88 | 95 |
| 1957 | (NA) | (NA) | (NA) | 21,633 | 102,461 | 16,396 | 30,519 | 65,882 | 172,193 | 125,085 | 294,386 | (S) | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 24,977 | 111,789 | 19,301 | 37,037 | 71,961 | 197,377 | 142,212 | 331,416 | 8,607 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 25,700 | 109,423 | 20,149 | 39,183 | 73,306 | 182,949 | 138,446 | 326,930 | 4,372 | (NA) | (NA) |
| 1954 | 141 | 145 | 59 | 25,708 | 103,232 | 20,282 | 39,125 | 67,962 | 181,868 | 162,235 | 343,786 | 3,511 | 82 | 90 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 29,277 | 117,408 | 24,440 | 48,814 | 83,098 | 206,879 | 206,408 | 413,287 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 28,437 | 106,090 | 23,653 | 46,259 | 76,665 | 184,591 | 176,913 | 361,504 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 30,604 | 110,389 | 25,583 | 52,037 | 81,435 | 181,360 | 184,694 | 366,054 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 29,268 | 93,845 | 24,618 | 48,402 | 68,185 | 171,275 | 170,148 | 341,423 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 28,688 | 87,198 | 23,993 | 47,739 | 63,783 | 134,108 | 124,629 | 258,737 | (NA) | (NA) | (NA) |
| 1947. | 183 | 194 | 73 | 34,623 | 93,331 | 30,237 | 60,899 | 70,372 | 169,474 | 171,725 | 341,199 | 4,743 | 97 | 98 |
| 1939. | (NA) | 64 | (NA) | (NA) | (NA) | 17,335 | (NA) | 19,619 | 47,169 | 34,306 | 81,475 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 75 | (NA) | 25,785 | 33,250 | 23,223 | (NA) | 27,559 | 59,490 | 38,444 | 97,934 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 76 | (NA) | 20,291 | 22,596 | 18,026 | (NA) | 18,280 | 38,530 | 22,674 | 61,204 | (NA) | (NA) | (NA) |
| 1933 | (NA) | 53 | (NA) | 14,242 | 12,245 | 12,850 | (NA) | 10,003 | 22,188 | 9,468 | 31,656 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 75 | (NA) | (NA) | (NA) | 16,213 | (NA) | 15,686 | 32,683 | 12,880 | 45,563 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 81 | (NA) | 23,924 | 31,422 | 21,450 | (NA) | 25,750 | 56,079 | 21,388 | 77,467 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 80 | (NA) | 24,726 | 32,386 | 22,472 | (NA) | 27,284 | 55,533 | 16,250 | 71,783 | (NA) | (NA) | (NA) |
| 1925 | (NA) | 83 | (NA) | 24,412 | 30,663 | 22,361 | (NA) | 26,274 | 51,523 | 15,474 | 66,997 | (NA) | (NA) | (NA) |
| 1923 | (NA) | 80 | (NA) | 22,983 | 28,047 | 21,326 | (NA) | 24,129 | 43,086 | 17,387 | 60,473 | (NA) | (NA) | (NA) |
| 1921 | (NA) | 77 | (NA) | 20,810 | 24,020 | 19,099 | (NA) | 20,535 | 31,125 | 12,108 | 43,233 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 91 | (NA) | 26,752 | 28,684 | 24,722 | (NA) | 24,873 | 42,646 | 14,120 | 56,766 | (NA) | (NA) | (NA) |
| 1914 | (NA) | 88 | (NA) | 21,186 | 13,448 | 19,814 | (NA) | 11,557 | 19,302 | 7,020 | 26,322 | (NA) | (NA) | (NA) |
| 1909 | (NA) | 91 | (NA) | (NA) | (NA) | 19,288 | (NA) | 10,516 | 18,586 | 6,096 | 24,682 | (NA) | (NA) | (NA) |
| 1904 | (NA) | 69 | (NA) | 19,226 | 10,864 | 18,358 | (NA) | 9,721 | 15,719 | 5,444 | 21,163 | (NA) | (NA) | (NA) |
| 1899 | (NA) | 79 | (NA) | 13,689 | 7,057 | 13,248 | (NA) | 6,390 | 9,901 | 4,425 | 14,326 | (NA) | (NA) | (NA) |

See footnotes at end of table.

TAbLE 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establi shments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | with 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3872. -WATCHCASES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 51 | 53 | 22 | 2,706 | 13,415 | 2,302 | 4,548 | 10,375 | 19,218 | 13,391 | 33,620 | 500 | 86 | 97 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 2,293 | 11,646 | 2,011 | 3,937 | 9,052 | 11,997 | 11,528 | 24,578 | (z) | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 2,080 | 10,358 | 1,812 | 3,328 | 8,075 | 10,296 | 9,822 | 22,249 | (z) | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 2,639 | 12,453 | 2,340 | 4,357 | 9,846 | 16,409 | 12,822 | 29,376 | (S) | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 3,109 | 14,699 | 2,654 | 5,257 | 11,332 | 20,524 | 16,310 | 35,713 | (S) | (NA) | (NA) |
| 1958. | 58 | 61 | 24 | 2,652 | 12,574 | 2,227 | 4,352 | 9,434 | 18,398 | 14,836 | 34,660 | (z) | 80 | 98 |
| 1954. | 63 | 64 | 28 | 3,795 | 15,957 | 3,308 | 6,612 | 12,841 | 18,808 | 14,990 | 35,229 | (z) | 86 | 85 |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 4,451 | 15,052 | 3,790 | 7,489 | 11,227 | 21,594 | 13,707 | 35,301 | (NA) | (NA) | (NA) |
| 1947. | 81 | 82 | 31 | 5,558 | 16,980 | 4,880 | 10,199 | 13,091 | 24,986 | 19,508 | 44,494 | 521 | 87 | 94 |
| 1939. | (NA) | 42 | (NA) | 3,080 | 4,298 | 2,409 | (NA) | 2,940 | 5,804 | 3,988 | 9,792 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 29 | (NA) | 2,868 | 4,126 | 2,451 | (NA) | 3,156 | 6,176 | 4,182 | 10,358 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 29 | (NA) | 2,364 | 3,070 | 2,016 | (NA) | 2,329 | 4,207 | 2,776 | 6,983 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 20 | (NA) | 1,316 | 1,216 | 1,169 | (NA) | 1,006 | 1,897 | 760 | 2,657 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 31 | (NA) | (NA) | (NA) | 1,669 | (NA) | 1,767 | 2,858 | 1,361 | 4,219 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 40 | (NA) | 3,921 | 5,952 | 3,404 | (NA) | 4,626 | 8,860 | 4,631 | 13,491 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 40 | (NA) | 3,944 | 5,799 | 3,360 | (NA) | 4,326 | 8,414 | 5,311 | 13,725 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 45 | (NA) | 4,025 | 5,527 | 3,480 | (NA) | 4,463 | 8,743 | 6,050 | 14,793 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 57 | (NA) | 4,987 | 6,796 | 4,325 | (NA) | 5,414 | 10,318 | 7,499 | 17,817 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 37 | (NA) | 4,323 | 5,293 | 3,698 | (NA) | 4,217 | 8,181 | 5,625 | 13,806 | (NA) | (NA) | (NA) |
| 1919. | (NA) | 33 | (NA) | 4,572 | 5,317 | 3,900 | (NA) | 4,001 | 11,413 | 8,206 | 19,619 | (NA) | (NA) | (NA) |
| 1914. | (NA) | 31 | (NA) | 3,832 | 2,351 | 3,514 | (NA) | 1,938 | 3,829 | 4,002 | 7,831 | (NA) | (NA) | (NA) |
| 1909. | (NA) | 29 | (NA) | (NA) | (NA) | 4,569 | (NA) | 2,428 | 5,481 | 5,034 | 10,515 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 28 | (NA) | 4,602 | 2,785 | 4,221 | (NA) | 2,171 | 4,198 | 4,429 | 8,627 | (NA) | (NA) | (NA) |
| 1899. | (NA) | 30 | (NA) | 4,142 | 2,214 | 3,907 | (NA) | 1,925 | 3,390 | 4,394 | 7,784 | (NA) | (NA) | (NA) |

[^290]table 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | $V$ alue added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Tota! <br> (number) | Manhours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| Total........... | INDUSTRY 3861.-PHOTOGRAPHIC EQUIPMENT |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 538 | 187 | 64,937 | 498,828 | 39,248 | 77,753 | 251,566 | 1,270,132 | 580,544 | 1,851,213 | 78,626 | 60,262 | 788,750 |
| New England......... Massachusetts.... | 32 18 | 13 8 | 5,335 5,017 | 34,798 32,979 | 3,037 2,858 | 6,173 5,810 | 16,109 15,193 | 81,598 78,330 | 69,327 66,086 | 156,115 149,191 | (D) | 3,821 2,938 | $\begin{aligned} & 58,525 \\ & 50,522 \end{aligned}$ |
| Middle Atlantic.... New York........ | 208 | 83 57 | 43,465 39,401 | 360,133 333,090 | 25,932 23,027 | 50,830 45,184 | 180,510 164,684 | 952,470 882,624 | 349,794 302,397 | $1,292,045$ $1,174,218$ | 58,613 53,090 | 42,283 38,715 | 594,132 560,130 |
| New Jersey....... | 43 | 16 | 3,652 | 24,991 | 2,611 | 5,057 | 14,618 | 65,869 | 41,134 | 107,547 | 5,302 | 3,213 | 31,009 |
| Pennsylvania..... | 20 | 10 | 412 | 2,052 | 294 | 589 | 1,208 | 3,977 | 6,263 | 10,280 | 221 | 355 | 2,993 |
| East North Central. | 122 | 45 | 9,688 | 60,033. | 6,182 | 11,854 | 31,107 | 163,929 | 109, 147 | 276,794 | 5,419 | 10,045 | 97,011 |
| Ohio............. | 18 | 6 | 319 | 1,867 | 219 | 456 | 1,176 | 3,677 | 2,122 | 5,288 | 138 | 273 | 2,783 |
| Illinois......... | 68 | 31 | 7,787 | 50,187 | 4,807 | 9,260 | 25,044 | 101,586 | 80,688 | 186,913 | 2,799 | 7,903 | 76,314 |
| Wisconsin........ | 8 | 3 | 280 | 1,209 | 202 | 280 | 730 | 1,373 | 2,143 | 4,073 | 102 | 311 | 1,308 |
| West North Central. | 27 | 7 | 1,030 | 5,269 | 717 | 1,500 | 3,275 | 14,008 | 9,784 | 25,690 | 290 | 862 | 9,073 |
| Missouri.......... | 13 | 3 | 200 | 911 | 162 | 347 | 633 | 4,871 | 2,751 | 7,670 | 32 | 245 | 2,040 |
| South.............. | 37 | 10 | 1,518 | 8,761 | 728 | 1,506 | 3,148 | 11,251 | 12,991 | 23,754 | (D) | 312 | 2,900 |
| Virginia......... | 5 | 3 | 193 | 1,089 | 126 | 275 | 603 | 1,691 | 710 | 2,321 | 76 | 110 | 883 |
| Mountain........... | 10 | 2 | 170 | 1,104 | 131 | 311 | 776 | 2,205 | 1,185 | 3,433 | (D) | 117 | 861 |
| Pacific............ | 102 | 27 | 3,731 | 28,730 | 2,521 | 5,579 | 16,641 | 44,671 | 28,316 | 73,382 | (D) | 2,822 | 26,248 |
|  | INDUSTRY 3871. - WATCHES AND CLOCKS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total........... | 167 | 76 | 27,047 | 144,179 | 20,983 | 41,171 | 92,404 | 288,053 | 230,348 | 511,168 | 8,730 | 23,505 | 165,158 |
| Northeast.......... | 102 | 45 | 14,094 | 82,485 | 10,246 | 20,036 | 48,596 | 168,132 | 138,337 | 303,317 | 4,159 | $\left({ }^{2}\right)$ | $\left.{ }^{2}\right)$ |
| Massachusetts.... | 10 | 6 | 3,284 | 17,395 | 2,462 | 4,698 | 11,679 | 45,177 | 17,734 | 62,487 | 1,106 | 2,502 | 22,899 |
| Connecticut. | 10 | 8 | 3,883 | 21,061 | 2,796 | 5,425 | 12,157 | 44,080 | 29,765 | 73,998 | 693 | 5,043 | 25,408 |
| New York.. | 68 | 24 | 4,625 | 30,278 | 3,281 | 6,509 | 15,875 | 56,312 | 77,539 | 132,632 | 968 | 3,462 | 34,501 |
| All other divisions Illinois.......... | 65 | 31 | 12,953 | 61,694 | 10,737 | 21,135 | 43,808 | 119,921 | 92,011 | 207,851 | 4,571. | ${ }^{2}$ ) | ${ }^{2}$ ) |
|  | 24 | 14 | 6,385 | 34,305 | 5,040 | 9,789 | 23,255 | 61,052 | 42,610 | 100,877 | 2,074 | 6,445 | 31,891 |
|  | INDUSTRY 3872.-WATCHCASES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 53 | 22 | 2,706 | 13,415 | 2,302 | 4,548 | 10,375 | 19,278 | 13,391 | 33,620 | 500 | 2,652 | 18,398 |
| Northeast.......... | 50 | 21 | 2,435 | 12,247 | 2,069 | 4,101 | 9,543 | 17,791. | 1.2,432 | 31,258 | 485 | ${ }^{2}$ ) | $\left({ }^{2}\right)$ |
| All other divisions | 3 | 1 | 271 | 1,168 | 233 | 447 | 832 | 1,427 | 959 | 2,362 | 15 | $\left({ }^{2}\right)$ | $\left.{ }^{2}\right)$ |

(D) Withheld to avoid disclosing figures for individual companies.
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3861, Photographic Equipment: New England-Rhode Island, 2 (20-99); Connecticut, 12 (250-999); East North Central -Indiana, 8 (1,097);

Michigan, 19 (201); West North Central-Minnesota, 8 (699); Iowa, 2 (20-99); Nebraska, 2 (1-19); Kansas, 2 (20-99); South Atlantic-Maryland, 4
(1-19); District of Columbia, 2 (20-99); North Carolina, 3 (763); South Carolina, 1 (250-499); Florida, 5 (20-99); East South Central -Kentucky, 2 (1-19); Tennessee, 1 (1-19); West South Central-Louisiana, 3 (20-99); Texas, 11 (101); Mountain-Colorado, 6 (100-249); Arizona 2 (20-99); Utah, 2 (1-19); Pacific-Washington, 3 (1-19); Oregon, 3 (489); California, 95 (2,500-4,999); Hawaii, 1 (1-19).
SIC 3871, Watches and Clocks: Middle Atlantic-New Jersey, 8 (250-499); Pennsylvania, 6 (1,000-2,499); East North Central~0hio, l (20-99); Indiana, 4 (467); Michigan, 3 (100-249); Wisconsin, 4 (564); West North Central-Minnesota, 1 (1-19); Iowa, 1 (500-999); South Atlantic--Maryland, l (20-99); District of Columbia, 1 (1-19); North Carolina, 2 (250-499); Georgia, 3 (607); Florida, 1 (1-19); East South Central-Kentucky, 2 (100-249); Tennessee, 1 (250-499); Alabama, 1 (20-99); Mississippi, 1 (100-249); West'South Central-Arkansas, I (1,000-2,499); Louisiana, 1 (1-19); Oklahoma, 1 (1-19); Texas, 3 (890); Pacific-Washington, 1 (I-19); California, 7 (20-99).
SIC 3872, Watchcases: New England-Rhode Island, I (500-999); Connecticut, 1 (250-499); Middle Atlantic-New York, 46 (1,000-2, 499); New Jersey, 2 (20-99) ; East North Central-Michigan, l (250-499) ; West South Central-Oklahoma, l (1-19); Pacific-California, l (1-19).
This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

|  |
| ---: | :--- |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

## TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

|  | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item |  | 1 to 4 employees | $\begin{gathered} 5 \text { to } 9 \\ \text { employees } \end{gathered}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & \text { 2,500 } \\ & \text { employees } \\ & \text { and over } \end{aligned}$ |
|  | INDUSTRY 3861.-PHOTOGRAPHIC ERUIPMINT |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 538 | 195 | 86 | 70 | 76 | 43 | 32 | 18 | 9 | 6 | 3 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 64,937 | 318 | 562 | 931 | 2,398 | 2,870 | 4,802 | 5,942 | 6,435 | 40,679 | (D) |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000 .$. | 498,828 | 1,651 | 3,196 | 5,361 | 13,363 | 18,995 | 28,000 | 34,973 | 43,304 | 34,9,985 | (D) |
| Value added, adjusted.......do.... | 1,270,132 | 4,112 | 7,163 | 11,823 | 25,804 | 38,671 | 85,858 | 95,295 | 118,381 | 883,025 | (D) |
| Value of shipments...........do. | 1,851,213 | 7,192 | 11,927 | 20,323 | 51,681 | 65,365 | 141,110 | 167,559 | 184,926 | 1,201, 130 | (D) |
| Capital expenditures, new...do.... | 78,626 | ${ }^{1} 1,038$ | 276 | 369 | 1,635 | 1,195 | 3,685 | 3,781 | 6,066 | 60,581 | (D) |
|  | INDUSTRY 3871. -WATCHES AND CLOCKS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 167 | 62 | 17 | 12 | 27 | 12 | 12 | 12 | 6 | 6 | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total....................... do.... | 27,047 | 109 | 113 | 162 | 937 | 769 | 2,026 | 4,704 | 3,963 | 14,264 | (D) |
| Payroll.................. \$1,000. . | 144,179 | 563 | 548 | 784 | 4,909 | 3,612 | 10,595 | 25,432 | 19,384 | 78,352 | (D) |
| Value added, adjusted........do.... | 288,053 | 1,162 | 1,833 | 1,543 | 10,429 | 8,007 | 22,758 | 46,117 | 53,526 | 142.678 | (D) |
| Value of shipments............do.... Capital expenditures, new...do.... | 511,168 | 2,379 | 4,420 | 3,460 | 22,194 | 16,611 | 50,365 | 89,414 | 78,910 | 243,415 | (D) |
|  | 8,730 | 1,481 | (D) | (D) | 651 | 573 | 721 | 888 | 795 | 3,621 | (D) |
|  | INDUSTRY 3872. -WATCHCASES |  |  |  |  |  |  |  |  |  |  |
| Establishments................ number. . All employees: | 53 | 18 | 9 | 4 | 10 | 7 | 2 | 2 | 1 | - | - |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total...................... do.... | 2,706 | 30 | 61 | 68 | 330 | 899 | (D) | 1,318 | (D) | - |  |
| Pay roll. . . . . . . . . . . . . . $\$ 1$,000. . | 13,415 | 175 | 279 | 342 | 1,780 | 4,435 | (D) | 6,404 | (D) | - |  |
| Value added, adjusted.......do.... | 19,218 | 258 | 394 | 460 | 2,666 | 6,549 | (D) | 8,891 | (D) | - |  |
| Value of shipments...........do.... | 33,620 | 574 | 852 | 982 | 5,903 | 10,931 | (D) | 14,378 | (D) | - |  |
| Capital expenditures, new...do.... | 500 | 5 | (D) | 11 | 24 | $\underline{93}$ | (D) | 367 | (D) | - | - |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
${ }^{1}$ Includes capital expenditures for plants under construction but not in operation which constitute $\$ 500-\$ 1,000$ thousand of the total for the size class.
${ }^{2}$ Includes capital expenditures for plants under construction but not in operation which constitute a small proportion of the total for the size class.


## table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\text { Col. B }}{\text { Col. B+C }}$ <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F <br> (percent) |
|  |  | A | B | C | D | E | F | -G | H | 1 |
| 3861 | Photographic equipment. .......... $1963 .$. | $\begin{aligned} & 1,851,213 \\ & 1,204,905 \end{aligned}$ | $1,578,353$ 998,343 | $\begin{aligned} & 78,758 \\ & 61,579 \end{aligned}$ | $\begin{aligned} & 194,102 \\ & 144,983 \end{aligned}$ | 95 94 | $\begin{aligned} & 1,631,400 \\ & 1,061,317 \end{aligned}$ | $\begin{array}{r} 1,578,353 \\ 998,343 \end{array}$ | $\begin{aligned} & 53,047 \\ & 62,974 \end{aligned}$ | 97 94 |
| 3871 | Watches and clocks............... $1963 .$. | $\begin{aligned} & 511,168 \\ & 334,928 \end{aligned}$ | $\begin{aligned} & 385,987 \\ & 277,011 \end{aligned}$ | $\begin{aligned} & 82,905 \\ & 36,156 \end{aligned}$ | $\begin{aligned} & 42,276 \\ & 21,761 \end{aligned}$ | 82 88 | $\begin{aligned} & 406,168 \\ & 291,524 \end{aligned}$ | $\begin{aligned} & 385,987 \\ & 277,011 \end{aligned}$ | $\begin{aligned} & 20,181 \\ & 14,513 \end{aligned}$ | 95 95 |
| 3872 | Watchcases. . . . . . . . . . . . . . . . . . . 19.1963. . | $\begin{aligned} & 33,620 \\ & 34,660 \end{aligned}$ | $\begin{array}{r} 28,410 \\ 27,290 \end{array}$ | $\begin{aligned} & 4,488 \\ & 6,866 \end{aligned}$ | $\begin{aligned} & 722 \\ & 504 \end{aligned}$ | 86 80 | $\begin{aligned} & 29,372 \\ & 27,798 \end{aligned}$ | $\begin{aligned} & 28,410 \\ & 27,290 \end{aligned}$ | $\begin{aligned} & 962 \\ & 508 \end{aligned}$ | 97 98 |

[^291]
## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.

(X) Not applicable. n.s.k. Not specified by kind.
${ }^{1}$ Includes $\$ 3,098$ million shipped by industry 3831, "Optical Instrunents and Lenses." In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3651, Radio and TV Receiving Sets; 3622 , Radio and TV Cormunications Equipment and, 3871, Watches and Clocks.
${ }^{2}$ Includes $\$ 2$ million shipped by the following industries; however, the exact figures are withheld to avoid disclosing figures for individual companies: 3651, Radio and TV Receiving Sets, and 3662, Radio and IV Communications Equipment.
${ }^{3}$ Figures for sensitized photographic film and cloth, silver halide type, made in other industries (less than 1 percent of the total), are included with shipments by the Photographic Equipment Industry to avoid disclosing individual company figures.
${ }^{4}$ Includes shipments of over $\$ 2$ million of each of the following product classes; however, the exact values are withheld toavoid disclosing individual company figures: 35595, Other special industry machinery and equipment; 36624, Electronic navigational aids; 36625, Electronic search and detection apparatus; 36795, Other electronie-components and accessories, n.e.c.; and, 38510, Ophthalmic goods.
${ }^{5}$ Includes shipments of over $\$ 2$ million by industry 3822, Automatic Temperature Controls. However, the exact value is withheld to avoid disclosing individual company figures.
${ }^{6}$ Figures for watches with imported movements, made in other industries (less than 1 percent of the total) are included with shipments by the Watches and Clocks Industry to avoid disclosing individual company figures.
${ }^{7}$ Figures for clocks, watches and clock and watch parts, n.s.k., made in other industries (considerably less than 1 percent) are included with shigments by the Watches and Clocks Industry to avoid disclosing individual company figures.
${ }^{8}$ Includes shipments of over $\$ 2$ million of each of the following product classes; however, the exact values are withheld to avoid disclosing individual company figures: 19291, Ammunition over 30mm; 33560, Rolled, drawn and extruded nonferrous metal mill products, except copper and aluminum; 35790, Addressing, dictating, duplicating, and office machines, n.e.c.; 36343, Other small household electric appliances; 36430, Current-carrying wiring devices; 36623, Intercommunication equipment (except telephone and telegraph) and electric alaxm and signal systems and devices; 37292, Guided missile components and subassemblies, n.e.c.; 38111, Aircraft, flight, nautical, and navigational instruments and automatic pilots; 38611 , Still picture equipment; and 39111, Jewelry, made of platinum metals and karat gold.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


[^292]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



[^293]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

# TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued 

| Product code | Product | 1963 |  |  | 1958 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total shipments, including interplant transfers |  | Produced and consumed at the same establishment (number) | Total shipments, including interplant transfers |  | Produced and consumed at the same establishment (number) |
|  |  | Quantity <br> (number) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |  | Quantity <br> (number) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |  |
| 3872--- | WATCHCASES-Continued |  |  |  |  |  |  |
| 38720 -- | Watchcases-Continued |  |  |  |  |  |  |
|  | For nonjeweled or pin-lever watch movements: Wristwatch cases: |  |  |  |  |  |  |
| 3872051 | Gold filled, rolled gold plate, and sterling silver, including rolled gold plate with steel back........... | - |  |  |  |  |  |
| 3872059 | Other metals..................................................... | 385,591 | 748 | (NA) | 498,660 | 909 | 138,793 |
| 3872071 | Pocket and other watcheases (all qualities).................... | 14318, 555 | 142,352 | (NA) | 1467, 182 | 14306 | 1,309,825 |
| 3872000 | Watcheases, n.s.k.................................................... | (X) | 1,939 | (NA) | (X) | 8,016 | ( X ) |

- Represents zero. (NA) Not available. n.s.k. Not specified by kind.
(X) Not applicable.
${ }^{1}$ Values include stands and attachments shipped with process cameras.
${ }^{2}$ Product code 3861142 was collected in number of units in 1958.
${ }^{3}$ In 1958, studio type flash units; exposure meters; and projectors, other than slide film and strip film were included in product code 386198. Also, 1958 data for code 3861198 excludes projectors with illumination source rated at less than 150 watts.

41958 data for both still and motion picture projectors include those with illumination source rated at less than l50 watts.
squantity figures include heads shipped separately, as well as complete units. Value figures include the value of heads shipped separately, stands shipped separately and complete units shipped.
 rated at less than 150 watts.
${ }^{7}$ Total square feet of sensitized material (in thousands).


 $3861531,3861532,3861533,3861535,3861551,3861552,3861553,3861555,3861561,3861562,3861567,3861569,3861571,3861575$, and 3861577.
${ }^{9}$ Includes and indeterminate amount of duplication resulting from shipments of film between film producers for further manufacturing process.
${ }^{10} \mathrm{Total}$ square yards of sensitized material (in thousands).
${ }^{11}$ Automobile clocks included with other complete clocks (product code 3871131) for 1963.
 the same condition are excluded.
${ }^{13}$ Does not include a figure of less than 10,000 reported for gold filled women's wristwatch cases (for jeweled watch movement).
${ }^{14}$ Womens' pocket and other watchcases for jeweled watch movements combined with pocket and other watchcases for nonjeweled or pin-lever watch movements.

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 3861 | Photographic equipment ${ }^{\text {² }}$. . . . . . . . . . . . . . . . . . . . $1963 .$. | 179 124 | 119 |
| 38611 | Still picture equipment................................ 1963.. ${ }_{\text {1958.. }}$ | 106 | 124 |
|  |  | 90 | 117 |
| 38613 | Motion picture equipment............................... $1963 .$. | 99 | 116 |
|  |  | 134 | 102 |
| 38615 | Photographic sensitized film and plates.............1963.. | 182 | 112 |
| 38617 | Sensitized photographic paper and cloth other than silver halide type. | 125 | 106 |
|  |  | 305 | 89 |
|  | 1958.. | 170 | 102 |
| 387 | Watches, clocks, and watchcases.................1963.. | 126 | 104 |
|  |  | 91 | 107 |
| 387 | Watches and clocks ${ }^{2}$.................................... 1963. | 130 | 105 |
|  |  | 93 | 107 |
| 38771 | Clocks. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1963. 1958.. | 123 | 122 |
|  |  | 90 | 110 |
| 38714 | Watches with imported movements................... 1963.. | 147 | 79 |
|  | 1958.. | 89 | 97 |
| 38715 | Watches with domestic movements and parts for all clocks and watches.................................. 1963.. | 106 | 119 |
|  |  | 90 | 117 |
| 3872 |  | 92 | 91 |
|  |  | 72 | 112 |

[^294]table 6C. Product Classes-Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963

## TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1 .


[^295](D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. (Z) Less than \$i million.
${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to a oid disclosure of individual company figures: 38611, Massachusetts, Connecticut, New Jersey, Ohio, Michigan, Minnesota, Virginia, South Carolina, Arkansas, Colorado, Oregon, and California; 38612, Massachusetts, New York, Indiana, Illinois, California; 38613, Massachusetts, Connecticut, New York, Pennsylvania, Ohio, Indiana, Michigan, Minnesota, South Carolina, Colorado, and California; 38615, Massachusetts, New York, New Jersey, Ohio, and Illinois; 38616, New Hampshire, Massachusetts, New York, New Jersey, Illinois, Iowa, and Missouri; 38617, Massachusetts, Rhode Island, Pennsylvania, Ohio, Indiana, Illinois, and Texas; 38618, California; 38711, Connecticut, New Jersey, Ohio, Wisconsin, Iowa, North Carolina, Georgia, Kentucky, and Tennessee; 38714, Connecticut, New York, Pennsylvania, and Texas; 38715, Connecticut, New York, New Jersey, Pernsylvania, Illinois, North Carolina, Arkansas, and Texas.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

## table 7A. Materials by Kind: 1963 and 1958



[^296]
## TABLE 7B. Fuels and Electric Energy Consumed, and Horsepower Rating of Power Equipment: 1962

|  |  |
| :--- | :--- |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard

- Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable. (Z) Less than 500 horsepower.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general
consistency review.


## table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

(D) Withheld to avoid disclosing figures for individual companies.

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | 20 or more |
| Electroplating and other plating Heat treating of metals. <br> Automatic screw machine department <br> Machine Shop. <br> Tool and die shop. <br> Stamping, blanking, and forming of metals | INDUSTRY 3871.-WATCHES AND CLOCKS |  |  |  |  |  |  |  |
|  | 24 | 9 | 9 | 6 | 312 | 17 | 88 | 207 |
|  | 15 | 10 | 4 | 1 | 135 | 18 | (D) | (D) |
|  | 19 | 5 | 6 | 8 | 577 | 10 | 69 | 498 |
|  | 25 | 9 | 8 | 8 | 537 | 13 | 67 | 457 |
|  | 30 | 10 | 14 | 6 | 420 | 15 | 144 | 261 |
|  | 34 | 13 | 10 | 11 | 868 | 20 | 99 | 749 |
|  | INDUSTRY 3872. -WATCHCASES |  |  |  |  |  |  |  |
| Electroplating and other plating....................... | 16 | 12 | 31 | 1 | 82 | (D) | (D) | (D) |
| Heat treating of metals.......... | 10 | 9 |  | - | 19 |  | (D) |  |
| Automatic screw machine department. | 3 | 1 | 1 | 1 | (D) | (D) | (D) | (D) 134 |
| Machine shop................ | 8 | 4 | - | 4 | 143 | 9 | - | 134 |
| Tool and die shop........ | 12 | 6 | 4 | 2 | 119 | 10 | (D) | (D) |
| Stamping, blanking, and forming of metals. | 18 | 5 | 10 | 3 | 212 | 6 | 82 | 124 |

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.


- Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishments.


# Miscellaneous Manufacturing 

39A Jewelry, silverware, and plated ware

39B Nusical instruments and parts; toys, and sporting and athletic goods
39 C Office supplies, costume jewelry and misc. notions
39D Miscellaneous manufacturing industries

Major Group 39 covers establishments primarily engaged in manufacturing products not classified in any other major manufacturing group. Industries in this group fall into the following categories: Jewelry, and silverware and plated ware; musical instruments; toys, and sporting and athletic goods; pens, pencils, and other office and artists' materials; buttons, costume novelties, and miscellaneous notions; brooms and brushes; morticians' goods; and, other miscellaneous manufacturing industries.

For 1953 and earlier years, data for Major Group 19, Ordnance and Accessories, are included with Major Group 39 in table 1.

For 1954 and subsequent years Major Group 19 data are published separately. However, in some tables within these volumes, data for Major Group 19 are given both separately and combined with Major Group 39.

Major Group 19 covers establishments primarily engaged in manufacturing artillery, small arms, and related equipment; ammunition; tanks and specialized tank parts; sighting and fire control equipment; complete guided missiles and research and development on complete guided missiles and, miscellaneous ordnance and accessories, not elsewhere classified.

## Miscellaneous Manufacturing: Major Group 39

Value Added by Manufacture by State: 1963


## TABLE 1. General Statistics: 1963 and Earlier Years



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for ndividual companies. (NA) Not available. (X) Not applicable.
${ }^{1}$ The figures for 1939 through 1963 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which
data for such employees are included in the figures for earlier years is not known. and for earlier years, unadjusted value added. Adjusted value added is equal to value or and for earlier years, unadjusted value added. Adjusted value added is equal to val materials, supplies, fuel, electric energy and contract work, plus the net change in th materials, supplies, fuel, electric energy and contract work, plus the net change in the of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in
inventories of finished products and work-in-process during the year.
${ }^{3}$ The total value of shipments and cost of materials for industry groups (2- and 3digit) include extensive duplication arising from shipments between establishments in the same industry classification. For more information, see Introduction.
4The figures for 1958 to 1963 include expenditures for plants under construction and not yet in operation.
${ }_{5}$ In addition to data for operating establishments, figures for employment and payroll
for manufacturing centraladministrative office and auxiliary units are included in industry group 39 for groups 39 and 19 for the years 1949 to 1953 in the annual survey of manu-
factures volumes. Data for these units are not available for the years 1955 to 1957 , factures volumes. Data for these units are not available for the years 1955 to 1957, ${ }_{6 F}{ }^{2}$ irures , 1058 to 1963 .
${ }^{6}$ Figures for 1958 to 1963 for operating manufacturing establishments are not strictly comparable with prior years due to revisions of the Standard Industrial Classification products, n.e.c., cork products, soda-fountain and bar equipment, and jewelry, plastics products, n.e.c., cork products, soda-rountain and bar equipment, and jewelry, primarily engaged in the manufacture of linoleum and other hard surface floor covering, n.e.c., are excluded in data prior to 1958.
${ }^{7}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. Ordnance and Accessories," are included with Major Group 39, "Miscellaneous Manufactures."
${ }^{9}$ For 1953 and earlier years data includes ordnance and accessories.
table 2. General Statistics, by Geographic Areas: 1963 and 1958

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


[^297]table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued


Standard Notes: - Represents zero
(D) Withheld to avoid disclosing figures for inalvidual companies.
(NA) Not available.
(x) Not applicable.

## TABLE 3. Detailed Statistics: 1963

| Item | Miscellaneous manufacturing (SIC 39) | Jewelry and silverware (SiC 391) | Musical instruments and parts (SIC 393) | Toys and sporting goods (SIC 394) | Pens, pencils, and office supplies (SIC 395) | Costume jewelry and notions (SIC 396) | $\left\lvert\, \begin{gathered} \text { Miscellaneous } \\ \text { manufactures SIC } \\ 398 \text { and } 399 \text { ) } \end{gathered}\right.$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| establishments, total . . . . . . . . . . . . . . . number. | 14723 | 2193 | 320 | 2690 | 1001 | 1929 | 6590 |
| with 1 to 19 employees. . . . . . . . . . . . . . . . 00 | 11104 | 1806 | 194 | 1803 | 734 | 1437 | 5130 |
| WITH 20 TU 99 EMPLUYEES . . . . . . . . . . . . . . . 00. | 2832 | 316 | 79 | 627 | 199 | 390 | 1221 |
| with 100 employees or more. . . . . . . . . . . . . . do. | 786 | 71 | 47 | 260 | 67 | 102 | -239 |
| PRIJPRIETURS AND WORKING PARTNERS. . . . . . . . . . . . DO. | 8397 | 1422 | 133 | 1314 | 531 | 1110 | 3887 |
| all emplouees (average for the year). . . . . . . . . . do. | 390760 | 43151 | 20095 | 113133 | 31594 | 52483 | 130304 |
| Payroll (all employees), tutal for year . . . . . . \$1,000. | 1812104 | 225659 | 103029 | 460948 | 159759 | 214061 | 648648 |
| Production workers: |  |  |  |  |  |  |  |
| average fur the year. . . . . . . . . . . . . . . number. | 315017 | 33506 | 16664 | 94275 | 23161 | 43894 | 103517 |
| march . . . . . . . . . . . . . . . . . . . . . . . do. | 297043 | 32796 | 17218 | 80807 | 22610 | 42217 | 101395 |
| MAY . . . . . . . . . . . . . . . . . . . . . . . . Do. | 307438 | 33130 | 15650 | 91437 | 22923 | 42187 | 102111 |
| august . . . . . . . . . . . . . . . . . . . . . do. | 324297 | 33068 | 16226 | 101925 | 23204 | 45238 | 104636 |
| november. . . . . . . . . . . . . . . . . . . . . . oo. | 331969 | 35096 | 17597 | 102972 | 23959 | 46087 | 106258 |
| man-hours . . . . . . . . . . . . . . . . . . . . .1,0C0. | 613227 | 67690 | 33600 | 179084 | 46096 | 83919 | 202838 |
| Jandary-march . . . . . . . . . . . . . . . . . . . do. | 143726 | 16754 | 8388 | 37655 | 11198 | 20167 | 49564 |
| APril-June. . . . . . . . . . . . . . . . . . . . . Do. | 151757 | 16761 | 8102 | 43918 | 11542 | 20643 | 50791 |
| JULY-SEPTEMBER. . . . . . . . . . . . . . . . . . . 00. | 153633 | 15942 | 7720 | 47890 | 11387 | 20843 | 49851 |
| исtober-decemiber. . . . . . . . . . . . . . . . . . do. | 164123 | 18233 | 9390 | 49632 | 11969 | 22266 | 52633 |
| Wages . . . . . . . . . . . . . . . . . . . . . . \$1,000 | 1253518 | 154112 | 76471 | 324575 | 94916 | 152518 | 450926 |
|  | 965024 | 441822 | 143136 | ${ }^{1} 864230$ | 252046 | ${ }^{1} 347058$ | 916732 |
| materials, parts, Containers, and supplies consumed . Do. | 2555720 | 370253 | 132015 | 736862 | 216072 | 300237 | 800281 |
| cost of pesales . . . . . . . . . . . . . . . . . . . do. | 270630 | 48353 | 8076 |  | 25825 | 23886 | 78067 |
| fuels consumeo. . . . . . . . . . . . . . . . . . . . do. | 17188 | 1714 | 919 | 4360 | 1230 | 1743 | 7222 |
| ELECTRIC ENERGY: PURCHASED: |  |  |  |  |  |  |  |
| QUANTITY. COST. | $\begin{array}{r}1868 \\ 31 \\ \hline 146\end{array}$ | 184 | $\begin{array}{r}77 \\ \hline 157\end{array}$ | 582 | 146 | 253 | 626 |
| Cost. . . . . . . . . . . . . . . . . . . . . \$1,00 | 31346 |  | 1357 | 9370 | 2587 |  | 10595 |
| generated less solo . . . . . . . . . .million kw. | 4431 | 682 | (D) | 1398 | (D) | 647 | 1051 |
| contract work . . . . . . . . . . . . . . . . . . si,000 | 90123 | 18292 | 769 | 27214 | 6332 | 16967 | 20549 |
| value uf shipments (including resales), total ${ }^{1}$. . . . . oo. value of resales. . . . . . . . . . . . . . . . . . . do. | 6494830 413356 | 857869 64176 | $\begin{array}{rr}314 & 407 \\ 10848\end{array}$ | $\begin{array}{r} 1826798 \\ 133844 \end{array}$ | $\begin{array}{r} 589452 \\ 37464 \end{array}$ | $\begin{array}{r} 1760016 \\ 44 \quad 520 \end{array}$ | $\begin{array}{rl} 2 & 146 \\ & 288 \\ 122 & 504 \end{array}$ |
| value adoed by manufacture, adjusted. . . . . . . . . . do | 3562361 | 415747 | 179035 | 978485 | 337725 | 414812 | 1236557 |
| MANUFACTURERS' INVENTORIES: <br> BEGINNING OF YEAR, TOTAL | 1076627 | 189989 | 55295 | 334249 |  |  |  |
| finished products . . . . . . . . . . . . . . . . do. | 451780 |  | 12252 | 158385 |  |  |  |
| WORK-1N-PROCESS . . . . . . . . . . . . . . . . . . do. | 264392 | 50303 | 27515 | 69915 | 21184 | 29744 | 65731 |
| MATERIALS, SUPPLIES, fUEL, etc. . . . . . . . . . . Do. | 360454 | 46732 | 15528 | 105948 | 39350 | 31223 | 121673 |
| eno of year, total. . . . . . . . . . . . . . . . . . DO. | 1115703 | 193683 | 63719 | 349206 | 91289 | 107352 | 310455 |
| Finished products . . . . . . . . . . . . . . . . . do. . | 470726 | 93097 | 15669 | 169949 | 29380 | 44054 | 118577 |
| WORK-IN-PROCESS . . . . . . . . . . . . . . . . . . 0 . | 278179 <br> 189 | 50009 | 31862 | 74299 | 21222 | 30799 | 69988 |
| materials, SUPPLIES, fuel, etc. . . . . . . . . . . Do. | 366793 | 50577 | 16188 | 104953 | 40686 | 32499 | 121890 |
| expenditures for plant and eouipment total . . . . . . DO. | 140045 | 8694 | 6152 | 55047 | 10606 | 13969 | 45577 |
| NEW, total. . . . . . . . . . . . . . . . . . . . . . Do. | 131033 | 8115 | 5779 | 51151 | 10143 | 13029 | 42816 |
| new structures and additions to plant . . . . . . . do. | 34101 | 1994 | 2551 | 13501 | 1123 | 2419 | 12513 |
| new machinery and equipment . . . . . . . . . . . . do. | 96937 | 6121 | 3228 | 37655 | 9020 | 10610 | 30303 |
| used plant and eouipment. . . . . . . . . . . . . . . do. | 9010 | 579 | 375 | 3893 | 463 | 940 | 2762 |
| SELECTED OPERATING RATIOS: |  |  |  |  |  |  |  |
| PAYROLL/TOTAL EMPLOYMENT. - | 4637 | 5230 | 5127 |  | 5057 | 4079 | 4978 |
| PROOUCTION WORKERS/TOTAL EMP LOYMENT |  |  | ${ }^{5} .83$ | . 83 | - 73 |  | . 79 |
| MAN-HOURS/PRODUCT ION WORKERS. | 1.947 2.04 | 2020 2.28 | 2016 2.28 | 1900 | 1990 | 1.912 | 1959 |
|  |  |  |  |  |  | 1.82 |  |
| cost of materials ano payrolls/total value of shipments. cost uf materials/total value of shipments. . . . . . . . | $\begin{array}{r}.74 \\ .46 \\ \hline\end{array}$ | .78 .52 .635 | .78 <br> .46 <br> 0 | $\begin{array}{r}.73 \\ .47 \\ \hline\end{array}$ | $\begin{array}{r}.70 \\ .43 \\ \hline\end{array}$ | $\begin{array}{r}.74 \\ .46 \\ \hline\end{array}$ | $\begin{array}{r}.73 \\ .43 \\ \hline\end{array}$ |
| adjusted value adoed/total employment ... | 9116 | 9635 | 8909 | 8649 | 10690 | 7904 | 9490 |
| salaries and wages/adjusted value added . . . . . . . . | . 51 | . 54 | . 58 | . 47 | . 47 | . 52 | . 52 |

[^298]industry. For a nore complete explanation, see Introduction.

## JEWELRY, SILVERWARE, AND PLATED WARE

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>3911-Jewelry, Precious Metal<br>3912-Jewelers' Findings and Materials<br>3913-Lapidary Work and Cutting and Polishing Diamonds<br>3914-Silverware and Plated Ware

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1-4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3911-JEWELRY, PRECIOUS METAL

This industry comprises establishments primarily engaged in manufacturing jewelry and other articles, worn on or carried about the person, made of precious metals with or without stones (including the setting of stones where stones are used), including cigarette cases and lighters, vanity cases and compacts, trimmings for umbrellas and canes, and jewel settings and mountings. Establishments primarily engaged in manufacturing costume jewelry from nonprecious metals and other materials are classified in industry 3961. For a detailed list of products of industry 3911, refer to table 6A, product codes 3911298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Jewelry, Precious Metal lndustry in 1963 totaled $\$ 482$ million. This amount included shipments of precious metal jewelry (primary products) valued at $\$ 387$ million, shipments of other products (secondary products) valued at $\$ 32$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 63$ million.

This industry's shipments of precious metal jewelry in 1963 represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent.

Secondary products shipped by this industry in 1963 include costume jewelry and costume novelties, except precious metal ( $\$ 12$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 73 percent of the total industry shipments are represented by plants specializing in jewelry made of platinum metals and carat gold and 21 percent in Jewelry made of precious metals, except platinum metals and carat gold.

Shipments of precious metal jewelry by this industry in 1963 represented 97 percent of all shipments of these products ( $\$ 400$ million) by all industries. In 1958 the coverage ratio was 98 percent. Another industry shipping precious metal jewelry (primary products) was industry 3961, Costume Jewelry $\$ 4$ million.

## 3912--JEWELERS’ FINDINGS AND MATERIALS

This industry comprises establishments primarily engaged in manufacturing unassembled jewelry parts and stock shop products such as sheet, wire, and tubing. Establishments primarily engaged in lapidary work are classified in industry 3913. For a detailed list of products of industry 3912, refer to table 6A, product codes 3912011 to 3912051.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Jewelers' Findings and Materials Industry in 1963 totaled $\$ 73$ million. This amount included shipments of jewelers' findings and materials (primary products) valued at $\$ 63$ million, shipments of other products (secondary products) valued at $\$ 6$ million, and miscellaneous receipts at $\$ 4$ million.

This industry's shipments of jewelers' findings and materials in 1963 represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 90 percent.

## 3913-LAPIDARY WORK AND CUTTING AND POLISHING DIAMONDS

This industry comprises establishments primarily engaged in all types of lapidary work, and cutting and polishing diamonds. This industry also includes establishments primarily engaged in cutting and polishing other precious stones; recutting and setting stones; preparing jewels for instruments, tools, and for watches and chronometers; and preparing real and imitation stones for settings. For a detailed list of products of industry 3913 , refer to table 6A, product codes 3913011 to 3913031.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Lapidary Work Industry in 1963 totaled $\$ 65$ million. This amount included receipts for lapidary work (primary products) valued at $\$ 55$ million, shipments of other products (secondary products) valued at $\$ 4$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 6$ million.

This industry's receipts for lapidary work in 1963 represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 99 percent.

Value of lapidary work by this industry in 1963 represented 81 percent of all shipments of these products ( $\$ 68$ million) performed by all industries. In 1958 the coverage ratio was 87 percent.

Excluded from the $\$ 68$ million value of shipments of lapidary work reported by all industries is the value of lapidary work by establishments classified in other industries (i.e., jewelry, etc.) where (1) this activity is combined with other finishing operations in the production of jewelry or other products or (2) this activity is reported as a receipt for contract work. Contract receipts for lapidary work were not separately reported or tabulated. The relatively small amount of lapidary work done in retail stores is also excluded.

## 3914-SILVERWARE AND PLATED WARE

This industry comprises establishments primarily engaged in manufacturing flatware (including knives, forks and spoons), hollow ware, toilet ware, ecclesiastical ware, and related products made of sterling silver; of metal plated with silver, gold, or other metal; of nickel silver; of pewter; or of stainless steel.
"Flatware" is defined for purposes of the census as all knives, forks, spoons, etc., made wholly of metal, including stainless steel knives, forks, and spoons, and carving sets with metal handles. Knives, forks, spoons, etc., with handles of materials other than metal are included in industry 3421, Cutlery. For a detailed list of products of industry 3914 , refer to table 6A, product codes 3914111 to 3914261.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Silverware and Plated Ware Industry in 1963 totaled $\$ 238$ million. This amount included shipments of silverware and plated ware (primary products) valued at $\$ 209$ million, shipments of other products (secondary products) valued at $\$ 11$ million, and miscellaneous receipts, at $\$ 19$ million.

This industry's shipments of silverware and plated ware in 1963 represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was also 95 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 66 percent of the total industry shipments are represented by plants specializing in jewelry made of platinum metals and karat gold and 21 percent in jewelry made of precious metals, except platinum metals and karat gold.

Shipments of silverware and plated ware by this industry in 1963 represented 98 percent of all shipments of these products ( $\$ 212$ million) by all industries. In 1958 the coverage ratio was also 98 percent.

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 <br> employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3911.-JEWELRY, PRECIOUS METAL |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 1,428 | 1,438 | 218 | 23,551 | 125,610 | 17,455 | 35,601 | 79,251 | 234,925 | 248,405 | 481,943 | 3,676 | 92 | 97 |
| 19621 | (NA) | (NA) | (NA) | 21,740 | 112,888 | 16,092 | 34,617 | 72,533 | 203,942 | 210,974 | 411,367 | 1,764 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 21,384 | 106,495 | 15,753 | 33,392 | 67,824 | 189,561 | 198,019 | 386,492 | 2,384 | (NA) | (NA) |
| 1960 | (NA) | (NA) | (NA) | 20,775 | 102,578 | 15,459 | 32,476 | 65,456 | 188,953 | 182,280 | 362,719 | 2,424 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 20,596 | 99,136 | 15,510 | 32,137 | 64,107 | 174,567 | 173,512 | 348,324 | $(2,850)$ | (NA) | (NA) |
| 1958. | 1,300 | 1,302 | 183 | 21,196 | 95,134 | 15,924 | 30,749 | 60,726 | 166,579 | 160,480 | 327,251 | 3,461 | 95 | 98 |
| 1954 | 1,323 | 1,327 | 204 | 23,455 | 90,373 | 18,440 | 36,438 | 58,328 | 149,600 | 123,312 | 273,537 | 1,836 | 93 | 96 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 21,806 | 89,091 | 17,547 | 35,369 | 62,360 | 148,051 | 129,989 | 278,040 | (NA) | (NA) | (NA) |
| 1947. | 1,342 | 1,344 | 254 | 25,566 | 76,462 | 20,610 | 42,877 | 54,222 | 140,478 | 107,707 | 248,185 | 2,674 | 92 | 95 |
| 1939. | (NA) | 886 | (NA) | 15,058 | 22,388 | 11,358 | (NA) | 14,243 | 36,822 | 34,597 | 71,419 | (NA) | (NA) | (NA) |
| $1937{ }^{2}$ | (NA) | 789 | (NA) | (NA) | (NA) | 11,077 | (NA) | 14,737 | 36,014 | 33,512 | 69,526 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3912.-JEWELERS' FINDINGS AND MATERIALS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 228 | 228 | 67 | 4,816 | 20,836 | 3,924 | 7,684 | 14,001 | 33,958 | 38,816 | 72,833 | 1,308 | 92 | 89 |
| 1962 ${ }^{1}$ | (NA) | (NA) | (NA) | 4,854 | 21,485 | 3,909 | 7,702 | 13,948 | 38,798 | 37,631 | 74,834 | (94.4) | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 4,666 | 19,149 | 3,784 | 7,295 | 12,826 | 34,640 | 32,823 | 67,743 | (894) | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 4,497 | 18,519 | 3,626 | 7,027 | 12,318 | 37,724 | 31,715 | 65,843 | $(1,284)$ | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 4,265 | 17,886 | 3,524 | 7,139 | 12,417 | 30,009 | 33,691 | 64,329 | $(1,247)$ | (NA) | (NA) |
| 1958. | 248 | 248 | 55 | 4,227 | 16,380 | 3,496 | 6,776 | 11,479 | 26,787 | 29,947 | 57,475 | 637 | 90 | 87 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 6,056 | 22,892 | 4,867 | 9,398 | 15,051 | 36,654 | 42,889 | 80,817 | 890 | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 6,064 | 22,215 | 5,055 | 9,910 | 14,937 | 42,573 | 44,303 | 84,307 | 2,954 | (NA) | (NA) |
| 1954. | 234 | 234 | 61 | 5,371 | 18,911 | 4,542 | 9,281 | 13,414 | 31,439 | 38,686 | 70,275 | 1,558 | 92 | 91 |
| 1952 ${ }^{1}$ | (NA) | (NA) | (NA) | 7,282 | 23,903 | 6,444 | 12,666 | 18,020 | 35,001 | 60,145 | 95,146 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 7,922 | 24,054 | 6,990 | 13,487 | 18,247 | 40,698 | 61,438 | 102,136 | (NA) | (NA) | (NA) |
| 1947. | 180 | 182 | 62 | 6,056 | 17,350 | 5,203 | 11,001 | 12,389 | 29,714 | 43,816 | 73,530 | 2,005 | 92 | 93 |
| 1939. | (NA) | 82 | (NA) | 3,412 | 4,790 | 2,813 | (NA) | 2,975 | 7,996 | 14,493 | 22,489 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 71 | (NA) | 2,949 | 4,303 | 2,470 | (NA) | 3,002 | 7,110 | 14,574 | 21,684 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 73 | (NA) | 3,099 | 3,865 | 2,663 | (NA) | 2,728 | 6,179 | 10,991 | 17,170 | (NA) | (NA) | (NA) |
| 1933 | (NA) | 60 | (NA) | 2,115 | 2,113 | 1,811 | (NA) | 1,604 | 3,747 | 5,503 | 9,250 | (NA) | (NA) | (NA) |
| $1931{ }^{2}$ | (NA) | 99 | (NA) | (NA) | (NA) | 1,899 | (NA) | 2,343 | 4,855 | 7,121 | 11,976 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3913. -LAPIDARY WORK |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 318 | 318 | 15 | 1,535 | 8,289 | 1,239 | 2,265 | 6,085 | 16,129 | 45,706 | 65,094 | 393 | 93 | 81 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | $(1,929)$ | $(8,310)$ | $(1,721)$ | $(2,879)$ | (5,794) | $(16,473)$ | $(28,398)$ | (44,852 | (329) | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | $(2,115)$ | $(8,903)$ | $(1,877)$ | $(3,352)$ | $(6,444)$ | $(19,869)$ | (30,887) | $(48,284)$ | (480) | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | $(1,694)$ | $(7,967)$ | $(1,458)$ | $(2,811)$ | $(5,598)$ | (14,735) | $(25,103)$ | $(40,043)$ | (S) | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | $(1,857)$ | $(8,261)$ | $(1,594)$ | (2,951) | $(5,790)$ | (17,661) | $(30,098)$ | $(45,745)$ | (S) | (NA) | (NA) |
| 1958. | 326 | 326 | 18 | 1,904 | 8,061 | 1,625 | 2,985 | 6,154 | 14,605 | 24,853 | 40,428 | 253 | 99 | 87 |
| 1954. | 332 | 333 | 14 | 1,759 | 5,459 | 1,591 | 2,757 | 4,067 | 11,181 | 29,136 | 40,266 | 118 | 97 | 91 |
| 1947. | 270 | 270 | (NA) | 1,699 | 5,524 | 1,525 | 3,068 | 4,532 | 10,860 | 19,409 | 30,269 | 148 | 98 | 98 |
| 1939. | (NA) | 90 | (NA) | 317 | 490 | 267 | (NA) | 391 | 1,374 | 3,755 | 5,129 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 51 | (NA) | 271 | 426 | 217 | (NA) | 306 | 1,048 | 3,343 | 4,391 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 60 | (NA) | 203 | 295 | 153 | (NA) | 201 | 806 | 1,244 | 2,050 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 34 | (NA) | 136 | 154 | 107 | (NA) | 124 | 340 | 483 | 823 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 53 | (NA) | (NA) | (NA) | 205 | (NA) | 340 | 1,097 | 1,378 | 2,475 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 100 | (NA) | 629 | 1,399 | 506 | (NA) | 1,002 | 3,707 | 8,235 | 11,942 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 92 | (NA) | 681 | 1,587 | 547 | (NA) | 1,221 | 3,219 | 9,133 | 12,352 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 83 | (NA) | 692 | 1,608 | 589 | (NA) | 1,285 | 2,850 | 7,273 | 10,123 | (NA) | (NA) | (NA) |
| 1923.. | (NA) | 87 | (NA) | 768 | 1,622 | 644 | (NA) | 1,286 | 3,243 | 5,887 | 9,130 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 64 | (NA) | 516 | 1,112 | 399 | (NA) | 738 | 1,505 | 2,840 | 4,345 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 124 | (NA) | 1,322 | 3,536 | 1,155 | (NA) | 2,838 | 10,688 | 19,363 | 30,051 | (NA) | (NA) | (NA) |
| 1914. | (NA) | 89 | (NA) | 688 | 807 | 584 | (NA) | 641 | 1,419 | 3,941 | 5,360 | (NA) | (NA) | (NA) |
| 1909 | (NA) | 77 | (NA) | 796 | 1,084 | 627 | (NA) | 889 | 2,613 | 6,560 | 9,173 | (NA) | (NA) | (NA) |
| 190 | (NA) | 54 | (NA) | 609 | 766 | 507 | (NA) | 657 | 1,423 | 6,224 | 7,647 | (NA) | (NA) | (NA) |
| 1899....... | (NA) | 60 | (NA) | 541 | 550 | 498 | (NA) | 499 | 1,130 | 4,656 | 5,786 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3914.-SILVERWARE AND PLATED WARE |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 201 | 209 | 87 | 13,249 | 70,924 | 10,888 | 22,140 | 54,775 | 130,735 | 108,895 | 237,999 | 2,738 | 95 | 98 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 13,969 | 72,043 | 11,531 | 23,395 | 55,810 | 130,047 | 107,636 | 235,716 | 2,391 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 14,101 | 67,980 | 11,631 | 23,081 | 51,979 | 130,231 | 102,721 | 232,874 | 2,178 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 14,368 | 68,252 | 11,814 | 23,266 | 51,425 | 123,932 | 100,087 | 221,652 | (S) | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 14,396 | 68,514 | 11,824 | 23,873 | 52,661 | 121,302 | 98,957 | 1217,348 | (S) | (NA) | (NA) |
| 1958. | 198 | 209 | 87 | 13,852 | 62,318 | 11,226 | 21,851 | 47,602 | 109,728 | 85,185 | 196,055 | 2,478 | 95 | 98 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 15,358 | 67,244 | 12,690 | 24,605 | 52,407 | 111,458 | 83,386 | 193,782 | (NA) | 89 | 96 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 15,881 | 68,598 | 13,077 | 26,309 | 53,445 | 117,762 | 94, 180 | 212,277 | 4,025 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 16,965 | 71,134 | 14,036 | 28,615 | 55,169 | 116,515 | 99,849 | 211,703 | 3,987 | (NA) | (NA) |
| 1954. . | 190 | 207 | 97 | 17,345 | 68,064 | 14,379 | 28,957 | 53,876 | 109,836 | 105,711 | 217,183 | 3,826 | 91 | 97 |

[^299]
## table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | with 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3914.-SILVERWARE AND PLATED WARE-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 18,087 | 72,524 | 14,782 | 31,006 | 57,128 | 114,832 | 103,089 | 217,921 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 19,151 | 71,613 | 15,837 | 32,761 | 55,080 | 118,318 | 100,915 | 219,233 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 22,504 | 78,296 | 18,889 | 37,720 | 60,973 | 130,640 | 117,332 | 247,972 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ | (NA) | (NA) | (NA) | 24,192 | 81,795 | 20,184 | 42,810 | 64,353 | 139,487 | 123,085 | 262,572 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (NA) | (NA) | (NA) | 23,998 | 77,944 | 20,360 | 42,495 | 61,192 | 124,108 | 103,192 | 227,300 | (NA) | (NA) | (NA) |
| 1947. | 221 | 236 | (NA) | 21,848 | 69,149 | 18,791 | 41,723 | 56,363 | 123,311 | 98,273 | 221,584 | 5,358 | 98 | 97 |
| 1939. | (NA) | 153 | (NA) | (NA) | (NA) | 13,166 | (NA) | 16,574 | 39,628 | 26,415 | 66,043 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 136 | (NA) | 13,248 | 17,496 | 11,361 | (NA) | 13,790 | 34,063 | 22,670 | 56,733 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 139 | (NA) | 11,865 | 14,240 | 10,194 | (NA) | 11,078 | 28,074 | 15,298 | 43,372 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 126 | (NA) | 10,340 | 9,911 | 9,177 | (NA) | 8,229 | 21,908 | 12,425 | 34,333 | (NA) | (NA) | (NA) |
| 1931... | (NA) | 163 | (NA) | (NA) | (NA) | 11,077 | (NA) | 12,713 | 34,023 | 11,792 | 45,815 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 179 | (NA) | 18,697 | 30,278 | 15,735 | (NA) | 22,578 | 58,996 | 26,886 | 85,882 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 178 | (NA) | 19,558 | 30,985 | 16,719 | (NA) | 23,945 | 56,047 | 31,377 | 87,424 | (NA) | (NA) | (NA) |
| 1925... | (NA) | 183 | (NA) | 19,827 | 30,433 | 16,877 | (NA) | 23,844 | 53,685 | 33,177 | 86,862 | (NA) | (NA) | (NA) |
| 1923.. | (NA) | 181 | (NA) | 20,182 | 29,691 | 17,090 | (NA) | 22,971 | 50,432 | 30,673 | 81,105 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 169 | (NA) | 17,573 | 23,381 | 14,822 | (NA) | 17,815 | 36,981 | 21,374 | 58,355 | (NA) | (NA) | (NA) |
| 1919. | (NA) | 167 | (NA) | 18,976 | 24,039 | 15,945 | (NA) | 18,273 | 39,934 | 30,827 | 70,761 | (NA) | (NA) | (NA) |
| 1914. | (NA) | 180 | (NA) | 18,344 | 13,303 | 15,787 | (NA) | 9,796 | 21,691 | 16,580 | 38,271 | (NA) | (NA) | (NA) |
| 1909. | (NA) | 183 | (NA) | 18,660 | 13,027 | 16,610 | (NA) | 10,282 | 23,897 | 18,332 | 42,229 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 158 | (NA) | 16,185 | 10,356 | 14,861 | (NA) | 8,625 | 18,381 | 14,459 | 32,840 | (NA) | (NA) | (NA) |
| 1899. | (NA) | 169 | (NA) | 13,334 | 7,988 | 12,205 | (NA) | 6,531 | 14,455 | 11,659 | 26,114 | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for rccale without further manufacture, processing or assembly. In addition, figures prior io 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ No comparable data available for earlier years.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{\text {a }}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacadjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> ( $\$ 1,000$ ) | Capital expend itures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufac adjusted $(\$ 1,000)$ |
|  | $\begin{array}{\|c\|} \hline \text { Total } \\ \text { (number) } \\ \hline \end{array}$ | $\begin{aligned} & \text { With } 20 \\ & \text { employ- } \\ & \text { ees } \\ & \text { or more } \\ & \text { (number) } \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll $(\$ 1,000)$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{gathered} \text { Mar- } \\ \text { hours } \\ (1,000) \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | Industry 3911.-JEWELRY, PRECTOUS METAL |  |  |  |  |  |  |  |  |  |  |  |  |
| Total........... <br> New England. Massachusetts... Rhode Island..... | 1,438 | 218 | 23,551 | 125,610 | 17,455 | 35,601 | 79,251 | 234,925 | 248,405 | 481,943 | 3,676 | 21,196 | 166,579 |
|  | 18959120 | 63 21 21 | 7,5963,9493,610 | 38,129 22,55 15 | 5,9012,8253,049 | 12,2266,0566,111 | 23,000 11,909 | 65,418 32,146 33 | 37,725 <br> 17,67 | 103,712 50,091 531 | 1,378 675 701 | 6,787 <br> 3,293 <br> , 29 | 41, 25120,01421,132 |
|  |  | 42 |  | 15,363 |  |  | 10,936 | 33,077 | 19,618 | 53,148 | 701 | 3,448 |  |
| Middle Atlantic.... <br> New York. <br> New Jersey Pennsylvania. | $\begin{array}{r} 912 \\ 780 \\ 77 \\ 62 \end{array}$ | $\begin{array}{r} 115 \\ 85 \\ 26 \\ 4 \end{array}$ | $\begin{array}{r} 11,184 \\ 8,288 \\ 2,511 \\ 385 \end{array}$ | $\begin{array}{r} 62,356 \\ 46,540 \\ 14,073 \\ 1,743 \end{array}$ | $\begin{aligned} & 8,130 \\ & 6,002 \\ & 1,864 \\ & 264 \end{aligned}$ | $\begin{array}{r} 16,283 \\ 11,893 \\ 3,860 \\ 530 \end{array}$ | $\begin{array}{r} 39,394 \\ 29,268 \\ 9,007 \\ 1,119 \end{array}$ | $\begin{array}{r} 115,909 \\ 92,321 \\ 20,475 \\ 3,113 \end{array}$ | $\begin{array}{r} 170,982 \\ 150,404 \\ 17,226 \\ 3,352 \end{array}$ | $\begin{array}{r} 284,707 \\ 239,780 \\ 38,433 \\ 6,494 \end{array}$ | $\begin{array}{r} 1,594 \\ 1,210 \\ 356 \end{array}$ | $\begin{array}{r} 10,086 \\ 7,120 \\ 2,630 \\ 336 \end{array}$ | $\begin{array}{r} 85,3866 \\ 63,227 \\ 19,642 \\ 2,517 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | 28 |  |  |
| East North Central. Ohio. Illinois. Michigan. | $\begin{array}{r} 107 \\ 35 \\ 34 \\ 18 \end{array}$ | $\begin{array}{r} 17 \\ 5 \\ 4 \\ 6 \end{array}$ | $\begin{array}{r} 1,941 \\ 293 \\ 475 \\ 356 \end{array}$ | $\begin{array}{r} 11,041 \\ 1,615 \\ 2,618 \\ 2,181 \end{array}$ | $\begin{array}{r} 1,371 \\ 221 \\ 347 \\ 197 \end{array}$ | $\begin{array}{r} 2,885 \\ 440 \\ 742 \\ 397 \end{array}$ | $\begin{aligned} & 7,265 \\ & 1,123 \\ & 1,834 \end{aligned}$ | $\begin{array}{r} 23,196 \\ 2,957 \\ 5,593 \end{array}$ | $\begin{array}{r} 16,144 \\ 2,627 \\ 5,248 \end{array}$ | $\begin{array}{r} 39,181 \\ 5,517 \\ 10,853 \end{array}$ | 242 55 77 | 391 | 16,742 $(2)$ 3,782 |
|  |  |  |  |  |  |  | 1,075 | 4,536 | 4,075 | 8,420 | 47 | 277 | 2,618 |
|  | 21276232121 | $\left.\begin{aligned} & 5 \\ & 2 \\ & 2 \\ & 2 \\ & 5 \end{aligned} \right\rvert\,$ | $\begin{aligned} & 857 \\ & 134 \\ & 139 \\ & 368 \\ & 463 \end{aligned}$ | $\begin{array}{r} 4,737 \\ 628 \\ 470 \\ 1,751 \\ 1,655 \end{array}$ | $\begin{aligned} & 514 \\ & 107 \\ & 111 \\ & 262 \\ & 361 \end{aligned}$ | $\begin{array}{r} 1,099 \\ 226 \\ 234 \\ 557 \\ 718 \end{array}$ | $\begin{array}{r} 2,678 \\ 505 \\ 388 \\ 1,58 \\ 1,147 \end{array}$ | $\begin{array}{r} 10,144 \\ 1,091 \\ 3,562 \\ 3,350 \\ 2,539 \end{array}$ | $\begin{array}{r} 8,675 \\ 960 \\ 209 \\ 1,835 \\ 2,806 \end{array}$ | $\begin{array}{r} 18,816 \\ 2,067 \\ 5,291 \\ 5,376 \\ 5,316 \end{array}$ | $\begin{aligned} & 173 \\ & \text { (D) } \\ & \text { (D) } \\ & \text { (D) } \\ & 42 \end{aligned}$ | 756$(2)$$(2)$$(2)$$(2)$4534 | 9, 242(2)$(2)$$(2)$(2) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 1,978 |
| Pacific. California | 132106 | 7 | $\begin{aligned} & 869 \\ & 712 \end{aligned}$ | $\begin{aligned} & 4,843 \\ & 4,086 \end{aligned}$ | 698562 | $\begin{aligned} & 1,373 \\ & 1,099 \end{aligned}$ | $\begin{aligned} & 3,716 \\ & 3,066 \end{aligned}$ | $\begin{aligned} & 12,71,6 \\ & 11,448 \end{aligned}$ | $\begin{aligned} & 9,069 \\ & 8,119 \end{aligned}$ | $\begin{aligned} & 22,077 \\ & 19,827 \end{aligned}$ | $\begin{aligned} & 190 \\ & 174 \end{aligned}$ | $\begin{aligned} & 845 \\ & 579 \end{aligned}$ | $\begin{aligned} & 8,650 \\ & 6,987 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | INDUSTRY 3912.-JEWELERS' FINDINGS AND MATERIA |  |  |  |  |  |  |  |  |  |  |  |  |
| Total... | 228 | 67 | 4,816 | 20,836 | 3,924 | ,684 | 14,001 | 33,958 | 38,8 | 72,833 | 1,308 | ,227 | 26,787 |
| New England......... Rhode Island.... | $\begin{aligned} & 137 \\ & 122 \end{aligned}$ | $\begin{aligned} & 48 \\ & 39 \end{aligned}$ | $\begin{aligned} & 3,463 \\ & 3,103 \end{aligned}$ | $\begin{aligned} & 14,431 \\ & 12,928 \end{aligned}$ | $\begin{aligned} & 2,864 \\ & 2,558 \end{aligned}$ | $\begin{aligned} & 5,589 \\ & 4,982 \end{aligned}$ | $\begin{aligned} & 9,783 \\ & 8,728 \end{aligned}$ | $\begin{aligned} & 22,571 \\ & 20,409 \end{aligned}$ | $\begin{aligned} & 17,355 \\ & 14,448 \end{aligned}$ | $\begin{aligned} & 39,698 \\ & 34,556 \end{aligned}$ | $\begin{array}{r} 1,089 \\ 495 \end{array}$ | $\begin{aligned} & 3,308 \\ & (2) \end{aligned}$ | 19, ${ }_{(216}{ }^{2}$ ) |
| Middle Atlantic.... New York | $\begin{aligned} & 80 \\ & 56 \\ & 11 \end{aligned}$ | $\begin{gathered} 19 \\ 10 \\ - \end{gathered}$ | $\begin{array}{r} 1,330 \\ 731 \\ 23 \\ \hline \end{array}$ | $\begin{aligned} & 6,335 \\ & 3,356 \end{aligned}$ | $\begin{array}{r} 1,040 \\ 583 \\ \\ 20 \\ \hline \end{array}$ | $\begin{array}{r} 2,057 \\ 1,163 \\ 38 \end{array}$ | $\begin{array}{r} 4,160 \\ 2,215 \\ \\ 58 \end{array}$ | $\begin{array}{r} 11,106 \\ 5,699 \\ 281 \end{array}$ | $\begin{array}{r} 21,310 \\ 14,619 \\ 151 \end{array}$ | $\begin{aligned} & 32,702 \\ & 20,573 \end{aligned}$ | $\begin{array}{r} 208 \\ 88 \\ 11 \\ \hline \end{array}$ | $\begin{gathered} 865 \\ 335 \\ \\ 54 \end{gathered}$ | $\begin{array}{r} 6,749 \\ 3,052 \\ \\ 322 \\ \hline \end{array}$ |
| North Central, South and West. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.. | INDUSTRY 3913.-LAPIDARY WORK |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 318 | 15 | 1,535 | 8,2 | 1,239 | 2,265 | 6,085 | 16,129 | 45,70 | 65,09 | 39 | 1,904 | 14,605 |
| New England. | 46 | 4 | 262 | 810 | 225 | 412 | 603 | 1,828 | 980 | 3,093 | 4 | 269 | 1,358 |
| Middle Atlantic | 223 209 | 8 | 868 803 803 | 5,419 4,971 | 6988 | $\begin{aligned} & 1,247 \\ & 1,146 \end{aligned}$ | 4,005 3,693 | 10,948 9,756 | $\begin{aligned} & 41,435 \\ & 32,313 \end{aligned}$ | $\begin{aligned} & 54,787 \\ & 44,361 \end{aligned}$ | 188 173 | 1,171 | 11,048 9,951 |
| North Central...... <br> South and West..... | 23 <br> 26 | 2 | $\begin{array}{r} 330 \\ 75 \\ \hline \end{array}$ | 1,743 | $\begin{array}{r}251 \\ 65 \\ \hline\end{array}$ | 485 | 1,194 | 2,901 | 2,865 | 6,076 | 161 | 232 |  |
|  |  |  |  | 317 |  | 121 | 283 | 452 | 426 | 1,138 | 3 | 232 | 1,184 |
|  | INDUSTRY 3914.-SILVERWARE AND PLATED Ware |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.... | 209 | 87 | $\begin{array}{r} 13,249 \\ 7,933 \\ 3,542 \end{array}$ | $\begin{aligned} & 70,924 \\ & 43,032 \\ & 21,273 \end{aligned}$ | $\begin{array}{r} 10,888 \\ 6,527 \\ 3,185 \end{array}$ | $\begin{array}{r} 22,140 \\ 13,333 \\ 6,601 \end{array}$ | $\begin{aligned} & 54,775 \\ & 33,748 \\ & 18,943 \end{aligned}$ | 130,735 <br> 80,650 36,492 | $\begin{array}{r} 108,895 \\ 71,853 \\ 40,255 \end{array}$ | 237,999 | 2,738 | 13,852 | 109,728 |
| New England.. Connecticut | 66 <br> 21 <br> 8 | 35 13 |  |  |  |  |  |  |  | 151,007 76,388 | 1,507 534 | 8,026 3,947 | 69,031 34,621 |
| Middle Atlantic. | 83 | 28 | 3,698 | 19,813 | 3,126 | 6,412 | 15,778 | 35,114 | 25,567 | 60,808 | 880 | 4,215 | 30,959 |
| New York.... | 51 | 19 | 3,081 | 16,664 | 2,610 | 5,385 | 13,433 | 29,258 | 21,300 | 50,743 | 693 | 3,363 | 24,724 |
| New Jersey...... | 22 |  | 485 | 2,417 | $4{ }_{4} \mathrm{O}_{4}$ | 810 | 1,777 | 4,455 | 3,141 | 7,534 | 24 | 727 | 5,118 |
| Pennsylvania.. | 10 | 4 | 132 | 732 | 112 | 217 | 558 | 1,401 | 1,126 | 2,531 | 163 | 125 | 1,117 |
| North Central. | 24 | 1 | 862 |  | 654 | 1,240 | 2,724 | 9,150 |  |  | 193 | 885 |  |
| Illinois. | 13 |  | 655 | 3,325 | 474 | 921 | 1,955 | 6,401 | 5,184 | 11,496 | 173 | 589 | 3,958 |
| South Atlantie | 9 | 4 | 322 | 1,505 | 248 | 480 | 952 | 2,093 | 1,862 | 3,951 | 56 | 379 | 47 |
| West. California. | 22 16 | 8 | 381 274 27 | 1,983 | 295 210 | 598 428 | 1,419 1,003 | $3,200$ | 2,143 1,630 | 5,118 3,484 | 93 31 | 347 <br> 292 | 2,498 2,065 |
| All other divisions | 5 | 1 | 53 | 274 | 38 | 77 | 154 | 528 | 427 | 960 | 9 |  | - |
| Standard Notes: - Represents zero. (D) Wittheld to avoid disclosing figures for individual companies. <br> (NA) Not available. <br> (X) Not <br> ${ }^{\text {applic cable. }}$ <br> ${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. <br>  (1-19); South Atiantic-Maryland, 2 (20-99); District of Columbia, 5 (1-19); Virginia, 1 (1-19); North Carolina, 3 (1-19); Georgia, 7 (1-19); Florida, 9 (20-99); East South Central-Kentucky, 3 (20-99); Tennessee, 3 ( $100-249$ ); West South Central-Louisiana, 3 ( 1 -19), Oklahoma, 5 (20-99); Texas, 15 (273); Mountain-Montana, 1 (1-19); Idaho, 2 (1-19); Colorado, 5 (1-19); New Mexico, 5 (100-249); Arizona, 5 (20-99); Utah, 3 (216); Pacific-Washington, 13 (20-99); Oregon, 7 (20-99) Alaska, 3 (1-19); Hawaii, 3 (20-99). |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Footnotes for Table 2-39A-Continued

SIC 3912, Jewelers' Findings and Materials: New England-New Hampshire, l (20-99); Massachusetts, 14 (250-499); Middle Atlantic-New Jersey, 22 (500999) ; Pennsylvania, 2 (1-19); East North Central—Ohio, 1 (1-19); T1linois, 1 (1-19); South Atlantic-North Carolina, 1 (1-19); Florida, 1 (1-19); East South Central-Mississippi, 1 (1-19); Mountain—Colorado, 1 (1-19); New Mexico, 1 (1-19); Pacific-California, 4 (1-19).
SIC 3913, Lapidary Work: New England-Massachusetts, 6 (100-249); Rhode Island, 40 ( $100-249$ ); Middle Atlantic-New Jersey, 10 (20-99); Pennsylvania, 4 (20-99); East North Central-Ohio, 5 (1-19); Indiana, 3 (114); Illinois, 6 (20-99); Michigan, 4 (20-99); West North Central-Minnesota, 1 (1-19) ; Missouri, 3 (1-19); North Dakota, 1 (100-249); South Atlantic-Maryland, 1 (1-19); North Carolina, 2 (1-19); Georgia, 1 (1-19); Florida, 2 (1-19); East South Central-Kentucky, 1 (1-19); West South Central-Iouisiana, 1 (1-19); Texas, 1 (1-19); Mountain-Colorado, 2 (1-19); New Mexico, l (1-19); Arizona, 4 (1-19); Pacific-Washington, 1 (1-19); Califormia, 8 (20-99); Alaska, 1 (1-19).
SIC 3914, Silverware and Plated Ware: New England-Maine, 2 (20-99); Massachusetts, 33 (2,771); Rhode Island, 10 (1,000-2,499); East North CentralOhio, 5 (111); Indiana, 4 (20-99); Michigan, 2 (1-19); West North Central-Iowa, 1 (20-99); Kansas, 1 (1-19); South Atlantic-Maryland, 5 (205); Virginia, 1 (100-249); North Carolina, 1 (1-19); South Carolina, 1 (1-19); Florida, 1 (1-19); East South Central-Tennessee, 1 (20-99); Alabama, 1 (1-19); West South Central-Oklahoma, 1 (20-99); Texas, 2 (20-99); Mountain-Colorado, 1 (20-99); Arizona, 1 (1-19); Nevada, 1 (1-19); PacificWashington, 1 (1-19); Oregon, 2 (20-99).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

| Item | Jewelry, precious metal (SIC 3911) | Jewelers' findings and materials (SIC 3912) | Lapidary work (SIC 3913) | Silverware and plated ware (SIC 3914) |
| :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio.. | . 92 | . 92 | . 93 | . 95 |
| Coverage ratio...................................................... | .97 | . 89 | . 81 | . 98 |
| Establishments, total................................... number. . | 1,438 | 228 | 318 | 209 |
| With 1 to 19 employees. . . . . . . . . . . . . . . . . . . . . . . . . . . do.... | 1,220 | 161 | 303 | 122 |
| With 20 to 99 employees.................................d. ${ }^{\text {do.... }}$ | 183 | 58 | 13 | 62 |
| With 100 employees or more..............................do.... | 35 | 9 | 2 | 25 |
| Proprietors and working partners........................do..... | 929 | 107 | 307 | 79 |
| All employees (average for the year)....................do.... | 23,551 | 4,816 | 1,535 | 13,249 |
| Payroll (all employees), total for year............... $\$ 1,000 .$. | 125,610 | 20,836 | 8,289 | 70,924 |
| Production workers: |  |  |  |  |
| Average for the year.................................. . number.. | 17,455 | 3,924 | 1,239 | 10,888 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.. . . | 17,016 | 3,803 | 1,229 | 10,748 |
| Мay..................................................... do.... | 17,237 | 3,838 | 1,223 | 10,832 |
| August................................................... .do. . . . | 17,157 | 3,993 | 1,236 | 10,682 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 18,456 | 4,087 | 1,265 | 11,288 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1,000. . | 35,601 | 7,684 | 2,265 | 22,140 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 8,699 | 1,882 | 568 | 5,605 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do... | 8,824 | 1,909 | 572 | 5,456 |
| July-September. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 8,409 | 1,832 | 539 | 5,162 |
| October-December. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.... | 9,669 | 2,061 | 586 | 5,917 |
| Wages................................................... . $\$ 1,000 .$. | 79,251 | 14,001 | 6,085 | 54,775 |
| Cost of materials, etc., total...........................do.... | 248,405 | 38,816 | 45,706 |  |
| Materials, parts, containers, and supplies consumed..do.... | 196,640 | 36,601 | 39,559 | 97,453 |
| Cost of resales..........................................do.... | 37,481 | 598 | 3,539 | 6,735 |
| Fuels consumed...........................................do.... | 368 | 163 | 78 | 1,105 |
| Electric energy: |  |  |  |  |
| Purchased: |  |  |  |  |
| Quantity...............................miliion kw.-hrs.. | 55 | 14 | 14 | 101 |
| Cost.............................. . . . . . . . . . . . . . \$1,000. . | 1,097 | 308 | 224 | 1,582 |
| Generated less sold......................million kw.-hrs.. | (D) | - | - | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 12,820 | 1,146 | 2,306 | 2,020 |
| Value of shipments (including resales), total..........do.... | 481,943 | 72,833 | 65,094 | 237,999 |
| Value of resales........................................do.... | 50,048 | 852 | 5,525 | 7,751 |
| Value added by manufacture, adjusted....................do.... | 234,925 | 33,958 | 16,129 | 130,735 |
| Manufacturers' inventories: |  |  |  |  |
| Beginning of year, total...............................do.... | 99,797 | 12,448 | 18,652 | 59,092 |
| Finished products...................................... do. | 49,360 | 4,906 | 12,778 | 25,911 |
| Work-in-process...................................... .do.... | 22,874 | 5,033 | 2,127 | 20,269 |
| Materials, supplies, fuel, etc.......................do.... | 27,564 | 2,509 | 3,747 | 12,912 |
| End of year, total..................................... .do... . | 105,295 | 12,486 | 15,273 | 60,628 |
| Finished products...................................... .do.... | 51,038 | 5,385 | 9,860 | 26,814 |
| Work-in-process........................................ . . . . . | 22,583 | 4,633 | 1,786 | 21, 007 |
| Materials, supplies, fuel, etc......................do.... | 31,675 | 2,468 | 3,627 | 12,807 |
| Expenditures for plant and equipment, total............do... | 3,922 | 1,364 | 401 | 3,007 |
| New, total............................................. .do. . . | 3,676 | 1,308 | 393 | 2,738 |
| New structures and additions to plant.......................... New machinery and equipment. | 1,112 | 516 | 39 354 | 327 |
| New machinery and equipment.........................do.... | 2,564 | 792 | 354 | 2,411 |
| Used plant and equipment...............................do.... | 246 | 56 | 8. | 269 |
| Selected operating ratios: |  |  |  |  |
| Payroll/Total employment........................................ . Production workers/Total employment. . . . . . . . . . . . . . . | 5,333 .74 | 4,326 .81 | $\begin{array}{r}\text { 5,400 } \\ \hline .81\end{array}$ | 5,353 .82 |
| Man-hours/Production workers. .......................................... . . . . . | 2,039 | 1,958 | 1,828 | 2,033 |
| Production worker wages/Man-hours............................. . . | 2.23 | 1.82 | 2.69 | 2.47 |
| Cost of materials and payrolls/Total value of shipments.... | . 78 | . 82 | . 83 | . 76 |
| Cost of materials/Total value of shipments................... | . 52 | . 53 | . 70 | . 46 |
| Adjusted value added/Total employment.......................... | 9,975 | 7,051 | 10,507 | 9,867 |
| Salaries and wages/Adjusted value added......................... | . 53 | . 61 | .$^{51}$ | . 54 |

Note: Detailed figures may not add to totais because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

Standard Notes: - Represents zero. (D) Witheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicuble.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & 1 \text { to } 4 \\ & \text { employees } \end{aligned}$ | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 2,500 \\ \text { employees } \\ \text { and over } \end{gathered}$ |
|  | INDUSTRY 3911.-JEWELRY, PRECIOUS METAL |  |  |  |  |  |  |  |  |  |  |
| Establishments..............number.. | 1,438 | 754 | 256 | 210 | 128 | 55 | 25 | 4 | 5 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.........................do. . . | 23,551 | 1,312 | 1,711 | 2,817 | 3,882 | 3,763 | 3,871 | 1,269 | $\frac{4,926}{30,55}$ | (D) |  |
| Payroll................... $\$ 1,000$. . | 125,610 | 6,247 | 8,718 | 14,909 | 20,173 | 19,298 | 19,403 | 6,309 | 30,553 | (D) |  |
| Value added, adjusted........do.... | 234,925 | 12,817 | 15,483 | 24,789 | 37,682 | 35,535 | 42,492 | 10,565 | $\frac{55,562}{}$ | (D) |  |
| Value of shipments...........do.... | 481,943 | 29,839 | 34,520 | 58,810 | 85,626 | 63,686 | 108,678 | 16,351 | 84,433 | (D) |  |
| Capital expenditures, new....do... | 3,676 | 251 | 207 | 374 | 541 | 439 | $\underline{973}$ | (D) | 891 | (D) | - |
|  | INDUSTRY 3912.-JEWELERS' FINDINGS AND MATERIALS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............. number.. | 228 | 93 | 41 | 27 | 46 | 12 | 7 | 2 | - | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total........................ do.... | 4,816 | 176 | 274 | 372 | 1,427 | ${ }_{8}^{811}$ | 1,726 | (D) | - | - |  |
| Payroll................... $\$ 1,000 .$. | 20,836 | $\begin{array}{r}591 \\ \hline 397\end{array}$ | 1,000 | 1,402 | 6,440 | 3,742 | - $\overline{7,661}$ | (D) | - | - |  |
| Value added, adjusted........do... | 33,958 | 1,397 | 1,813 | 2,247 | $\begin{array}{r}9,487 \\ \hline 1756\end{array}$ | 6,751 22 | $\frac{12,264}{23,303}$ | (D) | - | - |  |
| Value of shipments..........d.do.... Capital expenditures, new...do.... | 72,833 1,308 | 1,632 68 | 3,175 | 4,267 89 | 17,156 299 | 22,300 548 | $\frac{23,303}{190}$ | (D) | - | - | - |
|  | INDUSTRY 3913.-LAPIDARY WORK |  |  |  |  |  |  |  |  |  |  |
| Establishments.............. number.. | 318 | 246 | 38 | 19 | 11 | 2 | 2 | - | - | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total........................do.... | 1,535 | 349 | 249 | 238 | 283 | 416 | (D) | - | - | - |  |
| Payroll................... . $\$ 1,000 .$. | 8,289 | 1,552 | 1,467 | 1,017 | 1,878 | 2, 3 , 475 | (D) | - | - | - |  |
| Value added, adjusted........do.... | 16,129 | 2,573 | 3,205 | 2,730 | 3,129 | 4,492 | (D) | - | - | - |  |
| Value of shipments...........do.... Capital expenditures, new...do... | $\begin{array}{r} 65,094 \\ 393 \end{array}$ | 11,018 56 | 22,992 | 7,774 63 | 10,341 5 | $\frac{1 \overline{2,969}}{175}$ | (D) | - | - | - | - |
|  | INDUSTRY 3914.-SILVERWARE AND PLATED WARE |  |  |  |  |  |  |  |  |  |  |
| Establishments............. . number. . | 209 | 70 | 27 | 25 | 45 | 17 | 11 | 8 | 4 | 2 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 13,249 | 119 | 190 | 343 | 1,373 | 1,181 | 1,593 | 2,632 | 5,818 | (D) | - |
| Payroll................... \$1,000.. | 70,924 | 582 | 852 | 1,587 | 6,563 | 5,950 | 8,159 | 13,336 | 33,895 | (D) |  |
| Value added, adjusted........d.do.... | 130,735 | 1,126 | 1,414 | 2,748 | 11,867 | 10,745 | 14,633 | 26,604 | 61,598 | (D) |  |
| Value of shipments...........do.... | 237,999 | 2,237 | 2,946 | 5,711 | 21,176 | 18,001 | 24,472 | 48,113 | $\underline{115,343}$ | (D) | - |
| Capital expenditures, new....do. | 2,738 | 31 | 31 | 26 | 298 | 222 | 432 | 375 | 1,323 | (D) | - |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.


## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns $A$ through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio <br> Col. $B$ <br> Col. B+C <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3911 | Jewelry, precious metal............ 1963.. | $\begin{aligned} & 481,943 \\ & 327,251 \end{aligned}$ | $\begin{aligned} & 387,312 \\ & 280,753 \end{aligned}$ | $\begin{aligned} & 32,070 \\ & 14,786 \end{aligned}$ | $\begin{array}{r} 62,561 \\ 31,712 \end{array}$ | $\begin{aligned} & 92 . \\ & 95 \end{aligned}$ | $\begin{aligned} & 400,376 \\ & 287,148 \end{aligned}$ | $\begin{aligned} & 387,312 \\ & 280,753 \end{aligned}$ | $\begin{array}{r} 13,064 \\ 6,395 \end{array}$ | $\begin{aligned} & 97 \\ & 98 \end{aligned}$ |
| 3912 | Jewelers' findings and materials..1963.. | $\begin{aligned} & 72,833 \\ & 57,475 \end{aligned}$ | $\begin{aligned} & 62,582 \\ & 49,171 \end{aligned}$ | 5,797 5,523 | 4,454 2,781 | $\begin{aligned} & 92 \\ & 90 \end{aligned}$ | $\begin{aligned} & 70,476 \\ & 56,771 \end{aligned}$ | $\begin{aligned} & 62,582 \\ & 49,171 \end{aligned}$ | $\begin{aligned} & 7,894 \\ & 7,600 \end{aligned}$ | 89 87 |
| 3913 | Lapidary work....................... 1963.. | $\begin{aligned} & 65,094 \\ & 40,428 \end{aligned}$ | $\begin{aligned} & 55,167 \\ & 37,518 \end{aligned}$ | 4,225 520 | 5,702 2,390 | $\begin{aligned} & 93 \\ & 99 \end{aligned}$ | $\begin{aligned} & 67,718 \\ & 43,270 \end{aligned}$ | $\begin{aligned} & 55,167 \\ & 37,518 \end{aligned}$ | $\begin{array}{r} 12,551 \\ 5,752 \end{array}$ | 81 87 |
| 3914 | Silverware and plated ware....... $1963 .$. | $\begin{aligned} & 237,999 \\ & 196,055 \end{aligned}$ | $\begin{aligned} & 208,613 \\ & 174,882 \end{aligned}$ | $\begin{aligned} & 10,884 \\ & 10,165 \end{aligned}$ | $\begin{aligned} & 18,502 \\ & 11,008 \end{aligned}$ | $\begin{aligned} & 95 \\ & 95 \end{aligned}$ | $\begin{aligned} & 211,864 \\ & 178,765 \end{aligned}$ | $\begin{aligned} & 208,613 \\ & 174,882 \end{aligned}$ | $\begin{aligned} & 3,251 \\ & 3,883 \end{aligned}$ | 98 <br> 98 |

[^300]
## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)
miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "0ther industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


[^301] applicable. n.s.k. Not specified by kind.
${ }^{1}$ The following industry had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies: 3871 , Watches and Clocks.
${ }^{2}$ Includes $\$ 4.4$ million shipped by industry 3961, Costume Jewelry.
${ }^{3}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 27530 , Engraving and plate printing; and 39130, Lapidary work and diamond cutting and polishing.
${ }^{4}$ Includes the following product class which totaled $\$ 2$ million or more but is withheld to avoid disclosing individual company figures: $342 l l$, Cutlery, scissors, shears, trimmers and snips.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| Product code | Product | Value of shipments including interplant transfers $(\$ 1,000)$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 | 1958 |  |
| 3911- -- | JEWELRY, PRECIOUS METAL, TOTAL | 400,376 |  | 287,148 |
| 39111 -- | Jewelry made of platinum metals and karat gold, total | 286,265 |  | 195,234 |
|  | Frugs and ring mountings: <br> Rings (complete): |  |  |  |
| 3911112 | Wedding rings......... | 37,489 |  | 28,380 |
| 3911113 | Other rings................................................................................................ | 102,896 |  | 56,788 |
| 3911115 | Rings mountings, for sale separately | 20,949 |  | 21,752 |
| 3911131 | Women's and children's jewelry, such as necklaces, bracelets, brooches, pins, clips, earrings, lockets, etc. (excluding watch attachments). | 55,963 |  | 39,839 |
| 3911141 | Watch attachments (bracelets for watches).. | 10,291 |  | 6,020 |
| 3911151 | Organizational jewelry, including fraternal, college and school jewelry and emblems, military insignias, (excluding rings). | 14,764 |  | 9,082 |
| 3911198 | Other jewelry worn or carried about the person, such as men's jewelry (collar and cuff buttons, studs, watch chains, etc.); religious jewelry (rosaries, chaplets, crosses, etc.); cigar and cigarette cases and lighters, compacts, vanity cases, etc.. | 24,055 |  |  |
| 3911100 | Jewelry made of platinum metals and karat gold, n.s.k..................... | 19,858 |  | 20,898 |
| 39112 -- | Jewelry made of precious metals, except platinum metals, and karat gold, total. | 93,691 |  | 74,265 |
|  | Jewelry made of gold filled, rolled gold plate, palladium filled, rolled palladium plate, and sterling silver: |  |  |  |
| 3911211 | Rings and ring mountings................................................................................. | 7,118 |  | 5,604 |
| 3911221 | Men's jewelry, such as collar and cuff buttons, studs, watch chains, money clips, identification bracelets, scarf pins, tie and collar holders, etc. (excluding watch attachments).................... | 6,901 |  | 7,037 |
| 3911231 | Women's and children's jewelry, such as necklaces, bracelets, brooches, pins, clips, earrings, lockets, etc. (excluding watch attachments). | 23,171 |  | 21,723 |
| 3911241 | Watch attachments (bracelets for watches).......... | 27,620 |  | 24,844 |
| 3911298 | Other jewelry worn or carried about the person, such as fraternal, college and school jewelry and emblems, excluding rings; military insignia; religious jewelry (rosaries, chaplets, crosses, etc.); cigar and cigarette cases and lighters; compacts, vanity cases, etc............................. | 21,077 |  | 9,855 |
| 3911200 | Jewelry made of precious metals, except platinum metals, and karat gold, n.s.k | 7,804 |  | 5,202 |
| 3911000 | Jewelry (precious metal), n.s.k | 20,420 |  | 17,649 |
| 3912- -- | JEWELERS' FINDINGS AND MATERIALS, TOTAL | 70,476 |  | 56,771 |
| 3912011 | Jewelers' findings, such as joints, pins, clasps, spring rings, ring blanks, and other unassembled parts. | 36,508 |  | 24,027 |
| 3912031 | Machine chain. | 13,175 |  | 10,900 |
| 3912051 | Stock shop products, such as flat stock, wire, and tubing. | 14,592 |  | 12,683 |
| 3912000 | Jewelers' findings and materials, n.s.k.. | 6,201 |  | 9,161 |
| 3913- -- | LaPIDARY WORK AND CUTTING AND POLISHING DIAMONDS, TOTAL | $1^{67,718}$ |  | 143,270 |
|  | Stones cut or polished from materials owned by the manufacturing establishment, excluding the setting of stones in jewelry: |  |  |  |
| 3913011 | Diamonds for jewelry purposes. | 36,246 |  | 20,840 |
| 3913015 | Diamonds for industrial purposes.......................................................................... | 12,041 |  | 4,858 |
| 3913031 | Other natural precious and semiprecious stones and synthetic stones, including the drilling of pearls | 4,711 |  | 2,532 |
| 3913000 | Lapidary work and cutting and polishing diamonds, n.s.k | 114,720 |  | ${ }^{1} 15,040$ |

table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity (1,000 pieces) | Value $(\$ 1,000)$ | Quantity (1,000 pieces) | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| 3914- -- | SILVERWARE AND PLated ware, total. | (x) | 211,864 | (x) | 178,765 |
| 39141 -- | Silverware, plated ware, and stainless steel ware. | (x) | 93,876 | (x) | 74,288 |
|  | Hollow ware (including toilet ware, ecclesiastical ware, novelties, trophies, baby goods, and other plated ware): |  |  |  |  |
| 3914111 | Sterling silver..................................................................... | (x) | 20,723 | (x) | 19,554 |
| 3914131 3914151 | Electrosilver plated. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (X) | 37,627 4,272 | (X) | 31,206 2,401 |
| 3914161 | Unplated hollow ware of other metals and hollow ware plated with metals other than silver. | (x) | 29,474 | (x) | 21,127 |
| 3914100 | Silverware, plated ware, and stainless steelware, n.s.k. | (x) | 1,780 | (x) | - |
| 39142 -- | Flatware (including all knives, forks, spoons, and carving sets made wholly of metal) | (x) | 113,196 | (x) | 97,075 |
| 3914211 | Sterling silver................................................................. | 9,718 | 38,485 | 11,737 | 37,356 |
|  | Electrosilver plated: |  |  |  |  |
| $\begin{array}{ll} 39142 & 31 \\ 39142 & 35 \end{array}$ | Hotel patterns.................................................................................................................. | 58,601 | 23,389 | 72,947 | 27,559 |
|  | Stainless steel: |  |  |  |  |
| 3914253 | Hotel patterns................................................................................ | $58,698$ |  |  |  |
| 3914255 | Commercial patterns............................................................. | $196,377$ | 40,447 | 146,132 | 31,189 |
| 3914261 | Unplated flatware of other metals and flatware plated with metals other than silver. | (x) | 1,147 | (x) | 971 |
| 3914200 | Flatware, n.s.k................................................................. | (X) | 350 | (X) | - |
| 3914000 | Silverware and plated ware, n.s.k.. | (X) | 4,792 | (x) | 7,402 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.s.k. Not specified by kind.
${ }^{1}$ Includes lapidary work done on materials owned by others for which type of stone was not reported.
table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

# table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963 

(In thousands of dollars)

| Code | Product class | 1963 | $1962^{1}$ | $1961^{1}$ | $1960^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3911- | Jewelry, precious metal.. | 400,376 | 340,532 | 317,202 | 302,995 | 295,547 | 287,148 | 238,526 | 231,453 |
| 39111 | Jewelry made of platinum metals and karat gold. | 286,265 | 229,257 | 214,592 | 203,987 | 202,046 | 195,234 | 155,476 | 133,254 |
| 39112 | Jewelry made of precious metals, except platinum and karat gold...................... | 93,691 | 91,654 | 85,639 | 81,740 | 77,505 | 74,265 | 72,635 | 81,539 |
| 39110 | Jewelry, precious metals, n.s.k............. | 20,420 | $(19,621)$ | $(16,971)$ | $(17,268)$ | $(15,996)$ | 17,649 | 10,415 | 16,660 |
| 39120 | Jewelers' findings and materials. | 70,476 | 80,252 | 73,925 | 71,779 | 65,435 | 56,771 | 68,092 | 71,260 |
| 39130 | Lapidary work. . . . . . . . . . . . . . . . . . . . . . . . . . . | 67,718 | 48,487 | 48,329 | 46,000 | 52,068 | 43,270 | 35,641 | 30,138 |
| 3914- | Silverware and plated ware................... | 211,864 | 215,404 | 207,295 | 203,634 | 199,695 | 178,765 | 188,095 | 220,407 |
| 39141 | Silverware, plated ware, and stainless steel ware. | 93,876 | 85,171 | 85,098 | 83,583 | 80,228 | 74,288 |  |  |
| 39142 | Flatware. | 113,196 | 122,241 | 113,490 | 111,541 | 112,143 | 97,075 | 188,095 | 220,407 |
| 39140 | Silverware and plated ware, n.s.k......... | 4,792 | $(7,992)$ | $(8,707)$ | $(8,510)$ | $(7,324)$ | 7,402 |  |  |

## n.s.k. Not specified by kind.

${ }^{1}$ These figures represent estimates derived from a representative sample of manuracturing establishments canvassed in tne annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geographic table for the industry (table 2) and they are not miscellaneous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| JEWELRY MADE OF PLATINUM | $1963{ }^{1}$ | 1958 | JEWELRY MADE OF PRECIOUS METAL, EXCEPT PLATINMM METALS AND KARAT GOLD (39112) | $1963{ }^{1}$ | 1958 |  | $1963{ }^{1}$ | 1958 |
| METALS AND KARAT GOLD (39111) |  |  |  |  |  | AND STAINLESS STEEL WARE (39141)-Continued |  |  |
| Thited States, total | 286,265 | 195,234 | United States, to | 93,691 | 74,265 | New England. $\qquad$ Massachusetts | $\begin{array}{r} 52,710 \\ 24,242 \end{array}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 17,420 \end{array}$ |
| New England. | $\begin{array}{r} 39,637 \\ 26,639 \end{array}$ | $\begin{aligned} & 25,429 \\ & 16,535 \end{aligned}$ | New England. . . . . . . . . . . . . . | $\begin{aligned} & 55,897 \\ & 18,280 \\ & 37,451 \end{aligned}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 11,991 \\ 26,878 \end{array}$ | Middle Atlantic. <br> New York. <br> New Jersey <br> Pennsylvania. | 27,37719,937 | (2) |
| Massachusetts |  |  | Massachusetts <br> Rhode Island. |  |  |  |  | 17,375 |
|  |  |  |  |  |  |  | 5,240 2,200 | 6,743 $(2)$ |
| Middle Atlantic. | 189,071 | 129,467 | Middle Atlantic | $\begin{aligned} & 31,425 \\ & 18,830 \\ & 11,773 \end{aligned}$ | $(2)$15,891 | North Central................. Illinois. | $\begin{aligned} & 9,257 \\ & 6,667 \end{aligned}$ | $(2)$5,107 |
| New York.. | 163,591 | 110,046 | New York. |  |  |  |  |  |
| New Jersey: | 4,382 | 16,196 | New Jersey <br> North Central and South. |  | 12,014$(2)$ | South. . . . . . . . . . . . . . . . . . . |  | ( Z ) |
| Pennsylvania |  | 3,225 |  |  |  |  | 2,888 |  |
| East North Central. | $\begin{array}{r} 27,253 \\ 8,699 \end{array}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 6,476 \end{array}$ |  | 2,821 | ( 2 ) | West....................... | 2,644 | (2) |
| Illinois......... |  |  | Mountain. . . . . . . . . . . . . . . . . | 2,000 |  | FLATWARE (39142) |  |  |
| Michigan. | 5,790 | 2,709 | ```Pacific......................... Califormia.``` | $\begin{aligned} & 1,548 \\ & 1,184 \end{aligned}$ | $\begin{array}{r} { }^{(2)} \\ 1,333 \end{array}$ | United States, total. | 113,196 | 97,075 |
| West North Central. | 9,092 | $\left.{ }^{2}\right)$ | SILVERWARE, PLATED WARE, AND STAINLESS STEEL WARE (39141) |  |  | New England. | 78,556 | ${ }^{2}$ ) |
|  |  | (z) |  |  |  | Connecticut | 45,772 | 41,863 |
| South. | 4,029 |  |  |  |  | Middle Atlantic. | 30,137 | $\left({ }^{2}\right)$ |
|  |  |  |  |  |  | South Atlantic.. | 2,513 | (2) |
| West.: | $\begin{aligned} & 17,183 \\ & 14,404 \end{aligned}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 8,987 \end{array}$ | United States, total...... | $93,876$ |  | Pacific. | 1,740 | (z) |
| Califormia. |  |  |  |  | $74,288$ | All other divisions | 4,112 | (z) |

[^302]table 7A. Materials by Kind: 1963 and 1958


[^303] applicable. n.s.k. Not specified by kind.
${ }^{1}$ Does not include castings produced and consumed in the same establishment.
${ }^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

# table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962 

| Item | Jewelry, precious metal (SIC 3911) | Jewelers' findings and materials (SIC 3912) | $\begin{aligned} & \text { Lapidary } \\ & \text { work } \\ & \text { (SIC 3913) } \end{aligned}$ | Silverware and plated ware (SIC 3914) |
| :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy......... $\$ 1,000 .$. | 1,471 | 689 | 142 | 2,546 |
| Total cost of purchased fuels...............................do. | 459 | 213 | 72 | 1,155 |
| Bituminous coal, lignite, and anthracite: <br> Quantity.......................................... . . 1,000 short tons. . | (S) | - | - | (s) |
| Cost....................................................... $\$ 1,000$. . | (S) | - | - | (S) |
| Coke and breeze: <br> Quantity. .1,000 short tons. . | - | - | - | - |
| cost. .................................................... . $\$ 1,000 .$. | - | - | - | - |
| Fuel oil (distillate and residual): |  |  |  |  |
| Quantity............................ 1,000 barrels of $42^{\circ}$ gallons. Cost. $\qquad$ | 36 137 | (S) | (S) | 229 584 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |
| Quantity........................................ .million cu.ft. . | 143 | (S) | (S) | 346 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000.. | 113 | (S) | (S) | 351 |
| Other fuels.......................................................do.... | 207 | 32 | (s) | (S) |
| Electric energy: |  |  |  |  |
| Purchased: | 49 | 26 | 4 | 95 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. | 1,012 | 476 | 70 | 1,391 |
| Generated less sold. . . . . . . . . . . . . . . . . . . . . .million kw. -hrs.. | - | - | - | 16 |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total........1, $000 \mathrm{hp}$. . | 29 | 18 | - | 68 |
| Prime movers, total...................................................... | (z) | (z) | - | 11 |
| Dri.ving generators........................................... . ${ }^{\text {do... }}$. | (z) | (z) | - | 9 |
| Not driving generators..................................... . do. . . | - | (z) | - | 2 |
| Electric motors, total............................................do.... . | 29 | 18 | - | 58 |
| Driven by purchased energy.................................do.... | 29 | 18 | - | 57 |
| Driven by energy generated at establishment..............do.... | - | - | - | 1 |
| Aggregate horsepower per 100 production workers..................... | 180 | 393 | - | 590 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes:

- Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
(Z) Less than 500 horsepower.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.


## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | ```Value added by manufacture, adjusted ($1,000)``` | Cost of materials $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3911 | JEWELRY, PRECIOUS METAL |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry................... <br> Establishments with- | 1,438 | 23,551 | 125,610 | 17,455 | 35,601 | 79,251 | 234,925 | 248,405 | 481,943 | 3,676 |
|  | $90 \%$ or more specialization. . 75-89\% specialization. ...... | 1,300 | 18,774 1,656 | 102,642 7,227 | $\begin{array}{r} 13,750 \\ 1,389 \end{array}$ | $\begin{array}{r} 28,333 \\ 2,777 \end{array}$ | $\begin{array}{r} 64,548 \\ 5,319 \end{array}$ | $\begin{array}{r} 180,152 \\ 21,127 \end{array}$ | $\begin{array}{r} 175,553 \\ 10,405 \end{array}$ | $\begin{array}{r} 357,465 \\ 3 \pm, 602 \end{array}$ | $\begin{array}{r} 2,686 \\ 434 \end{array}$ |
| 39111 | Jewelry made of platinum metals and karat gold (primary product class of estab.)..................... Establishments with- | 864 | 15,055 | 87,135 | 10,618 | 21,832 | 52,900 | 159,980 | 194,707 | 352,216 | 1,936 |
|  | $90 \%$ or more specialization.... $75-89 \%$ specialization......... | $\begin{array}{r} 755 \\ 51 \end{array}$ | $\begin{aligned} & 9,575 \\ & 3,483 \end{aligned}$ | $\begin{aligned} & 54,034 \\ & 22,843 \end{aligned}$ | $\begin{aligned} & 6,995 \\ & 2,219 \end{aligned}$ | $\begin{array}{r} 13,753 \\ 5,254 \end{array}$ | $\begin{aligned} & 35,237 \\ & 11,741 \end{aligned}$ | $\begin{aligned} & 98,650 \\ & 35,996 \end{aligned}$ | $\begin{array}{r} 113,069 \\ 21,100 \end{array}$ | $\begin{array}{r} 212,218 \\ 57,710 \end{array}$ | $\begin{array}{r} 1,284 \\ 348 \end{array}$ |
| 39112 | Jewelry made of precious metals except platinum metals and karat gold (primary product class of estab.). <br> Establishments with- | 228 | 7,149 | 32,390 | 5,824 | 11,575 | 21,786 | 63,595 | 38,283 | 102,253 | 1,474 |
|  | 90\% or more specialization.... <br> 75-89\% specialization.......... | $\begin{array}{r} 154 \\ 20 \end{array}$ | $\begin{aligned} & 3,202 \\ & 1,463 \end{aligned}$ | $\begin{array}{r} 14,400 \\ 6,450 \end{array}$ | $\begin{aligned} & 2,552 \\ & 1,236 \end{aligned}$ | $\begin{aligned} & 5,236 \\ & 2,458 \end{aligned}$ | $\begin{aligned} & 9,420 \\ & 4,542 \end{aligned}$ | $\begin{aligned} & 25,421 \\ & 19,544 \end{aligned}$ | $\begin{array}{r} 19,087 \\ 8,681 \end{array}$ | $\begin{aligned} & 44,642 \\ & 28,330 \end{aligned}$ | $\begin{aligned} & 737 \\ & 360 \end{aligned}$ |
| 3914 | SILVERWARE AND PLATED WARE |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 209 | 13,249 | 70,924 | 10,888 | 22,140 | 54,775 | 130,735 | 108,895 | 237,999 | 2,738 |
|  | 90\% or more specialization. | 185 | 11,100 | 60,043 | 9,272 | 18,830 | 46,941 | 108,743 | 90,822 | 198,631 | 2,235 |
| 39141 | Silverware, plated ware, and stainless steel ware (primary product class of estab.).......... Establishments with- | 108 | 4,732 | 24,284 | 4,024 | 8,183 | 18,896 | 43,860 | 31,828 | 74,370 | 875 |
|  | 90\% or more specialization | 94 | 4,025 | 20,837 | 3,439 | 7,074 | 16,318 | 37,796 | 27,000 | 63,473 | 653 |
| 39142 | Flatware (primary product class of estab.) $\qquad$ Establishments with- | 36 | 8,108 | 44,868 | 6,534 | 13,308 | 34,495 | 83,925 | 74,733 | 158,147 | 1,793 |
|  | $90 \%$ or more specialization. | 20 | 2,602 | 14,418 | 2,333 | 4,830 | 12,696 | 23,774 | 25,411 | 49,821 | 435 |

Inen $\quad x-2$



# MUSICAL INSTRUMENTS AND PARTS; TOYS, AND SPORTING AND ATHLETIC GOODS 

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

## SIC Code and Title

3931-Musical Instruments and Parts
3941-Games and Toys, Except Dolls and Children's Vehicles
3942-Dolls
3943-Children's Vehicles, Except Bicycles
3949-Sporting and Athletic Goods, Not Elsewhere Classified
The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics(tables 1 to 4 ) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3931-MUSICAL INSTRUMENTS AND PARTS

This industry comprises establishments primarily engaged in manufacturing pianos, with or without player attachments; organs; other musical instruments; and parts and materials for musical instruments. For a detailed list of products of industry 3931, refer to table 6A, product codes 3931111 to 3931498.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Musical Instruments and Parts Industry totaled $\$ 314$ million. This amount included shipments of musical instruments and parts (primary products) valued at $\$ 294$ million, shipments of other products (secondary products) valued at $\$ 8$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 13$ million.

This industry's shipments of musical instruments and parts represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 31 percent of the total industry shipments are represented by plants specializing in organs; 30 percent in pianos; and 28 percent in other musical instruments.

Shipments of musical instruments and parts by this industry represented 92 percent of all shipments of these products ( $\$ 319$ million) by all industries. In 1958 the coverage ratio was 91 percent.

The production index for the primary products of the industry increased to 190 in 1963 from the 1958 level of 141 . The unit value index for 1963 was 99 compared to 102 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3941-GAMES AND TOYS, EXCEPT DOLLS AND CHILDREN'S VEHICLES

This industry comprises establishments primarily engaged in indoor games and game sets for adults and children, and mechanical and nonmechanical toys. lmportant products of this industry include games such as chess, checkers, dominoes, puzzles, and other indoor games; and toys, such as toy furniture, doll carriages and carts, construction sets, mechanical trains, toy guns and air rifles, and other mechanical games and toys. Establishments primarily engaged in manufacturing dolls are classified in industry 3942; children's outdoor wheel goods and vehicles, except bicycles, in industry 3943; and sporting and athletic goods for children and adults, in industry 3949. For a detailed list of products of industry 3941, refer to table 6A, product codes 3941011 to 3941097.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Games and Toys lndustry totaled $\$ 797$ million. This amount included shipments of games and toys (primary products) valued at $\$ 694$ million, shipments of other products (secondary products) valued at $\$ 62$ million, and miscellaneous receipts (mainly sales of products bought and resold). at $\$ 41$ million.

This industry's shipments of toys and games represented 92 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 include miscellaneous plastic products ( $\$ 10$ million) and baby carriages and children's vehicles ( $\$ 3$ million).

Shipments of games and toys by this industry represented 91 percent of all shipments of these products ( $\$ 764$ million) by all industries. In 1958 the coverage ratio was 92 percent. Other industries shipping games and toys include industry 3079, Plastics Products, N.E.C., $\$ 18$ million; and industry 3943, Children's Vehicles, $\$ 4$ million.

3942-DOLLS
This industry comprises establishments primarily engaged in manufacturing dolls, doll parts, and doll clothing. Establishments primarily engaged in manufacturing stuffed toy animals are also included in this industry. For a detailed list of products of industry 3942 , refer to table 6A, product codes 3942006 to 3942055 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Dolls lndustry totaled $\$ 248$ million. This amount includes shipments of dolls (primary products) valued at $\$ 165$ million.

This industry's shipments of dolls represented between 80 and 85 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent.

Shipments of dolls by this industry represented 87 percent of all shipments of these products ( $\$ 190$ million) by all industries. In 1958 the coverage ratio was 94 percent.

The production index for the primary products of the industry increased to 124 in 1963 from the 1958 level of 113 . The unit value index for 1963 was 119 compared to 109 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3943—CHILDREN'S VEHICLES, EXCEPT BICYCLES

This industry comprises establishments primarily engaged in manufacturing baby carriages, strollers, and gocarts; children's velocipedes and tricycles, coaster wagons, play cars, sleds, and other children's outdoor wheel goods and vehicles, except bicycles. For a detailed list of products of industry 3943, refer to table 6A, product codes 3943011 to 3943098 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Children's Vehicles lndustry totaled $\$ 78$ million. This amount included shipments of children's vehicles (primary products) valued at $\$ 54$ million, shipments of other products (secondary products) valued at $\$ 22$ million, and miscellaneous receipts (mainly sales of products bought and resold), at $\$ 1$ million.

This industry's shipments of children's vehicles represented 71 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent. Secondary products shipped by this industry in 1963 include games and toys ( $\$ 4$ million), and metal household furniture ( $\$ 2$ million).

Shipments of children's vehicles by this industry represented 65 percent of all shipments of these products ( $\$ 83$ million) by all industries. In 1958 the coverage ratio was 78 percent.

The production index for the primary products of the industry increased to 116 in 1963 from the 1958 level of 99 . The unit value index for 1963 was 110 compared to 114 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3949-SPORTING AND ATHLETIC GOODS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing sporting and athletic goods, not elsewhere classified, such as fishing tackle; golf and tennis goods; baseball, football, basketball, and boxing equipment; roller skates and ice skates; gymnasium and playground equipment; billard and pool tables; and bowling alleys and equipment. Establishments primarily engaged in manufacturing athletic apparel are classified in Major Group 23, small arms ammunition in industry 1961, and firearms in industry 1951. For a detailed list of products of industry 3949 , refer to table 6A, product codes 3949114 to 3949298.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Sporting and Athletic Goods Industry totaled $\$ 705$ million. This amount included shipments of sporting and athletic goods (primary products) valued at $\$ 598$ million. Shipments of other products (secondary products) valued at $\$ 47$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 60$ million.

This industry's shipments of sporting and athletic goods represented 93 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent. Secondary products shipped by this industry in 1963 included miscellaneous plastic products (\$3 million).

Shipments of sporting and athletic goods by this industry represented 91 percent of all shipments of these products ( $\$ 656$ million) by all industries. In 1958 the coverage ratio was also 91 percent. Other industries shipping sporting and athletic goods includes industry 3069, Rubber Products, N.E.C., $\$ 15$ million.

The production index for the primary products of the industry increased to 196 in 1963 from the 1958 level of 158 . The unit value index for 1963 was 110 compared to 109 in 1958. Both indexes were computed on a basis of $1954=100$.

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted | Cost of materials | Value of shipments | Capital expenditures, new | Spe-cialization ratio (per- | Coverage ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |

INDUSTRY 3931.-MUSICAL INSTRUMENTS AND PARTS

|  |
| :---: |
|  |  |
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|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


|  |  |  |  |
| ---: | ---: | ---: | ---: |
| 288 | 320 | 126 | 20,095 |
| (NA) | (NA) | (NA) | 20,828 |
| (NA) | (NA) | (NA) | 19,403 |
| (NA) | (NA) | (NA) | 20,206 |
| (NA) | (NA) | (NA) | 18,631 |
| 252 | 273 | 116 | 16,103 |
| (NA) | 242 | 111 | 15,406 |
| (NA) | 260 | (NA) | 16,889 |

INDUSTRY 3941.-GANES AND TOYS

| 1963 | 767 | 797 | 351 | 51,835 | 206,744 | 44,031 | 84,425 | 145,243 | 444,101 | 362,235 | 796,631 | 27,728 | 92 | 91 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 47,956 | 185,629 | 39,279 | 77,689 | 129,260 | 406,076 | 325,630 | 715,015 | 18,082 | (NA) | (NA) |
| 1961. | (NA) | (NA) | (NA) | 50,395 | 183,266 | 41,370 | 78,156 | 126,003 | 411,339 | 336,063 | 736,507 | 14,863 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 45,697 | 164,022 | 37,569 | 72,385 | 113,204 | 342,536 | 302,002 | 635,322 | 14,675 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 45,358 | 159,171 | 37,049 | 69,753 | 110,848 | 308,411 | 284,256 | 595,306 | (18,047) | (NA) | (NA) |
| 1958.. | 832 | 854 | 367 | 42,972 | 149,725 | 35,999 | 68,007 | 106,577 | 288,863 | 258,215 | 544,056 | 16,513 | 93 | 92 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 43,540 | 138,585 | 37,508 | 65,296 | 103,961 | 238,695 | 210,349 | 448,940 | (s) | 93 | 88 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 44,748 | 140,593 | 38,578 | 69,663 | 104,433 | 252,389 | 221,810 | 469,131 | 13,221 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 43,809 | 130,660 | 37,326 | 67,474 | 95,162 | 247,798 | 214,079 | 456,064 | 10,648 | (NA) | (NA) |
| 1954 | 872 | 886 | 308 | 38,242 | 113,208 | 32,789 | 60,813 | 83,227 | 206,706 | .180,870 | 391,323 | 8,358 | 95 | 89 |
| $1953{ }^{1}$. | (NA) | (NA) | (NA) | 41,639 | 117,082 | 36,062 | 64,663 | 89,617 | 190,535 | 168,573 | 359,108 | (NA) | (NA) | (NA) |
| 1947. | 830 | 837 | (NA) | 27,140 | 60,554 | 24,174 | 47,093 | 47,403 | 105,414 | 76,525 | 181,939 | (NA) | 92 | 90 |
| 19392. | (NA) | 294 | (NA) | (NA) | (NA) | 13,778 | (NA) | 11,098 | 27,364 | 21,744 | 49,108 | (NA) | (NA) | (NA) |

INDUSTRY 3942.-DOLLS

| 1963. | 404 | 410 | 160 | 16,213 | 58,991 | 13,934 | 24,361 | 41,751 | 138,100 | 114,418 | 247,942 | 6,276 | 80-85 | 87 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 18,335 | 62,325 | 16,932 | 28,534 | 46,707 | 148,864 | 130,770 | 273,577 | 9,510 | (NA) | (NA) |
| 1961. | (NA) | (NA) | (NA) | 16,227 | 51,115 | 15,543 | 24,521 | 36,948 | 97,278 | 98,094 | 194,685 | 2,178 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 14,704 | 47,084 | 12,947 | 23,209 | 34,639 | 85,775 | 94,323 | 178,302 | $(2,101)$ | (NA) | (NA) |
| $1959{ }^{+}$ | (NA) | (NA) | (NA) | 14,219 | 43,789 | 12,483 | 22,686 | 33,161 | 82,088 | 85,639 | 168,225 | $(2,882)$ | (NA) | (NA) |
| 1958.. | 482 | 485 | 162 | 13,860 | 43,984 | 12,196 | 22,709 | 33,877 | 77,149 | 85,094 | 161,924 | 5,469 | 98 | 94 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 20,657 | 59,783 | 18,550 | 37,119 | 46,560 | 100,248 | 102,791 | 203,141 | (S) | 92 | 94 |
| $1956{ }^{2}$. | (NA) | (NA) | (NA) | 19,761 | 54,589 | 17,694 | 34,592 | 43,452 | 103,104 | 101,946 | 201,799 | 2,523 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 16,541 | 44,081 | 15,071 | 27,975 | 35,256 | 75,037 | 84,769 | 158,820 | 2,658 | (NA) | (NA) |
|  | 484 | 484 | 165 | 15,119 | 38,938 | 13,792 | 24,618 | 30,657 | 66,351 | 78,489 | 145,210 | 2,247 | 92 | 97 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 17,061 | 44,634 | 15,718 | 27,981 | 35,330 | 70,509 | 101,330 | 171,839 | (NA) | (NA) | (NA) |
|  | 374 | 377 | (NA) | 9,797 | 21,847 | 8,886 | 17,386 | 17,739 | 37,577 | 32,209 | 69,786 | (NA) | 89 | 98 |
| 1939 ². | (NA) | 136 | (NA) | (NA) | (NA) | 4,890 | (NA) | 4,405 | 8,874 | 9,608 | 18,482 | (NA) | (NA) | (NA) |

INDUSTRY 3943.-CHILDREN'S VEHICLES

See footnotes at end of table.
table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Cov- <br> erage <br> ratio <br> (per- <br> cent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3949.-SPORTING AND ATHLETIC GOODS |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 345 | 40,543 | 175,777 | 32,514 | 62,703 | 123,306 | 360,980 | 345,968 | 704,718 | 15,289 |  | 91 |
| $1962^{1}$ | (NA) | (NA) | (NA) | 36,724 | 165,020 | 29,427 | 56,892 | 107,087 | 358,578 | 345,731 | 697,790 | 18,709 | (NA) | (NA) |
| 1961 | (NA) | (NA) | (NA) | 38,714 | 162,128 | 31,106 | 58,500 | 107,788 | 369,700 | 378,749 | 773,471 | 15,150 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 39,941 | 167,999 | 31,889 | 60,635 | 110,330 | 384,193 | 368,375 | 726,761 | $(12,833)$ | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 38,043 | 161,026 | 31,310 | 61,647 | 110,394 | 332,208 | 329,660 | 649,494 | $(17,527)$ | (NA) | (NA) |
| 1958 | 1,169 | 1,210 | 302 | 37,164 | 148,477 | 29,735 | 57,370 | 104,342 | 314,059 | 269,509 | 577,815 | 15,106 | 88 | 91 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 30,609 | 110,285 | 25,008 | 48,296 | 81,054 | 230,728 | 166,693 | 389,497 | 5,222 | (NA) | (NA) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 32,363 | 106,416 | 27,301 | 51,415 | 80,478 | 214,296 | 160,795 | 361,592 | 7,997 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 28,634 | 92,235 | 24,141 | 46,082 | 68,914 | 174,429 | 131,716 | 303,536 | 7,877 | (NA) | (NA) |
| 1954 | 1,007 | 1,031 | 254 | 28,919 | 89,681 | 24,439 | 46,101 | 66,087 | 159,852 | 146,961 | 308,824 | 5,662 | 90 | 86 |
| 19531 | (NA) | (NA) | (NA) | 26,622 | 78,829 | 22,936 | 42,161 | 60,215 | 140,323 | 105,953 | 246,276 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 25,703 | 71,469 | 22,927 | 45,075 | 56,593 | 127,517 | 117,170 | 244,687 | (NA) | (NA) | (NA) |
| 19501. | (NA) | (NA) | (NA) | 24,954 | 65,501 | 22,178 | 43,310 | 50,741 | 125,256 | 101,208 | 226,464 | (NA) | (NA) | (NA) |
| 1947. | 843 | 863 | 228 | 29,756 | 66,675 | 26,381 | 51,990 | 53,768 | 107,449 | 94,854 | 202,303 | 7,351 | 94 | 90 |
| 1939. | (NA) | 350 | (NA) | 16,633 | 19,813 | 13,816 | (NA) | 14,221 | 38,064 | 26,690 | 64,754 | (NA) | (NA) | (NA) |
| $1937{ }^{3}$ | (NA) | 247 | (NA) | (NA) | (NA) | 12,178 | (NA) | 12,542 | 27,519 | 24,555 | 52,074 | (NA) | (NA) | (NA) |
| 1235. | (NA) | 213 | (NA) | 11,667 | 12,421 | 9,979 | (NA) | 9,308 | 20,229 | 17,780 | 38,009 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 193 | (NA) | 9,859 | 8,604 | 8,622 | (NA) | 6,751 | 15,306 | 11,084 | 26,390 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 249 | (NA) | (NA) | (NA) | 10,768 | (NA) | 11,832 | 31,525 | 21,494 | 53,019 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 282 | (NA) | 14,227 | 19,958 | 12,183 | (NA) | 14,998 | 39,389 | 27,721 | 67,110 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 222 | (NA) | 12,630 | 17,078 | 10,873 | (NA) | 13,145 | 30,267 | 21,788 | 52,055 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 214 | (NA) | 11,120 | 15,034 | 9,761 | (NA) | 11,616 | 28,589 | 19,655 | 48,244 | (NA) |  | (NA) |
| 1923. | (NA) | 202 | (NA) | 12,185 | 15,106 | 10,559 | (NA) | 11,841 | 27,312 | 20,721 | 48,033 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 188 | (NA) | 9,227 | 11,017 | 7,988 | (NA) | 8,457 | 20,400 | 18,779 | 39,179 | (NA) | (NA) | (NA) |
| 1919. | (NA) | 237 | (NA) | 9,631 | 10,055 | 8,513 | (NA) | 8,178 | 21,503 | 18,070 | 39,573 | (NA) | (NA) | (NA) |
| 1914. | (NA) | 216 | (NA) | 7,948 | 4,837 | 7,055 | (NA) | 3,755 | 8,689 | 9,440 | 18,129 | (NA) | (NA) | (NA) |
| 1909. | (NA) | 234 | (NA) | 7,566 | 4,145 | 7,049 | (NA) | 3,176 | 7,997 | 8,933 | 16,930 | (NA) | (NA) | (NA) |
| 1904 | (NA) | 200 | (NA) | 5,533 | 2,612 | 5,056 | (NA) | 2,142 | 5,355 | 3,900 | 9,255 | (NA) | (NA) | (NA) |
| 1899. | (NA) | 217 | (NA) | 2,934 | 1,360 | 2,678 | (NA) | 1,088 | 2,746 | 2,531 | 5,277 | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this tatie: All emplovees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1954 excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1954 excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

## Standard Notes: - Represents zero. <br> (D) Withheld to avoid disclosing figures for individual companies. <br> (NA) Not available.

(X) Not applicable
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
${ }^{2}$ No comparable figures are available for earlier years.
${ }^{3}$ The figures for $1937-1963$ are not entirely comparable with those for earlier years because they include data for establishments primarily engaged in the manufacture of playground equipment. Value added by manufacture for 1937, excluding data for these establishments, amounted to $\$ 26.3$ million.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establi shments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture, - adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total. | INDUSTRY 3931.-MUSICAL INSTRUMENTS AND PARTS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 320 | 126 | 20,095 | 103,029 | 16,664 | 33,600 | 76,471 | 179,035 | AND PARTS | 314,407 | 5,779 | 16,103 | 120,935 |
| New England....... | 27 | 9 | 825 | 4,641 | 659 | 1,361 | 3,233 | 7,268 | 3,241 | 10,270 | 151 | 1,313 | 8,345 |
| Massachusetts.... | 18 | 5 | 317 | 1,773 | 258 | 524 | 1,280 | 2,975 | 995 | 3,832 | 84 | 371 | 2,230 |
| Middle Atlantic.... | 81 | 30 | 3,386 | 16,940 | 2,848 | 5,563 | 12,994 | 26,641 | 21,177 | 47,499 | 1,553 | 3,068 | 23,733 |
| New York, ........ | 51 | 18 | 2,233 | 11,817 | 1,833 | 3,575 | 8,858 | 17,745 | 15,017 | 32,657 | 985 | 2,081 | 14,920 |
| New Jersey...... | 17 | 5 | 330 | 1,455 | 269 | 529 | 1,090 | 2,319 | 2,969 | 5,239 | 44 | 210 | 3,433 |
| Pennsylvania..... | 13 | 7 | 823 | 3,668 | 746 | 1,459 | 3,046 | 6,577 | 3,191 | 9,603 | 524 | 777 | 5,380 |
| East North Central. | 120 | 61 | 10,337 | 58,494 | 8,278 | 17,074 | 42,223 | 107,600 | 77,118 | 179,773 | 3,069 | 9,439 | 74,660 |
| Ohio............. | 18 | 9 | 1,102 | 6,504 | 996 | 2,047 | 5,681 | 7,440 | 4,860 | 13,222 | 387 | 2,491 | 13,024 |
| Indiana.......... | 31 | 17 | 2,199 | 13,667 | 1,722 | 3,528 | 9,855 | 22,252 | 18,946 | 40,584 | 444 | 1,553 | 13,442 |
| Illinois......... | 46 | 23 | 4,951 | 27,173 | 3,729 | 7,814 | 17,419 | 56,543 | 39,364 | 93,388 | 1,833 | 3,905 | 37,747 |
| Michigan......... | 15 | 7 | 1,472 | 7,961 | 1,324 | 2,663 | 6,909 | 14,172 | 10,122 | 22,465 | 232 | 971 | 6,710 |
| Wisconsin........ | 10 | 5 | 613 | 3,189 | 507 | 1,022 | 2,359 | 7,193 | 3,826 | 10,114 | 173 | 519 | 3,737 |
| West North Central. | 37 | 1 | 120 | 75778 | 99 3,756 | \% 206 | $\begin{array}{r}500 \\ \hline 1243\end{array}$ | 1,039 | 3375 | 1,426 | 13 | 154 | 1,086 |
| South.............. | 34 | 15 | 4,213 | 15,775 | 3,756 | 7,469 | 12,543 | 27,242 | 33,866 | 59,486 | 700 | 1,471 | 8,364 |
| Mountain. | 8 | 1 | 44 | 160 | 37 | 75 | 129 | 254 | 116 | 362 | 14 | \} 658 | 4,747 |
| Pacific............ | 43 | 9 | 1,170 | 6,241 | 987 | 1,852 | 4,849 | 8,991 | 7,243 | 15,591 | 279 | ) 658 | 4,747 |
|  | 36 | 7 | 950 | 5,065 | 803 1,502 |  | 3,951 | 6,919 | 5,542 11,894 245 |  |  | 515 | 3,715 |
|  | INDUSTRY 3941.-GAMES AND TOYS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 797 | 351 | 51,835 | 206,744 | 44,031 | 84,425 | 145,243 | 444,101 | 362,235 | 796,631 | 27,728 | 42,972 | 288,863 |
| New England........ <br> New Hampshire.... <br> Massachusetts.... <br> Connecticut...... | $\begin{aligned} & 82 \\ & 10 \\ & 37 \\ & 20 \end{aligned}$ | $\begin{array}{r} 36 \\ 4 \\ 20 \\ 7 \end{array}$ | $\begin{array}{r} 6,429 \\ 784 \\ 2,487 \\ 1,421 \end{array}$ | $\begin{array}{r} 26,067 \\ 2,572 \\ 10,502 \\ 6,925 \end{array}$ | 5,150 | 9,614 | 16,8682,240 |  | $\begin{array}{r} 32,240 \\ 2,299 \end{array}$ |  | $\begin{aligned} & 2,727 \\ & .(D) \end{aligned}$ | $\begin{array}{r}\text { 5,998 } \\ \hline 997\end{array}$ | $\begin{array}{r} .40,780 \\ 5,640 \end{array}$ |
|  |  |  |  |  | 6791,992 | 1,372 |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 3,788 | 2,240 6,354 | $\begin{array}{r} 5,173 \\ 35,160 \end{array}$ | $\begin{array}{r} 2,299 \\ 16,046 \\ 6,139 \end{array}$ | 7,253 51,485 | $\begin{aligned} & \text { (D) } \\ & 654 \end{aligned}$ | 2,410 | $17,404$ |
|  |  |  |  |  | 1,024 | 1,924 | 3,886 | 11,506 |  | 15,385 | 1,044 | 1,417 | 17,981 |
| Middle Atlantic.... <br> New York. $\qquad$ <br> New Jersey....... <br> Pennsylvania..... | $\begin{array}{r} 343 \\ 221 \\ 73 \\ 49 \end{array}$ | 170 | 25,969 | 100,849 | 22,307 | 42,869 | 71,527 | $\begin{aligned} & 209,178 \\ & 110,449 \end{aligned}$ | 186,86191,614 | $\begin{aligned} & 392,750 \\ & 200,906 \end{aligned}$ | $\begin{array}{r}14,817 \\ 7,055 \\ \hline\end{array}$ | 19,59510,526 | 126,873 |
|  |  | 96 | 12,427 | 48,150 | 10,473 | 20,812 | 32,823 |  |  |  |  |  | 70,466 |
|  |  | 44 | 8,030 | 31,576 | 6,975 | 13,226 | 22,463 | 62,027 | 51,614 | 112,266 | 5,734 | 4,546 | $\begin{aligned} & 30,472 \\ & 25,935 \end{aligned}$ |
|  |  | 30 | 5,512 | 21,123 | 4,859 | 8,831 | 16,241 | 36,702 | 43,633 | 79,578 | 2,028 | 4,523 |  |
| East North Central. Illinois. | 15772 | $\begin{aligned} & 81 \\ & 39 \end{aligned}$ | $\begin{array}{r} 10,180 \\ 4,090 \end{array}$ | $\begin{aligned} & 42,493 \\ & 17,360 \end{aligned}$ | $\begin{aligned} & 8,763 \\ & 3,633 \end{aligned}$ | $\begin{array}{r} 16,710 \\ 6,854 \end{array}$ | $\begin{aligned} & 30,672 \\ & 13,140 \end{aligned}$ | $\begin{aligned} & 93,564 \\ & 37,165 \end{aligned}$ | $\begin{aligned} & 84,810 \\ & 40,348 \end{aligned}$ | $\begin{array}{r} 177,415 \\ 76,344 \end{array}$ | $\begin{aligned} & 4 ; 867 \\ & 2,088 \end{aligned}$ | 9,185 | $\begin{array}{r} 61,586 \\ \left({ }^{2}\right) \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West North Central. Minnesota. Missouri......... | 34 | 1457 | $\begin{aligned} & 1,651 \\ & 1,031 \end{aligned}$ | 7,141 | $\begin{array}{r}1,417 \\ 928 \\ \hline 398\end{array}$ | $\begin{aligned} & 2,649 \\ & 1,724 \end{aligned}$ | $\begin{aligned} & 5,096 \\ & 3,211 \\ & 1,528 \end{aligned}$ | $\begin{array}{r} 16,425 \\ 10,215 \\ 3,790 \end{array}$ | $\begin{array}{r} 11,259 \\ 7,233 \\ 3,521 \end{array}$ | $\begin{array}{r} 26,836 \\ 16,686 \\ 7,299 \end{array}$ | $\begin{aligned} & 2,114 \\ & 1,720 \end{aligned}$ | 1,600893 | $\begin{array}{r} 10,185 \\ 5,291 \\ 3,898 \end{array}$ |
|  | 11 |  |  | 4,507 |  |  |  |  |  |  |  |  |  |
|  | 15 |  | 515 | 2,149 | 398 | 751 |  |  |  |  | 370 | 586 |  |
| South Atlantic.... | 27 | 10 | 1,403 | 5,050 | 1,258 | 2,453 | 4,208 | 8,820 | 8,894 | 17,414 | 351 | 1,464 | 9,053 |
| East South Central. Tennessee........ | 158 | 9 | $\begin{aligned} & 939 \\ & 613 \end{aligned}$ | 3,067 | $\begin{aligned} & 819 \\ & 524 \end{aligned}$ | $\begin{array}{r} 1,504 \\ 908 \end{array}$ | 2,100 | 6,587 | 5,823 | 12,446 | 545 | 806 | 4,382 |
|  |  |  |  | 1,960 |  |  |  | 4,403 | 3,441 | 7,923 | 363 | 496 | 3,152 |
| West South Central. | 26 | 7 | 1,926 | 7,233 | 1,671 | 3,390 | 5,295 | 14,900 | 11,161 | 24,815 | 429 | 1,377 | 10,067 |
| West................. Oregon. California. | 113 | $\begin{array}{r} 24 \\ 3 \\ 21 \end{array}$ | $\begin{array}{r} 3,338 \\ 248 \\ 3,037 \\ \hline \end{array}$ | 14,844 | $\begin{array}{r} 2,646 \\ 226 \\ 2,374 \end{array}$ | 5,236 | 9,477 | 29,554 | 21,187 | 49,824 | 1,878 | 2,947 | 25,937 |
|  | 4 |  |  | 730 |  | 377 | 572 | 1,700 | 1,447 | 3,166 | 102 | ${ }^{(2)}$ | ${ }^{2}$ ) |
|  | 93 |  |  | 13,945 |  | 4,769 | 8,760 | 27,399 | 19,473 | 45,943 | 1,747 | 2,757 | 24,968 |
|  |  |  |  |  |  |  | USTRY 394 | -DOLLS |  |  |  |  |  |
| Total.. | 410 | 160 | 16,213 | 58,991 | 13,934 | 24,361 | 41,751 | 138,100 | 114,418 | 247,942 | 6,276 | 13,860 | 77,149 |
| New England........ | 27 | 13 | 1,233 | 3,210 | 1,133 | 1,802 | 2,554 | 5,655 | 3,468 | 9,042 | 218 | 1,019 | 5,149 |
| Middle Atlantic.... | 311 | 122 | 9,608 | 32,910 | 8,575 | 15,132 | 25,814 | 65,018 | 60,618 | 125,433 | 3,241 | 11,708 | 66,435 |
| New York. ........ | 286 | 109 | 8,362 | 27,822 | 7,503 | 12,855 | 21,921 | 57,674 | 54,744 | 112,138 | 2,784 | 9,614 | 54,321 |
| New Jersey....... | 12 | 6 | 658 | 3,173 | 525 | 1,300 | 2,190 | 4,133 | 3,742 | 8,010 | 359 | 1,571 | 9,252 |
| Pennsylvania..... | 13 | 7 | 588 | 1,915 | 547 | 977 | 1,703 | 3,211 | 2,132 | 5,285 | 98 | 523 | 2,862 |
| North Central...... | 20 | 8 | 757 | 2,032 | 643 | 1,126 | 1,651 | 3,082 | 2,775 | 5,924 | 301 | 299 | 1,358 |
| South and West..... | 52 | 17 | 4,615 | 20,839 | 3,583 | 6,301 | 11,732 | 64,345 | 47,557 | 107,543 | 2,516 | 834 | 4,207 |
| Georgia.. | 6 | 5 | 437 | 1,474 | 391 | 728 | 1,112 | 2,210 | 1,825 | 4,052 | 63 | 380 | 2,243 |

See footnotes at end of table.
table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials ( $\$ 1,000$ ) | Value of shipments <br> $(\$ 1,000)$ | $\begin{gathered} \text { Capital } \\ \text { Capend } \\ \text { itures, } \\ \text { new } \\ (\$ 1,000) \\ (\$) \end{gathered}$ | All employees <br> (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | With 20 employees (number) | Total (number) | Payroll <br> ( $\$ 1,000$ ) | Total <br> (number) | Man- <br> hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | Industry 3943.-CHILDREN'S VEHICLISS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 64 | 31 | 4,542 | 19,436 | 3,796 | 7,595 | 14,275 | 35,304 | 41,609 | 77,507 | 1,858 | 4,708 | 31,727 |
| New England. . | 7 | 3 | 417 | 1,811 | 317 | 601 | 1,242 | 2,673 | 3,571 | 6,219 | 219 | 853 | 4,230 |
| Middle Atlantic New York..... | 21 13 | $\begin{array}{r}12 \\ 7 \\ \hline\end{array}$ | 1,225 | 4,009 2,834 | 1,099 | 2,166 1,358 | 3,091 2,157 | 6,934 4,894 | 5,882 | 12,870 8,943 | 498 | ${ }^{7}{ }^{7}{ }^{2}$ ) | 4,040 $(2)$ |
| North Central...... South and West..... | 21 <br> 15 | $\begin{array}{r}11 \\ 5 \\ \hline\end{array}$ | 2,311 589 | $\begin{array}{r}10,991 \\ 2,625 \\ \hline\end{array}$ | $\begin{array}{r}1,926 \\ \hline 454 \\ \hline\end{array}$ | $\begin{array}{r}\text { 3,918 } \\ \hline 910\end{array}$ | 8,297 1,645 | $\begin{array}{r} 20,440 \\ 5,257 \end{array}$ | $\begin{array}{r} 25,611 \\ 6,545 \\ \hline \end{array}$ | 46,386 12,032 | 918 | 2,539 | $\begin{array}{r} 18,771 \\ 4,686 \end{array}$ |
|  | INDUSTRY 3949.-SPORTING AND ATHIETIC GOODS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 1,419 | 345 | 40,543 | 175,777 | 32,514 | 62,703 | 123,306 | 360,980 | 345,968 | 704,718 | 15,289 | 37,164 | 314,059 |
| New England. . Maine. | 100 12 | 35 | 5,364 <br> 104 | 23,159 1,289 | 4,200 | 7,987 663 | 16,791 ${ }_{981}$ | $\begin{array}{r}49,534 \\ 2,248 \\ \hline\end{array}$ | 37,753 1,829 | 82,389 3,969 | 1,443 | 4,937 | 28,311 2,816 |
| Massachusetts | 44 | 17 | 3,755 | 16,560 | 2,845 | 5,344 | 11,605 | 37,942 | 26,984 | 60,498 | 1,027 | 3,037 | 18,878 |
| Comnecticut. | 27 | 9 | 828 | 3,765 | 709 | 1,371 | 3,086 | 6,261 | 5,798 | 11,622 | 314 | 880 | 4,428 |
| Middle Atlantic.... New York. | 248 <br> 140 | 69 40 | 6,289 3,815 | 25,926 15,257 | 5,337 3,221 | 10,458 6,302 | 18,919 | 44,392 25,258 | $\begin{aligned} & 58,167 \\ & 33,029 \end{aligned}$ | 102,652 58,963 | 2,204 | 8,636 ${ }_{(2)}$ | 86,328 ${ }_{(2)}^{(2)}$ |
| East North Central. | 351 | 99 | 12,530 | 61,220 | 9,539 | 18,598 | 40,645 | 136,499 | 130,600 | 271,067 | 4,837 | 11,592 | 116,412 |
| Ohio........ | 60 31 | 17 8 8 | 3,685 | 18,562 2,720 | 2,782 | 5,338 1,040 | 12,779 1,959 | 25,601 5,257 | 30,623 5,547 | 57,319 10,874 | 1,345 | 4,024 | 28,683 2,766 |
| Inlinois...... | 98 | 30 | 3,183 | 15,879 | 2,413 | 4,713 | 10,827 | 29,560 | 46,259 | 76,336 | 1,496 | 2,463 | 36,839 |
| Michigan.. | 102 | 28 | 3,623 | 19,207 | 2,631 | 5,300 | 11,756 | 66,912 | 39,119 | 108,173 | 1,433 | 3,685 | 43,006 |
| Wisconsin. | 60 | 16 | 1,363 | 4,852 | 1,161 | 2,207 | 3,324 | 9,169 | 9,052 | 18,365 | 310 | 1,032 | 5,118 |
| West North Central. | 138 | 40 | 3,739 | 14,058 | 3,117 | 5,973 | 10,639 | 25,609 | 30,502 | 56,421 | 866 | 3,075 |  |
| Minnesota...... | 48 <br> 8 | 14 |  | 3,902 | 809 | 1,680 |  |  |  |  | 187 |  | 4,764 |
| Iowa............. | 25 37 | 11 10 | 1,132 | 4,580 4,762 | 871 1,263 | 1,706 2,257 | 3,091 | 8,759 7,170 | 7,580 12,817 | 16,678 19,953 | $4 / 46$ 174 | 636 1,727 | 3,787 9,320 |
| Missouri..... |  |  |  | 4,762 | 1,263 | 2,257 | 3,823 | 7,170 | 12,817 |  |  |  |  |
| South Atlantic..... | 171 | $\begin{array}{r}22 \\ 5 \\ \hline\end{array}$ | 3,723 | 15,534 | 2,979 | 5,819 | 10,412 | 35,028 | 22,206 | 57,165 | 1,477 | 2,637 | 21,602 |
| South Carolina. Florida. | 8 61 | 8 | 972 678 | 3,757 1,960 | 816 606 | 1,651 | 2,659 1,601 | 8,337 3,553 | 4,506 3,356 | 12,261 6,961 | 448 | 368 430 | 2,158 2,316 |
| East South Central. Tennessee. | 57 25 | 14 9 | $\begin{aligned} & 1,793 \\ & 1,047 \end{aligned}$ | $\begin{aligned} & 7,000 \\ & 3,204 \end{aligned}$ | $\begin{array}{r}1,573 \\ \hline 956\end{array}$ | $\begin{aligned} & 2,797 \\ & 1,595 \end{aligned}$ | $\begin{aligned} & 5,596 \\ & 2,943 \end{aligned}$ | $\begin{array}{r} 11,510 \\ 5,503 \end{array}$ | $\begin{array}{r} 13,052 \\ 6,876 \end{array}$ | $\begin{aligned} & 24,579 \\ & 12,309 \end{aligned}$ | 479 407 | 1,538 798 | 10,576 4,041 |
| West South Central. Texas. | 109 65 | $\begin{aligned} & 19 \\ & 12 \end{aligned}$ | 2,592 | $\begin{aligned} & 8,939 \\ & 3,372 \end{aligned}$ | 2,148 749 | $\begin{aligned} & 4,038 \\ & 1,301 \end{aligned}$ | $\begin{aligned} & 6,454 \\ & 2,107 \end{aligned}$ | $\begin{array}{r} 20,321 \\ 6,757 \end{array}$ | $\begin{gathered} 19,927 \\ 6,991 \end{gathered}$ | $\begin{aligned} & 39,067 \\ & 13,577 \end{aligned}$ | 629 238 | 1,501 | $\begin{aligned} & 7,887 \\ & 2,716 \end{aligned}$ |
| Mountain............ Colorado....... | $\begin{aligned} & 41 \\ & 18 \end{aligned}$ | 7 5 | 835 567 | 2,881 2,033 | 713 479 | 1,464 | 2,190 1,538 | $\begin{aligned} & 3,631 \\ & 2,251 \end{aligned}$ | $\begin{aligned} & 3,884 \\ & 2,801 \end{aligned}$ | $\begin{aligned} & 7,279 \\ & 4,794 \end{aligned}$ | 95 51 | 914 630 | $\begin{aligned} & 4,587 \\ & 3,293 \end{aligned}$ |
| Pacific. $\qquad$ Washington. | $\begin{array}{r}264 \\ 38 \\ \hline\end{array}$ | 40 | $\begin{array}{r}3,678 \\ \hline 296\end{array}$ | 17,060 1,073 | $\begin{array}{r}\text { 2,908 } \\ \hline 253\end{array}$ | 5,569 458 | 11,660 848 | 34,456 2,222 30 | 29,877 1,622 | 64,099 3,916 | 3,259 110 | 2,334 | 19,652 1,874 |
| California........ | 197 | 32 | 3,075 | 14,765 | 2,397 | 4,654 | 9,885 | 30,620 | 26,228 | 56,495 | 3,049 | 1,925 | 16,570 | Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not

applicable.
General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown
low
low with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3931, Musical Instruments and Parts: New England-New Hampshire, 1 (20-99); Vermont, 1 (1-19); Rhode Island, 2 (20-99); Connecticut, 5 (407); West North Central-Minnesota, l (1-19); Iowa, 3 (1-19); Nebraska, l (1-19); Kansas, 2 (20-99); South Atlantic-Maryland, 6 (458); Virginia, 2 (20-99); North Carolina, 5 (284); South Carolina, 1 (250-499); Florida, 5 (1-19); East South Central-Kentucky, 2 (1-19); Tennessee, 5 (500-999); Mississippi, 3 (1,000-2,499); West South Central-Arkansas, 2 (500-999); Louisiana, 1 (1-19); Texas, 2 (1-19); Mountain-Colorado, 3 (1-19); New Mexico, 1 (1-19); Arizona, 1 (20-99); Utah, 3 (1-19); Pacific-Washington, 4 (164); Oregon, 2 (20-99); Hawai1, 1 (1-19).
SIC 3941, Games and Toys: New England-Maine, 5 (20-99); Vermont, 3 (20-99); Rhode Island, 7 (1,647); East North Central-Ohio, 32 (2, 737); Indiana, 10 (500-999); Michigan, 23 (1,665); Wisconsin, 20 (1,000-2,499); West North Central-Iowa, 3 (20-99); South Dakota, 1 (1-19); Nebraska, 1 (1-19); Kansas, 3 (1-19); South Atlantic-Maryland, 5 (250-499); Virginia, l (1-19); West Virginia, 6 (638); North Carolina, 6 (387); South Carolina, 1 (1-19); Georgia, 3 (1-19); Florida, 5 (20-99); East South Central-Kentucky, 2 (100-249); Alabama, 3 (100-249); Mississippi, 2 (1-19); West South Central-Arkansas, 2 (500-999); Louisiana, 2 (1-19); Oklahoma, 2 (1-19); Texas, 20 (500-999); Mountain-Montana, 1 (1-19); Colorado, 4 (20-99); Arizona, 1 (1-19); Nevada, 3 (20-99); Pacific-Washington, 7 (1-19).
SIC 3942, Dolls: New England-New Hampshire, 6 (100-249); Vermont, 2 (20-99); Massachusetts, 14 (500-999); Connecticut, 5 (100-249); East North Central-Ohio, 2 (20-99); Illinois, 2 (1-19); Michigan, l (1-19); Wisconsin, 1 (1-19); West North Central-Minnesota, 4 (100-249); Iowa, 3 (250-499); Missouri, 6 (100-249); South Atlantic-Maryland, 1 (1-19); North Carolina, 2 (20-99); South Carolina, 2 (250-499); Florida, 5 (20-99); East South Central-Tennessee, 5 (20-99); West South Central-Louisiana, 1 (1-19); Texas, 4 (20-99); Mountain-Montana, l (1-19); PacificWashington, 2 (1-19); Oregon, 1 (1-19); California, 21 ( 3,469 ); Hawaii, 1 (1-19).
SIC 3943, Children's Vehicles: New England-Massachusetts, 6 (250-499); Connecticut, 1 (1-19); Middle Atlantic-New Jersey, 2 (100-249); Pennsylvania, 6 (250-499); East North Central-Chio, 3 (250-499); Indiana, 2 (20-99); Illinois, 4 (500-999); Michigan, 3 (100-249); Wisconsin, 3 (282); West North Central-Minnesota, 1 (20-99); Iowa, 2 (1-19); Missouri, 2 (250-499); Nebraska, 1 (1-19); South Atlantic-Maryland, 1 (1-19); Virginia, 1 (20-99); Georgia, 1 (1-19); East South Central—Alabama, 1 (100-249); Mountain-Colorado, 2 (1-19); Utah, 1 (1-19); Pacific-California, 8 (354).
SIC 3949, Sporting and Athletic Goods: New England-New Hampshire, 2 (100-249); Vermont, 3 (20-99); Rhode Island, 12 (237); Middle Atlantic-New Jersey, 41 (500-999); Pennsylvania, 67 (1,000-2,499); West North Central—North Dakota, 2 (1-19); Nebraska, 7 (20-99); Kansas, 19 (124); South Atlantic-Maryland, 7 (320); Virginia, 5 (1,000-2,499); West Virginia, 4 (20-99); North Carolina, ll (20-99); Georgia, 15 (468); East South Central-Kentucky, 9 (250-499); Alabama, 18 (236); Mississippi, 5 (20-99); West South Central-Arkansas, 16 (500-999); Louisiana, 14 (320); Oklahoma, 14 (250-499); Mountain-Montana, 5 (20-99); Idaho, 6 (173); New Mexico, 1 (1-19); Arizona, 4 (20-99); Utah, 4 (1-19); Nevada, 3 (1-19); Pacific-Oregon, 27 (250-499); Hawaii, 2 (1-19).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

| Item | Musical instruments and parts (SIC 3931) | Games and toys (SIC 3941) | $\begin{aligned} & \text { Dolls } \\ & \text { (SIC 3942) } \end{aligned}$ | Children's vehicles (SIC 3943) | Sporting and athletic goods (SIC 3949) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio.. | . 97 | . 92 | .80-. 85 | . 71 | . 93 |
| Coverage ratio?......................... | . 92 | . 91 | . 87 | .65 | . 91 |
| Establishments, total............................................ | 320 | 797 | 410 | 64 | 1,419 |
| With 1 to 19 employees...................................do. | 194 | 446 | 250 | 33 | 1,074 |
| With 20 to 99 employees................................. do. | 79 | 230 | 131 | 16 | 250 |
| With 100 employees or more............................do.... | 47 | 121 | 29 | 15 | 95 |
| Proprietors and working partners.......................do.... | 133 | 57 303 | 213 | 17 | 781 |
| All employees (average for the year)...................do.... | 20,095 | 51,835 | 16,213 | 4,542 | 40,543 |
| Payroll (all employees), total for year............... \$1,000.. | 103,029 | 206,744 | 58,991 | 19,436 | 175,777 |
| Production workers: |  |  |  |  |  |
| Average for the year..................................number.. | 16,664 | 44,031 | 13,934 | 3,796 | 32,514 |
| March.................................................. do... . | 17,218 | 34,886 | 10,298 | 3,522 | 32,101 |
| May...................................................... . . . . . . . | 15,650 | 40,274 | 13,434 | 4,224 | 33,505 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do... . | 16,226 | 49,950 | 16,178 | 3,902 3,545 | 31,895 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do.. . | 17,597 | 51,018 | 15,852 | 3,545 | 32,557 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 33,600 | 84,425 | 24,361 | 7,595 | 62,703 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 8,388 | 16,290 | 4,271 | 1,666 | 15,428 |
| April-June . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 8,102 | 19,553 | 5,892 | 2,190 | 16,283 |
| July-September .. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,720 9,390 | 23,606 24,976 | 7,144 7,054 | 1,911 1,839 | 15,229 15,763 |
| Wages..................................................... $\$ 1,000$. . | 76,471 | 145,243 | 41,751 | 14,275 | 123,306 |
| Cost of materials, etc., total...........................do.... | 143,136 | 362,235 | 114,418 | 41,609 | 345,968 |
| Materials, parts, containers, and supplies consumed..do.... | 132,015 | 325,133 | 79,382 | 38,987 | 293,360 |
| Cost of resales.........................................do.... | 8,076 | 20,523 | 24,841 | 871 | 40,188 |
| Fuels consumed..........................................do.... | 919 | 1,677 | 316 | 321 | 2,046 |
| Electric energy: |  |  |  |  |  |
| Purchased: |  |  |  |  |  |
| Quantity...............................million kw.-hrs.. | 77 | 296 | 66 | 22 | 198 |
| Cost.............................................. $\$ 1,000 .$. | 1,357 | 4,556 | 1,042 | 381 | 3,391 |
| Generated less sold......................million kw.-hrs.. | (D) | (D) | - | - | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 769 | 10,345 | 8,837 | 1,049 | 6,983 |
| Value of shipments (including resales), total............do. | 314,407 | 796,631 | 247,942 | 77,507 | 704,718 |
| Value of resales......................................................... | 10,848 | 32,737 | 48,047 | 1,071 | 51,989 |
| Value added by manufacture, adjusted...................do.... | 179,035 | 444,101 | 138,100 | 35,304 | 360,980 |
| Manufacturers' inventories: |  |  |  |  |  |
| Beginning of year, total...............................do.... | 55,295 | 124,625 | 21,270 | 12,692 | 175,662 |
| Finished products..................................... ${ }^{\text {do.... }}$ | 12,252 | 58,471 | 10,589 | 4,396 | 84,929 |
| Work-in-process.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . | 27,515 | 24,676 | 2,081 | 3,083 | 40,075 |
| Materials, supplies, fuel, etc........................do.... | 15,528 | 41,477 | 8,600 | 5,213 | 50,658 |
| End of year, total......................................do.... | 63,719 | 135,267 | 27,186 | 11,692 | 175,061 |
| Finished products..................................... ${ }^{\text {do... }}$ | 15,669 | 68,686 | 15,331 | 4,454 | 81,478 |
| Work-in-process.......................................do.... | 31,862 | 24,167 | 1,915 | 2,431 | 45,786 |
| Materials, supplies, fuel, etc......................do.... | 16,188 | 42,414 | 9,940 | 4,807 | 47,792 |
| Expenditures for plant and equipment, total...........do.... | 6,152 | 30,441 | 6,509 | 1,970 | 16,127 |
| New, total............................................. . ${ }^{\text {do.... }}$ | 5,779 | 27,728 | 6,276 | 1,858 | 15,289 |
| New structures and additions to plant................do.... | 2,551 | 6,391 | 1,823 | 95 | 5,192 |
| New machinery and equipment.........................do.... | 3,228 | 21,337 | 4,453 | 1,763 | 10,102 |
| Used plant and equipment..............................do.... | 373 | 2,713 | 233 | 112 | 835 |
| Selected operating ratios: |  |  |  |  |  |
|  |  |  |  |  |  |
| Production workers/Total employment. . . . . . . . . . . . . . . . . . . . . | . 83 | . 85 |  | . 84 | . 80 |
| Man-hours/Production workers.. | 2,016 | 1,917 | 1,748 | 2,001 | 1,928 |
| Production worker wages/Man-hours........................... | 2.28 | 1.72 | 1.71 | 1.88 | 1.97 |
| Cost of materials and payrolls/Total value of shipments.... | . 78 | . 71 | . 70 | . 79 | . 74 |
| Cost of materials/Total value of shipments.................. | . 46 | . 45 | . 46 | . 54 | . 49 |
| Adjusted value added/Total employment......................... | 8,909 | 8,568 | 8,518 | 7,773 | 8,904 |
| Salaries and wages/Adjusted value added.................... | . 58 | . 47 | . 43 | . 55 | . 49 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable.
${ }_{2}^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of primary products shipped by the establishnents classified in the industry to total shipments of such products by all manufacturing establishments.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | 5 to 9 employees | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{aligned} & 1,000 \text { to } \\ & 2,499 \\ & \text { employees } \end{aligned}$ | 2,500 employees and over |
| Establishments...............number. . All employees: | - INDUSTRY 3931. -MUSICAL INSTRUMENTS AND PARTS |  |  |  |  |  |  |  |  |  |  |
|  | 320 | 124 | 39 | 31 | 45 | 34 | 23 | 17 | 6 | 1 | - |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total.....................d. do... | 20,095 | 242 | 287 | 445 | 1,523 | 2,465 | 3,848 | 5,894 | $\frac{5,391}{2,187}$ | (D) | - |
| Payroll..................\$1,000.. | 103,029 | 920 | 1,278 | 1,897 | 7,265 | 12,277 | 19,682 | 31,523 | 28,187 | (D) | - |
| Value added, adjusted.......do.... | 179,035 | 1,660 | 1,889 | 2,951 | 12,611 | 18,583 | 34,774 | 51,195 | $\frac{55,372}{87,859}$ | (D) | - |
| Capital expenditures, new...do.... | 314,407 5,779 | 3,780 127 | $\begin{array}{r}3,940 \\ \\ \\ \hline\end{array}$ | $\begin{array}{r}5,093 \\ \hline 188\end{array}$ | 21,198 | 35,120 518 | 63,129 1,503 | 94,288 1,622 | $\frac{87,859}{1,184}$ | (D) | - |
|  | INDUSTRY 3941.-GAMES AND TOYS |  |  |  |  |  |  |  |  |  |  |
| Establishments.................number. . All employees: | 797 | 267 | 80 | 99 | 153 | 77 | 67 | 35 | 13 | 6 | - |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total....................... do.... | $\begin{array}{r} 51,835 \\ 206,744 \\ 444,101 \\ 796,631 \\ 27,728 \end{array}$ | $\begin{array}{r}429 \\ \hline 7516\end{array}$ | 541 | 1,422 | 4,910 | 5,261 | 9,866 | 11,936 | 9,309 | 8,161 |  |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . |  | 1,516 | 2,103 | 5,343 | 17,768 | 20,064 | 37,055 | 46,119 | 41,544 | 35,232 |  |
| Value added, adjusted.......do.... |  | 14,195 | 4,803 | 11,257 | 38,152 | 42,703 | 73,040 | 92,061 | 90,192 | 77,698 |  |
| Value of shipments............do.... Capital expenditures, new...do.... |  | 18,277 | 9,350 | 22,595 | 73,868 | 85,433 | 134,901 | 169,251 | 153,437 | 129,519 |  |
|  |  | 559 | 452 | 851 | 3,107 | 2,590 | 5,207 | 4,830 | 5,967 | 4,165 |  |
|  | INDUSTRY 3942. -DOLLS |  |  |  |  |  |  |  |  |  |  |
| Establishments.................number. . All employees: | 410 | 109 | 55 | 86 | 86 | 45 | 19 | 9 | - <br> - <br> - <br> - <br> - | ----- | 1(D)(D)(D)(D)(D) |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total....................... do.... | 16,213 | 188 | 378 | 1,190 | 2,617 | 3,133 | 2,646 | 6,061 |  |  |  |
| Payroll. . . . . . . . . . . . . . $\$ 1,000$. . | 58,991 | 546 | 1,186 | 3,580 | 8,178 | 10,280 | 9,204 | 26,017 |  |  |  |
| Value added, adjusted.......do.... | 138,100 | 1,302 | 2,205 | 6,757 | 14,992 | 21,342 | 15,020 | 76,482 |  |  |  |
| Value of shipments..........do.... | 247,942 | 3,168 | 4,274 | 12,757 | 29,584 | 39,375 | 29,864 | 128,920 |  |  |  |
| Capital expenditures, new...do.... | 6,276 | 351 | 369 | 592 | 611 | 1,205 | 664 | 2,484 |  |  |  |
|  | INDUSTRY 3943.-CHILDREN'S VEHICLES |  |  |  |  |  |  |  |  |  |  |
| Establishments..............number. . All employees: | 64 | 21 | 5 | 7 | 6(D)(D)(D)(D)(D) | $\begin{array}{r} 10 \\ 710 \\ 2,951 \\ 5,232 \\ 10,837 \\ 535 \end{array}$ | $\begin{array}{r} 9 \\ 1,618 \\ 7,177 \\ 10,774 \\ 24,970 \\ 282 \end{array}$ | $\begin{array}{r} 6 \\ 1,879 \\ 8,089 \\ 17,704 \\ 37,823 \\ 902 \end{array}$ | ----- | - | ----- |
|  | $\begin{array}{r} 4,542 \\ 19,436 \\ 35,304 \\ 77,507 \\ 1,858 \end{array}$ |  |  |  |  |  |  |  |  |  |  |
| Total. ....................... do.... |  | 22 | 31 | 282 |  |  |  |  |  |  |  |
| Payroll................. . $\$ 1,000$. . |  | 73 | 109 | 1,037 |  |  |  |  |  |  |  |
| Value added, adjusted.......do.... |  | 111 | 195 | 1,288 |  |  |  |  |  |  |  |
| Value of shipments...........do..... |  | 277 | 530 | 3,070 |  |  |  |  |  |  |  |
| Capital expenditures, new...do.... |  | 25 | 25 | 89 |  |  |  |  |  |  |  |
|  | INDUSTRY 3949.-SPORTING AND ATHIETIC GOODS |  |  |  |  |  |  |  |  |  |  |
| Establishments................number. . All employees: | 1,419 | 676 | 201 | 197 | 177 | 73 | 60 | 26 | 7 | 2 | - |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total. ..................... do.... | 40,543 | 1,075 | 1,303 | 2,773 | 5,505 | 5,102 | 9,548 | 8,757 | 6,480 | (D) | - |
| Payroll................. \$1,000. . | $\begin{aligned} & 175,777 \\ & 360.980 \end{aligned}$ |  | 4,896 | 10,511 | 21,524 | 21,736 | 37,772 | 41,923 | 34,000 | (D) | - |
| Value added, adjusted.......do.... |  | 7,16115,345 | 9,320 | 22,290 | 39,417 | 36,715 | 67,134 | 83,472 | -95,471 | (D) | - |
| Value of shipments..........do.... | $\begin{aligned} & 360,980 \\ & 704,718 \end{aligned}$ |  | 20,529 | 42,866 | 82,703 | 81,280 | 138,463 | 148,160 | 175,372 | (D) | - |
| Capital expenditures, new...do.... | 15,289 | 520 | 693 | 851 | 1,355 | 2,141 | 2,783 | 4,804 | 2,142 | (D) | - |

[^304](D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column $I$.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\frac{\text { Col. B }}{}$ <br> Col. B+C (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3931 | Musical instruments and parts.....1963.. | $\begin{aligned} & 314,407 \\ & 236,750 \end{aligned}$ | $\begin{aligned} & 293,516 \\ & 221,093 \end{aligned}$ | $\begin{aligned} & 8,324 \\ & 5,157 \end{aligned}$ | $\begin{aligned} & 12,567 \\ & 10,500 \end{aligned}$ | 97 98 | $\begin{aligned} & 319,363 \\ & 242,144 \end{aligned}$ | $\begin{aligned} & 293,516 \\ & 221,093 \end{aligned}$ | $\begin{aligned} & 25,847 \\ & 21,051 \end{aligned}$ | 92 91 |
| 3941 | Games and toys..................... 1963.. ${ }^{\text {1958.. }}$ | 796,631 544,056 | $\begin{aligned} & 693,914 \\ & 482,947 \end{aligned}$ | $\begin{aligned} & 61,822 \\ & 35,395 \end{aligned}$ | $\begin{aligned} & 40,895 \\ & 25,714 \end{aligned}$ | 92 93 | 763,917 522,031 | $\begin{aligned} & 693,914 \\ & 482,947 \end{aligned}$ | $\begin{aligned} & 70,003 \\ & 39,084 \end{aligned}$ | 91 92 |
| 3942 | Dolls. . . . . . . . . . . . . . . . . . . . . . . . . 1963. 1958.. | 247,942 161,924 | $\begin{aligned} & 164,943 \\ & 152,561 \end{aligned}$ | (D) 3,099 | (D) 6,264 | $80-85$ 98 | 190,403 161,893 | $\begin{aligned} & 164,943 \\ & 152,561 \end{aligned}$ | 25,460 9,332 | 87 94 |
| 3943 | Children's vehicles............... 1963.. | $\begin{aligned} & 77,507 \\ & 70,438 \end{aligned}$ | $\begin{aligned} & 53,972 \\ & 57,011 \end{aligned}$ | $\begin{aligned} & 22,041 \\ & 10,530 \end{aligned}$ | $\begin{aligned} & 1,494 \\ & 2,897 \end{aligned}$ | $\begin{aligned} & 71 \\ & 84 \end{aligned}$ | $\begin{aligned} & 82,656 \\ & 72,914 \end{aligned}$ | $\begin{aligned} & 53,972 \\ & 57,011 \end{aligned}$ | $\begin{aligned} & 28,684 \\ & 15,903 \end{aligned}$ | $\begin{aligned} & 65 \\ & 78 \end{aligned}$ |
| 3949 | Sporting and athletic goods........ 1963.. | $\begin{aligned} & 704,718 \\ & 577,815 \end{aligned}$ | $\begin{aligned} & 597,554 \\ & 472,655 \end{aligned}$ | $\begin{array}{r} 46,973 \\ 67,301 \end{array}$ | $\begin{array}{r} 60,191 \\ 37,859 \\ \hline \end{array}$ | $\begin{aligned} & 93 \\ & 88 \\ & \hline \end{aligned}$ | $\begin{aligned} & 655,542 \\ & 519,920 \end{aligned}$ | $\begin{aligned} & 597,554 \\ & 472,655 \end{aligned}$ | $\begin{array}{r} 57,988 \\ 47,265 \\ \hline \end{array}$ | $\begin{aligned} & 91 \\ & 91 \end{aligned}$ |

Note: See Introduction for an explanation of terms used.
Standard Notes:
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963


#### Abstract

In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the indusiry (primary products), (b) products classified in other industries (secondary products), and (c)


miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


[^305]TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

| Prod. class code | Class of products and miscellaneous receipts | $\begin{gathered} \text { All } \\ \text { industries } \end{gathered}$ | Sporting and athletic goods (SIC 3949) | Rubber products, n.e.c. (SIC 3069) | Other industries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 39491 \\ & 39492 \\ & 39490 \end{aligned}$ | Total shipments and receipts of the industry................................. | (x) | 704,718 | (X) |  |
|  |  |  |  |  |  |
|  | Primary products. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 655,542 | 597,554 | 15,198 | 42,790 |
|  | Fishing tackle and equipm | $\begin{array}{r} 525,444 \\ 33,228 \end{array}$ |  | (X)15,198 | 2,244988,922 |
|  | Other sporting and athletic |  | 471,322 |  |  |
|  | Sporting and athletic goods, n.s.k...................................................... |  | 31,606 | (X) | 1,622 |
|  |  | (X) | 46,973 | (X) | (X) |
| 3079- |  | $\begin{aligned} & (\mathrm{X}) \\ & (\mathrm{X}) \end{aligned}$ | 104,580 |  |  |
|  | Other secondary products |  | 1044,393 |  |  |
|  | Miscellaneous receipts.................................................................... . | (X) | 60,191 | (X) | (X) |
|  | Contract work $\qquad$ <br> Sales of products bought and resold. Other miscellaneous receipts. | (X) | $\begin{array}{r} 3,988 \\ 51,989 \\ 4,214 \end{array}$ | (X)(X)(X) | (X)(X)(X) |
|  |  | (X) |  |  |  |
|  |  | (X) |  |  |  |
| Standard Notes: - Represents zero. <br> (D) Withheld to avoid disclosing figures for individual companies. <br> (NA) Not available. <br> (X) Not applicable. <br> n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. <br> ${ }^{1}$ The following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3651, Radio and TV Receiving Sets; and 3662, Radio, TV Conmunications Equipment. <br> ${ }^{2}$ The following industry had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies: 3651 , Radio and TV Receiving Sets. <br> ${ }^{3}$ Includes the following product class which totaled $\$ 2$ million or more but is withheld to avoid disclosing individual company figures: 36513, "Recorders, audio amplifiers, phonographs, tuners, speaker systems, and other audio equipment and accessories." <br> 4ncludes $\$ 2,148$ thousand shipped by industry 3069, Rubber Products, N.E.C. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 2731, Books, Publishing and Printing; 3461, Metal Stampings; and 3631, Household Cooking Equipment. <br> ${ }^{5}$ Includes the following product classes which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 31610, Suitcases, briefcases, bags, and musical instrument cases; 39420, Dolls and stuffed toy animals; and 39492, Other sporting and athletic goods. <br> ${ }^{6}$ The following industry had shipments which totaled $\$ 2$ million or more but is withheld to avoid disclosing figures for individual companies: 3941 , Games and Toys. <br> ${ }^{7}$ Includes $\$ 2,773$ thousand shipped by Industry 3941, Games and Toys. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3522, Farm Machinery and Equipment; and 3751, Motorcycles, Bicycles, and Parts. <br> ${ }^{8}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 25116 , Infants' and children's wood furniture; 37510, Bicycles, motorcycles, motorbikes, scooters and parts; 37992, Other transportation equipment; and 39492, Other sporting and athletic goods. <br> ${ }^{9}$ Includes $\$ 2,440$ thousand shipped by industry 3141, Shoes, Except Rubber. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 3079, Plastics Products, N.E.C.; 3161, Luggage; 3534, Elevators and Moving Stairways; 3941, Games and Toys; and 3943, Children's Vehicles. <br> ${ }^{10}$ Includes the following product classes which totaled $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 23292, Men's, youths'and boy's outerwear, n.e.c. (made from woven or purchased knit fabrics); 30115, Tread rubber, tire sundries, and repair materials; 35225, Harvesting machinery; and 37291, Other aireraft parts and auxiliary equipment. |  |  |  |  |  |
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## TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958



See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


[^306]
## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
n.s.k. Not specified by kind.
${ }^{1} 1958$ data for fretted and string instmuments are included with data for "Other musical instruments, " code 3931498.
${ }_{3}^{2} 2,538$ thousand umits were shipped in 1963 and 2,397 thousand in 1958.
${ }^{3}$ The quantity figure relates to a value of $\$ 53,874$ thousand. In addition, $\$ 8,265$ thousand were reported without quantity.
${ }_{5}^{4}$ The quantity figure relates to a value of $\$ 33,650$ thousand. In addition, $\$ 5,906$ thousand were reported without quantity.
${ }^{5}$ In 1958, data for children's pedal driven automobiles and tractors (product code 3943033) were included with other children's vehicles (product code 3943098).

In 1958, product code 3949225 was combined with product code 3949229, "Other bowling alley playing supplies," to avoid disclosing figures for individual companies.
${ }^{7}$ Some products, e.g., pin setters, are not sold but are leased. The values reported for such products represents the valuation placed on them for tax, insurance, and similar purposes.

In 1958, data for product codes $3949249,88,86,92,87,93,94$, and 91 are included with "Other sporting and athletic goods," product code 3949298.

## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Productcode | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 393 |  | $\begin{aligned} & 190 \\ & 141 \end{aligned}$ | 99 102 |
| 3931 |  | $\begin{aligned} & 190 \\ & 141 \end{aligned}$ | 99 102 |
| 39311 | Pi.anos................................................. 1963. | 134 98 | 116 115 |
| 39312 | Organs................................................... 1963.. 1958. | $\begin{aligned} & 394 \\ & 261 \end{aligned}$ | 73 81 |
| 39314 | Other musical instruments and parts............ 1963.. $1958 .$. | 198 135 | 105 98 |
| 3942 | Dolls...................................................... 1963. . $1958 .$. | 124 | 119 |
| 3943 | Children's vehicles............................... $19.1963 .$. | 116 99 | 1110 |
| 3949 | Sporting and athletic goods........................ 1963.. $1958 .$. | $\begin{aligned} & 196 \\ & 158 \end{aligned}$ | $\begin{aligned} & 110 \\ & 109 \end{aligned}$ |
| 39491 | Fishing tackle and equipment.................... ${ }^{\text {1963. }} 19$. | $\begin{aligned} & 140 \\ & 107 \end{aligned}$ | 103 105 |
| 39492 | Other sporting and athletic goods............... 1963. . $1958 .$. | $\begin{aligned} & 209 \\ & 165 \end{aligned}$ | 112 |

${ }^{2}$ Adjusted to include piano and organ parts (product class 39313).
table 6C. Product Classes-Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963

# table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 


listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1 .


[^307]
## table 7A. Materials by Kind: 1963

| Code | Material | Unit of measure | 1963 |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost $(\$ 1,000)$ |
|  |  |  | INDUSTRY 3941.—GAMESAND TOYS |  |
|  | Materials, components, parts, containers, and supplies, total................... . | ................... | (X) | 325,133 |
| 331001 | Mili shapes and forms: <br> Carbon steel. | Short tons...... | 52,957 | ${ }^{1} 12,716$ |
| 331020 | Alloy steel......................... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | ...do............ | (NA) | 13,286 |
| 331031 | Stainless steel............................................................................. | ...do............ | (NA) | 3,286 |
| 335208 | Aluminum and aluminum-base alloy.......................................................... | 1,000 lbs....... | 312 597 | 199 |
| 335003 | Copper and copper-base alloy............................................................... | ...do............ | 597 | 431 |
| 282130 | Thermoplastic resins........................................................................ | ...do........... | 184,293 | ${ }^{1} 36,521$ |
| 282140 | Thermosetting resins....................................................................... | ...do.......... | 13,118 | 12,727 |
| 220123 | Broadwoven fabrics (cotton, wool, man-made fiber fabrics, etc.).......................... | 1,000 lin. yds.. | 2,509 | 1,240 |
| 311100 | Leather, finished............................................................................. | 1,000 lbs....... | 3,423 | 1,864 138,769 |
| 265011 | Paperboard containers and boxes.......................................................... |  | (X) 7.397 | 138,769 2,573 |
| 362115 | Fractional horsepower electric motors (under 1 hp.$)$ (excluding timing motors)........ | 1,000. | 7,397 | 2,573 |
| 970099 976000 | All other materials and components, parts, containers, and supplies consumed............. Materials, parts, containers, and supplies, n.s.k. ${ }^{2}$. |  | (X) ${ }^{-}$ | $\begin{array}{r} 183,550 \\ 42,257 \end{array}$ |
|  |  |  | INDUSTRY 3942.-DOLLS |  |
|  | Materials, components, parts, containers, and supplies, total...................... | ................ | (X) | 79,382 |
| 331001 | Mill shapes and forms: <br> Carbon steel. |  |  |  |
| 331020 |  | Short tons... | 1,537 | 394 |
| 331031 | Stainless steel...................................... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | ...do. | - |  |
| 335208 | Aluminum and aluminum-base alloy.......................................................... | 1,000 lbs....... | (D) | (D) |
| 335003 | Copper and copper-base alloy............................................................... | ...do............ | (D) | (D) |
| 282130 | Thermoplastic resins......................................................................... | 1,000 lbs....... | 15,644 | 4,945 |
| 282140 | Thermosetting resins..................................................................... | ...do............ | (D) | (D) |
| 220123 | Broadwoven fabrics (cotton, wool, man-made fiber fabrics, etc.)........................ | 1,000 lin. yds.. | 11,506 | 8,180 |
| 265011 | Paperboard containers and boxes....................................................... |  | (X) | 6,387 |
| 362115 970099 | Fractional horsepower electric motors (under 1 hp .) (excluding timing motors)......... | 1,000.......... | (D) | (D) 35,244 |
| 976000 | All other materials and components, parts, containers, and supplies consumed............ Materials, parts, containers, |  | (X) | $\begin{aligned} & 35,244 \\ & 24,232 \end{aligned}$ |
|  |  |  | INDUSTRY 3943.-CHILDREN'S VEHICLES |  |
|  | Materials. components, parts, containers, and supplies, total. |  | (X) | 38,987 |
|  | Mill shapes and forms: |  |  |  |
| 331001 | Carbon steel......................................................................................... | Short tons...... |  |  |
| 331020 | Alloy steel...................................................................................... | ...do............ | 38,090 | 7,667 |
| 331031 | Stainless steel............................................................................ | ...do......... |  |  |
| 335208 | Aluminum and aluminum-base alloy............................................................ | 1,000 lbs..... | (D) | (D) |
| 282130 | Thermoplastic resins...... |  | (D) | (D) |
| 220123 | Broadwoven fabrics (cotton, wool, man-made fiber fabrics, etc.).......................... | 1,000 lin. yds.. | 1,328 |  |
| 331100 | Leather, finished. | 1,000 lbs....... | (D) | (D) |
| 265001 | Paperboard containers and boxes......................................................................... |  | (X) | $1,606$ |
| 970099 | All other materials and components, parts, containers, and supplies consumed............. |  | (X) | 19,901 |
| 976000 | Materials, parts, containers, and supplies, n.s.k. ${ }^{2}$.................................... |  | (X) | 9,058 |
|  |  |  | INDUSTRY 3949.-SPORTING AND ATHLETIC GOODS |  |
|  | Materials, components, parts, containers, and supplies, total....................... | .................. | (X) | 293,360 |
|  | Mill shapes and forms: |  |  |  |
| 331001 | Carbon steel... | Short tons...... | 78,125 | 15,683 |
| 331020 | Alloy steel... | ...do............ | 5,507 | 4,347 |
| 331031 | Stainless steel.. | ...do........... | 1,528 | 1,901 |
| 335208 | Aluminum and aluminum-base alloy........................................................... | 1,000 lbs....... | 9,357 | 5,048 |
| 335003 | Copper and copper-base alloy.................. | ...do............ | 2,433 | 1,955 |

See footnotes at end of table.

## TABLE 7A. Materials by Kind: 1963-Continued

| Code | Material | Unit of measure | 1963 |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | $\begin{gathered} \text { Delivered cost } \\ (\$ 1,000) \end{gathered}$ |
|  |  |  | INDUSTRY 3949.—SPORTING AND ATHLETIC GOODS-Continued |  |
|  | Materials, components, parts, containers, and supplies-Continued |  |  |  |
| 282130 | Thermoplastic resins. | 1,000 lbs.... | 11,511 | 14,557 |
| 282140 | Thermosetting resins. | ...do..... | 6,441 | 12,276 |
| 220123 | Broadwoven fabrics (cotton, wool, man-made fiber fabrics, etc.) | 1,000 lin. yds. | 17,519 | 9,006 |
| 311100 | Leather, finished...... | 1,000 lbs...... | 8,159 | 14,276 |
| 265011 | Paperboard containers and boxes. |  | (X) | 9,002 |
| 362115 | Fractional horsepower electric motors (under 1 hp .) (excluding timing motors) | 1,000. | 69 | 2,088 |
| 970099 | All other materials and components, parts, containers, and supplies consumed. |  | (X) | 175,645 |
| 976000 | Materials, parts, containers, and supplies, n.s.k. ${ }^{2}$........................... | ............ | (X) | 47,576 |

Note: No comparable data for materials consumed was collected in 1958.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
n.s.k Not specified by kind.
${ }^{1}$ Estimates for 1958 for selected materials were published in MC58(1)-7 (Supplement), "Selected Materials Consumed," from data collected in a supplemental survey on Form MA-131, "Consumption of Materials, Parts, Containers and Supplies During 1958." This survey was limited to large establishments in selected chemical, machinery and equipment industries and resulted in estimates which are subject to greater error than are the figures on materials consumption collected as a regular part of the census of manufactures. Estimates for these industries are as follows:

| Industry | Materiaıs | Delivered <br> cost <br> (million dollars) |
| :--- | :--- | ---: |
| 3941 | Iron and steel shapes and forms.... | 17 |
|  | Plastics and resins materials..... | 27 |
|  | Paperboard containers and boxes.... | 34 |
| 3949 | Plastics and resins materials..... | 8 |

${ }^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962



Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable. (Z) Less than 500 horsepower.
n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

# TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials <br> $(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3931- | MUSICAL INSTRUMENTS AND PARTS <br> Entire industry <br> Establishments with-$90 \%$ or more specialization. 75-89\% specialization...... |  |  |  |  |  |  |  |  |  |  |
|  |  | 320 | 20,095 | 103,029 | 16,664 | 33,600 | 76,471 | 179,035 | 143,136 | 314,407 | 5,779 |
|  |  | 301 | 18,522 541 | $\begin{array}{r} 94,282 \\ 3,264 \end{array}$ | 15,284 468 | 30,824 933 | $\begin{array}{r} 69,440 \\ 2,631 \end{array}$ | 164,665 4,851 | 135,450 2,337 | $\begin{array}{r} 293,194 \\ 7,138 \end{array}$ | $\begin{array}{r} 5,597 \\ 64 \end{array}$ |
| 39311 | Pianos (primary product class of estab.). | 23 | 5,435 | 27,459 | 4,608 | 9,035 | 21,494 | 42,253 | 52,332 | 93,602 | 1,551 |
| 39312 |  | 32 | 5,713 | 28,021 | 4,462 | 8,973 | 18,408 | 58,908 | 41,404 | 96,626 | 1,396 |
| 39313 | Pianos and organ parts (primary product class of estab.)......... | 32 | 2,694 | 12,565 | 2,340 | 4,814 | 9,705 | 20,516 | 12,680 | 32,484 | 661 |
|  | $90 \%$ or more specialization.. | 27 | 2,387 | 10,976 | 2,067 | 4,280 | 8,414 | 17,763 | 10,778 | 27,887 | 636 |
| 39314 | Other musical instruments and parts (primary product class of estab.). | 172 | 5,998 | 34,023 | 5,043 | 10,356 | 26,100 | 55,514 | 35,236 | 88,396 | 2,052 |
|  | 90\% or more specialization... | 162 | 4,749 | 26,964 | 3,949 | 8,143 | 20,437 | 44,952 | 29,703 | 72,783 | 1,948 |
| 3943- | CHILDREN'S VEHICLES |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry. | 64 | 4,542 | 19,436 | 3,796 | 7,595 | 14,275 | 35,304 | 41,609 | 77,507 | 1,858 |
|  | Establishments with-$90 \%$ or more specialization. | 41 |  | 3,850 | 784 | 1,621 | 2,821 | 4,949 | 6,936 | 12,543 | 399 |
|  | 75-89\% specialization. . . . . | 12 | 2,029 | 9,776 | 1,671 | 3,222 | 7,250 | 18,924 | 19,124 | 37,621 | 960 |
| 3949- | SPORTING AND ATHLETIC GOODSEntire industry...........Establishments with--90\% or more specializati |  |  |  |  |  |  |  |  |  |  |
|  |  | 1,419 | 40,543 | 175,777 | 32,514 | 62,703 | 123,306 | 360,980 | 345,968 | 704,718 | 15,289 |
|  |  | 1,317 | 32,046 | 138,465 | 25,990 | 49,920 | 99,027 | 292,250 | 289,795 | 576,917 | 11,202 |
|  |  | 24 | 2,615 | 10,262 | 2,019 | 3,829 | 6,507 | 13,928 | 12,266 | 30,861 | 497 |
| 39491 | Fishing tackle and equipment (primary product class of estab.) Establishments with-- | 380 | 8,527 | 33,118 | 6,899 | 13,479 | 22,260 | 65,910 | 49,397 | 114,447 | 2,804 |
|  | 90\% or more specialization... | 342 | 6,641 | 25,733 |  |  |  |  |  |  | $\begin{array}{r} 1,896 \\ 199 \end{array}$ |
|  | 75-89\% specialization........ | 10 | 570 | 2,139 | 471 | 924 | $1,516$ | 4,590 | 2,618 | 6,946 | $199$ |
| 39492 | Other sporting and athletic goods (primary product class of estab.) Establishments with-- | 604 | 29,365 | 134,110 | 23,377 | 44,895 | 94,170 | 278,366 | 280,189 | 556,406 | 11,422 |
|  | 90\% or more specialization... | 524 | 22,465 | 102,785 | 18,129 | 34,642 | 73,889 | 222,157 | 229,621 | 446,502 | 8,141 |
|  | 75-89\% specialization......... | 32 | 2,078 | 8,356 | 1,626 | 3,049 | 5,286 | 9,482 | 11,472 | 25,822 | 201 |

## $3+31 \mathrm{n}$




## OFFICE SUPPLIES, COSTUME JEWELRY, AND MISCELLANEOUS NOTIONS

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title
3951 -Pens, Pen Points, Fountain Pens, Ball Point Pens, Mechanical Pencils and Parts
3952-Lead Pencils, Crayons, and Artists' Materials
3953-Marking Devices
3955-Carbon Paper and lnked Ribbons
3961-Costume Jewelry and Costume Novelties, Except Precious Metal
3962-Feathers, Plumes, and Artificial Flowers
3963-Buttons
3964-Needles, Pins, Hooks and Eyes, and Similar Notions
The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

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3951-PENS, PEN POINTS, FOUNTAIN PENS, BALL POINT PENS, MECHANICAL PEN- CILS AND PARTS
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This industry comprises establishments primarily engaged in manufacturing pens, pen points, fountain pens, ball point pens, refill cartridges, and parts for pens and mechanical pencils. For a detailed list.of products of industry 3951, refer to table 6A, product codes 3951001 to 3951071.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Pens and Mechanical Pencils Industry totaled $\$ 185$ million. This amount included shipments of pens and mechanical pencils (primary products) valued at $\$ 165$ million, shipments of other products (secondary products) valued at $\$ 18$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 3$ million.

This industry's shipments of pens and mechanical pencils represented 90 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 include artists' materials ( $\$ 2$ million).

Shipments of pens and mechanical pencils by this industry represented 93 percent of all shipments of these products ( $\$ 178$ million) by all industries. In 1958 the coverage ratio was also 93 percent. Other industries shipping pens and mechanical pencils include industry 3952, Lead Pencils and Art Goods, $\$ 6$ million.

The production index for the primary products of the industry increased to 216 in 1963 from the 1958 level of 141. The unit value index for 1963 was 63 compared to 83 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3952-LEAD PENCILS, CRAYONS, AND ARTISTS' MATERIALS

This industry comprises establishments primarily engaged in manufacturing lead pencils, pencil leads, and crayons; materials and equipment for art work such as airbrushes, drawing tables and boards, palettes, sketch boxes, pantographs, artists' colors and waxes, pyrography goods, drawing inks, and drafting materials. Establishments primarily engaged in manufacturing mechanical pencils are classified in industry 3951, and drafting instruments in industry 3811. For a detailed list of products of industry 3952, refer to table 6A, product codes 3952111 to 3952211.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Lead Pencils and Art Goods lndustry totaled $\$ 122$ million. This amount included shipments of lead pencils and art goods (primary products) valued at $\$ 97$ million, shipments of other products (secondary products) valued at $\$ 14$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 11$ million.

This industry's shipments of lead pencils and art goods represented 87 percent of its total product shipments. The industry specialization ratio in 1958 was 88 percent. Secondary products shipped by this industry in 1963 include pens and mechanical pencils ( $\$ 6$ million).

Shipments of lead pencils and art goods by this industry represented 90 percent of all shipments of these products ( $\$ 108$ million) by all industries. $\ln 1958$ the coverage ratio was 92 percent. Other industries shipping lead pencils and art goods include industry 3951, Pens and Mechanical Pencils, $\$ 2$ million.

## 3953-MARKING DEVICES

This industry comprises establishments primarily engaged in manufacturing rubber and metal hand stamps, dies, and seals; steel letters and figures; and stencils for use in painting or marking. For a detailed list of products of industry 3953, refer to table 6A, product codes 3953011 to 3953098 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Marking Devices Industry totaled \$127 million. This amount included shipments of marking devices (primary products) valued at $\$ 96$ million, shipments of other products (secondary products) valued at $\$ 19$ million, and miscellaneous receipts (mainly sales of products bought and resold) at \$12 million.

This industry's shipments of marking devices represented 84 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent.

Shipments of marking devices by this industry represented 90 percent of all shipments of these products ( $\$ 107$ million) by all industries. ln 1958 the coverage ratio was 86 percent.

## 3955-CARBON PAPER AND INKED RIBBONS

This industry comprises establishments primarily engaged in manufacturing carbon paper for business machines, sales books, etc.; spirit or gelatin process and other stencil paper; and inked ribbons for business machines. For a detailed list of products of industry 3955 , refer to table 6A, product codes 3955011 to 3955098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Carbon Paper and lnked Ribbons Industry totaled $\$ 156$ million. This amount included shipments of carbon paper and inked ribbons (primary products) valued at $\$ 133$ million, shipments of other products (secondary products) valued at $\$ 7$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 15$ million.

This industry's shipments of carbon paper and inked ribbons represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent.

Shipments of carbon paper and inked ribbons by this industry represented 83 percent of all shipments of these products ( $\$ 161$ million) by all industries. $\ln 1958$ the coverage ratio was 89 percent. Other industries shipping carbon paper and inked ribbons include industry 3579, Office Machines, N.E.C., $\$ 14$ million.

The production index for the primary products of the industry increased to 160 in 1963 from the 1958 level of 130 . The unit value index for 1963 was 110 compared to 100 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3961-COSTUME JEWELRY AND COSTUME NOVELTIES, EXCEPT PRECIOUS METAL

This industry comprises establishments primarily engaged in manufacturing costume jewelry, costume novelties, and ornaments made of all materials, except precious metal, precious or semiprecious stones, and rolled gold plate and gold filled materials (industry 3911). For a detailed list of products of industry 3961, refer to table 6A, product codes 3961011 to 3961098 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Costume Jewelry lndustry totaled $\$ 280$ million. This amount included shipments of costume jewelry (primary products) valued at $\$ 243$ million, shipments of other products (secondary products) valued at $\$ 13$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 25$ million.

This industry's shipments of costume jewelry represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was also 95 percent. Secondary products shipped by this industry in 1963 include jewelry made of precious metals, except platinum and carat gold (\$5 million).

Shipments of costume jewelry by this industry represented 95 percent of all shipments of these products ( $\$ 257$ million) by all industries. In 1958 the coverage ratio was 96 percent. Other industries shipping costume jewelry include industry 3911, Jewelry, Precious Metal, $\$ 11$ million.

## 3962-FEATHERS, PLUMES, AND ARTIFICIAL FLOWERS

This industry comprises establishments primarily engaged in manufacturing artificial flowers, fruits, and foliage made from all materials, except glass (industry 3231 ); in producing fancy feathers, plumes, and articles made principally of feathers and plumes; and curling, dyeing, and renovating ostrich feathers for the trade. For a detailed list of products of industry 3962 , refer to table 6 A , product code 3962011.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Artificial Flowers Industry totaled $\$ 60$ million. This amount included shipments of artificial flowers (primary products) valued at $\$ 53$ million, shipments of other products (secondary products) valued at $\$ 2$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 6$ million.

This industry's shipments of artificial flowers represented 97 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent.

Shipments of artificial flowers by this industry represented 87 percent of all shipments of these products ( $\$ 59$ million) by all industries. In 1958 the coverage ratio was 98 percent.

## 3963-BUTTONS

This industry comprises establishments primarily engaged in manufacturing buttons, button parts, and button blanks and molds, of all materials except precious metal and precious orsemipreciousstones (industry 3911). For a detailed list of products of industry 3963, refer to table 6A, product codes 3963011 to 3963098.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Buttons Industry totaled $\$ 82$ million. This amount included shipments of buttons (primary products) valued at $\$ 71$ million, shipments of other products (secondary products) valued at $\$ 3$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 7$ million.

This industry's shipments of buttons represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 98 percent. Secondary products shipped by this industry in 1963 include needles, pins, fasteners (except slide), and similar notions ( $\$ 2$ million).

Shipments of buttons by this industry represented 87 percent of all shipments of these products ( $\$ 82$ million) by all industries. In 1958 the coverage ratio was 88 percent. Other industries shipping buttons include industry 3079, Plastics Products, N.E.C., $\$ 4$ million; and industry 3964, Needles, Pins, and Fasteners, $\$ 2$ million.

## 3964-NEEDLES, PINS, HOOKS AND EYES, AND SIMILAR NOTIONS

This industry comprises establishments primarily engaged in manufacturing notions, such as machine and hand needles, pins, hooks and eyes, eyelets, buckles, and slide and snap fasteners. For a detailed list of products of industry 3964, refer to table 6A, product codes 3964111 to 3964289 .

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Needles, Pins, and Fasteners Industry totaled $\$ 337$ million. This amount included shipments of needles, pins, and fasteners (primary products) valued at $\$ 290$ million, shipments of other products (secondary products) valued at $\$ 29$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 18$ million.

This industry's shipments of needles, pins, and fasteners represented 91 percent of its total product shipments. The industry specialization ratio in 1958 was 93 percent. Secondary products shipped by this industry in 1963 include hardware n.e.c. ( $\$ 7$ million). and buttons ( $\$ 2$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 50 percent of the total industry shipments are represented by plants specializing in needles, pins, fasteners (except slide); and similar notions and 45 percent in zipper and slide fasteners.

Shipments of needles, pins, and fasteners by this industry represented 92 percent of all shipments of these products ( $\$ 315$ million) by all industries. In 1958 the coverage ratio was 89 percent. Other industries shipping needles, pins,and fasteners include industry 3963, Buttons, $\$ 2$ million.

The coverage ratio for individual product classes varies significantly from that for the 4 -digit industry for the following product classes of industry 3964, e.g., zipper and slide fasteners, 99 percent; needles, pins, fasteners (except slide), and similar notions, 85 percent.

The production index for the primary products of the industry increased to 168 in 1963 from the 1958 level of 128 . The unit value index for 1963 was 105 compared to 98 in 1958. Both indexes were computed on a basis of $1954=100$.

table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3951.-PENS AND MECHANICAL PENCIIS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 122 | 139 | 67 | 11,562 | 54,968 | 9,065 | 17,937 | 33,944 | 119,069 | 66,615 | 185,464 | 4,068 | 90 | 93 |
| $1962{ }^{\text {i }}$ | (NA) | (NA) | (NA) | 10,509 | 48,629 | 8,083 | 15,721 | 29,035 | 109,846 | 70,208 | 180,906 | $(6,144)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 10,174 | 44,434 | 7,782 | 15,222 | 27,082 | 96,692 | 70,020 | 169,642 | $(5,529)$ | (NA) | (NA) |
| $1960{ }^{1}$. | (NA) | (NA) | (NA) | 11,060 | 46,082 | 8,722 | 17,386 | 29,016 | 94,841 | 62,001 | 158,516 | 3,841 | (NA) | (NA) |
| $1959{ }^{1}$. | (NA) | (NA) | (NA) | 10,868 | 44,154 | 8,554 | 16,699 | 27,627 | 92,894 | 60,079 | 152,813 | 2,911 | (NA) | (NA) |
| 1958. | 141 | 147 | 66 | 11,179 | 45,856 | 8,519 | 16,234 | 27,869 | 90,197 | 58,012 | 150,279 | 3,829 | 93 | 93 |
| 1954. | 138 | 140 | 61 | 10,879 | 44,123 | 8,089 | 16,428 | 25,191 | 84,121 | 45,855 | 129,975 | 3,054 | 89 | 95 |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 11,128 | 39,351 | 8,163 | 15,368 | 24,019 | 77,282 | 43,588 | 120,870 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 11,160 | 37,691 | 8,647 | 16,588 | 23,776 | 80,937 | 46,775 | 127,712 | (NA) | (NA) | (NA) |
| $1950{ }^{1}$. | (NA) | (NA) | (NA) | 10,845 | 33,529 | 8,244 | 16,015 | 22,391 | 77,137 | 41,078 | 118,215 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$. | (NA) | (NA) | (NA) | 11,563 | 32,327 | 9,094 | 17,815 | 20,438 | 63,923 | 39,162 | 103,085 | (NA) | (NA) | (NA) |
| 1947. | 180 | 184 | 80 | 15,553 | 40,606 | 12,527 | 24,705 | 28,207 | 89,897 | 57,471 | 147,368 | 3,865 | 93 | 95 |
| 1939. | (NA) | 70 | (NA) | 6,323 | 7,860 | 4,463 | (NA) | 4,329 | 16,181 | 8,700 | 24,881 | (NA) | (NA) | (NA) |
| $1937{ }^{2}$ | (NA) | 55 | (NA) | (NA) | (NA) | 5,703 | (NA) | 5,356 | 16,732 | 9,238 | 25,970 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3952.-LEAD PENCIIS AND ART GOODS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 140 | 144 | 57 | 6,868 | 31,944 | 5,020 | 9,831 | 18,394 | 64,731 | 56,807 | 121,630 | 1,594 | 87 | 90 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 5,963 | 26,470 | 4,544 | 9,483 | 16,146 | 57,200 | 52,378 | 107,582 | 1,797 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 6,274 | 25,971 | 4,778 | 9,623 | 15,971 | 54,226 | 48,806 | 102,842 | 1,302 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 6,387 | 26,627 | 4,824 | 9,814 | 15,716 | 54,440 | 54,614 | 108,845 | 1,734 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 7,102 | 27,331 | 5,199 | 10,089 | 15,812 | 53,899 | 53,460 | 107,000 | $(1,044)$ | (NA) | (NA) |
| $1958{ }^{3}$. | 138 | 146 | 54 | 6,687 | 26,183 | 4,711 | 9,366 | 14,746 | 47,909 | 49,098 | 98,494 | 2,049 | 88 | 92 |
| 1954. | (NA) | 155 | 53 | 6,942 | 23,720 | 5,261 | 10,650 | 14,835 | 42,277 | 42,379 | 84,189 | 2,163 | (NA) | (NA) |
| 1947. | (NA) | 110 | 45 | 7,639 | 17,946 | 6,187 | 12,732 | 12,353 | 29,601 | 28,734 | 58,335 | 1,370 | (NA) | (NA) |
| 1939. | (NA) | 82 | (NA) | 5,591 | 6,939 | 4,176 | (NA) | 3,898 | 10,631 | 9,299 | 19,930 | (NA) | (NA) | (NA) |
| $1937{ }^{2}$ | (NA) | 73 | (NA) | (NA) | (NA) | 4,788 | (NA) | 4,615 | 11,776 | 9,295 | 21,071 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3953.-MARKING DEVICES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 581 | 616 | 90 | 7,625 | 41,367 | 5,257 | 10,657 | 24,950 | 85,572 | 41,670 | 126,845 | 2,204 | 84 | 90 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 6,847 | 34,635 | 4,548 | 9,430 | 20,451 | 58,765 | 31,680 | 89,929 | $(2,331)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 6,031 | 29,635 | 4,144 | 8,581 | 18,067 | 49,615 | 24,587 | 73,920 | 1,521 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 5,801 | 30,200 | 3,962 | 8,225 | 18,491 | 49,440 | 25,185 | 74,400 | $(1,264)$ | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 5,703 | 28,934 | 3,953 | 7,930 | 18,142 | 48,504 | 23,381 | 71,961 | $(1,292)$ | (NA) | (NA) |
| 1958. | 497 | 525 | 70 | 5,447 | 24,775 | 3,875 | 7,357 | 15,603 | 39,940 | 20,016 | 59,923 | 1,360 | 96 | 86 |
| $1957{ }^{1}$. | (NA) | (NA) | (NA) | 5,458 | 22,031 | 3,579 | 7,193 | 12,948 | 37,602 | 16,697 | 53,817 | 868 | (NA) | (NA) |
| $1956{ }^{1}$. | (NA) | (NA) | (NA) | 5,854 | 24,381 | 4,221 | 8,421 | 15,296 | 42,776 | 20,263 | 58,940 | (S) | (NA) | (NA) |
| $1955{ }^{1}$. | (NA) | (NA) | (NA) | 5,760 | 22,523 | 4,121 | 8,365 | 14,173 | 37,331 | 16,987 | 51,649 | (S) | (NA) | (NA) |
| 1954. | 444 | 453 | 68 | 5,654 | 21,857 | 4,056 | 8,123 | 13,764 | 34,763 | 19,258 | 54,289 | 1,060 | 90 | 89 |
| $1952{ }^{1}$. | (NA) | (NA) | (NA) | 4,466 | 18,216 | 3,141 | 6,855 | 11,836 | 21,424 | 9,837 | 31,261 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 4,179 | 16,623 | 2,943 | 6,233 | 10,534 | 21,617 | 10,175 | 31,792 | (NA) | (NA) | (NA) |
| 1947. | 415 | 425 | 62 | 4,556 | 12,483 | 3,362 | 7,406 | 8,426 | 19,486 | 7,973 | 27,459 | 924 | 89 | 89 |
| 1939. | (NA) | 289 | (NA) | 3,333 | 4,697 | 2,211 | (NA) | 2,615 | 7,607 | 3,205 | 10,812 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 266 | (NA) | 3,284 | 4,793 | 2,375 | (NA) | 2,929 | 7,339 | 3,047 | 10,386 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 277 | (NA) | 3,118 | 4,145 | 2,255 | (NA) | 2,532 | 6,588 | 2,750 | 9,338 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 256 | (NA) | 2,866 | 2,990 | 2,196 | (NA) | 2,062 | 5,782 | 1,855. | 7,637 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 288 | (NA) | (NA) | (NA) | 2,496 | (NA) | 3,371 | 7,650 | 2,395 | 10,045 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 332 | (NA) | 3,901 | 6,428 | 2,971 | (NA) | 4,081 | 11,225 | 3,811 | 15,036 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 293 | (NA) | 3,743 | 6,240 | 2,668 | (NA) | 3,842 | 10,422 | 3,734 | 14,156 | (NA) | (NA) | (NA) |
| 1925 | (NA) | 323 | (NA) | 4,077 | 6,624 | 2,930 | (NA) | 4,015 | 11,251 | 4,070 | 15,321 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 255 | (NA) | 3,214 | 4,865 | 2,312 | (NA) | 3,035 | 8,028 | 3,103 | 11,131 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 234 | (NA) | 2,786 | 4,186 | 2,068 | (NA) | 2,657 | 6,293 | 2,786 | 9,079 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 382 | (NA) | 2,964 | 3,666 | 2,136 | (NA) | 2,261 | 6,188 | 3,149 | 9,337 | (NA) | (NA) | (NA) |
| 1914 | (NA) | 384 | (NA) | 2,338 | 1,734 | 1,767 | (NA) | 1,149 | 3,059 | 1,426 | 4,485 | (NA) | (NA) | (NA) |
| 190 | (NA) | 361 | (NA) | 2,164 | 1,384 | 1,651 | (NA) | 952 | 2,546 | 1,127 | 3,673 | (NA) | (NA) | (NA) |
| 1904 | (NA) | 327 | (NA) | 1,786 | 1,021 | 1,506 | (NA) | 797 | 2,074 | 737 | 2,811 | (NA) | (NA) | (NA) |
| 1899. | (NA) | 360 | (NA) | 1,641 | 837 | 1,470 | (NA) | 696 | 1,948 | 663 | 2,611 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3955.-CARBON PAPER AND INKED RIBBONS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 91 | 102 | 52 | 5,539 | 31,480 | 3,819 | 7,671 | 17,628 | 68,353 | 86,954 | 155,513 | 2,277 | 95 | 83 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 6,468 | 34,545 | 4,414 | 8,823 | 18,660 | 73,060 | 93,994 | 165,899 | $(4,245)$ | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 6,423 | 32,762 | 4,269 | 8,238 | 17,261 | 70,441 | 89,015 | 158,236 | 2,152 | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 6,529 | 33,282 | 4,376 | 8,354 | 17,045 | 69,307 | 79,944 | 148,003 | 1,924 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 6,141 | 30,150 | 4,055 | 8,144 | 15,962 | 63,846 | 71, 591 | 136,379 | 1,681 | (NA) | (NA) |
| 1958. | 97 | 103 | 61 | 5,818 | 27,614 | 3,922 | 7,854 | 15,098 | 58,951 | 68,017 | 126,013 | 2,654 | 91 | 89 |

See footnotes at end of table.

## table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | $\begin{gathered} \begin{array}{c} \text { Com- } \\ \text { panies } \end{array} \\ \text { (number) } \end{gathered}$ | Establi shments |  | All employees |  | Production workers |  |  | Valueaadded bymantacture,adjusted( $\$ 1,000$ ) | Cost of materials $(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | $\begin{aligned} & \begin{array}{c} \text { Capital } \\ \text { expend } \\ \text { itures, } \\ \text { new } \end{array} \\ & (\$ 1,000) \\ & (\$ 1 \end{aligned}$ | Spe-cialization (percent) | Cov- <br> erage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | $\begin{array}{\|l\|l\|} \hline \text { With } 20 \\ \text { employ- } \\ \text { ees } \\ \text { of more } \\ \text { (number) } \end{array}$ | Total <br> (number) | $\begin{aligned} & \text { Payıoll } \\ & (\$ 1,000) \\ & \hline \end{aligned}$ | Total <br> (number) | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Industry 3955. -CARBON PAPER AND Inked ribbons-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 1957^{1} . \\ & 1956^{1} . \\ & 1954 . \\ & 1950^{\mathrm{i}} . \\ & 1949^{1} . \\ & 197 . \end{aligned}$ | (NA) | (NA) | (NA) | 5,576 | 24,943 | 3,791 | 7,232 | 13,361 | 52,696 | 55,506 | 105,645 | 1,986 | 94 | 86 |
|  | (NA) | (NA) | (NA) | 5,334 | 24,002 | 3,596 | 7,161 | 12,399 | 48,639 | 50,707 | 98,716 | 1,851 | (NA) | (NA) |
|  | 80 | 84 | 43 | 4,742 | 19,344 | 3,255 | 6,671 | 10,757 | 39,749 | 46,137 | 85,666 | 1,120 | 93 | 83 |
|  | (NA) | (NA) | (NA) | 4,037 | 11,907 | 2,995 | 5,361 | 7,023 | 30,098 | 27,402 | 57,500 | (NA) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 3,735 | 11,570 | 2,806 | 5,641 | 7,212 | 28,818 | 25,652 | 54,470 | (NA) | (NA) | (NA) |
|  | 63 | 67 | 34 | 3,681 | 10,622 | 2,558 | 5,677 | 6,264 | 23,615 | 25,021 | 48,636 | 940 | 90 | 90 |
| $\begin{aligned} & \text { 1939.. } \\ & 1937 . \\ & 1935 . \\ & 1933 . \\ & 1931 . \\ & 1929 . \\ & 1927^{2} . \end{aligned}$ | (NA) | 58 | (NA) | 3,014 | 4,970 | 1,741 | (NA) | 2,132 | 10,620 | 10,157 | 20,777 | (NA) | (NA) | (NA) |
|  | (NA) | 50 | (NA) | 2,119 | 3,361 | 1,627 | (NA) | 1,991 | 8,682 | 9,178 | 17,860 | (NA) | (NA) | (NA) |
|  | (NA) | 56 | (NA) | 1,954 | 3,011 | 1,425 | (NA) | 1,629 | 7,193 | 7,502 | 14,695 | (NA) | (NA) | (NA) |
|  | (NA) | 47 | (NA) | 1,608 | 1,988 | 1,171 | (NA) | 1,243 | 6,068 | 5,157 | 11,225 | (NA) | (NA) | (NA) |
|  | (NA) | 54 | (NA) | (NA) | (NA) | 1,198 | (NA) | 1,463 | 7,442 | 6,034 | 13,476 | (NA) | (NA) | (NA) |
|  | (NA) | 57 | (NA) | 1,760 | 3,233 | 1,251 | (NA) | 1,702 | 9,304 | 7,991 | 17,295 | (NA) | (NA) | (NA) |
|  | (NA) | 49 | (NA) | 1,499 | 2,628 | 1,078 | (NA) | 1,514 | 7,773 | 6,020 | 13,793 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3961. -COSTUNE JEWELRY |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 1963 . \\ & 192^{1} \\ & 1961^{1} \\ & 1960^{1} \\ & 199^{1} . \\ & 1958 . \end{aligned}$ | 910 | 912 | 204 | 21,655 | 85,268 | 18,225 | 34,535 | 59,760 | 150,999 | 132,422 | 280,478 | 3,825 | 95 | 95 |
|  | (NA) | (NA) | (NA) | 22,340 | 81,142 | 18,519 | 34,672 | 52,644 | 136,204 | 119,316 | 253,167 | 1,408 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 21,904 | 79,682 | 18,1972 | $\begin{array}{r}34,733 \\ 35,552 \\ \hline\end{array}$ | 51,519 52,330 | 132,198 132,400 | 124,102 115,892 | 253,183 245,708 | (2,241) | (NA) | (NA) |
|  | (NA) | (Na) | (NA) | 24,285 | 80,681 | 20,733 | 38,227 | 55,761 | 134,224 | 111,837 | 245,146 | $(3,132)$ | (NA) | (NA) |
|  | 1,046 | 1,051 | 255 | 25,286 | 83,201 | 21,297 | 39,994 | 58,347 | 138,043 | 116,037 | 253,809 | 5,788 | 95 | 96 |
| $\begin{aligned} & 1957^{1} . \\ & 1956^{1} . \\ & 1955^{1} . \\ & 1954 . \\ & 1950^{1} . \\ & 1947 . \\ & 1939^{2} . \end{aligned}$ | (NA) | (NA) | (NA) | 24,292 | 76,770 | 21,041 | 39,304 | 54,693 | 115,009 | 97,125 | 209,368 | (s) | 93 |  |
|  | (NA) | (NA) | (NA) | 27,635 | 83,830 | 23,756 | 44,290 | 60,103 | 130,148 | 118,120 | 246,458 | (S) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 29,418 | 85,004 | 25,439 | 47,875 | 60,613 | 127,585 | 116,420 | 239,374 | (S) | (NA) | (NA) |
|  | 1,123 | 1,127 | 288 | 27,744 | 79,017 | 24,269 | 46,679 | 58,4,5 | 131,791 | 117,625 | 249,560 | 3,621 | 95 | 95 |
|  | (NA) | (NA) | (NA) | 26,752 | 70,847 | 23,235 | 44,834 | 53,831 | 120,617 | 79,747 | 200,364 | (NA) | (NA) | (NA) |
|  | $\begin{aligned} & 855 \\ & \text { (NA) } \end{aligned}$ | 859 299 | $\underset{\substack{212 \\(\mathrm{NA})}}{ }$ | 25,371 (NA) | 59,487 (NA) | 22,266 12,228 | 46,532 $(\mathrm{NA})$ | 45,979 10,118 | 107,224 23,439 | 63,070 15,322 | 170,294 38,761 | 3,146 (NA) | (NA) |  |
|  | INDUSTRY 3962.-ARTIFICIAL FLOWERS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 1963 . \\ & 1962^{1} . \\ & 1961^{1} . \\ & 1960^{1} . \\ & 1999^{1} . \\ & 1958 . \end{aligned}$ | 367 | 384 | 70 | 4,958 | 16,338 | 4,266 | 7,609 | 12,113 | 29,194 | 30,639 | 60,418 |  | 97 | 87 |
|  | (NA) | (NA) | (NA) | 5,231 | 15,637 | 4,407 | 7,878 | 10,609 | 28,178 | 31,638 | 59,830 |  | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 5,890 | 16,909 | 5,176 | 9,532 | 12,033 | 28,954 | 34, 365. | 63,514 |  | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 6,622 | 19,597 | 5,834 | 10,480 | 13,935 | 32,028 | 33,333 | 65,323 | (600) | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 6,959 | 19,733 | 5,969 | 10,987 | 14,400 | 34,726 | 33,253 | 67,395 | (446) | (NA) | (NA) |
|  | 428 | 431 | 101 | 6,770 | 19,021 | 5,932 | 11,038 | 14,377 | 34,650 | 30,465 | 64,969 | 886 | 98 | 98 |
| 1954. | 466 | 471 | 103 | 7,306 | 17,299 | 6,690 | 12,009 | 13,446 | 29,924 | 23,293 | 52,968 | (4) | 97 | 98 |
|  | 443 | 445 | ) | 7,130 | 13,448 | 6,569 | 12,348 | 10,713 | 23,813 | 15,650 | 39,463 | 515 | 97 | 99 |
| $\begin{aligned} & 1939 . \\ & 1937 . \end{aligned}$ | (NA) | 314 | (NA) | 7,723 | 6,522 | 6,650 | (NA) | 4,582 | 11,080 | 7,424 | 18,504 | (NA) | (NA) | (NA) |
|  | (NA) | 250 | (NA) | 6,780 | 5,511 | 6,216 | (NA) | 4,330 | 9,329 | 7,369 | 16,698 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 171 | (NA) | 2,915 | 2,138 | 2,660 | (NA) | 1,832 | 4,572 | 2,708 | 7,280 | (NA) | (NA) | (NA) |
|  | (NA) | 230 | (NA) | 3,960 | 4,912 | 3,473 | (NA) | 3,527 | 9,653 | 5,914 | 15,567 | (NA) | (NA) | (NA) |
| $\begin{aligned} & 1921 . \\ & 1919 . \\ & 1914 . \\ & 1909 . \\ & 1899 . \end{aligned}$ | (nA) | 336 | (NA) | 6,639 | 7,373 | 5,947 | (NA) | 5,966 | 12,927 | 10,148 | 23,075 | (NA) | (NA) | (NA) |
|  | (NA) | 440 | (NA) | 8,627 | 9,022 | 7,642 | (NA) | 7,147 | 17,822 | 13,699 | 31,521 | (NA) | (NA) | (NA) |
|  | (NA) | 456 | (NA) | 10,358 | 5,274 | 9,291 | (NA) | 3,979 | 9,756 | 9,309 | 19,065 | (NA) | (NA) | (NA) |
|  | (NA) | 412 | (NA) | 11,063 | 5,134 | 10,016 | (NA) | 3,974 | 10,354 | 13,627 | 23,981 | (NA) | (NA) | (NA) |
|  | (NA) | 224 | (NA) | 5,616 | 1,853 | 5,331 | (NA) | 1,561 | 3,530 | 2,763 | 6,293 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3963.-BUTTONS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 1963 \\ & 192^{1} \\ & 1961^{1} \\ & 1960^{1} \\ & 1959^{1} \\ & 1958 . \end{aligned}$ |  | 290 | 69 | 5,599 | 23,024 | 4,728 | 9,133 | 16,520 | 43,751 | 37,930 | 81,835 | 1,040 | 96 | 87 |
|  | (NA) | (NA) | (NA) | 5,401 | 20,523 | 4,672 | 9,495 | 15,809 | 38,456 | 33,534 | 73,867 | 1,824 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 5,644 | 20,081 | 4,868 | 9,842 | 15,111 | 37,511 | 32,097 | 71, 558 | ${ }_{8}^{686}$ | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 5,621 | 20,418 | 4,807 | 9,559 | 15,311 | 37,529 | 31,650 | 70,813 74,526 | 825 $(1,694$ 1 | (NA) | (NA) |
|  | (NA) 347 | (NA) | (NA) 87 | 6,438 6,462 | 21,082 21,526 | 5,532 5,504 | 10,483 10,425 | 16,093 15,817 | 41,478 37,967 | 32,690 30,618 | 74,526 68,609 | $(1,694)$ 1,414 | (NA) <br> 98 | (NA) |
| 19571 | (NA) | (NA) | (NA) | 7,037 | 20,993 | 6,237 | 11,404 | 16,147 | 37,063 | 23,357 | 59,104 | (s) | (NA) | (NA) |
| 19561 | (NA) | (NA) | (NA) | 8,586 | 25,382 | 7,574 | 13,994 | 19,392 | 40,407 | 25,052 | 65,309 | (s) | (NA) | (NA) |
|  | 395 | 409 | 109 | 8,471 | 23,235 | 7,430 | 14,123 | 17,483 | 38,219 | 31,078 | 69,117 | 1,139 | 92 | 89 |
| 1947 | 412 | 454 | 122 | 10,564 | 22,077 | 9,556 | 19,055 | 17,745 | 34,695 | 24, 838 | 59,533 | 1,131 | ${ }^{93}$ | ${ }^{94}$ |
|  | (NA) | 316 | (NA) | 12,418 | 11,764 | 10,972 | (NA) | 8,623 | 17,344 | 12,473 | 29,817 | (NA) | (NA) | (NA) |
| 1939........ | (NA) | 291 | (NA) | 13,081 | 11,574 | 12,026 | (NA) | 9,256 | 17,713 | 13,578 | 31,291 | (NA) | (NA) | (NA) |
| 1933. | (NA) | 200 | (NA) | 10,454 | 7,661 | 9,888 | (NA) | 6,706 | 13,798 | 8,614 | 22,412 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 242 | (NA) | 9,928 | 11,256 | 9,034 | (NA) | 8,814 | 17,477 | 11,501 | 28,978 | (NA) | (NA) | (NA) |
|  | (NA) | 346 | (NA) | 10,794 | 10, 824 | 9,686 | (NA) | 8,511 13,773 | 16,128 | 10,406 | 26,534 41,840 | (NA) | (NA) | (NA) |
|  | (NA) | 557 517 | (NA) | 17,183 15,760 | 17,122 8,075 | 15,577 14,511 | (NA) | $\begin{array}{r}13,773 \\ 6,424 \\ \hline\end{array}$ | 25,095 | $\begin{array}{r}16,745 \\ 8,702 \\ \hline\end{array}$ | 20,712 | (NA) | (NA) | (NA) |
| 1914. | (NA) | 444 | (NA) | 17,485 | 8,088 | 16,427 | (NA) | 6,789 | 13,167 | 9,541 | 22,708 | (NA) | (NA) | (NA) |
|  | (NA) | 238 | (NA) | 9,024 | 3,123 | 8,685 | (NA) | 2,826 | 4,893 | 2,803 | 7,696 | (NA) | (NA) | (NA) |

See footnotes at end of table.

TABLE 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours $(1,000)$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
| INDUSTRY 3964.-NEEDLES, PINS, AND FASTENERS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 314 | 343 | 149 | 20,271 | 89,431 | 16,675 | 32,642 | 64,125 | 190,868 | 146,067 | 337,285 | 7,428 | 91 | 92 |
| 1962 | (NA) | (NA) | (NA) | 20,701 | 86,979 | 17,101 | 31,858 | 62,809 | 188,004 | 135,699 | 319,005 | 7,227 | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 18,445 | 78,177 | 15,038 | 28,564 | 54,985 | 161,047 | 122,058 | 283,533 | $(6,119)$ | (NA) | (NA) |
| $1960{ }^{1}$ | (NA) | (NA) | (NA) | 18,298 | 75,890 | 14,827 | 28,163 | 53,132 | 154,211 | 105,092 | 255,052 | 7,233 | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 18,677 | 76,081 | 15,159 | 29,105 | 52,871 | 147,037 | 106,751 | 251,511 | $(4,456)$ | (NA) | (NA) |
| 1958. | 340 | 367 | 128 | 17,756 | 69,873 | 14,251 | 26,723 | 47,957 | 127,664 | 93,645 | 220,517 | 4,276 | 93 | 89 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 20,207 | 82,096 | 16,263 | 31,349 | 57,300 | 137,590 | 104,471 | 243,436 | 6,935 | 82 | 93 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 22,357 | 87,738 | 18,065 | 35,530 | 62,571 | 140,729 | 112,398 | 253,726 | 6,146 | (NA) | (NA) |
| $1955{ }^{1}$ | (NA) | (NA) | (NA) | 23,645 | 87,368 | 19,606 | 38,895 | 63,545 | 139,601 | 103,264 | 239,118 | 5,506 | (NA) | (NA) |
| 1954 | 349 | 357 | 130 | 23,152 | 80,846 | 18,893 | 35,935 | 56,674 | 118,378 | 84,194 | 206,602 | 4,981 | 82 | 91 |
| $1953{ }^{1}$ | (NA) | (NA) | (NA) | 26,468 | 90,251 | 22,056 | 43,365 | 66,716 | 124,284 | 95,320 | 219,604 | (NA) | (NA) | (NA) |
| $1952{ }^{1}$ | (NA) | (NA) | (NA) | 17,817 | 57,541 | 15,084 | 28,241 | 41,927 | 90,842 | 48,439 | 139,281 | (NA) | (NA) | (NA) |
| $1951{ }^{1}$ | (NA) | (NA) | (NA) | 20,320 | 63,768 | 17,456 | 33,281 | 48,453 | 104,339 | 64,579 |  | (NA) | (NA) | (NA) |
| $1950{ }^{1}$ |  | (NA) | (NA) | 22,220 22,959 | 68,753 58,791 | 18,647 19,341 | 38,102 39,309 | 51,700 44,328 | 123,545 97,292 | 66,005 49,929 | 189,550 147,221 | (NA) | (NA) | (NA) |
| 1939. | (NA) | 79 | (NA) | (NA) | (NA) | 11,139 | (NA) | 12,428 | 27,267 | 14,609 | 141,876 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 52 | (NA) | 11,211 | 13,665 | 9,580 | (NA) | 10,154 | 25,949 | 10,291 | 36,240 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 50 | (NA) | 11,294 | 12,474 | 10,104 | (NA) | 9,494 | 23,447 | 9,383 | 32,830 | (NA) | (NA) | (NA) |
| 1933.. | (NA) | 45 | (NA) | 7,044 | 7,132 | 6,412 | (NA) | 5,768 | 16,940 | 5,818 | 22,758 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 46 | (NA) | (NA) | (NA) | 5,354 | (NA) | 5,667 | 15,500 | 4,842 | 20,342 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 43 | (NA) | 7,014 | 8,587 | 6,242 | (NA) | 6,566 | 15,843 | 6,188 | 22,031 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 45 | (NA) | 6,328 | 7,964 | 5,606 | (NA) | 6,098 | 14,402 | 5,923 | 20,325 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 48 | (NA) | 6,463 | 7,357 | 5,850 | (NA) | 5,856 | 12,248 | 5,926 | 18,174 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 49 | (NA) | 7,660 | 8,720 | 6,834 | (NA) | 6,703 | 14,351 | 7,796 | 22,147 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 68 | (NA) | 7,358 | 7,350 | 6,542 | (NA) | 5,542 | 12,733 | 6,163 | 18,896 | (NA) | (NA) | (NA) |
| 1919. | (NA) | 92 | (NA) | 10,350 | 11,316 | 9,294 | (NA) | 8,810 | 19,078 | 10,227 | 29,305 | (NA) | (NA) | (NA) |
| 1914. | (NA) | 49 | (NA) | 5,730 | 3,105 | 5,339 | (NA) | 2,507 | 4,649 | 3,242 | 7,891 | (NA) | (NA) | (NA) |
| 1909 | (NA) | 49 | (NA) | 4,951 | 2,458 | 4,638 | (NA) | 2,064 | 4,365 | 2,329 | 6,694 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 46 | (NA) | 4,065 | 1,849 | 3,965 | (NA) | 1,596 | 3,167 | 1,584 | 4,751 | (NA) | (NA) | (NA) |
| 1899. | (NA) | 52 | (NA) | 2,761 | 1,215 | 2,653 | (NA) | 1,067 | 2,010 | 1,228 | 3,238 | (NA) | (NA) | (NA) |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unad justed value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
(S) Withheld because the eswimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{2}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The rigures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related ${ }^{\text {data }}$ No comparable figures are available for earlier years.
${ }^{3}$ The 1957 Standard Industrial Classification combined in this industry two industries which were separate in the 1945 Standard Industrial Classification. These were: 3952, Lead Pencils and industry 3954, Artists Materials. The data for 1954 and earlier years for these two industries have been combined.
${ }^{4}$ Less than $\$ 500$ thousand.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{3}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees (number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \text { Man- } \\ \text { hours } \\ (1,000) \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total.......... | INDUSTRY 3951.-PENS AND MECHANICAL PENCILS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 139 | 67 | 11,562 | 54,968 | 9,065 | 17,937 | 33,944 | 119,069 | 66,615 | 185,464 | 4,068 | 11,179 | 90,197 |
| New England........ | 7 | 5 | 669 | 3,154 | 534 | 1,059 | 1,956 | 15,477 | 3,327 | 18,798 | 53 | 644 | 3,270 |
| Middle Atlantic.... New York.......... | $\begin{aligned} & 86 \\ & 66 \end{aligned}$ | 27 | 2,294 | 7,374 | 2,065 | 3,878 | 5,663 | 12,821 | 18,237 | 31,070 | 697 | 2,282 | 10,891 |
|  | $\begin{array}{r} 11 \\ 9 \\ 9 \\ 17 \end{array}$ |  | 1,945 | 12,861 | 1,230 | 2,361 | 6,477 | 27,475 | 10,585 | 38,705 | 932 | 2,102 | 20,781 |
| West North Central. |  | 5 | 2,213 | 11,069 | 1,671 | 3,306 | 6,448 | 20,910 | 6,853 | 27,775 | 332 | 1,721 | 16,657 |
| South................ |  | 6 | 1,647 | 7,099 | 1,376 | 2,809 | 4,411 | 15,917 | 7,029 | 22,525 | 397 | 1,730 | 13,888 |
| West................. |  | 8 | 1,166 | 6,132 | 978 | 1,982 | 4,050 | 13,562 | 10,225 | 23,087 | 967 | 1,034 | 12,146 |
|  | INDUSTRY 3952.-LEAD PENCILS AND ART GOODS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 144 | 57 | 6,868 | 31,944 | 5,020 | 9,831 | 18,394 | 64,731 | 56,807 | 121,630 | 1,594 | 6,687 | 47,909 |
| New England........ | 10 | 4 | 588 | 3,727 | 369 | 724 | 1,699 | 8,199 | 6,083 | 14,523 | 365 | 902 | 5,968 |
| Middle Atlantic.... <br> New York. $\qquad$ <br> New Jersey........ <br> Pennsylvania..... | 6941 | 2715 | 3,3661,239 | 15,425 | 2,459932 | 4,7641,812 | $\begin{aligned} & 9,354 \\ & 3,352 \end{aligned}$ | 31,48611,295 | $\begin{aligned} & 27,273 \\ & 11,676 \end{aligned}$ | 58,72922,807 | 851 | 2,569632 | $\begin{array}{r} 18,093 \\ 4,398 \\ 4,173 \\ 9,522 \end{array}$ |
|  |  |  |  | 5,663 |  |  |  |  |  |  | 255 |  |  |
|  | 18 | 7 | 890 | 3,804 | 596 | 1,149 | 2,282 | 7,223 | 6,377 | 13,567 | 177 | 762 |  |
|  | 10 | 5 | 1,237 | 5,958 | 931 | 1,803 | 3,720 | 12,968 | 9,220 | 22,355 | 419 | 1,175 |  |
| North Central and |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ohio............... | $\begin{array}{r} 48 \\ 8 \\ 11 \end{array}$ | 22 | $\begin{array}{r} 2,745 \\ 623 \end{array}$ | $\begin{array}{r} 11,890 \\ 3,081 \\ 4,930 \end{array}$ | $\begin{array}{r} 2,064 \\ 368 \end{array}$ | $\begin{array}{r}4,096 \\ 1,998 \\ \hline\end{array}$ | $\begin{aligned} & 6,759 \\ & 1,428 \end{aligned}$ | $\begin{array}{r} 23,205 \\ 5,658 \end{array}$ | 22,452 5,633 0,728 | $\begin{aligned} & 45,544 \\ & 11,363 \\ & 18,098 \end{aligned}$ | 342 53 | 3,0397881,069 | 21,704 5,420 |
| Tennessee........ |  | 8 | 1,173 |  | 932 |  | 2,840 | 8,755 | 9,728 |  | 172 |  | 7,758 |
| West............... | $17$ | 4 | 169 | 902 | $128 \quad 247$ |  | 582 | 1,841 | 999 | 2,834 | 36 | 177 | 2,144 |
|  | INDUSTRY 3953.-MARKING DEVICES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.......... | 616 | 90 | 7,625 | 41,367 | 5,257 | 10,657 | 24,950 | 85,572 | 41,670 | 126,845 | 2,204 | 5,447 | 39,940 |
| New England......... Massachusetts.... Connecticut...... | 6137 | 8 | $\begin{aligned} & 810 \\ & 590 \end{aligned}$ |  |  | $\begin{array}{r} 1,212 \\ 893 \end{array}$ | $\begin{aligned} & 2,972 \\ & 2,115 \end{aligned}$ | $\begin{array}{r} 10,817 \\ 8,840 \end{array}$ | $4,687$ | $\begin{aligned} & 15,894 \\ & 13,177 \end{aligned}$ | $\begin{aligned} & 283 \\ & 237 \end{aligned}$ | $\begin{aligned} & 440 \\ & 285 \end{aligned}$ | $\begin{array}{r} 3,196 \\ 2,105 \\ 772 \end{array}$ |
|  |  |  |  | 4,1852,809 | $460$ |  |  |  |  |  |  |  |  |
|  | 14 | 3 | 157 |  | 107 | 225 | 562 | 1,406 | 520 | 1,933 | 27 | 111 |  |
| Middle Atlantic.... New York. . . . . . . . . | 14376 | 219 | $\begin{array}{r} 2,023 \\ 934 \end{array}$ | $\begin{array}{r} 11,233 \\ 5,089 \end{array}$ | $\begin{array}{r} 1,449 \\ 666 \end{array}$ | 2,9941,353 | $\begin{aligned} & 7,006 \\ & 3,077 \end{aligned}$ | $\begin{array}{r} 17,785 \\ 8,869 \end{array}$ | $\begin{aligned} & 8,434 \\ & 3,889 \end{aligned}$ | $\begin{aligned} & 26,309 \\ & 12,833 \end{aligned}$ | 502 | 1,945848 | $\begin{array}{r} 13,379 \\ 5,898 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  | 321 |  |  |
| East North Central. | 130 | 30 | 1,973 | 11,459 | 1,372 | 2,790 | 7,001 | 19,210 | 12,921 | 31,966 | 515 | 1,428 | 10,895 |
| Illinois.......... | 53 | 19 | 1,209 | 6,934 | 874 | 1,787 | 4,270 | 11,894 | 9,522 | 21,269 | 313 | 753 | 5,593 |
| West North Central. | 41 | 10 | 636 | 3,172 | 431 | 889 | 1,968 | 6,517 | 3,323 | 9,770 | 208 | 323 | 3,206 |
| Minnesota........ | 11 | 4 | 245 | 1,054 | 179 | 359 | 716 | 2,766 | 1,126 | 3,798 | 58 |  |  |
| Missouri.......... | 14 | 5 | 289 | 1,648 | 183 | 387 | 960 | 2,845 | 1,781 | 4,646 | 78 | 128 | 1,271 |
| South Atlantic..... | 72 | 6 | 538 | 2,519 | 377 | 764 | 1,618 | 6,438 | 2,388 | 8,776 | 175 | 330 | 2,311 |
| Georgia........... | 10 | 3 | 211 | 2,933 | 163 | 322 | 1,617 | 3,531 | 979 | 4,470 | 45 | $\left({ }^{2}\right)$ | ${ }^{2}$ ) |
| East South Central. | 23 | 1 | 241 | 805 | 202 | 428 | 616 | 1,656 | 978 | 2,638 | 15 | 123 | 588 |
| Tennessee........ | 11 | 1 | 199 | 624 | 182 | 387 | 533 | 1,278 | 776 | 2,060 | 12 | $\left({ }^{2}\right)$ | $\left({ }^{2}\right)$ |
| West South Central. | 36 | 2 | 158 | 728 | 103 | 214 | 459 | 1,466 | 653 | 2,108 | 26 | 165 | 1,253 |
| Texas. | 23 | 1 | 104 | 51.3 | 69 | 145 | 318 | 1,007 | 397 | 1,401 | 15 | 114 | 921 |
| West............... | 110 | 12 | 1,246 | 7,311 | 708 | 1,366 | 3,310 | 21,685 | 7,551 | 29,384 | 480 | 693 | 5,112 |
| California....... | 70 | 8 | 956 | 5,568 | 545 | 1,025 | 2,505 | 18,650 | 5,973 | 24,838 | 416 | 452 | 3,510 |
|  |  |  |  |  | INDU | TRY 3955 | -CARBON P | PER AND INK | RIBBONS |  |  |  |  |
| Total.......... | 102 | 52 | 5,539 | 31,480 | 3,819 | 7,671 | 17,628 | 68,353 | 86,954 | 155,513 | 2,277 | 5,818 | 58,951 |
| New England........ | 8 | 7 | 526 | 2,526 | 422 | 825 | 1,806 | 9,859 | 9,179 | 18,637 | 222 | 730 | 7,711 |
| Middle Atlantic.... | 43 | 23 | 2,763 | 15,169 | 1,863 | 3,836 | 8,369 | 30,936 | 39,531 | 70,903 | 1,012 | 2,894 | 27,554 |
| New York. . . . . . . | 25 | 14 | 1,862 | 10,605 | 1,246 | 2,555 | 5,478 | 22,658 | 28,474 | 51,124 | 830 | 1,991 | 20,891 |
| New Jersey....... | 11 | 7 | 699 | 3,582 | 460 | 971 | 2,235 | 6,248 | 8,189 | 14,826 | 134 | $\left(\begin{array}{l}(2) \\ (2) \\ \hline\end{array}\right.$ |  |
| Pennsylvania..... | 7 | 2 | 202 | 982 | 157 | 310 | 656 | 2,030 | 2,868 | 4,953 | 48 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| North Central...... | 23 | 12 | 1,501 | 8,903 | 1,066 | 2,018 | 5,076 | 19,024 | 24,919 | 43,878 | 642 | 1,325 | 15,947 |
| Illinois......... | 11 | 9 | 580 | 3,041 | 430 | 889 | 1,904 | 7,135 | 10,059 | 17,025 | 262 | 533 | 7,428 |
| South.............. | 10 | 2 | 169 | 925 | 115 | 249 | 587 | 2,078 | 4,168 | 6,297 | 151 | 222 | 2,086 |
| West............... | 18 | 8 | 580 | 3,957 | 353 | 743 | 1,790 | 6,456 | 9,157 | 15,798 | 250 |  | 5,653 $(2)$ |
| California....... | 14 | 5 | 426 | 2,636 | 276 | 593 | 1,463 | 4,324 | 5,791 | 10,274 | 227 | $\left(^{2}\right)$ | $\left({ }^{2}\right)$ |

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expentitures, new$(\$ 1,000)$ | All employees(number) | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{aligned} & \text { Man- } \\ & \text { hours } \\ & (1,000) \end{aligned}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total. | INDUSTRY 3961.-COSTUNE JEWELRY |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 912 | 204 | 21,655 | 85,268 | 18,225 | 34,535 |  | 150,999 | 132,422 | 280,478 | 3,825 | 25,286 | 138,043 |
| New England........ Massachusetts... | 345 33 | $\begin{aligned} & 98 \\ & 16 \\ & 78 \end{aligned}$ | $\begin{array}{r} 12,680 \\ 3,213 \\ 8,187 \end{array}$ | $\begin{aligned} & 50,587 \\ & 13,934 \\ & 30,273 \end{aligned}$ | $\begin{array}{r} 10,876 \\ 2,789 \\ 6,992 \end{array}$ | $\begin{array}{r} 20,588 \\ 5,577 \\ 12,776 \end{array}$ | $\begin{array}{r} 35,628 \\ 9,573 \end{array}$ | $\begin{aligned} & 87,621 \\ & 30,407 \end{aligned}$ |  | $\begin{array}{r} 154,637 \\ 46,254 \\ 90,599 \end{array}$ |  | $\begin{array}{r} 14,860 \\ 3,674 \end{array}$ | $\begin{aligned} & 77,971 \\ & 24,885 \\ & 50,986 \end{aligned}$ |
| Rhode Island..... | 300 |  |  |  |  |  |  | $\begin{aligned} & 30,407 \\ & 47,653 \end{aligned}$ | $\begin{aligned} & 16,938 \\ & 42,793 \end{aligned}$ |  | $\begin{array}{r} 365 \\ 1,078 \end{array}$ | -10,674 |  |
| Middle Atlantic.... New York. New Jersey. | 43040021 | $\begin{array}{r} 92 \\ 87 \\ 5 \end{array}$ | $\begin{aligned} & 7,833 \\ & 7,140 \end{aligned}$ | $\begin{aligned} & 30,156 \\ & 27,486 \end{aligned}$ | $\begin{aligned} & 6,382 \\ & 5,808 \end{aligned}$ | $\begin{aligned} & 12,118 \\ & 10,987 \end{aligned}$ | $\begin{aligned} & 20,727 \\ & 18,819 \end{aligned}$ | $\begin{aligned} & 54,367 \\ & 49,772 \end{aligned}$ | $\begin{aligned} & 57,505 \\ & 53,084 \end{aligned}$ | $\begin{aligned} & 110,052 \\ & 101,453 \end{aligned}$ | $\begin{aligned} & 1,791 \\ & 1,650 \end{aligned}$ | $\begin{aligned} & 8,780 \\ & 8,116 \end{aligned}$ | 50,15846,869 |
|  |  |  | 683 | 2,638 | 5,865 | 1,114 | 1,879 | 4,487 | 4,348 | 8,419 | $134$ | - 596 |  |
| East North Central. Illinois.......... | 2619 | 53 | $\begin{aligned} & 257 \\ & 149 \end{aligned}$ | 1,040509 | $\begin{aligned} & 216 \\ & 119 \end{aligned}$ | $\begin{aligned} & 386 \\ & 221 \end{aligned}$ | $\begin{aligned} & 826 \\ & 377 \end{aligned}$ | $\begin{aligned} & 2,366 \\ & 1,472 \end{aligned}$ | 1,480918 | $\begin{aligned} & 3,794 \\ & 2,344 \end{aligned}$ | $\begin{aligned} & 91 \\ & 34 \end{aligned}$ | $\begin{aligned} & 550 \\ & 463 \end{aligned}$ | $\begin{aligned} & 4,057 \\ & 2,557 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West North Central. | 11 | 1 |  | 411 |  | 139517 |  | 4821,984385 |  |  |  |  | 5741,304493 |
| South.............. | 3516 | 2 | 293 |  | 257 |  | 278703103 |  | 1,878 | 3,719 | 6 67 | $338$ |  |
| Mountain. .......... |  | - | 68 | 147 | 52 | 93 |  |  | 299 | 668 | 26 | 89 |  |
| ```Pacific............ California.......``` | 4938 |  | $\begin{aligned} & 425 \\ & 386 \end{aligned}$ | $\begin{aligned} & 1,937 \\ & 1,803 \end{aligned}$ |  | $\begin{aligned} & 694 \\ & 635 \end{aligned}$ | $\begin{aligned} & 1,441 \\ & 1,341 \end{aligned}$ | $\begin{aligned} & 3,794 \\ & 3,553 \end{aligned}$ | $\begin{aligned} & 2,969 \\ & 2,821 \end{aligned}$ | $\begin{aligned} & 6,814 \\ & 6,407 \end{aligned}$ | $\begin{aligned} & 193 \\ & 173 \end{aligned}$ | $\begin{aligned} & 557 \\ & 520 \end{aligned}$ | $\begin{aligned} & 3,483 \\ & 3,278 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | Industr | 3962. -AF | FICIAL FLO | ERS |  |  |  |  |
| Total.......... | 384 | 70 | 4,958 | 16,338 | 4,266 | 7,609 | 12,113 | 29,194 | 30,639 | 60,418 | 736 | 6,770 | 34,650 |
| Northeast. .......... . New York. Pennsylvania. $\qquad$ | 21216818 | 41299 | $\begin{aligned} & 3,319 \\ & 2,218 \end{aligned}$ | $\begin{array}{r} 11,638 \\ 7,855 \end{array}$ | $\begin{aligned} & 2,845 \\ & 1,903 \end{aligned}$ | $\begin{aligned} & 5,111 \\ & 3,382 \end{aligned}$ | $5,775$ | $\begin{aligned} & 20,414 \\ & 13,767 \end{aligned}$ | $\begin{aligned} & 21,957 \\ & 13,439 \end{aligned}$ | $\begin{array}{r} 42,893 \\ 27,616 \end{array}$ | $\begin{aligned} & 458 \\ & 299 \end{aligned}$ | 5,0793,465 | $\begin{aligned} & 27,291 \\ & 19,707 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 611 | 2,252 | 522 | 986 | 1,569 | 3,525 | 5,636 | 9,352 | 96 | 718 | 3,385 |
| East North Central. Wisconsin......... | 5116 | 92 | 444138 | $\begin{array}{r} 1,458 \\ 292 \end{array}$ | $\begin{aligned} & 373 \\ & 120 \end{aligned}$ | $\begin{aligned} & 668 \\ & 224 \end{aligned}$ | $\begin{aligned} & 986 \\ & 232 \end{aligned}$ | $\begin{array}{r} 2,468 \\ 424 \end{array}$ | 2,608398 | $\begin{array}{r} 5,088 \\ 826 \end{array}$ | $\begin{array}{r} 105 \\ 32 \end{array}$ | $\begin{aligned} & 720 \\ & \left({ }^{2}\right) \end{aligned}$ | $\begin{gathered} 3,562 \\ \left({ }^{2}\right) \end{gathered}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West North Central. Missouri........... | 236 | 73 | $\begin{aligned} & 328 \\ & 150 \end{aligned}$ | $\begin{aligned} & 809 \\ & 406 \end{aligned}$ | $\begin{aligned} & 298 \\ & 141 \end{aligned}$ | $\begin{aligned} & 473 \\ & 215 \end{aligned}$ | $\begin{aligned} & 677 \\ & 361 \end{aligned}$ | $\begin{array}{r} 1,528 \\ 915 \end{array}$ | 1,490843 | $\begin{aligned} & 2,883 \\ & 1,639 \end{aligned}$ | 33(D) | 246101 | 871 |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 429 |
| South Atlantic..... Florida............ | 289 | 73 | $\begin{aligned} & 307 \\ & 119 \end{aligned}$ | $\begin{aligned} & 844 \\ & 349 \end{aligned}$ | $\begin{aligned} & 265 \\ & 100 \end{aligned}$ | $\begin{aligned} & 466 \\ & 170 \end{aligned}$ | 654246 | 1,507572 | 1,610412 | 3,160988 |  | $\} \begin{aligned} & \\ & 528 \\ & 197 \end{aligned}$ |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| East South Central. | 5 | 2 | 82 | 250 | 71 | 144 | 186 | 489 | 622 | 1,094 | $\begin{aligned} & 54 \\ & 24 \\ & 23 \\ & 35 \\ & 28 \end{aligned}$ |  | 6 |
| West South Central. | 16 | 2 | 164 | 471 | 147 | 284 | 396 | 1,210 | 556 | 1,804 |  |  |  |
| West.................. | 49 | 2 | 314 | 868 | 267 | 463 | 689 | 1,578 | 1,796 | 3,496 |  |  | 920 |
|  | INDUSTRY 3963.-BUTTONS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total........... | 290 | 69 | 5,599 | 23,024 | 4,728 | 9,133 | 16,520 | 43,751 | 37,930 | 81,835 | 1,040 | 6,462 | 37,967 |
| Northeast.......... | 240 | 54 | 4,421 | 18,621 | 3,745 | 7,285 | 13,368 | 34,634 | 28,698 | 63,574 | 716 | 4,488 | 28,106 |
| New York......... | 197 | 36 | 2,877 | 11,634 | 2,416 | 4,746 | 8,309 | 22,637 | 18,228 | 41,013 | 439 | 3,172 | 20,097 |
| New Jersey....... | 17 | 8 | 464 | 1,971 | 418 | 749 | 1,477 | 3,371 | 4,733 | 8,209 | 40 | 675 | 3,944 |
| North Central...... | 22 |  | 677 | 2,527 | 526 | 965 | 1,579 | 4,555 | 4,589 | 9,067 | 63 |  |  |
| Iowa.............. | 11 | 8 | 550 | 1,972 | 431 | 790 | 1,181 | 3,525 | 4,013 | 7,491 | 60 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| South Atlantic..... | 14 | 5 | 417 | 1,617 | 382 | 736 | 1,345 | 3,924 | 4,409 | 8,320 | (D) | $\left({ }^{2}\right)$ | (2) |
| West South Central. | 5 | - | 14 | 33 | 13 | 26 | 31 | 91 | 32 | 124 | (D) | (2) | (2) |
| Pacific............. | 9 | 1 | 70 | 226 | 62 | 121 | 197 | 547 | 202 | 750 | 6 | 89 | 433 |
|  |  |  |  |  |  | STRY 396 | -NEEDLES | PINS, AND | ASteners |  |  |  |  |
| Total........... | 343 | 149 | 20,271 | 89,431 | 16,675 | 32,642 | 64,125 | 190,868 | 146,067 | 337,285 | 7,428 | 17,756 | 127,664 |
| New England........ | 61 | 38 | 5,710 | 28,963 | 4,552 | 8,843 | 20,392 | 56,164 | 34,198 | 90,921 | 2,196 | 6,017 | 41,563 |
| Rhode Island..... | 8 | 4 | 891 | 3,859 | 654 | 1,200 | 2,343 | 5,957 | 4,930 | 10,728 | 190 | 887 | 5,602 |
| Connecticut...... | 39 | 27 | 4,266 | 22,611 | 3,421 | 6,704 | 16,057 | 44,618 | 27,176 | 72,642 | 1,794 | 4,446 | 31,118 |
| Middle Atlantic.... | 225 | 81 | 9,281 |  | 7,557 | 14,716 | 28,089 | 71,373 | 65,681 | 137,104 | 2,763 | 8,509 | 58,054 |
| New York......... | 196 | 66 | 6,078 | 24,426 | 5,183 | 9,899 | 18,228 | 45,920 | 48,970 | 94,663 | 1,503 | 5,246 | 30,780 |
| North Central...... | 25 | 9 | 2,109 | 8,449 | 1,718 | 3,295 | 5,428 | 21,056 | 14,898 | 36,360 | 890 | 1,910 | 16,148 |
| Illinois......... |  | 6 | 922 | 4,010 | 1,683 | 1,221 | 2,155 | 7,979 | 5,835 | 13,901 | 279 | 1,062 | 7,788 |
| South.............. | 23 | 16 | 2,698 | 9,891 | 2,451 | 4,891 | 8,421 | 37,598 | 27,793 | 64,777 | 1,504 | 1,183 | 11,040 |
| West................ | 9 | 5 | 473 | 2,665 | 397 | 897 | 1,795 | 4,677 | 3,497 | 8,123 | 75 | 137 | 859 |

## tABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

## Footnotes for Table 2--39C

Standard Notes: - Represents zero. applicable.
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3951, Pens and Mechanical Pencils: New England-Rhode Island, 4 (342); Connecticut, 3 (327); Middle Atlantic-New Jersey, 18 (1,000-2,499);

Pennsylvania, 2 (20-99); East North Central-Ohio, 2 (1-19); Illinois, 5 (411); Michigan, 2 (1-19); Wisconsin, 2 (1,000-2,499); West North Central-Minnesota, 2 (20-99); Iowa, 2 (1,000-2,499); Missouri, 3 (491); Nebraska, l (1-19); Kansas, 1 (1-19); South Atlantic-Virginia, 3 (240); Georgia, 1 (1,000-2,499); Florida, 1 (1-19); East South Central-Kentucky, 2 (100-249); Tennessee, 1 (1-19); West South Central-0klahoma, 1 (1-19); Mountain-Colorado, 1 (1-19); Pacific—Washington, 1 (1-19); California, 15 (1,000-2,499).
SIC 3952, Lead Pencils and Art Goods: New England-Massachusetts, 5 (20-99); Connecticut, 5 (567); East North Central-Indiana, 3 (279); Illinois, 8 (100-249); Michigan, 1 (1-19); Wisconsin, 2 (1-19); West North Central-Minnesota, 1 (1-19); Missouri, 4 (100-249); Nebraska, 1 (1-19); Kansas, 2 (20-99); South Atlantic-Georgia, 2 (100-249); Florida, 1 (1-19); East South Central-Kentucky, 1 (100-249); Alabama, 1 (1-19); West South Central-Arkansas, l (1-19); Texas, 1 (1-19); Mountain-Colorado, 1 (1-19); Pacific-California, 16 (100-249).
SIC 3953, Marking Devices: New England-Maine, 2 (1-19); New Hampshire, 2 (1-19); Rhode Island, 6 (20-99); Middle Atlantic-New Jersey, 28 (250-499); Pennsylvania, 39 (500-999); East North Central-Ohio, 29 (329); Indiana, 12 (20-99); Michigan, 25 (294); Wisconsin, 11 (20-99); West North Central-Iowa, 7 (20-99); South Dakota, 1 (1-19); Nebraska, 4 (20-99); Kansas, 4 (1-19); South Atlantic-Delaware, 2 (1-19); Maryland, 7 (20-99); District of Columbia, 3 (20-99); Virginia, 7 (20-99); West Virginia, 4 (1-19); North Carolina, 7 (20-99); South Carolina, 3 (l-19); Florida, 29 (100-249); East South Central-Kentucky, 8 (20-99); Alabama, 3 (1-19); Mississippi, 1 (1-19); West South Central-Arkansas, 3 (1-19); Louisiana, 4 (20-99); Oklahoma, 6 (1-19); Mountain-Montana, 1 (1-19); Iáaho, 2 (1-19); Colorado, 6 (20-99); New Mexico, 2 (1-19); Arizona, 7 (1-19); Utah, 3 (20-99); Nevada, 1 (1-19); Pacific—Washington, 10 (100-249); Oregon, 5 (20-99); Alaska, 1 (1-19); Hawaii, 2 (1-19).
SIC 3955, Carbon Paper and Inked Ribbons: New England—Massachusetts, 4 (222); Connecticut, 4 (304); East North Central-Ohio, 7 (500-999); Michigan, 2 (100-249); West North Central-Iowa, 1 (100-249); Missouri, 1 (1-19); Nebraska, 1 (1-19); South Atlantic-District of Columbia, 1 (1-19); Georgia, 2 (20-99); East South Central-Tennessee, 1 (1-19); West South Central-Iouisiana, 1 (1-19); Texas, 5 (20-99); MountainColorado, 2 (100-249); Pacific-Washington, 1 (1-19); Oregon, 1 (20-99).
SIC 3961, Costume Jewelry: New England-Maine, 1 (1-19); New Hampshire, 2 (1-19); Connecticut, 9 (1,275); Middle Atlantic-Pennsylvania, 9 (1-19); East North Central-Ohio, 4 (20-99); Indiana, 1 (1-19); Michigan, 1 (1-19); Wisconsin, 1 (1-19); West North Central-Minnesota, 2 (1-19); Iowa, 1 (1-19); Missouri, 2 (20-99); South Dakota, 3 (1-19); Nebraska, 3 (1-19); South Atlantic—Maryland, 4 (1-19); Virginia, 2 (1-19); West Virginia, 1 (1-19); North Carolina, l (1-19); South Carolina, 1 (1-19); Georgia, 2 (1-19); Florida, 14 (20-99); East South Central-Kentucky, 2 (1-19); Tennessee, 1 (1-19); Alabama, 3 (100-249); Mississippi, l (1-19); West South Central-Texas, 3 (20-99); Mountain-Wyoming, 1 (1-19); Colorado, 5 (1-19); New Mexico, 1 (1-19); Arizona, 7 (20-99); Nevada, 2 (1-19); Pacific—Washington, 2 (1-19); Oregon, 1 (1-19); Hawaii, 8 (20-99).
SIC 3962, Artificial Flowers: New England-Maine, 1 (1-19); New Hampshire, 1 (1-19); Massachusetts, 5 (1-19); Rhode Island, 2 (250-499); Middle Atlantic-New Jersey, 17 (121); East North Central-Ohio, 6 (20-99); Indiana, 6 (20-99); Illinois, 18 (100-249); Michigan, 5 (20-99); West North Central-Minnesota, 9 (100-249); Iowa, 5 (20-99); Kansas, 3 (1-19); South Atlantic-Delaware, 1 (20-99); Maryland, 1 (20-99); Virginia, 3 (1-19); West Virginia, 2 (1-19); North Carolina, 12 (134); East South Central-Tennessee, l (1-19); Alabama, 3 (20-99); Mississippi, l (1-19); West South Central-Louisiana, 1 (1-19); Oklahoma, 4 (20-99); Texas, 11 (144); Mountain-Montana, 3 (1-19); Colorado, 4 (20-99); Utah, 1 (1-19); Pacific-Washington, 10 (20-99); Oregon, 6 (20-99); California, 24 (100-249); Hawaii, 1 (1-19).
SIC 3963, Buttons: New England-Maine, 1 (20-99); Vermont, 1 (20-99); Massachusetts, 10 (20-99); Rhode Island, 1 (1-19); Connecticut, 8 (619); Middle Atlantic-Pennsylvania, 5 (247); East North Central-Illinois, 9 (100-249); West North Central-Missouri, 1 (1-19); North Dakota, 1 (1-19); South Atlantic-Delaware, 3 (1-19); Maryland, 6 (20-99); Virginia, 3 (261); Florida, 2 (20-99); West South Central-Arkansas, 2 (1-19); Texas, 3 (1-19); Pacific-California, 9 (20-99).
SIC 3964, Needles, Pins, and Fasteners: New England-New Hampshire, 2 (100-249); Vermont, l (1-19); Massachusetts, ll (425); Middle AtlanticNew Jersey, 22 (1,668); Pennsylvania, 7 (1,535); East North Central-Ohio, 2 (1-19); Michigan, 3 (1-19); Wisconsin, 3 (100-249); West North Central-Iowa, 1 (1-19); Missouri, 4 (20-99); Nebraska, 1 (500-999); Kansas, 2 (1-19); South Atlantic-Maryland, 1 (20-99); Virginia, 2 (250-499); North Carolina, 3 (250-499); South Carolina, 4 (500-999); Georgia, 4 (500-999); Florida, 3 (1-19); East South Central-Kentucky, 1 (100-249); Mississippi, 2 (250-499); West South Central—0klahoma, 1 (1-19); Texas, 2 (20-99); Mountain-Colorado, 2 (20-99); PacificCalifornia, 7 (250-499).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.
table 3. Detailed Statistics: 1963


Note: Detailed figures may not add to totals because of independent rounding or independert dropping of fractions of thouiands rather than rounding in computer operations. See Introcuction for an explanation of terms used.

[^308](X) Not

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | 5 to 9 employees | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ \text { 2,499 } \\ \text { employees } \end{gathered}$ | $\begin{gathered} 2,500 \\ \text { employees } \\ \text { and over } \end{gathered}$ |
|  | INDUSTRY 3951. -PENS AND MECHANICAL PENCILS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 139 | 43 | 11 | 18 | 22 | 19 | 17 | 5 | 1 | 3 |  |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.....................d.do.... | 11,562 | 80 | 73 | 229 | 681 | 1,339 | 2,547 | 2,230 | (D) | 4,383 |  |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 54,968 | 310 | 218 | 871 | 2,652 | 4,693 | 11,139 | 9,482 | (D) | 25,603 |  |
| Value added, adjusted.......do.... | 119,069 | 805 | 442 | 1,969 | 4,996 | 9,440 | 30,471 | 16,935 | (D) | 54,011 |  |
| Value of shipments..........do.... | 185,464 | 2,027 | 1,264 | 4,270 | 11,408 | 22,548 | 47,655 | $\underline{27,757}$ | (D) | 68,535 |  |
| Capital expenditures, new...do.... | 4,068 | 53 | 25 | 56 | 169 | 373 | 1,093 | 909 | (D) | 1,390 |  |
|  | INDUSTRY 3952. -LEAD PENCILS AND ART GOODS |  |  |  |  |  |  |  |  |  |  |
| Establishments. ........... .number. . | 144 | 53 | 18 | 16 | 27 | 12 | 10 | 7 | 1 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 6,868, | 86 | 125 | 224 | 893 | +934 | 1,500 | 3,106 | (D) | - |  |
| Payroll................. $\$ 1,000 .$. | 31,944 | 478 | 623 | 917 | 4,140 | 4,318 | 5,423 | 16,045 | (D) | - |  |
| Value added, adjusted.......do.... | 64,731 | 1,016 | 1,054 | 2,466 | 8,971 | 8,788 | 10,341 | 32.095 | (D) | - |  |
| Value of shipments..........do.... | 121,630 | 1,887 | 2,391 | 4,726 | 18,837 | 17,589 | 19,511 | 56,689 | (D) | - |  |
| Capital expenditures, new...do.... | 1,594 | 28 | 43 | 46 | 231 | 245 | 172 | 829 | (D) | - | - |
|  | INDUSTRY 3953. -MARKING DEVICES |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 616 | 308 | 122 | 96 | 59 | 23 | 6 | 2 | - | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................dd.... | 7,625 | 474 | 823 | 1,324 | 1,672 | 1,589 | 1,743 | (D) | - | - | - |
| Peyroll................. $\$ 1,000$. . | 41,367 | 2,516 | 4,106 | 6,940 | 9,664 | 8,906 | 9,235 | (D) | - | - |  |
| Value added, adjusted.......do.... | 85,572 | 6,004 | 7,216 | 12,011 | 16,088 | 14,993 | 29,260 | (D) | - | - |  |
| Value of shipments..........do.... | 126,845 | 8,995 | 10,605 | 16,974 | 23,320 | 25,369 | 41,582 | (D) | - | - | - |
| Capital expenditures, new. ..do.... | 2,204 | 193 | 208 | 362 | 363 | 315 | 763 | (D) | - | - | - |
|  | INDUSTRY 3955. - CARBON PAPER AND INKED RIBBONS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 102 | 21 | 14 | 15 | 20 | 17 | 10 | 4 | 1 | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................d. ${ }^{\text {do... }}$ | 5,539 | 44 | 100 | 214 | 677 | 1,237 | 1,479 | 1,788 | (D) | - |  |
| Payroll................. $\$ 1,000$. . | 31,480 | 235 | 519 | 1,173 | 3,792 | 7,259 | 8,395 | 10,107 | (D) | - |  |
| Value added, adjusted........do.... Value of shipments.......d. ${ }^{\text {do... }}$ | 68,353 155,513 | 286 | 961 | 2,342 | $\begin{array}{r}7,483 \\ \hline 18,432\end{array}$ | 15,181 | 20,166 | $\frac{21,934}{48,602}$ | (D) | - |  |
| Value of shipments...........do.... <br> Capital expenditures, new...do.... | 155,513 | 801 | 2,606 | 5,977 | 18,432 | 33,740 | 45,355 | 48,602 | (D) | - |  |
|  | 2,277 | 9 | 28 | 145 | 291 | 655 | 569 | $\underline{580}$ | (D) | - | - |
|  | INDUSTRY 3961. - COSTUNE JEWELRY |  |  |  |  |  |  |  |  |  |  |
| Establishments............number. . | 912 | 375 | 171 | 162 | 113 | 49 | 30 | 6 | 5 | 1 | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.....................d. do.... | 21,655 | 694 | 1,169 | 2,181 | 3,487 | 3,500 | 4,100 | 2,216 | 4, 308 | (D) | - |
| Payrol1.................. ${ }^{\text {\$1,000.. }}$ | 85,268 | 2,240 | 3,843 | 7,292 | 13,027 | 13,284 | 16,466 | 10,536 | 18,580 | (D) |  |
| Value added, adjusted.......do.... | 150,999 | 5,520 | 6,902 | 14,491 | 24,016 | 23,043 | 23,835 | 16,283 | 36,909 | (D) |  |
| Value of shipments..........do.... | 280,478 | 10,135 | 14,009 | 27,124 | 52,314 | 47,343 | 46,213 | 26,894 | 56,446 | (D) |  |
| Capital expenditures, new...do.... | 3,825 | 477 | 437 | 527 | 670 | 577 | 376 | 244 | 517 | (D) | - |
|  | INDUSTRY 3962.-ARTIFICIAL FLOWERS |  |  |  |  |  |  |  |  |  |  |
| Establishments............ number. . | 384 | 166 | 80 | 68 | 56 | 7 | 6 | 1 | - | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................did.... | 4,958 | 325 | 523 | 912 | 1,664 | 471 | 1,063 | (D) | - | - | - |
| Payroll. . . . . . . . . . . . . . $\$ 1,000 .$. | 16,338 | 858 | 1,725 | 3,047 | 5,651 | 1,715 | 3,342 | (D) | - | - | - |
| Value added, adjusted.......do.... | 29,194 | 2,195 | 3,425 | 5,546 | 8,729 | 3,148 | 6,151 | (D) | - | - | - |
| Value of shipments..........do.... | 60,418 | 4,521 | 7,898 | 11,037 | 18,821 | 5,452 | 12,689 | (D) | - | - | - |
| Capital expenditures, new...do.... | 736 | 53 | 94 | 113 | 216 | 98 | $\underline{162}$ | (D) | - | - | - |

See footnotes at end of table.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963-Continued

|  | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item |  | 1 to 4 employees | 5 to 9 employees | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 2,500 \\ \text { employees } \\ \text { and over } \end{gathered}$ |
|  | INDUSTRY 3963. -BUTTONS |  |  |  |  |  |  |  |  |  |  |
| Establishments..................... All employees: | 290 | 93 | 67 | 61 | 40 | 20 | 9 | - | - |  | - |
|  |  |  |  |  |  |  |  |  |  | - |  |
| Total.......................do.... | 5,599 | 188 | 428 | 833 | 1,232 | 1,463 | 1,455 | - | - | - |  |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000 .$. | 23,024 | 620 | 1,463 | 2,938 | 4,602 | 5,742 | 7,659 | - | - |  |  |
| Value added, adjusted.......do.... | 43,751 | 1,266 | 2,845 | 5,415 | 7,093 | 13,045 | 14,087 | - | - |  |  |
| Value of shipments..........do.... | 81,835 | 2,015 | 4,474 | 9,777 | 14,432 | 23,944 | 27,193 | - | - |  | - |
| Capital expenditures, new...do.... | 1,040 | 2, 18 |  | , 170 | 144 | -239 | 4111 | - | - | - |  |
|  | INDUSTRY 3964. -NEEDLES, PINS, AND FASTENERS |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 343 | 80 | 52 | 62 | 77 | 28 | 27 | 9 | 7 | 1 |  |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 20,271 | 153 | 342 | 829 | 2,405 | 2,031 | 4,644 | 3,059 | 6,808 | (D) |  |
| Payroll. . . . . . . . . . . . . . $\$ 1,000 .$. | 89,431 | 602 | 1,213 | 3,056 | 9,294 | 9,492 | 19,221 | 13,791 | 32,762 | (D) |  |
| Value added, adjusted.......do.... | 190,868 | 1,509 | 2,826 | 5,878 | 21,172 | 19,583 | 55,128 | 27,552 | 57,220 | (D) |  |
| Value of shipments..........do.... | 337,285 | 3,406 | 7,090 | 12,000 | 43,352 | 37,138 | 96,681 | 46,890 | 90,728 | (D) |  |
| Capital expenditures, new...do.... | 7,428 | 94 | 192 | 202 | 755 | 773 | 1,900 | 836 | 2,676 | (D) |  |

- Represents zero.
(D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.


## table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns $F$ through $H$ and shown as a ratio in column I.

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio $\qquad$ <br> Col. B+C <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry <br> $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B <br> Col. F <br> (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 3951 | Pens and mechanical pencils.......1963.. | $\begin{aligned} & 185,464 \\ & 150,279 \end{aligned}$ | $\begin{aligned} & 164,658 \\ & 135,938 \end{aligned}$ | $\begin{aligned} & 17,557 \\ & 10,841 \end{aligned}$ | $\begin{aligned} & 3,249 \\ & 3,500 \end{aligned}$ | 90 93 | $\begin{aligned} & 177,726 \\ & 147,232 \end{aligned}$ | $\begin{aligned} & 164,658 \\ & 137,330 \end{aligned}$ | $\begin{array}{r} 13,068 \\ 9,902 \end{array}$ | 93 93 |
| 3952 | Lead pencils and art goods........1963.. | $\begin{array}{r} 121,630 \\ 98,494 \end{array}$ | $\begin{aligned} & 96,511 \\ & 82,368 \end{aligned}$ | $\begin{aligned} & 14,385 \\ & 10,855 \end{aligned}$ | $\begin{array}{r} 10,734 \\ 5,271 \end{array}$ | 87 88 | $\begin{array}{r} 107,522 \\ 89,451 \end{array}$ | 96,511 82,368 | 11,011 7,083 | 90 92 |
| 3953 | Marking devices................... ${ }^{\text {1963.. }}$ 1958.. | $\begin{array}{r} 126,845 \\ 59,923 \end{array}$ | $\begin{aligned} & 96,035 \\ & 50,499 \end{aligned}$ | $\begin{array}{r} 18,849 \\ 2,027 \end{array}$ | $\begin{array}{r} 11,961 \\ 7.397 \end{array}$ | 84 96 | $\begin{array}{r} 107,102 \\ 58,652 \end{array}$ | 96,035 50,499 | $\begin{array}{r} 11,067 \\ 8,153 \end{array}$ | 90 86 |
| 3955 | Carbon paper and inked ribbons....1963.. | $\begin{aligned} & 155,513 \\ & 126,013 \end{aligned}$ | $\begin{aligned} & 133,308 \\ & 106,328 \end{aligned}$ | 7,072 9,958 | $\begin{array}{r} 15,133 \\ 9,727 \end{array}$ | 95 91 | 161,263 119,112 | $\begin{aligned} & 133,308 \\ & 106,328 \end{aligned}$ | $\begin{aligned} & 27,955 \\ & 12,784 \end{aligned}$ | 83 89 |
| 3961 | Costume jewelry....................1963.. | $\begin{aligned} & 280,478 \\ & 253,809 \end{aligned}$ | $\begin{aligned} & 243,114 \\ & 227,970 \end{aligned}$ | 12,671 12,727 | 24,693 13,112 | 95 95 | $\begin{aligned} & 256,682 \\ & 236,250 \end{aligned}$ | $\begin{aligned} & 243,114 \\ & 227,970 \end{aligned}$ | $\begin{array}{r} 13,568 \\ 8,280 \end{array}$ | 95 96 |
| 3962 | Artifical flowers. . . . . . . . . . . . . $1963193 .$. | $\begin{aligned} & 60,418 \\ & 64,969 \end{aligned}$ | $\begin{aligned} & 52,553 \\ & 58,199 \end{aligned}$ | 1,828 1,343 | $\begin{aligned} & 6,037 \\ & 5,427 \end{aligned}$ | 97 98 | $\begin{aligned} & 59,256 \\ & 59,494 \end{aligned}$ | $\begin{aligned} & 52,553 \\ & 58,199 \end{aligned}$ | $\begin{aligned} & 6,703 \\ & 1,295 \end{aligned}$ | 87 98 |
| 3963 | Buttons. . . . . . . . . . . . . . . . . . . . . . . . . . . 1963.. | $\begin{aligned} & 81,835 \\ & 68,609 \end{aligned}$ | $\begin{aligned} & 71,121 \\ & 62,131 \end{aligned}$ | $\begin{aligned} & 3,290 \\ & 1,332 \end{aligned}$ | $\begin{aligned} & 7,424 \\ & 5,146 \end{aligned}$ | $\begin{aligned} & 96 \\ & 98 \end{aligned}$ | $\begin{aligned} & 81,855 \\ & 70,830 \end{aligned}$ | $\begin{aligned} & 71,121 \\ & 62,131 \end{aligned}$ | $\begin{array}{r} 10,734 \\ 8,699 \end{array}$ | 87 88 |
| 3964 | Needles, pins, and fasteners..... $1963 .$. | $\begin{aligned} & 337,285 \\ & 220,517 \end{aligned}$ | $\begin{aligned} & 289,966 \\ & 197,357 \end{aligned}$ | $\begin{aligned} & 28,892 \\ & 14,919 \end{aligned}$ | $\begin{array}{r} 18,427 \\ 8,241 \end{array}$ | $\begin{aligned} & 91 \\ & 93 \end{aligned}$ | $\begin{aligned} & 315,198 \\ & 220,845 \end{aligned}$ | $\begin{aligned} & 289,966 \\ & 197,357 \end{aligned}$ | $\begin{aligned} & 25,232 \\ & 23,488 \end{aligned}$ | 92 89 |

[^309]
## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963


#### Abstract

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary nroducts). (b) products classified in other industries (secondary products), and (c) miscellaneous


receipls. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued


[^310]table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1963 |  | 1958 |  |
|  |  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
|  | NEEDIES, PINS, AND FASTENERS-Continued <br> Needles, pins, fasteners (except slide), and similar notions-Con. <br> Pins (except jewelry): |  |  |  |  |  |
| $\begin{aligned} & 3964281 \\ & 3964283 \end{aligned}$ | Common or toilet, including dressmakers' pins <br> Hair pins, metal, "bobby" type................................................. | $\begin{aligned} & \text { 1,000 pounds.. } \\ & \text {...do......... } \end{aligned}$ | 2,736 7,134 | 5,029 7,941 | 2,373 9,369 | 3,702 12,119 |
| 3964287 | Safety pins. | 1,000 gross... | 10,765 | 3,371 | 9,161 | 2,989 |
| 3964289 | Other pins, hat pins, glasshead pins, plastic, and metal hairpins other than metal bobby type, etc.......................... |  | (X) | 5,177 | (X) | 38,219 |
| 3964200 | Needles, pins, fasteners (except slide) and similar notions, n.s.k............................................................................ |  | (x) | 10,182 | (X) | ${ }^{4}$ ) |
| 3964000 | Needles, pins, fasteners, n.s.k. |  | (X) | 16,296 | (X) | 421,557 |

Standard Notes: - Represents zero
(D)
pplicable. n.s.k. Not specified by kind

 excise taxes.
${ }^{2}$ In 1958, latch and spring-beard knitting machine needles are included with "other needles."
${ }^{3}$ Includes $\$ 617$ thousand of "metal hairpins, other than bobby type."
${ }^{4}$ In 1958, product code 3964200 has been included with code 3964000.
table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes (1954 = 100) |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |
| 395-- | Pens, pencils and office supplies.............. $\begin{array}{r}\text { 1963.. } \\ 1958 . .\end{array}$ | (1) $(1)$ | $(1)$ $(1)$ |
| 3951- | Pens, pen points, fountain pens, ball point pens, mechanical pencils and parts............................1963.. 1958. . | 216 | 63 83 |
| 3952- | Lead pencils and art goods...........................1963.. ${ }^{\text {1958. }}$ | (1) ${ }^{1} 1$ | $\left(\begin{array}{l}1 \\ (1)\end{array}\right.$ |
| 39521 | Lead pencils and crayons............................. $1963 .$. | $\begin{array}{r} 152 \\ 99 \end{array}$ | $\begin{array}{r} 88 \\ 129 \end{array}$ |
| 3955- | Carbon paper and inked ribbons............................ 1963.. | $\begin{aligned} & 160 \\ & 130 \end{aligned}$ | 110 100 |
| 396-- | Costume jewelry and notions..................... $1963 .$. | $\left(\begin{array}{l}2 \\ (2) \\ (2)\end{array}\right.$ | $(2)$ $(2)$ |
| 3964- | Needles, pins, and fasteners........................ $1963 .$. | $\begin{aligned} & 168 \\ & 128 \end{aligned}$ | 105 98 |
| 39641 | Zippers or slide fasteners........................ $1963 .$. | $\begin{aligned} & 193 \\ & 128 \end{aligned}$ | $\begin{array}{r} 100 \\ 92 \end{array}$ |
| 39642 | Needles, pins, fasteners, (except slide) and similar notions.......................................................... $1963 .$. | $\begin{aligned} & 140 \\ & 106 \\ & \hline \end{aligned}$ | $\begin{aligned} & 116 \\ & 113 \\ & \hline \end{aligned}$ |

${ }^{1}$ Not shown because comparable quantity data were not obtained for hand stamps, stencils and other marking devices (products of industry 3953) and artists' materials (product class 39522).
${ }^{2}$ Not shown because comparable quantity data were not obtained for costume jewelry and costume novelties, except precious metal (products of industry 3961), artificial flowers (products of industry 3962) and a significant portion of buttons (products of industry 3963).

TABLE 6C. Product Classes-Value Shipped by All Manufacturing Establishments, 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962{ }^{1}$ | $1961{ }^{1}$ | $1960{ }^{1}$ | $1959{ }^{1}$ | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 39510 | Pens, mechanical pencils, and pen points..... | 177, 726 | 164,747 | 162,787 | 160,891 | 144,864 | 147,232 | 118,110 | 137,574 |
| 3952- | Lead pencils and art goods. | 107,522 | 96,847 | 100,317 | 103,463 | 97, 204 | 89,451 | 76,918 | 59,521 |
| 39521 | Lead pencils and crayons................... | 69,155 | 72,963 | 68,282 | 77,509 | 71,938 | 65,317 | 50,986 | 45,492 |
| 39522 | Artists' materials............................ | 36,424 | 23,884 | 32,035 | 25,954 | 25,266 | 24,134 | 25,932 | 14,029 |
| 39520 | Lead pencils and art goods, n.s.k.......... | 1,943 | - | - | - | - | - | - |  |
| 39530 | Hand stamps, stencils, and other marking devices. $\qquad$ | 107,102 | 86,874 | 79,682 | 78,501 | 71,378 | 58,652 | 47,720 | 26,868 |
| 39550 | Carbon paper, stencil paper, and inked ribbons. $\qquad$ | 161,263 | 169,943 | 155,516 | 137,403 | 123,799 | 119,112 | 90,990 | 49,068 |
| 39610 | Costume jewelry and costume novelties, except precious metal..................... | 256,682 | 229,112 | 238,502 | 229,611 | 226,451 | 236,250 | 235,232 | (NA) |
| 39620 | Feathers, plumes, and artificial flowers..... | 59,256 | 53,121 | 58,708 | 60,205 | 61,605 | 59,494 | 48,603 | 38,291 |
| 39630 | Buttons and parts, except of precious or semiprecious metals and stones................ | 81,855 | 76,768 | 73,595 | 73,468 | 77,530 | 70,830 | 63,983 | 57,662 |
| 3964- | Needles, pins, and fasteners................. | 315,198 | 292,810 | 259,345 | 234,771 | 230,823 | 220,845 | 176,981 | 147,137 |
| 39641 | Zipper and slide fasteners................. | 143,230 | 105,744 | 38,041 | 78,542 | 100,522 | 87,251 | 74,421 | 57,630 |
| 39642 | Needles, pins, fasteners (except slide), and similar notions. | 155,672 | 160,907 | 144,516 | 130,141 | (S) | 112,037 | 93,877 | 82,022 |
| 39640 | Needles, pins, and fasteners, n.s.k. | 16,296 | $(26,159)$ | $(26,788)$ | $(26,088)$ | (S) | 21,557 | 8,683 | 7,485 |

[^311]applicable. n.s.k. Not specified by kind.
$(S)$ Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the
basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.

## TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958

> In thousands of dollars. Statistics are shown for selected product classes which are economically significant and which have production that is geographically dispersed, provided that the dispersion is not approximated by the data in the geegraphic table for the industry (table 2) and they are not miscelianeous or "not specified by type" classes. For each product class, States are
listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1 .

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AD | $1963{ }^{1}$ | 1958 | NEEDLES, PINS, FASTENERS <br> (EXCEPT SLIDE), AND SIMILAR NOTIONS (39642) <br> United States, total.. | $1963{ }^{1}$ | 1958 | ZIPPERS AND SLIDE FASTENERS (39641) | $1963{ }^{1}$ | 1958 |
| United States, total... | 69,155 | 65,317 |  | 155,672 | 112,037 | United States, total... | J.43, 230 | 87,251 |
| Middle Atlantic. | 29,646 | $\begin{array}{r} 22,771 \\ 3,944 \\ 6,954 \\ 11,873 \end{array}$ | Northeast. <br> Massachusetts. <br> Connecticut | 82,018 | 60,721 | Northeast.. | 6,535 | (2) |
| New York... | 5,366 9,630 |  |  | 12,502 | $\begin{aligned} & 11,381 \\ & 42,267 \end{aligned}$ |  |  |  |
| Pennsylvania.............. | 14,650 |  | Middle Atlantic............. | 36,236 | 30,726 | Middle Atlantic.............. <br> New York................... | $\begin{aligned} & 80,194 \\ & 53,387 \end{aligned}$ | $\begin{array}{r} \left({ }^{2}\right) \\ 30,459 \end{array}$ |
| East North Central.......... | 6,213 | $\begin{aligned} & \left(\begin{array}{l} 2 \\ (2) \\ (2) \\ (2) \\ (2) \end{array}\right) \end{aligned}$ | New York. | 23,807 | 17,840 |  |  |  |
| West North Central. | 3,447 |  |  |  |  |  |  |  |
| South......... | 19,094 |  | North Central............... South and West............ | 26,467 10,951 | $(2)$ $(2)$ | South....................... All other divisions....... | 52,927 3,574 | $\begin{array}{r} 18,241 \\ (2) \end{array}$ |

[^312]
## table 7A. Materials by Kind: 1963 and 1958



## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Item | Pens and mechanical pencils (SIC 395I) | Lead pencils and art goods (SIC 3952) | Marking devices (SIC 3953) | Carbon paper and inked ribbons (SIC 3955) | Costume jewelry (SIC 3961) | Artifical flowers (SIC 3962) | Buttons (SIC 3963) | Needles, pins, and fasteners (SIC 3964) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy.........\$1,000.. | 1,239 | 1,095 | 781 | 1,139 | 1,839 | 645 | 1,050 | 2,611 |
| Total cost of purchased fuels..............................do. | 283 | 461 | 290 | 413 | 729 | 222 | 302 | 884 |
| Bituminous coal, lignite, and anthracite: Quantity 1,000 short ton |  | 15 | - | (S) | - | (s) | (s) | (S) |
| Cost....................................................... $\$ 1,000 .$. | (S) | 132 | - | (S) | - | (S) | (S) | (S) |
| Coke and breeze: <br> Quantity. $\qquad$ | - | - | - | - | - | (s) | - | (S) |
|  | - | - | - | - | - | (S) | - | (S) |
| Fuel oil (distillate and residual): <br> Quantity.......................... 1,000 barrels of 42 gallons.. |  | 58 | 7 | 61 | 57 | (S) | 36 | 113 |
| Cost................................................. $\$ 1,000 .$. | 73 | 204 | 29 | 165 | 248 | (S) | 159 | 347 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |  |  |
| Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .million cu.ft.. | 187 | 137 | 96 | 181 | 62 57 | (S) | (S) | 405 |
| Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 114 | 77 | 82 | 137 | 57 | (S) | (S) | 230 |
|  | (S) | 48 | 179 | (s) | 424 | 102 | 101 | 259 |
| Electric energy: |  |  |  | I |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |  |
| Quantity......................................million kw. -hrs. . | 61 | 42 634 | 201 | 38 726 | 59 1,110 | 23 423 | 50 748 | 100 1,727 |
| Cost..................................................... $\$ 1,000 .$. | 956 | 634 |  | 726 |  | 423 | 748 |  |
| Generated less sold............................million kw. -hrs.. | - | - | - | - | - | - | - | (S) |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total........1,000 hp.. | 38 | 24 | 13 | 24 | 39 | 10 | 18 | 56 |
| Prime movers, total...........................................do.... | (z) | 2 | (z) | 4 | (Z) | (z) | (z) | 2 |
| Driving generators............................................................. . . <br> Not driving generators. | (Z) | 1 | $\binom{z}{$ z } | 1 | (z) | (z) | (z) | 1 |
| Electric motors, total.........................................do.... | 38 | 23 | 12 | 20 | 38 | 10 | 17 | 54 |
| Driven by purchased energy.................................d. ${ }^{\text {do... }}$ | 38 | 23 | 12 | 20 | 38 | 10 | 17 | 54 |
| Driven by energy generated at establishment..............do.... |  |  | - | - | - | - | - |  |
| Aggregate horsepower per 100 production workers................... | 470 | 528 | 286 | 544 | 211 | 227 | 385 | 327 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power
 fore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors
 "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
(Z) Less than 500 horsepower.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated
 consistency review.

## TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.


## MISCELLANEOUS MANUFACTURING INDUSTRIES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

## SIC Code and Title

3981-Brooms and Brushes<br>3982-Linoleum, Asphalted-Felt-Base, and Other Hard Surface Floor Coverings, Not Elsewhere Classified<br>3983-Matches<br>3984-Candles<br>3987-Lamp Shades<br>3988-Morticians' Goods<br>3992-Furs, Dressed and Dyed<br>3993-Signs and Advertising Displays<br>3995-Umbrellas, Parasols, and Canes<br>3999-Manufacturing Industries, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 3981—BROOMS AND BRUSHES

This industry comprises establishments primarily engaged in manufacturing household, industrial, and street sweeping brooms; and brushes such as paint brushes, toothbrushes, toilet brushes, and household and industrial brushes. For a detailed list of products of industry 3981, refer to table 6A, product codes 3981113 to 3981398.
The code number as well as the definition of this industry was unchanged between 1958 and 1963.
Value of shipments and other receipts of the Brooms and Brushes Industry totaled $\$ 321$ million. This amount included shipments of brooms and brushes (primary products) valued at $\$ 231$ million, shipments of other products (secondary products) valued at $\$ 27$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 63$ million.
This industry's shipments of brooms and brushes represented 89 percent of its total product shipments. The industry specialization ratio in 1958 was also 89 percent. Secondary products shipped by this industry in 1963 included housefurnishings ( $\$ 8$ million).

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 60 percent of the total industry shipments are represented by plants specializing in 39813 , Other brushes; and 25 percent in 39812 , Paint and varnish brushes.

Shipments of brooms and brushes by this industry represented 93 percent of all shipments of these products ( $\$ 248$ million) by all industries. In 1958 the coverage ratio was 94 percent. Other industries shipping brooms and brushes include industry 2392, Housefurnishings, N.E.C., $\$ 2$ million.

The production index for the primary products of the industry increased to 135 in 1963 from the 1958 level of 107 . The unit value index for 1963 was 101 compared to 107 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3982-LINOLEUM, ASPHALTED-FELT-BASE, AND OTHER HARD SURFACE FLOOR COVERINGS, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing linoleum, asphalted-felt-base, and other hard surface floor coverings, n.e.c. Establishments primarily engaged in manufacturing rubber floor coverings are classified in industry 3069, and cork floor and wall tile in industry 2499. For a detailed list of products of industry 3982, refer to table 6A, product codes 3982111 to 3982291.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Hard Surface Floor Coverings Industry totaled $\$ 204$ million. This amount included shipments of hard surface floor coverings (primary products) valued at $\$ 165$ million, shipments of other products (secondary products) valued at $\$ 37$ million, and miscellaneous receipts (mainly sales of products bought and resold) at $\$ 2$ million.

This industry's shipments of hard surface floor coverings represented 82 percent of its total product shipments. The industry specialization ratio in 1958 was 84 percent.

Shipments of hard surface floor coverings by this industry represented 98 percent of all shipments of these products ( $\$ 168$ million) by all industries. In 1958 the coverage ratio was also 98 percent.

The production index for the primary products of the industry decreased to 95 in 1963 from the 1958 level of 98 . The unit value index for 1963 was 114 compared to 100 in 1958. Both indexes were computed on a basis of $1954=100$.

## 3983-MATCHES

This industry comprises establishments primarily engaged in manufacturing matches, regardless of the material used. For a detailed list of products of industry 3983, refer to table 6A, product codes 3983012 to 3983061.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Match Industry totaled $\$ 64$ million. As in 1958, this consisted almost entirely of primary products (matches). Furthermore in 1963 as in 1958, this industry accounted for approximately all of the matches produced in manufacturing industries.

## 3984-CANDLES

This industry comprises establishments primarily engaged in manufacturing candles from fatty acids or from mineral and animal waxes. For a detailed list of products of industry 3984, refer to table 6A, product code 3984011.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Candle lndustry totaled $\$ 46$ million. This amount included shipments of candles (primary products) valued at $\$ 41$ million, shipments of other products (secondary products) valued at $\$ 2$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 2$ million.

This industry's shipments of candles represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 94 percent.

Shipments of candles by this industry represented 94 percent of all shipments of these products ( $\$ 44$ million) by all industries. ln 1958 the coverage ratio was 95 percent.

## 3987-LAMP SHADES

This industry comprises establishments primarily engaged in manufacturing lamp shades of all materials, except glass (industry 3229), and metal (industry 3642). For a detailed list of products of industry 3987 , refer to table 6 A , product code 3987011.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Lamp Shade Industry totaled $\$ 37$ million. This amount included shipments of lamp shades (primary products) valued at $\$ 35$ million, shipments of other products (secondary products) valued at $\$ 2$ million, and miscellaneous receipts (mainly contract work on materials owned by others) at less than $\$ 1$ million.

This industry's shipments of lamp shades represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 97 percent.

Shipments of lamp shades by this industry represented 98 percent of all shipments of these products ( $\$ 36$ millon) by all industries. In 1958 the coverage ratio was 97 percent.

## 3988-MORTICIANS' GOODS

This industry comprises establishments primarily engaged in manufacturing caskets, coffins, burial cases, and coffin shipping cases, whether of wood or other material, except concrete (industry 3272); morticians' supplies and accessories, such as burial garments, gloves, slippers, casket linings, and embalming fluids; and morticians' paraphernalia and equipment. For a detailed list of products of industry 3988 , refer to table 6A, product codes 3988111 to 3988398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Morticians' Goods Industry totaled $\$ 290$ million. This amount included shipments of morticians' goods (primary products) valued at $\$ 262$ million, shipments of other products (secondary products) valued at $\$ 14$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 14$ million.

This industry's shipments of morticians' goods represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was also 95 percent. Secondary products shipped by this industry in 1963 included surgical and medical instruments and apparatus.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 54 percent of the total industry shipments are represented by plants specializing in 39881, Metal caskets and coffins, completely lined and trimmed; and 24 percent in 39882, Wood caskets and coffins, completely lined and trimmed.

Shipments of morticians' goods by this industry represented 98 percent of all shipments of these products ( $\$ 267$ million) by all industries. In 1958 the coverage ratio was 99 percent. Other industries shipping morticians' goods include industry 3443, Boiler Shop Products.

The production index for the primary products of the industry increased to 155 in 1963 from the 1958 level of 126. The unit value index for 1963 was 105 , the same level as in 1958. Both indexes were computed on a basis of $1954=100$.

## 3992-FURS, DRESSED AND DYED

This industry comprise establishments primarily engaged in scraping, currying, tanning, bleaching, and dyeing pelts. For a detailed list of products of industry 3992, refer to table 6A, product code 3992011.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Furs, Dressed and Dyed, Industry totaled $\$ 42$ million. This amount included shipments of furs, dressed and dyed (primary products) valued at $\$ 41$ million, shipments of other products (secondary products) valued at $\$ 1$ million, and miscellaneous receipts, at less than $\$ 1$ million.

This industry's receipts for furs, dressed and dyed, including value of receipts for work done on materials owned by others, represented 98 percent of its total product shipments. The industry specialization ratio in 1958 was 100 percent.

Shipments of furs, dressed and dyed, by this industry represented 94 percent of all shipments of these products ( $\$ 44$ million) by all industries. In 1958 the coverage ratio was 100 percent. Other industries shipping furs, dressed and dyed include industry 2371, Fur Goods.

## 3993-SIGNS AND ADVERTISING DISPLAYS

This industry comprises establishments primarily engaged in manufacturing electrical, mechanical, cutout, or plate signs and advertising displays, including neon signs and advertising novelties. Sign painting shops doing business on a custom basis are classified in service industries. Establishments primarily engaged in manufacturing electric signal equipment are classified in industry 3662, and lighting fixtures in industry 3642. For a detailed list of products of industry 3993, refer to table 6A, product codes 3993111 to 3993311.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Signs and Advertising Displays Industry totaled $\$ 647$ million. This amount included shipments of signs and advertising displays (primary products) valued at $\$ 555$ million, shipments of other products (secondary products) valued at $\$ 26$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 66$ million.

This industry's shipments of signs and advertising displays represented 96 percent of its total product shipments. The industry specialization ratio in 1958 was 95 percent. Secondary products shipped by this industry in 1963 included job stampings.

While the primary products of the industry represent more than one class of product, the establishments tend to group themselves into "subindustries" represented by each of the different product classes. The extent of this specialization is indicated in table 8. Approximately 49 percent of the total industry shipments are represented by plants specializing in 39932, Nonelectric signs and advertising displays; and 28 percent in 39931, Luminous tubing and bulb signs.

Shipments of signs and advertising displays by this industry represented 95 percent of all shipments of these products ( $\$ 584$ million) by all industries. In 1958 the coverage ratio was also 95 percent. Other industries shipping signs and advertising displays include industry 3079, Plastics Products, N.E.C.

## 3995-UMBRELLAS, PARASOLS, AND CANES

This industry comprises establishments primarily engaged in manufacturing umbrellas, parasols, canes; and trimmings, frames, handles, and other parts. For a detailed list of products of industry 3995 , refer to table 6A, product code 3995011.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Umbrellas, Parasols, and Canes Industry totaled $\$ 37$ million. This amount included shipments of umbrellas, parasols, and canes (primary products) valued at $\$ 33$ million, shipments of other products (secondary products) valued at $\$ 2$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 1$ million.

This industry's shipments of umbrellas, parasols, and canes represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 96 percent.

Shipments of umbrellas, parasols, and canes by this industry represented 98 percent of all shipments of these products ( $\$ 34$ million) by all industries. In 1958 the coverage ratio was 95 percent.

## 3999-MANUFACTURING INDUSTRIES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in manufacturing miscellaneous fabricated products, including beauty shop and barber shopequipment; hair work; tobacco pipes and cigarette holders; coin-operated amusement machines; and many other articles, n.e.c. For a detailed list of products of industry 3999 , refer to table 6 A , product codes 3999111 to 3999398.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Miscellaneous Products, N.E.C., Industry totaled $\$ 458$ million. This amount included shipments of miscellaneous products, n.e.c.
(primary products) valued at $\$ 395$ million, shipments of other products (secondary products) valued at $\$ 27$ million, and miscellaneous receipts (mainly products bought and resold) at $\$ 36$ million.

This industry's shipments of miscellaneous products, n.e.c., represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 92 percent. Secondary products shipped by this industry in 1963 included wood products, n.e.c., and precision measuring tools.

Shipments of miscellaneous products, n.e.c., by this industry represented 84 percent of all shipments of these products ( $\$ 472$ million) by all industries. In 1958 the coverage ratio was 87 percent. Other industries shipping miscellaneous products, n.e.c., include industry 2844, Toilet Preparations, $\$ 7$ million.

MISCELLANEOUS MANUFACTURES: SIC 398
Value Added by Manufacture by State: 1963



## table 1. General Statistics: 1963 and Earlier Years

| Year | Companies (number) | Establishments |  | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted( $\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments <br> $(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | $\begin{gathered} \text { Spe } \\ \text { cial- } \\ \text { ization } \\ \text { ratio } \\ \text { (per- } \\ \text { cent) } \\ \hline \end{gathered}$ | Cov- <br> erage <br> ratio <br> (per- <br> cent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total (number) | With 20 employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3981.-BROCNS AND BRUSHES |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 628 | 643 | 167 | 16,637 | 73,620 | 13,428 | 25,801 | 49,510 | 167,866 | 153,625 | 321,129 | 4,394 | 89 | 93 |
|  | (NA) | (NA) | (NA) | 16,630 | 74,352 | 13,538 | 25,663 | 49,439 | 166,614 | 144,817 | 306,878 | 5,188 | (NA) | (na) |
|  | ( NA ) | (NA) | (NA) | 16,619 | 70,995 | 13,425 | 25,175 | 46,786 | 147,942 | 143,661 | 292,862 | 3,639 | (NA) | (NA) |
|  | (NA) | (NA) | (NA) | 16,870 | 70,555 | 13,618 | 26,229 | 47,069 | 150,216 | 143,566 | 291,298 | $(6,516)$ | (NA) | (NA) |
|  | (NA) | ( NA ) | (NA) | 17,612 | 70,118 | 14,274 | 27,252 | 47,664 | 155,279 | 146,369 | 298,935 | (11,514) | (NA) | (NA) |
|  | 713 | 723 | 179 | 17,082 | 64,573 | 13,557 | 25,601 | 42,917 | 137,496 | 137,073 | 275,722 | 3,981 | 89 | 94 |
|  | 688 | 698 | 177 | 16,826 | 54,789 | 13,534 | 25,595 | 36,294 | 102,948 | 124,013 | 227,162 | 3,074 | 91 | 92 |
|  | ( NA ) | (NA) | (NA) | 16,315 | 54,890 | 13,004 | 25,166 | 35,428 | 94,387 | 92,943 | 187,330 | (NA) | (NA) | (Na) |
|  | (NA) | (NA) | (NA) | 17,915 | 58,166 | 14,275 | 27,182 | 38,296 | 102,763 | 106,794 | 209,557 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 18,244 | 59,016 | 14,729 | 28,602 | 37,918 | 110,030 | 110,412 | 220,442 | (NA) | (NA) | (NA) |
| 19501 | ( NA ) | (NA) | (NA) | 17,383 | 50,299 | 14,371 | 27,247 | 33,419 | 95,853 | 103,559 | 199,412 | (na) | (NA) | (NA) |
| 1947. | 698 | 706 | (NA) | 18,551 | 44,875 | 15,543 | 30,617 | 31,162 | 87,288 | 92,523 | 179,811 | (NA) | 94 | 97 |
| 1939 | (NA) | 565 | (NA) | 14,406 | 16,151 | 11,678 | (NA) | 10,746 | 29,002 | 31,307 | 60,309 | (NA) | (NA) | (NA) |
| 1937 | (NA) | 532 | (NA) | 13,544 | 13,446 | 11,982 | (NA) | 10,155 | 25,753 | 30,411 | 56,164 | (NA) | (NA) | (NA) |
| 1935 | (NA) | 598 | (NA) | 12,745 | 12,947 | 10,976 | (NA) | 9,079 | 30,058 | 26,372 | 56,430 | (NA) | (NA) | (NA) |
| 1933 | (NA) | 481 | (NA) | 10,660 | 8,631 | 9,566 | (NA) | 6,932 | 16,848 | 16,801 | 33,649 | (NA) | (NA) | (NA) |
| 1931. | (NA) | 598 | (NA) | (nA) | (NA) | 9,977 | (NA) | 9,318 | 23,470 | 20,492 | 43,962 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 710 | (NA) | 13,775 | 17,469 | 11,803 | (NA) | 12,132 | 33,380 | 31,336 | 64,716 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 696 | (NA) | 14,257 | 17,428 | 12,123 | (NA) | 12,519 | 34,560 | 31,729 | 66,289 | (Na) | (NA) | (NA) |
| 1925 | (NA) | 723 | (NA) | 14,974 | 18,155 | 12,561 | (NA) | 13,106 | 34,303 | 33,235 | 67,538 | (NA) | (NA) | (NA) |
| 1923 | (NA) | 750 | (NA) | 15,991 | 18,727 | 13,449 | (NA) | 13,690 | 36,271 | 40,502 | 76,773 | (NA) | (NA) | (NA) |
| 1921 | (na) | 736 | (Na) | 12,785 | 14,311 | 10,762 | ( NA ) | 10,287 | 24,651 | 29,082 | 53,733 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 1,413 | (NA) | 16,985 | 18,417 | 14,281 | (NA) | 12,822 | 32,248 | 36,963 | 69,211 | (NA) | (NA) | (NA) |
| 1914 | (NA) | 1,227 | (NA) | 14,780 | 8,386 | 12,855 | (NA) | 6,085 | 14,769 | 17,210 | 31,979 | (NA) | (NA) | (NA) |
| 1909 | (NA) | 1,282 | (NA) | 13,692 | 7,065 | 12,153 | (NA) | 5,404 | 13,548 | 15,578 | 29,126 | (NA) | (NA) | (NA) |
| 1904 | (NA) | 1,316 | (NA) | 12,407 | 5,305 | 11,425 | (Na) | 4,380 | 10,105 | 10,999 | 21,104 | (na) | (NA) | (NA) |
|  | (NA) | 1,523 | (NA) | 11,246 | 4,545 | 10,346 | ( NA ) | 3,788 | 8,940 | 9,544 | 18,484 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3982.-HARD SURFACE FLOOR COVERTNGS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 13 | 16 | 13 | 6,192 | 38,965 | 4,958 | 10,099 | 29,488 | 118,832 | 80,721 | 204,112 | 4,441 | 82 | 98 |
| $1962{ }^{1}$ | (na) | (NA) | (Na) | 6,446 | 39,386 | 5,282 | 10,952 | 30,599 | 110,738 | 82,779 | 191,265 | 4,959 | (na) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 6,569 | 38,168 | 5,298 | 10,845 | 29,390 | 96,857 | 79,458 | 179,708 | 5,651 | (NA) | (NA) |
| $1960^{1}$ | (NA) | (Na) | (NA) | 7,086 | 39,732 | 5,815 | 11,825 | 31,107 | 96,141 | 83,894 | 183,847 | 7,845 | (NA) | (NA) |
| $1959{ }^{1}$ | ( NA ) | ( NA ) | (NA) | 8,042 | 44,768 | 6,788 | 14,260 | 36,330 | 110,892 | 97,464 | 206,520 | (9,515) | (NA) | (NA) |
| 1958. | 10 | 14 | 14 | 7,999 | 41,924 | 6,722 | 14,034 | 34,113 | 93,145 | 87,138 | 181,584 | 5,443 | 84 | 98 |
| 19571 | (NA) | (NA) | (NA) | 8,736 | 43,386 | 7,433 | 14,939 | 35,254 | 97,035 | 77,487 | 176,100 | 12,034 | ${ }_{81}^{81}$ | (N7) |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 9,378 | 45,831 | 8,079 | 16,804 | 37,716 | 105,217 | 86,315 | 190,205 | 6,635 | (na) | (NA) |
| 19551 | (NA) | (NA) | (NA) | 9,991 | 47,543 | 8,661 | 18,420 | 39,637 | 111,576 | 93,971 | 203,510 | 6,294 | (NA) | (NA) |
| 1954. | 10 | 16 | 16 | 9,638 | 43,596 | 8,242 | 17,382 | 35,918 | 103,265 | 79,298 | 187,304 | 6,352 | 85 | 97 |
| 19531 | (nA) | (NA) | (na) | 10,374 | 43,938 | 9,064 | 18,798 | 37,701 | 95,529 | 91,717 | 187,246 | (na) | (na) | (NA) |
| $1952^{1}$ | (NA) | (NA) | (na) | 10,834 | 45,463 | 9,616 | 20,557 | 39,290 | 90,342 | 100,332 | 189,461 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 11,272 | 43,872 | 9,980 | 21,604 | 37,751 | 78,877 | 102,142 | 179,806 | (NA) | (NA) | (NA) |
| 19501 | (NA) | (NA) | (NA) | 11,761 | 42,715 | 10,530 | 22,706 | 36,866 | 99,308 | 98,142 | 196,237 | (NA) | (NA) | (NA) |
| $1949{ }^{1}$ | (Na) | (NA) | (NA) | 11,327 | 40,617 | 10,227 | 22,016 | 35,329 | 80,591 | 94,037 | 173,695 | ( NA ) | (NA) | (na) |
| 1947. | 14 | 18 | 18 | 9,928 | 31,571 | 8,764 | 20,267 | 26,796 | 82,548 | 92,788 | 173,255 | (NA) | 91 | 100 |
| 1939. | (na) | 17 | (NA) | 8,301 | 13,505 | 7,028 | (NA) | 10,406 | 41,506 | 28,369 | 69,875 | (NA) | (NA) | (NA) |
| 1937 | (NA) | 16 | (NA) | 8,833 | 13,051 | 8,107 | (NA) | 11,378 | 36,276 | 32,908 | 69,184 | (NA) | (NA) | (NA) |
| 1935. | (NA) | 16 | (NA) | 6,895 | 9,350 | 6,410 | (NA) | 8,105 | 28,456 | 23,942 | 52,398 | (NA) | (NA) | (NA) |
| 193 | (NA) | 18 | (NA) | 5,494 | 6,220 | 5,092 | (NA) | 5,347 | 25,492 | 16,320 | 41,812 | (NA) | (NA) | (NA) |
| 1931. | ( NA ) | 21 | (NA) | (na) | (na) | 4,841 | ( Na ) | 6,329 | 25,960 | 10,117 | 42,977 | (NA) | (NA) | (NA) |
| 1929. | (NA) | 21 | (NA) | 9,647 | 15,656 | 7,889 | (NA) | 12,061 | 47,371 | 41,768 | 89,139 | 89,139 | (NA) | (NA) |
| 1927. | (NA) | 19 | (NA) | 8,980 | 14,44, | 7,806 | (NA) | 11,871 | 41,141 | 40,402 | 81,543 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 17 | (NA) | 8,153 | 11,655 | 7,336 | (NA) | 9,730 | 42,635 | 34,897 | 77,532 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 16 | (NA) | 9,331 | 13,787 | 7,943 | (NA) | 10,579 | 41,390 | 36,417 | 77,807 | (NA) | (NA) | (NA) |
| 1921 | (NA) | 19 | (NA) | 6,697 | 10,867 | 5,693 | (NA) | 7,208 | 22,987 | 25,635 | 48,622 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 21 | (NA) | 6,251 | 8,298 | 5,414 | (NA) | 6,518 | 22,304 | 30,369 | 52,673 | (NA) | (nA) | (NA) |
| 1914. | (NA) | 18 | (NA) | 4,795 | 3,205 | 4,428 | (NA) | 2,604 | 6,350 | 11,252 | 17,602 | ( NA ) | (NA) | (NA) |
| 1909. | (NA) | 19 | (NA) | 4,462 | 2,750 | 4,225 | (NA) | 2,309 | 5,668 | 10,145 | 15,813 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 16 | (NA) | 3,538 | 2,020 | 3,355 | (NA) | 1,720 | 3,609 | 6,779 | 10,388 | (NA) | (NA) | (NA) |
|  | (NA) | 18 | ( NA$)$ | 2,823 | 1,521 | 2,718 | ( NA ) | 1,327 | 2,954 | 4,853 | 7,807 | (NA) | (na) | (NA) |
|  | INDUSTRY 3983.-MATCHES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963......... | 18 | 26 | ${ }^{23}$ | 4,647 | 21,659 | 3,988 | 7,790 | 17,268 | 38,666 | 24,850 | 64,131 | 1,876 | -100 | -100 |
| $1962^{1}$ | (NA) | (na) | (NA) | 4,804 | 21,568 | 4,111 | 7,984 | 17,279 | 38,776 36,491 | 25,127 | 63,458 62,551 |  | (NA) |  |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 4,940 | 21,953 | 4,230 | 8,394 | 17,437 | 36,491 | 26,276 27 | 62,551 | 1,579 | (NA) | (NA) |
| 19601 | (NA) | (NA) | (NA) | 5,213 | 22,292 | 4,507 | 9,351 | 17,736 | 44,147 | 27,311 | 71,137 | (1,159 | (NA) |  |
| 1958 | (NA) | ${ }_{(23}$ | $(20$ | 5,415 5,127 | 22,983 21,097 | 4,649 | 8,505 | 16,400 | 44, 41776 | 26,438 26,332 | 74,1018 67,18 | (1,342 | (D) | (D) |
| 195 | (NA) | (NA) | (na) | 5,318 | 21,450 | 4,522 | 9,250 | 16,567 | 36,602 | 25,674 | 65,534 | 1,162 | 100 | 98 |
| 19561 | (NA) | (NA) | (NA) | 3,994 | 23,225 | 5,053 | 10,248 | 17,661 | 37,116 | 27,917 | 64,662 | 1,451 | (NA) | (NA) |
| 19551 | (NA) | (NA) | (NA) | 6,360 | 22,979 | 5,433 | 10,806 | 17,799 | 37,756 | 27,005 | 63,865 | (S) | (NA) | (NA) |
| 1954. |  | 20 | 20 | 6,191 | 21,308 | 5,147 | 10,290 | 15,945 | 35,561 | 25,343 | 60,765 | 846 | 100 | 98 |

See footnotes at end of table.
table 1. General Statistics: 1963 and Earlier Years-Continued


See footnotes at end of table.
table 1. General Statistics: 1963 and Earlier Years-Continued


See footnotes at end of table.
table 1. General Statistics: 1963 and Earlier Years-Continued

| Year | Companies <br> (number) | Establishments |  | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | Spe-cialization ratio (percent) | Coverage ratio (percent) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
|  | INDUSTRY 3993.-SICNS AND ADVERTISING DISPLAYS-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1935 | (NA) | 1,075 | (NA) | 17,802 | 22,612 | 13,712 | (NA) | 14,932 | 39,442 | 21,920 | 61,362 | (NA) | (NA) | (NA) |
| 1933 | (NA) | 848 | (NA) | 14,488 | 14,969 | 12,044 | (NA) | 11,577 | 31,832 | 15,312 | 47,144 | (NA) | (NA) | (NA) |
| 1931 | (NA) | 1,078 | (NA) | (NA) | (NA) | 14,463 | (NA) | 18,485 | 53,384 | 21,297 | 74,681 | (NA) | (NA) | (NA) |
| 1929 | (NA) | 1,239 | (NA) | 25,119 | 41,027 | 20,000 | (NA) | 27,901 | 82,343 | 35,701 | 118,044 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 813 | (NA) | 21,470 | 34,456 | 16,907 | (NA) | 24,044 | 67,589 | 30,892 | 98,481 | (NA) | (NA) | (NA) |
| 1925 | (NA) | 759 | (NA) | 19,142 | 29,892 | 15,128 | (NA) | 20,764 | 63,811 | 25,858 | 89,669 | (NA) | (NA) | (NA) |
| 1923 | (NA) | 648 | (NA) | 15,960 | 22,335 | 12,988 | (NA) | 16,429 | 44,583 | 22,641 | 67,224 | (NA) | (NA) | (NA) |
| 1921. | (NA) | 624 | (NA) | 13,041 | 18,345 | 10,373 | (NA) | 12,703 | 34,537 | 18,734 | 53,271 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 779 | (NA) | 14,208 | 16,347 | 10,432 | (NA) | 9,715 | 27,271 | 16,072 | 43,343 | (NA) | (NA) | (NA) |
| 1914 | (NA) | 776 | (NA) | 12,048 | 9,019 | 9,566 | (NA) | 5,933 | 15,733 | 9,059 | 24,792 | (NA) | (NA) | (NA) |
| 19094 | (NA) | 288 | (NA) | 7,066 | 4,581 | 5,540 | (NA) | 3,105 | 8,837 | 4,709 | 13,546 | (NA) | (NA) | (NA) |
|  | INDUSTRY 3995.-UMBPELLAS, PARASOLS, AND CANES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963. | 109 | 112 | 35 | 2,604 | 10,151 | 2,261 | 4,325 | 7,416 | 16,101 | 20,983 | 36,630 | 190 | 95 | 98 |
| $1962^{1}$ | (NA) | (NA) | (NA) | (2,555) | $(9,820)$ | (2,232) | $(4,232)$ | (7,339) | $(14,362)$ | $(17,078)$ | $(31,046)$ | (z) | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | (2,828) | $(9,642)$ | (2,525) | (5,061) | (7,170) | $(19,078)$ | $(17,952)$ | $(37,241)$ | (z) | (NA) | (NA) |
| $1960{ }^{\text {² }}$ | (NA) | (NA) | (NA) | (2,780) | $(10,228)$ | (2,457) | $(4,738)$ | $(7,514)$ | $(15,248)$ | $(19,665)$ | $(34,660)$ | (98) | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | $(3,159)$ | (11,170) | (2,774) | $(5,347)$ | $(8,209)$ | $(17,309)$ | $(20,869)$ | $(38,741)$ | (232) | (NA) | (NA) |
| 1958 | 120 | 123 | 43 | 2,932 | 10,129 | 2,591 | 4,929 | 7,548 | 16,602 | 19,221 | 35,161 | (z) | 96 | 95 |
| $1957{ }^{1}$ | (NA) | (NA) | (NA) | 3,484 | 10,765 | 3,049 | 5,575 | 8,028 | 15,082 | 20,933 | 36,154 | (z) | 94 | 96 |
| $1956{ }^{1}$ | (NA) | (NA) | (NA) | 3,124 | 9,710 | 2,748 | 5,192 | 7,222 | 13,067 | 21,900 | 35,060 | (z) | ( NA ) | (NA) |
| $1955{ }^{1}$ | ( NA) | (NA) | (NA) | 3,298 | 9,859 | 2,887 | 5,379 | 7,414 | 13,977 | 19,819 | 34,412 | (z) | (NA) | (NA) |
| 1954. | 138 | 140 | 45 | 3,210 | 9,364 | 2,873 | 5,150 | 6,965 | 14,589 | 16,965 | 32,014 | (z) | 95 | 92 |
| $1952^{1}$ | (NA) | (NA) | (NA) | 3,423 | 8,895 | 3,092 | (NA) | 7,589 | 15,741 | 17,748 | 33,489 | (NA) | (NA) | (NA) |
| 1951 | (NA) | (NA) | (NA) | 3,404 | 8,334 | 3,136 | (NA) | 7,010 | 15,211 | 16,669 | 31,880 | ( NA ) | (NA) | (NA) |
| 1947. | 162 | 164 | 41 | 3,585 | 8,360 | 3,267 | 6,628 | 6,490 | 15,421 | 18,927 | 34,348 | 526 | 97 | 100 |
| 1939 | (NA) | 90 | (NA) | 3,236 | 3,055 | 2,862 | (NA) | 2,193 | 4,651 | 6,869 | 11,520 | (NA) | (NA) | (NA) |
| 1937. | (NA) | 81 | (NA) | 3,367 | 3,219 | 3,088 | (NA) | 2,572 | 5,195 | 8,042 | 13,237 | (NA) | (NA) | (NA) |
| 1935 | (NA) | 83 | (NA) | 2,432 | 2,267 | 2,186 | (NA) | 1,712 | 3,927 | 6,159 | 10,086 | (NA) | (NA) | (NA) |
| 1933 | (NA) | 80 | (NA) | 2,336 | 1,798 | 2,155 | (NA) | 1,531 | 3,287 | 4,972 | 8,259 | (NA) | (NA) | (NA) |
| 1931 | (NA) | 93 | (NA) | (NA) | (NA) | 1,852 | (NA) | 1,611 | 2,979 | 5,136 | 9,115 | (NA) | (NA) | (NA) |
| 1929 | (NA) | 141 | (NA) | 3,334 | 3,960 | 2,855 | (NA) | 2,768 | 7,087 | 10,907 | 17,994 | (NA) | (NA) | (NA) |
| 1927. | (NA) | 164 | (NA) | 3,922 | 4,717 | 3,308 | (NA) | 3,4II | 9,135 | 14,021 | 23,156 | (NA) | (NA) | (NA) |
| 1925. | (NA) | 176 | (NA) | 4,483 | 5,227 | 3,731 | )NA) | 3,696 | 10,705 | 16,594 | 27,299 | (NA) | (NA) | (NA) |
| 1923. | (NA) | 187 | (NA) | 4,492 | 5,233 | 3,776 | (NA) | 3,739 | 10,395 | 18,000 | 28,395 | (NA) | (NA) | (NA) |
| 1921 | (NA) | 154 | (NA) | 3,803 | 4,605 | 3,149 | (NA) | 3,126 | 9,119 | 16,889 | 26,008 | (NA) | (NA) | (NA) |
| 1919 | (NA) | 198 | (NA) | 3,941 | 4,775 | 3,368 | (NA) | 3,140 | 9,676 | 15,633 | 25,309 | (NA) | (NA) | (NA) |
| 1914 | (NA) | 265 | (NA) | 5,532 | 3,206 | 4,792 | (NA) | 2,167 | 5,221 | 8,592 | 13,813 | (NA) | (NA) | (NA) |
| 1909 | (NA) | 256 | (NA) | 6,206 | 3,168 | 5,472 | (NA) | 2,253 | 5,808 | 10,056 | 15,864 | (NA) | (NA) | (NA) |
| 1904. | (NA) | 204 | (NA) | 5,913 | 2,300 | 5,386 | (NA) | 1,826 | 5,046 | 8,250 | 13,296 | (NA) | (NA) | (NA) |
| 1899....... | (NA) | 202 | (NA) | 6,227 | 2,373 | 5,640 | (NA) | 1,869 | 5,288 | 8,381 | 13,669 | (NA) | (NA) | ( NA ) |
|  | INDUSTRY 3999.-MTSCELLANEOUS PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1963 | 1,479 | 1,499 | 322 | 30,138 | 129,350 |  | 47,811 | 91,085 | 252,170 | 210,922 | 458,471 | 9,888 | 94 | 84 |
| $1962{ }^{1}$ | (NA) | (NA) | (NA) | 25,899 | 115,711 | 20,382 | 40,421 | 76,527 | 235,314 | 215,082 | 449,145 | (6,966) | (NA) | (NA) |
| $1961{ }^{1}$ | (NA) | (NA) | (NA) | 25,547 | 106,961 | 20,200 | 40,801 | 72,504 | 192,051 | 183,171 | 380,610 | (4,351 | (NA) | (NA) |
| $1960{ }^{\text {I }}$ | (NA) | (NA) | (NA) | 25,698 | 167,988 | 20,191 | 40,478 | 72,683 | 194,861 | 183,673 | 379,686 | $(6,323)$ | (NA) | (NA) |
| $1959{ }^{1}$ | (NA) | (NA) | (NA) | 28,249 | 108,568 | 22,574 | 43,676 | 75,007 | 183,584 | 174,458 | 362,057 | $(7,973)$ | (NA) | (NA) |
| $1958{ }^{4}$ | 1,235 | 1,259 | 264 | 27,285 | 109,053 | 21,890 | 42,116 | 76,299 | 192,313 | 174,792 | 358,076 | 7,317 | 92 | 87 |

NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unad justed value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than $\$ 500$ thousand. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
secause of the inclusion of excise taxes in both the cost of materials and the value of shipments for 1937 and 1935 , the statistics for these years are not strictly comparable with statistics for other years.
${ }^{3}$ No comparable figures are available for earlier years.
"The figures for 1925 and prior years do not include data for metal burial vaults, whereas the figures for later years include data for this product.

Relationships not meaningful because predominance of miscellaneous receipts, particularly contract and commission work on material owned by others.
table 2. General Statistics, by Geographic Areas: 1963 and 1958


See footnotes at end of table.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{2}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added bymanufac-manufac-fure adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture adjusted ( $\$ 1,000$ ) |
|  | Total <br> (number) | With 20 employ. ees or more (number) | Total <br> inumber) | Payroll <br> ( $\$ 1,000$ ) | Total <br> (number) | $\begin{aligned} & \text { Man- } \\ & \text { hours } \\ & (1,000) \end{aligned}$ | Wages <br> $(\$ 1,000)$ |  |  |  |  |  |  |
|  | INDUSTRY 3987.-LAMP SHADES |  |  |  |  |  |  |  |  |  |  |  |  |
| Total...... | 228 | 48 | 3,583 | 12,775 | 3,160 | 6,002 | 9,907 | 20,476 | 17,116 | 37,485 | 530 | 3,895 | 18,577 |
| Northeast......... <br> New Jersey..... | 155 24 | $\begin{array}{r}34 \\ 8 \\ \hline\end{array}$ | 2,440 | 8,393 1,895 | 2,159 500 | 4,048 967 | 6,456 1,500 | 13,499 3,305 | 11,601 2,819 | 25,013 6,072 | 354 127 | 2,710 | 12,630 ${ }_{\text {(2) }}$ |
| New Jersey........ Pennsylvania...... | 24 29 | 8 9 | 550 662 | 1,895 | 500 591 | $\begin{array}{r}\text { 1,125 } \\ \hline 12\end{array}$ | 1,500 | 3,305 3,211 | 2,819 2,886 | 6,072 6,056 | 127 96 | 738 | $\begin{array}{r} \left({ }^{2}\right) \\ 2,936 \end{array}$ |
| North Central...... Illinois. $\qquad$ | 33 24 | 8 | 713 623 | 2,871 | 620 544 | 1,204 | 2,246 2,005 | 4,209 3,766 | 3,599 3,217 | 7,798 6,972 | 65 | 745 707 | 3,724 3,569 |
| South. | 11 | 1 | 78 | 200 | 74 | 159 | 194 | 436 | 491 | 913 | 13 | 56 | 224 |
| West California | 29 | 5 | 352 | 1,311 | 307 | 591 | 1,011 | 2,332 | 1,425 | 3,760 | 98 | 384 | 1,999 |
|  | 24 | 5 | 341 | 1,287 | 298 | 577 | 991 | 2,301 | 1,379 | 3,683 | 98 | 352 | 1,845 |
|  | INDUSTRY 3988.-MORTICTANS' GOODS |  |  |  |  |  |  |  |  |  |  |  |  |
| Total.. | 617 | 224 | 17,283 | 86,218 | 13,545 | 27,507 | 58,447 | 158,422 | 132,720 | 290,036 | 5,455 | 17,362 | 128,879 |
| New England........ | 38 | 15 | 1,032 | 5,041 | 768 | 1,646 | 3,343 | 8,593 | 7,376 | 15,868 | 246 | 1,033 | 6,757 |
| Massachusetts.... Connecticut...... | 19 5 | 9 2 | 625 121 | 3,103 | 480 | 1,061 84 | 2,166 198 | 5,030 1,506 | 4,558 1,427 | 9,473 2,918 | 176 37 | 655 122 | 4,560 1,137 |
| Middle Atlantic.... | 104 | 34 | 3,427 | 17,823 | 2,740 | 5,668 | 13,468 | 29,163 | 24,384 | 53,092 | 1,137 | 3,655 | 28,372 |
| New York.. | 44 | 13 | 962 | 5,378 | 745 | 1,557 | 3,726 | 9,601 | 9,036 | 18,452 | 247 | 1,062 | 8,487 |
| New Jersey....... | 14 | 2 | 150 | 792 | 108 | 229 | 546 | 1,232 | 1,915 | 3,149 | 32 | 147 | 974 |
| Pennsylvania..... | 46 | 19 | 2,315 | 11,653 | 1,887 | 3,882 | 9,196 | 18,330 | 13,433 | 31,491 | 858 | 2,446 | 18,911 |
| East North Central. | 143 | 66 | 6,047 | 34,415 | 4,578 | 9,515 | 21,786 | 68,589 | 43,877 | 112,078 | 2,730 | 5,907 | 51,326 |
| Ohio.............. | 39 | 17 | 1,519 | 8,076 | 1,208 | 2,393 | 5,716 | 15,389 | 8,433 | 23,554 | 341 | 1,850 | 14,276 |
| Indiana........... | 32 | 17 | 2,355 | 14,857 | 1,693 | 3,630 | 8,701 | 33,230 | 19,179 | 52,148 | 1,854 | 1,829 | 20,222 |
| Illinois......... | 38 | 21 | 1,611 | 8,679 | 1,254 | 2,522 | 5,680 | 14,955 | 10,892 | 25,946 | 427 | 1,510 | 12,072 |
| Michigan.......... | 23 | 7 | 334 | 1,714 | 257 | 528 | 1,099 | 2,827 | 3,495 | 6,357 | 94 | 353 | 2,738 |
| Wisconsin....... | 11 | 4 | 228 | 1,089 | 166 | 442 | 590 | 2,188 | 1,878 | 4,073 | 14 | 365 | 2,018 |
| West North Central. | 65 | 20 | 1,129 | 5,176 | 800 | 1,597 | 3,096 | 9,003 | 8,870 | 17,887 | 162 | 1,167 | 7,586 |
| Iowa............ | 13 | 4 | 218 | 1,040 | 158 | 313 | , 581 | 1,566 | 1,493 | 3,078 | 18 | 235 | 1,467 |
| Missouri.......... | 33 | 12 | 578 | 2,549 | 402 | 808 | 1,562 | 4,470 | 4,167 | 8,623 | 67 | 588 | 3,730 |
| South Atlantic..... | 81 | 25 | 1,848 | 6,812 | 1,528 | 2,662 | 4,752 | 13,042 | 12,056 | 25,223 | 466 | 1,999 | 11,006 |
| Virginia.......... | 11 | 2 | 166 | 649 | 137 | 284 | 458 | 1,037 | 1,235 | 2,258 | 10 | 228 | 1,318 |
| North Carolina... | 16 | 9 | 352 | 1,285 | 288 | 603 | 886 | 2,432 | 3,019 | 5,445 | 122 | 358 | 2,109 |
| Georgia.. | 20 | 7 | 836 | 2,808 | 725 | 984 | 2,120 | 5,360 | 3,735 | 9,294 | 215 | 923 | 4,103 |
| Florida........... | 20 | 2 | 169 | 668 | 133 | 292 | 450 | 1,658 | 1,946 | 3,583 | 47 | 157 | 1,210 |
| East South Central. | 49 | 21 | 1,235 | 4,578 | 1,030 | 2,179 | 3,244 | 8,240 | 12,056 | 20,088 | 320 | 1,077 | 5,847 |
| Tennessee........ | 27 | 12 | 802 | 2,838 | 684 | 1,471 | 2,119 | 5,128 | 8,302 | 13,322 | 229 | 683 | 3,671 |
| Alabama.......... | 11 | 6 | 278 | 1,105 | 225 | 448 | 721 | 1,995 | 2,102 | 4,045 | 65 | ${ }^{2}$ ) | $\left({ }^{2}\right)$ |
| West South Central. | 56 | 18 | 1,239 | 4,930 | 1,009 | 2,038 | 3,274 | 10,044 | 9,843 | 19,893 | 227 | 1,189 | 7,646 |
| Arkansas......... | 8 | 5 | 280 | 935 | 248 | 495 | 715 | 1,715 | 1,622 | 3,326 | 14 | (2) | (2) |
| Louisiana........ | 9 | 1 | 188 | 760 | 150 | 306 | 517 | 2,079 | 1,216 | 3,340 | 23 | (2) | (2) |
| Oklahoma......... | 10 | 1 | 114 | 424 | 87 | 168 | 234 | 893 | 1,154 | 2,006 | 17 | (2) | (2) |
| Texas............ | 29 | 11 | 657 | 2,811 | 524 | 1,069 | 1,808 | 5,357 | 5,851 | 11,221 | 173 | ${ }^{2}$ ) | (2) |
| Mountain........... | 16 | 1 | 152 | 823 | 123 | 253 | 562 | 1,377 | 1,798 | 3,176 | 9 | 136 | 1,250 |
| Pacific............ | 65 | 24 | 1,174 | 6,620 | 969 | 1,949 | 4,922 | 10,371 | 12,460 | 22,731 | 158 | 1,199 | 9,079 |
| Washington....... | 15 | 5 | 226 | 1,307 | 196 | 372 | 1,018 | 1,719 | 2,255 | 3,956 | 15 | (2) | ${ }^{2}$ ) |
| California....... | 43 | 18 | 906 | 5,147 | 737 | 1,517 | 3,769 | 8,370 | 9,724 | 18,012 | 120 | 922 | 6,808 |
| Total.......... | INDUSTRY 3992. -FURS, DRESSED AND DYED |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 132 | 26 | 2,577 | 20,092 | 2,129 | 4,113 | 16,383 | 30,240 | 12,094 | 42,007 | 227 | 2,696 | 24,112 |
| New England........ | 4 | - | 31 | 140 | 25 | 57 | 107 | 251 | 99 | 349 |  |  |  |
| Middle Atlantic.... | 107 | 24 | 2,157 | 17,542 | 1,785 | 3,339 | 14,576 | 24,661 | 11,156 | 35,544 |  | 2,351 | 20,295 |
| New York......... | 91 | 18 | 1,650 | 14,077 | 1,339 | 2,578 | 11,676 | 20,448 | 8,794 | 29,036 | 81 | 1,644 | 15,296 |
| New Jersey....... | 10 | 5 | 417 | 2,955 | 362 |  | 2,482 | 3,280 | 1,591 | 4,851 | (D) |  | 4,592 |
| North Central and South............... | 10 | 2 | 339 | 2,151 | 273 | 622 | 1,458 | 4,855 | 670 |  |  |  |  |
| West. | 11 | 1 - | 50 | 259 | 46 | 95 | - 242 | 473 | 169 | 560 | 15 | 345 | 3,817 |

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{3}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted ( $\$ 1,000$ ) | Cost of materiais$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenoitures, new $(\$ 1,000)$ | All employees inumber) | Value added by manufacture, adjusted ( $\$ 1,000$ ) |
|  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | With 20 employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & \text { ( } \$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Man- } \\ & \text { hours } \\ & (1,000) \end{aligned}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |  |  |
| Total $\qquad$ | INDUSTRY 3993.-SIGNS AND ADVERTISING DISPlay |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3,206 | 570 | 43,476 | 242,593 |  | 64,837 | 163,538 | 407,478 | 243,815 | 646,772 | 15,042 | 36,170 | 281,168 |
| New England........ Massachusetts.... Rhode Island..... | $\begin{array}{r} 178 \\ 89 \\ 22 \end{array}$ | 29 20 5 | 2,015 1,264 265 | 10,787 7,147 1,180 | 1,551 939 216 | 3,076 1,896 4,15 | $\begin{array}{r}7,351 \\ 4,803 \\ \hline 866\end{array}$ | 17,763 11,585 1,832 | 10,285 7,030 1,063 | 27,890 18,456 2,892 | $\begin{array}{r} 521 \\ 363 \\ 31 \end{array}$ | $\begin{aligned} & 1,648 \\ & 1,064 \\ & \left({ }^{2}\right) \end{aligned}$ | $\begin{gathered} 11,0,04 \\ 6,868 \\ \left({ }^{2}\right) \end{gathered}$ |
| Middle Atlantic.... New York.......... New Jersey...... Pennsylvani | 811 <br> 500 <br> 147 <br> 164 | $\begin{array}{r}165 \\ 109 \\ 28 \\ 28 \\ \hline\end{array}$ | $\begin{array}{r}11,791 \\ 7,898 \\ 1,827 \\ 2,066 \\ \hline 12,687\end{array}$ | $\begin{array}{r}63,871 \\ 42,626 \\ 9,480 \\ 11,765 \\ \hline\end{array}$ | 9,353 6,331 1,473 1,549 | $\begin{array}{r}18,246 \\ 12,307 \\ 2,867 \\ 3,072 \\ \\ \hline 19,123\end{array}$ | $\begin{array}{r}44,657 \\ 30,253 \\ 6,583 \\ 7,821 \\ \hline\end{array}$ | 106,488 73,354 15,788 17,416 | 61,869 38,147 11,484 12,238 | 167,396 171,007 27,027 29,362 | $\begin{array}{r}2,520 \\ 1,593 \\ 420 \\ 507 \\ \hline\end{array}$ | 9,886 6,474 1,278 2,137 | 72,739 47,861 9,459 15,383 |
| East North Central. | 703 | 156 | 12,637 | 74,144 | 9,594 | 19,123 | 48,085 | 123,654 | 83,291 | 207,304 | 4,572 | 10,719 | 88,499 |
| Ohio............. | 184 | 51 | 3,637 | 18,850 | 2,704 | 5,357 | 12,481 | 29,400 | 24,051 | 54,441 | 1,194 | 3,092 | 22,871 |
| Indiana... | 74 | 7 | 745 | 4,015 | 588 | 1,163 | 2,732 | 7,596 | 5,573 | 13,074 | 1,247 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| tllinois.. | 240 | 63 | 5,284 | 33,101 | 4,013 | 8,129 | 20,625 | 53,882 | 31,398 | 84,967 | 2, $\alpha_{7} 7$ | 4,605 | 3,952 |
| Michigan......... | $\begin{array}{r}123 \\ 82 \\ \hline\end{array}$ | 19 | 1,573 1,398 | 10,598 7,580 | 1,206 | 2,383 2,091 | 6,959 5,288 | 18,009 | 10,562 | 28,468 26,354 | 739 345 | 1,261 | 3, 9,439 |
| Wisconsin........ | 82 | 16 | 1,398 | 7,580 | 1,084 | 2,091 | 5,288 | 14,767 | 11,707 | 26,354 | 345 | 1,261 | 9,439 |
| Minnesota......... | 63 42 | 20 | $\begin{array}{r}1,356 \\ \hline 1,54\end{array}$ | 6,812 | 1,040 | 1,896 | 4,594 1,599 | 10,567 7,251 | 8,073 | 18,636 | 534 129 | 577 |  |
| Missouri.......... | 66 | 18 | 1,307 | 5,981 | 1,014 | 1,885 | 4,109 | 10,195 | 6,511 | 16,613 | 289 | ${ }^{2}$ ) | ${ }^{(2)}$ |
| Nebraska.......... | 29 | 3 | 134 | 776 | 99 | 188 | 549 | 1,206 | 575 | 1,777 | 61 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| Kansas.. | 31 | 4 | 315 | 1,537 | 229 | 471 | 1,032 | 2,504 | 1,293 | 3,783 | 162 | 241 | 1,761 |
| South Atlantic..... | 324 | 43 | 3,177 | 15,913 | 2,455 | 4,930 | 11,067 | 25,600 | 14,482 | 39,822 | 2,089 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Maryland......... | 41 | 6 | 376 | 2,007 | 269 | 551 | 1,387 | 3,107 | 2,168 | 5,266 | 595 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| Virginia....... | 35 | 5 | 606 | 2,896 | 482 | 920 | 2,018 | 4,148 | 3,039 | 7,232 | 91 | 506 | 3,370 |
| North Carolina... South Carolina | 33 20 | 4 | 266 <br> 306 | 1,293 | 206 <br> 252 | 431 515 | $\begin{array}{r}807 \\ \hline 97 \\ \hline\end{array}$ | 2,413 2,995 | 1,244 | 3,624 4,110 | 139 | 187 | 1,083 |
| Georgia.. | 50 | 4 | 356 | 1,661 | 263 | 520 | 1,122 | 2,993 | 1,938 | 4,883 | 166 | (2) | ${ }_{(2)}^{(2)}$ |
| Florida.......... | 118 | 17 | 1,027 | 5,272 | 797 | 1,626 | 3,777 | 8,051 | 3,858 | 11,794 | 887 | $\left.{ }^{2}\right)$ | ${ }^{2}$ ) |
| East South Central. | 118 | 14 | 1,327 | 6,155 | 998 | 1,891 | 4,346 | 10,973 | 8,610 | 19,191 | 405 | $\left.{ }^{2}\right)$ | ${ }^{(2)}$ |
| Kentucky. ........ | 30 | 4 | 307 | 1,511 | 242 | 479 | 1,015 | 2,369 | 2,399 | 4,694 | 131 |  | 1,536 |
| Tennessee......... <br> Alabama........... | 48 29 | 8 2 2 | 632 <br> 307 | 3,015 1,305 | 447 <br> 248 | 827 | 2,146 | 6,628 1,523 | 2,955 2,883 | 9,229 4,450 | $\begin{array}{r}173 \\ 56 \\ \hline\end{array}$ | $(2)$ $(2)$ | ${ }_{(2)}^{(2)}$ |
| West South Central. | 245 | 24 | 1,855 | 8,836 | 1,431 | 2,855 | 6,322 | 16,232 | 9,285 | 25,306 | 746 | ${ }^{2}$ ) | ${ }^{2}$ ) |
| Arkansas......... | 16 | , | -179 | 717 | +134 | 2,318 | 458 | 1,513 | 1,045 | 2,468 | 44 | ${ }^{(2)}$ |  |
| Louisiana...... | 18 | 2 | 176 | 878 | 143 | 271 | 640 | 1,403 | -636 | 2,042 | 41 | (2) | ${ }^{(2)}$ |
| Okiahoma......... Texas.......... | 45 |  | -333 | 1,460 | 242 | 499 | 1,093 | 2,361 | 1,616 | 3,998 16,798 | 95 566 | $(2)$ $(2)$ | $(2)$ $(2)$ |
| Texas... | 166 | 16 | 1,167 | 5,781 | 912 | 1,767 | 4,131 | 10,955 | 5,988 | 16,798 | 566 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| Mountain.......... Colorado...... | 136 | 23 | 1,299 | 7,881 | 960 | 1,840 | 5,379 | 13,455 | 5,022 | 18,243 | 543 |  |  |
| Colorado......... New Mexico..... | 37 14 | 7 <br> 2 | 373 112 12 | 2,252 609 | 269 90 | 513 169 | 1,421 | 4,016 | 1,485 | 5,466 1,310 | $\begin{array}{r}184 \\ 34 \\ \hline\end{array}$ | $\left(\begin{array}{l}(2) \\ (2) \\ (2)\end{array}\right.$ | $(2)$ $(2)$ $(2)$ |
| Arizona.... | 21 | 5 | 227 | 1,306 | 163 | 328 | 955 | 2,056 | 940 | 2,956 | 89 | (2) | ${ }^{(2)}$ |
| Utah... | 21 | 5 | 231 | 1,426 | 177 | 332 | 1,009 | 2,226 | 862 | 3,061 | (D) | $\left.{ }^{2}\right)$ | $\left.{ }^{2}\right)$ |
| Pacific............ | 450 | 65 | 5,617 |  |  |  |  |  | 29,849 | 88,096 | 2,303 |  |  |
| Washington........ | 67 | 8 | 526 | 3,517 | $\begin{array}{r}363 \\ \hline 256\end{array}$ | 658 | 2,180 | 5,649 | 2,114 | 7,770 | 265 |  | 2,975 |
| Oregon.......... California...... | 49 325 | 52 | 385 4,649 | 2,562 30,280 | 256 3,331 | 460 6,399 | 1,523 20,205 | 3,740 50,866 | 2,328 25,199 | 6,149 73,488 | 305 1,622 | $\left({ }^{(2)}\right.$ 3,822 | $\left({ }^{(2)}\right.$ 33,084 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | STRY 399 | -UMBRELL | PARASOLS | AND CANES |  |  |  |  |
| Total. | 112 | 35 | 2,604 | 10,151 | 2,261 | 4,325 | 7,416 | 16,101 | 20,983 | 36,630 | 190 | 2,932 | 16,602 |
| Northeast... | 89 | 30 | 2,138 | 8,403 | 1,844 | 3,537 | 6,243 | 13,346 | 17,974 | 30,814 | 163 | ${ }^{(2)}$ | ${ }^{(2)}$ |
| New York... | 76 | 21 | 1,349 | 5,513 | 1,162 | 2,268 | 3,973 | 8,816 | 12,508 | 21,268 | 85 | 1,530 | 9,981 |
| New Jersey. | 5 | 3 | 362 | 1,309 | 308 | 551 | 970 | 2,213 | 3,351 | 5,168 |  | 246 | 868 |
| North Central and West.............. | 9 | 4 | 195 | 779 | 170 | 331 | 561 | 1,270 | 1,506 | 2,797 | 18 | $\left.{ }^{2}\right)$ | ${ }^{(2)}$ |
| South.............. | 14 | 2 | 271 | 969 | 247 | 457 | 612 | 1,485 | 1,503 | 3,019 | 18 | 405 | 1,813 |
|  |  |  |  |  |  | STRY 399 | -MISCELL | NEOUS PRODU | S, N.E.C. |  |  |  |  |
| Total. | 1,499 | 322 | 30,138 | 129,350 | 24,534 | 47,811 | 91,085 | 252,170 | 210,922 | 458,471 | 9,888 | 27,285 | 192,313 |
| New England..... | 126 57 | 34 13 | 3,164 1,522 | 14,392 7,565 | 2,496 1,150 | 4,945 2,215 | 9,542 | 27,576 <br> 14,098 | 19,764 8,166 | 46,356 21,624 | 1,594 616 | 2,270 1,446 | 17,529 9,175 |
| Connecticut. | 24 | 14 |  | 4,089 | -1,624 | 1,279 | 2,533 | 7,927 | 7,795 | 15,461 | 188 | 824 | 8,354 |

table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Geographic area ${ }^{1}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted ( $\$ 1,000$ ) | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture adjusted (\$1,000) |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1.000) \end{aligned}$ | Total <br> (number) | Manhours $(1,000)$ | Wages <br> ( $\$ 1,000$ ) |  |  |  |  |  |  |
| Middle Atlantic.... <br> New York. $\qquad$ <br> New Jersey....... <br> Pennsylvania..... | INDUSTRY 3999.-MISCELTANEOUS PRODUCTS, N.E.C.-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 604 | 147 | 13,199 | 54,410 | 11,113 | 21,451 | 40,462 | 112,277 | 90,728 | 199,829 | 3,391 | 6,348 | 40,918 |
|  | 453 | 104 | 8,413 | 33,731 | 7,153 | 13,903 | 25,111 | 66,674 | 46,162 | 111,402 | 1,793 | 6,348 | 40,918 |
|  | 79 | 25 | 2,373 | 10,814 | 1,896 | 3,673 | 7,476 | 24,260 | 19,419 | 42,723 | 873 | (2) | $\left({ }^{2}\right)$ |
|  | 72 | 18 | 2,413 | 9,865 | 2,064 | 3,875 | 7,875 | 21,343 | 25,147 | 45,704 | 725 |  | ${ }^{2}$ ) |
| East North Central. | 282 | 73 | 8,354 | 41,049 | 6,566 | 13,234 | 27,725 | 72,883 | 63,571 | 137,499 | 2,431 |  |  |
| Ohio............. | 49 | 10 | 1,261 | 5,613 | 880 | 1,780 | 3,067 | 9,639 | 9,926 | 19,311 | 356 |  |  |
| Illinois......... | 117 | 37 | 4,393 | 21,740 | 3,574 | 7,355 | 15,106 | 38,449 | 36,124 | 75,127 | 1,029 |  |  |
| Michigan......... | 63 | 13 | 1,720 | 9,823 | 1,286 | 2,535 | 6,527 | 14,475 | 10, $\ddagger 33$ | 25,580 | 581 | 10,014 | 72,421 |
| West North Central. | 72 | 14 | 1,056 | 3,741 | 773 | 1,379 | 2,185 | 6,751 | 5,189 | 11,901 | 153 |  |  |
| Minnesota........ | 21 | 4 | 429 | 1,377 | 302 | 499 | 739 | 2,039 | 1,434 | 3,520 | 51 |  | ${ }^{2}$ ) |
| Iowa... | 14 | 2 | 138 | 487 | 104 | 175 | 262 | 1,079 | 695 | 1,722 | 40 |  | (2) |
| Missouri. | 26 | 5 | 340 | 1,537 | 270 | 516 | 1,003 | 2,837 | 2,749 | 5,563 | 57 |  | (2) |
| Nebraska. | 4 | 2 | 100 | 278 | 60 | 114 | 147 | 743 | 255 | 989 | (D) |  | ${ }^{2}$ ) |
| South.... | 168 | 21 | 2,145 | 6,496 | 1,812 | 3,406 | 4,794 | 12,841 | 12,153 | 24,603 | 751 | 1,644 | 11,527 |
| Delaware.......... | 5 | , | 163 | 259 | 151 | 214 | 202 | 283 | 137 | 414 3 | 6 |  | $\left(\begin{array}{l}(2) \\ (2) \\ \hline\end{array}\right.$ |
| Maryland.......... | 15 | 3 | 154 | 733 | 118 | 247 | 466 | 1,159 | 2,254 | 3,369 | 31 |  | $\left(\begin{array}{l}2 \\ \text { 2) }\end{array}\right.$ |
| Florida.. | 56 | 3 3 | 428 | 1,437 | 324 | 591 | 998 | 3,127 | 2,420 | 5,400 | 128 |  | $\binom{2}{2}$ |
| Kentucky.......... | 6 | 3 | 192 | 667 | 176 | 395 | 572 | 900 | 844 | 1,734 | 11 |  | $\left(\begin{array}{l}2 \\ \text { 2) }\end{array}\right.$ |
| Texas.. | 27 | 5 | 285 | 747 | 236 | 415 | 498 | 1,374 | 1,081 | 2,429 | 54 |  | ${ }^{2}$ ) |
| Mountain. . | 26 | 5 | 253 | 987 | 192 | 383 | 637 | 2,083 | 3,218 | 4,947 | 939 | \} 1,792 | 15,323 |
| Pacific.. | 221 | 28 | 1,967 | 8,275 | 1,582 | 3,013 | 5,740 | 17,759 | 16,299 | 33,336 | 629 |  |  |
| California | 196 | 24 | 1,690 | 7,634 | 1,358 | 2,636 | 5,415 | 16,638 | 15,027 | 30,969 | 584 | 1,575 | 14,041 |
| Hawaii.. | 5 | 1 | 120 | 160 | 111 | 189 | 104 | 155 | 148 | 300 | 9 | (2) | ${ }^{2}$ ) |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures of individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State.
SIC 3981, Brooms and Brushes: New England-Maine, 3 (159); New Hampshire, 2 (100-249); Vermont, 3 (118); Massachusetts, 26 (2-139); Rhode Island, 4 (20-99); Connecticut, 9 (535); East North Central-Indiana, 11 (184); Michigan, 22 (194); West North Central-Missouri, 13 (298); Kansas, 7 (20-99); South Atlantic-Delaware, 4 (1-19); Virginia, 5 (20-99); West Virginia, 3 (1-19); South Carolina, 4 (20-99); East Scuth Central-Kentucky, 10 (20-99); Alabama, 8 (100-249); Mississippi, 3 (1-19); West South Central-Arkansas, 9 (20-99); Oklahoma, 8 (20-99); Mountain-Montana, 1 (1-19); Colorado, 8 (20-99); New Mexico, 2 (1-19); Arizona, 1 (1-19); Utah, 1 (1-19); Pacific-Washington, 4 (20-99); Hawaii, 5 (1-19).
SIC 3982, Hard Surface Floor Coverings: New England-Maine, 1 (100-249); Massachusetts, l (250,499); Connecticut, 1 (100-249); Middle Atlantic-New York, 1 (1-19); New Jersey, 2 (1,000-2,499); Pennsylvania, 3 (3,980); East North Central—Ohio, 1 (100-249); West North Central-Nebraska, 1 (l-19); South Atlantic-Virginia, 1 (20-99); East South Central-Kentucky, 1 (20-99); Pacific-California, 3 (114).
SIC 3983, Matches: New England-New Hampshire, l (100-249); Massachusetts, 1 (250-499); Rhode Island, l (1-19); Middle Atlantic-New York, 2 (250-499) ; New Jersey, 2 (500-999); East North Central-Ohio, 4 ( 833 ); Illinois, 4 ( 738 ); Michigan, 1 (1-19); West North Central-Minnesota, 1 (250-499); Missouri, 2 (250-499); South Atlantic-North Carolina, 1 (20-99); West South Central-Louisiana, 1 (100-249); Texas, 1 (20-99); Pacific-Washington, 1 (100-249); California, 3 (250-499).
SIC 3984, Candles: New England -Vermont, l (1-19); Massachusetts, 6 (100-249); Middle Atlantic-New Jersey, 8 (208); Pennsylvania, 5 (100-249); East North Central-Ohio, 5 (292); Illinois, 3 (1-19); Michigan, 1 (1-19); Wisconsin, 2 (250-499); West North Central-Iowa, 1 (179); Missouri,

SIC 3987, Lampshades: New England-Vermont, 1 (1-19); Massachusetts, 6 (100-249); Rhode Island, 6 (182); Middle Atlantic-New York, 89 ( 920 ); East North Central-Michigan, 6 (20-99); West North Central—Minnesota, l (1-19); Iowa, 2 (20-99); South Atlantic-Delaware, l (1-19); Maryland, 2 (1-19); Georgia, l (1-19); Florida, 3 (1-19); East South Central-Kentucky, l (1-19); Tennessee, l (l-19); Mississippi, l (20-99); West South Central-Texas, 1 (1-19); Mountain-Arizona, 3 (1-19); Utah, 1 (1-19); Pacific-Oregon, 1 (1-19).
SIC 3988, Morticians' Goods: New England-Maine, 4 (20-99); New Hampshire, 7 (200); Rhode Island, 3 (20-99); West North Central-Minnesota, 8 (190); North Dakota, 1 (1-19); South Dakota, 1 (1-19); Nebraska, 3 (20-99); Kansas, 6 (20-99); South Atlantic—Maryland, 3 (20-99); District of Columbia, 1 (1-19); West Virginia, 4 (20-99); South Carolina, 6 (189); East South Central—Kentucky, 8 (20-99); Mississippi, 3 (20-99); Mountain-Montana, 1 (1-19); Colorado, 7 (20-99); New Mexico, 2 (1-19); Arizona, 2 (20-99); Utah, 4 (20-99); Pacific—Oregon, 4 (20-99); Hawaii, 3 (1-19).
SIC 3992, Furs, Dressed and Dyed: New England-Maine, l (1-19); Vermont, l (1-19); Connecticut, 2 (1-19); Middle Atlantic-Pennsylvania, 6 (20-99); East North Central-Illinois, 2 (100-249); Wisconsin, 1 (1-19); West North Central—Minnesota, l (1-19); Missouri, 2 (1-19); Nebraska, l (1-19); South Atlantic-Virginia, 1 (1-19); South Carolina, 1 (200-249); West South Central—Louisiana, l (1-19); Mountain-Colorado, 2 (20-99); PacificWashington, 4 (1-19); California, 5 (1-19).
SIC 3993, Signs and Advertising Displays: New England-Maine, 11 (20-99); New Hampshire, 5 (1-19); Vermont, 4 (20-99); Connecticut, 47 (333); West North Central-North Dakota, 4 (20-99); South Dakota, 6 (20-99); South Atlantic-Delaware, 4 (20-99); District of Columbia, 13 (100-249); West Virginia, 10 (20-99); East South Central—Mississippi, 11 (20-99); Mountain-Montana, 14 (20-99); Idaho, 16 (20-99); Wyoming, 5 (20-99); Nevada, 8 (158); Pacific-Alaska, 3 (1-19); Hawaii, 6 (20-99).

SIC 3995, Umbrellas, Panasols, and Canes: New England—Massachusetts, l (20-99); Middle Atlantic-Pennsylvania, 7 (250-499); East North CentralOhio, 2 (20-99); Illinois, l (1-19); West North Central-Iowa, l (1-19); Missouri, l (1-19); South Atlantic-Maryland, 4 (214); Georgia, l (1-19); Florida, 3 (1-19); East South Central—Mississippi, 1 (1-19); West South Central—Arkansas, 3 (20-99); Louisiana, 1 (1-19); Texas, 1 (1-19); Mountain-Arizona, l (1-19); Pacific-Oregon, 1 (20-99); California, 2 (20-99).
SIC 3999, Miscellaneous Products, N.E.C.: New England-Maine, 3 (1-19); New Hampshire, 6 (20-99); Vermont, 3 (161); Rhode Island, 33 (670); East North Central-Indiana, 24 (301); Wisconsin, 29 (678); West North Central—North Dakota, l (1-19); South Dakota, 4 (20-99); Kansas, 2 (1-19) South Atlantic-Virginia, 9 (114); West Virginia, l (1-19); North Carolina, 11 (250-499); South Carolina, 4 (1-19); Georgia, 2 (1-19); East South Central-Tennessee, 13 (100-249); Alabama, 2 (1-19); Mississippi, 4 (1-19); West South Central-Arkansas, 4 (20-99); Louisiana, 4 (1-19); Oklahoma, 5 (20-99); Mountain-Montana, 1 (1-19); Colorado, 8 (20-99); New Mexico, 2 (1-19); Arizona, 7 (20-99); Utah, 5 (21-99); Nevada, 3 (20-99); Pacific-Washington, 11 (20-99); Oregon, 8 (20-99); Alaska, l (1-19).
${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report
showed the number of establishments and total employment (either actual or in size ranges) for such States.

## TABLE 3. Detailed Statistics: 1963

| Item | $\left\|\begin{array}{c} \text { Brooms and } \\ \text { brushes } \\ \text { (SIC 398) } \end{array}\right\|$ | Hard surface floor coverings (SIC 3982) | $\begin{aligned} & \text { Matches } \\ & \text { (SIC 3983) } \end{aligned}$ | $\left\|\begin{array}{c} \text { Candles } \\ \text { (SIC 3984) } \end{array}\right\|$ | $\begin{gathered} \text { Lamp } \\ \text { shades } \\ \text { (SIC 3987) } \end{gathered}$ | $\begin{gathered} \text { Morticians' } \\ \text { goods } \\ \text { (SIC 3988) } \end{gathered}$ | Furs, dressed and dyed (SIC 3992) | Signs and advertising displays (SIC 3993) | Umbrellas, parasols, and canes (SIC 3995) | Miscellaneous products, n.e.c. (SIC 3999) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio.. | . 89 | . 82 | .95-1.00 | . 95 | . 96 | 95 | 98 | . 96 | . 95 | . 94 |
| Coverage ratio........................... | . 93 | . 98 | $.95-1.00$ | . 94 | . 98 | . 98 | . 94 | .95 | .98 | . 84 |
| Establishments, total.....................................number | 643 | 16 | 26 | 111 | 228 | 617 | 132 | 3,206 | 112 | 1,499 |
| With 1 to 19 employees................................... do. | 476 | 3 | 3 | 79 | 1.80 | 393 | 106 | 2,636 | 77 | 1,177 |
| With 20 to 99 employees | 132 | 4 | 9 | 24 | 43 | 191 | 18 | 507 | 31 | 262 |
| With 100 employees or more | 35 | 9 | 14 | 8 | 5 | 33 | 8 | 63 | 4 | 60 |
| Proprietors and working partners........................do. | 421 | 3 | 1 | 65 | 152 | 271 | 56 | 2,064 | 68 | 786 |
| All employees (average for the year).....................d. ${ }^{\text {do }}$ | 16,637 | 6,192 | 4,647 | 3,167 | 3,583 | 17,283 | 2,577 | 43,476 | 2,604 | 30,138 |
| Payroll (all employees), total for year............... $\$ 1,000 .$. | 73,620 | 38,965 | 21,659 | 13,225 | 12,775 | 86,218 | 20,092 | 242,593 | 10,151 | 129,350 |
| Production workers: |  |  |  |  |  |  |  |  |  |  |
| Average for the year..................................number.. | 13,428 | 4,958 | 3,988 | 2,375 | 3,160 | 13,545 | 2,129 | 33,139 | 2,261 | 24,534 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 13,210 | 5,017 | 4,070 | 2,079 | 3,279 | 13,658 | 2,123 | 32,593 | 2,494 | 22,872 |
| May. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 13,253 | 5,055 | 4,058 | 2,152 | 2,898 | 13,651 | 2,174 | 32,750 | 2,284 | 23,836 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 13,416 | 4,854 | 3,890 | 2,387 | 3,191 | 13,478 | 2,224 | 33,748 | 2,014 | 25,434 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 13,837 | 4,907 | 3,945 | 2,883 | 3,271 | 13,430 | 2,012 | 33,661 | 2,270 | 26,042 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 25,801 | 10,099 | 7,790 | 4,553 | 6,002 | 27,507 | 4,113 | 64,837 | 4,325 | 47,811 |
| January-March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. | 6,342 | 2,639 | 1,999 | 1,008 | 1,541 | 7,055 | 1,024 | 15,715 | 1,164 | 11,077 |
| April-June. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do | 6,459 | 2,558 | 2,028 | 1,029 | 1,388 | 7,099 | 1,040 | 16,300 | 1,081 | 11,809 |
| July-September | 6,227 | 2,389 | 1,806 | 1,120 | 1,498 | 6,608 | 1,024 | 16,273 | 950 | 11,956 |
| Oc tober-December | 6,773 | 2,516 | 1,955 | 1,396 | 1,575 | 6,745 | 1,025 | 16,549 | 1,130 | 12,969 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 49,510 | 29,488 | 17,268 | 7,884 | 9,907 | 58,447 | 16,383 | 163,538 | 7,416 | 91,085 |
| Cost of materials, ete., total. | 153,625 | 80,721 | 24,850 | 19,886 | 17,116 | 132,720 | 12,094 | 243,815 | 20,983 | 210,922 |
| Materials, parts, containers, and supplies consumed..do | 114,561 | 75,979 | 23,613 | 17,878 | 16,398 | 121,017 | 10,582 | 214,641 | 18,873 | 186,739 |
| Cost of resales. | 36,401 | 1,232 | 549 | 1,439 | 148 | 9,262 | 176 | 12,489 | 714 | 15,657 |
| Fuels consumed......................................... . . . do | 593 | 1,574 | 264 | 269 | 36 | 876 | 146 | 2,029 | 57 | 1,378 |
| Electric energy: |  |  |  |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |  |  |  |
| Quantity................................ .million kw.-hrs. . | 86 | 145 | 29 | 7 | 4 | 55 | 10 | 153 | 7 | 130 |
| Cost.............................................. .\$1,000. . | 1,370 | 1,671 | 391 | 136 | 90 | 1,112 | 203 | 3,108 | 142 | 2,372 |
| Generated less sold......................million | (D) | (D) | (D) | (D) | - | 2 | (D) | - | (D) | (D) |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000$. | 700 | 265 | 33 | 164 | 444 | 453 | 987 | 11,534 | 1,197 | 4,772 |
| Value of shipments (including resales), total..........do | 321,129 | 204,112 | 64,131 | 45,515 | 37,485 | 290,036 | 42,007 | 646,772 | 36,630 | 458,471 |
| Value of resales. | 60,682 | 1,475 | (D) | 2,198 | 186 | 12,350 | (D) | 20,060 | 1,025 | 23,484 |
| Value added by manuracture, adjuste | 167,866 | 118,832 | 38,666 | 26,306 | 20,476 | 158,422 | 30,240 | 407,478 | 16,101 | 252,176 |
| Manufacturers' inventories: |  |  |  |  |  |  |  |  |  |  |
| Beginning of year, total. | 65,812 | 34,960 | 10,299 | 7,527 | 2,984 | 44,801 | 2,574 | 62,988 | 6,326 | 64,966 |
| Finished products. | 30,216 | 21,543 | 3,417 | 4,137 | 954 | 13,013 | 603 | 16,408 | 2,442 | 23,100 |
| Work-in-process. | 7,015 | 6,657 | 2,280 | 434 | 448 | 10,519 | 1,166 | 18,675 | 1,561 | 16,976 |
| Materials, supplies, fuel, etc | 28,581 | 6,760 | 4,602 | 2,956 | 1,582 | 21,269 | 805 | 27,905 | 2,323 | 24,890 |
| End of year, total....................................... do | 66,428 | 29,921 | 8,914 | 8,009 | 3,127 | 46,395 | 2,662 | 69,030 | 6,133 | 69,776 |
| Finished products....................................... . . . . . . . | 29,756 | 17,971 | 2,937 | 4,745 | 1,006 | 12,862 | 1,211 | 19,311 | 2,705 | 26,073 |
| Work-in-process. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . | 7,837 | 5,670 | 2,145 | 503 | 503 | 11,776 | 885 | 20,293 | 1,752 | 18,624 |
| Materials, supplies, ruel, etc.......................do.... | 28,835 | 6,280 | 3,832 | 2,761 | 1,618 | 21,757 | 566 | 29,486 | 1,676 | 25,079 |
| Expenditures for plant and equipment, total............do.. | 4,773 | 4,465 | 2,406 | 792 |  | 5,629 | 272 | 16,088 | 197 | 10,417 |
| New, total............. . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . | 4,394 | 4,441 | 1,876 | 773 | 530 | 5,455 | 227 | 15,042 | 190 | 9,888 |
| New structures and additions to plant...............do. | 970 | 343 | 382 | 117 | 49 | 1,965 | 42 | 5,227 | 31 | 3,387 |
| New machinery and equipment...........................do. | 3,424 | 4,098 | 1,494 | 656 | 481 | 3,490 | 185 | 9,815 | 159 | 6,501 |
| Used plant and equipment...............................do.... | 379 | 24 | 530 | 19 | 8 | 174 | 45 | 1,046 | 7 | 530 |
| Selected operating ratios: |  |  |  |  |  |  |  |  |  |  |
| Payroll/Total employment. | 4,425 | 6,293 | 4,661 | 4,176 | 3,565 | 4,989 | 7,797 | 5,580 | 3,898 | 4,292 |
| Production workers/Total employment | . 81 | . 80 | . 86 | . 75 | . 88 | . 78 | . 83 | . 76 | . 87 | . 81 |
| Man-hours/Production workers.. | 1,921 | 2,037 | 1,953 | 1,917 | 1,899 | 2,031 | 1,932 | 1,957 | 1,913 | 1,949 |
| Production worker wages/Man-hours | 1.92 | 2.92 | 2.22 | 1.73 | 1.65 | 2.12 | 3.98 | 2.52 | 1.71 | 1.91 |
| Cost of materials and payrolls/Total value of shipment | . 71 | . 59 | . 73 | . 73 | . 80 | .75 | . 77 | .75 | . 85 | . 74 |
| Cost of materials/Total value of shipments........ | . 48 | . 40 | . 39 | . 44 | . 46 | . 46 | . 29 | . 38 | . 57 | . 46 |
| Adjusted value added/Total employment. | 10,090 | 19,191 | 8,321 | 8,306 | 5,71.5 | 9,166 | 11,735 | 9,372 | 6,183 | 8,367 |
| Salaries and wages/Adjusted value added....................... | .44 | . 33 | . 56 | . 50 | . 62 | . 54 | . 66 | . 60 | . 63 | . 51 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable.
${ }_{2}^{1}$ The proportion of product shipments (both prinary and secondary) of the industry represented by primary products.
${ }^{2}$ The proportion of prinary products shipped by the establishnents classified in the industry to total shipments of such products by all manufac-
turing establishments

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963


See footnotes at end of table.

TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963-Continued

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1104 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 2,500 \\ \text { employees } \\ \text { and over } \end{gathered}$ |
|  | INDUSTRY 3992. -FURS, DRESSED AND DYED |  |  |  |  |  |  |  |  |  |  |
| Establishments............... . number. All employees: | 132 | 66 | 18 | 22 | 12 | 6 | 8 | - | - | - | - |
| Total..................... do.... | 2,577 | 133 | 132 | 306 | 365 | 396 | 1,245 | - | - | - | - |
| Pay roll. . . . . . . . . . . . . . $\$ 1,000 .$. | 20,092 | 892 | 694 | 2,097 | 2,249 | 3,033 | 11,127 | - | - | - | - |
| Value added, adjusted.......do.... | 30,340 | 1,902 | 277 | 4,616 | 3,338 | 3,949 | 16,158 | - | - | - | - |
| Value of shipments..........do.... | 42,007 | 3,565 | 1,930 | 9,080 | 4,812 | 5,209 | 17,411 | - | - | - | - |
| Capital expenditures, new...do.... | 227 | 8 | 25 | 50 | 18 | (D) | 126 | - | - | - | - |
|  | INDUSTRY 3993.-SIGNS AND ADVERTISING DISPLAYS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 3,206 | 1,588 | 570 | 478 | 387 | 120 | 55 | 8 | - | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.......................do.... | 43,476 | 2,720 | 3,796 | 6,500 | 11,648 | 8,369 | 8,028 | 2,415 | - | - | - |
| Pay roll..................\$1,000. . | 242,593 | 13,478 | 19,387 | 35,298 | 68,038 | 45,767 | 46,915 | 13,710 | - | - | - |
| Value added, adjusted.......do... | 407,478 | 29,712 | 35,270 | 57,043 | 107,689 | 75,277 | 79,673 | 22,814 | - | - |  |
| Value of shipments..........do.... | 646,772 | 48,212 | 54,714 | 89,793 | 167,849 | 120,964 | 123,648 | 41,592 | - | - |  |
| Capital expenditures, new...do.... | 15,042 | 1,744 | 1,461 | 2,135 | 4,525 | 2,856 | 1,695 | 626 | - | - | - |
|  | INDUSTRY 3995. - TMBrelias, Parasois, And canes |  |  |  |  |  |  |  |  |  |  |
| Establishments............ . umber. . | 112 | 33 | 16 | 28 | 23 | 8 | 4 | - | - | - | - |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total.....................do.... | 2,604 | 61 | 105 | 3741,466 | 764 | 547 | 753 | - | - | - | - |
| Pay roll. . . . . . . . . . . . . . $\$ 1,000$. . | 10,151 | 163 | 389 |  | 2,973 | 2,048 | 3,112 | - | - | - | - |
| Value added, adjusted.......do.... | 16,101 | 430 | 605 | 2,257 | 5,079 | 2,978 | 4,752 | - | - | - | - |
| Value of shipments..........do.... | 36,630 | 755 | 1,486 | 2,2655,765 | 11,616 | 7,431 | 9,577 | - | - | - | - |
| Capital expenditures, new...do.... | +190 | 6 | 12 |  | 25 | 51 | 71 | - | - | - | - |
|  | INDUSTRY 3999.-MISCELLANEOUS PRODUCTS, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments...............number. . All employees: | 1,499 | 695 | 252 | 230 | 190 | 72 | 43 | 15 | 1 | 1 | ----- |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 30,138 | 1,142 | 1,711 | 3,271 | 5,937 | 5,099 | 6,151 | 6, 8227 | (D) | (D) |  |
| Payroll..................\$1,000.. | 129,350 | 4,407 | 6,564 | 12,805 | 23,967 | 22,421 | 25,425 | 33,761 | (D) | (D) |  |
| Value added, adjusted.......do.... | 252,170 | 11,469 | 14,571 | 25,992 | 48,351 | 43,742 | 43,580 | 64,465 | (D) | (D) |  |
| Value of shipments..........do.... | 458,471 | 19,224 | 25,578 | 43,911 | 87,120 | 86,151 | 83,188 | 113,299 | (D) | (D) |  |
| Capital expenditures, new...do.... | 9,888 | 614 | 657 | 911 | 2,192 | 1,769 | 2,152 | 1,593 | (D) | (D) |  |

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## table 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

> An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of mary to other industries (secondarsi products of a given industry) and receipts for activitied puch
as merchandising or contract work. This product pattern for an industry is shown in columns A through D and the primary product specialization ratio in column E . The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products <br> $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio Col. B <br> Col. B+C (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | I |
| 3981 | Brooms and brushes................ 1963.. | $\begin{aligned} & 321,129 \\ & 275,722 \end{aligned}$ | $\begin{aligned} & 231,311 \\ & 196,154 \end{aligned}$ | $\begin{aligned} & 27,209 \\ & 24,188 \end{aligned}$ | $\begin{aligned} & 62,609 \\ & 55,380 \end{aligned}$ | $\begin{aligned} & 89 \\ & 89 \end{aligned}$ | $\begin{aligned} & 247,660 \\ & 208,057 \end{aligned}$ | $\begin{aligned} & 231,311 \\ & 196,154 \end{aligned}$ | $\begin{aligned} & 16,349 \\ & 11,903 \end{aligned}$ | 93 94 |
| 3982 | Hard surface floor covering....... 1963.. | $\begin{aligned} & 204,112 \\ & 181,584 \end{aligned}$ | $\begin{aligned} & 165,169 \\ & 149,577 \end{aligned}$ | $\begin{aligned} & 37,050 \\ & 28,670 \end{aligned}$ | $\begin{aligned} & 1,893 \\ & 3,337 \end{aligned}$ | $\begin{aligned} & 82 \\ & 84 \end{aligned}$ | $\begin{aligned} & 168,071 \\ & 151,893 \end{aligned}$ | $\begin{aligned} & 165,169 \\ & 149,577 \end{aligned}$ | $\begin{aligned} & 2,902 \\ & 2,316 \end{aligned}$ | $\begin{aligned} & 98 \\ & 98 \end{aligned}$ |
| 3983 | Matches. . . . . . . . . . . . . . . . . . . . . . . 1963. 1958. | $\begin{aligned} & 64,131 \\ & 67,018 \end{aligned}$ | (D) <br> (D) |  | $\begin{aligned} & \text { (D) } \\ & 460 \end{aligned}$ | $\begin{gathered} (95-100) \\ (\mathrm{D}) \end{gathered}$ | $\begin{aligned} & 64,756 \\ & 67,972 \end{aligned}$ | $\begin{aligned} & \text { (D) } \\ & \text { (D) } \end{aligned}$ | $\begin{aligned} & \text { (D) } \\ & \text { (D) } \end{aligned}$ | $\begin{gathered} (95-100) \\ \text { (D) } \end{gathered}$ |
| 3984 | $\text { Candles. . . . . . . . . . . . . . . . . . . . . . . . . . } 1963 . \text { 1958. . }$ | $\begin{aligned} & 45,515 \\ & 33,802 \end{aligned}$ | $\begin{aligned} & 41,018 \\ & 30,079 \end{aligned}$ | $\begin{aligned} & 2,244 \\ & 2,055 \end{aligned}$ | $\begin{aligned} & 2,253 \\ & 1,668 \end{aligned}$ | $\begin{aligned} & 95 \\ & 94 \end{aligned}$ | $\begin{aligned} & 43,661 \\ & 31,746 \end{aligned}$ | $\begin{aligned} & 41,018 \\ & 30,079 \end{aligned}$ | $\begin{aligned} & 2,643 \\ & 1,667 \end{aligned}$ | 94 95 |
| 3987 | Lamp shades........................ . $1963 .$. | $\begin{aligned} & 37,485 \\ & 34,066 \end{aligned}$ | $\begin{aligned} & 35,215 \\ & 32,773 \end{aligned}$ | 1,648 970 | 622 | 96 97 | $\begin{array}{r} 35,896 \\ 33,835 \end{array}$ | $\begin{aligned} & 35,215 \\ & 32,773 \end{aligned}$ | $\begin{array}{r} 681 \\ 1,062 \end{array}$ | 98 97 |
| 3988 | Morticians' goods. . . . . . . . . . . . . . 1963. 1958. | $\begin{aligned} & 290,036 \\ & 237,773 \end{aligned}$ | $\begin{aligned} & 261,526 \\ & 215,268 \end{aligned}$ | $\begin{aligned} & 14,380 \\ & 11,109 \end{aligned}$ | $\begin{aligned} & 14,130 \\ & 11,396 \end{aligned}$ | $\begin{aligned} & 95 \\ & 95 \end{aligned}$ | $\begin{aligned} & 267,439 \\ & 217,671 \end{aligned}$ | $\begin{aligned} & 261,526 \\ & 215,268 \end{aligned}$ | $\begin{aligned} & 5,913 \\ & 2,403 \end{aligned}$ | 98 99 |
| 3992 | Furs, dressed and dyed............1963.. | $\begin{aligned} & 42,007 \\ & 29,152 \end{aligned}$ | $\begin{aligned} & 140,902 \\ & { }^{1} 28,904 \end{aligned}$ | 708 | $\begin{aligned} & 397 \\ & 248 \end{aligned}$ | $\begin{array}{r} 98 \\ 100 \end{array}$ | $\begin{aligned} & 143,564 \\ & 128,904 \end{aligned}$ | $\begin{aligned} & 40,902 \\ & 28,904 \end{aligned}$ | 2,662 | $\begin{array}{r} 94 \\ 100 \end{array}$ |
| 3993 | Signs and advertising displays....1963.. | $\begin{aligned} & 646,772 \\ & 457,025 \end{aligned}$ | $\begin{aligned} & 554,874 \\ & 388,726 \end{aligned}$ | $\begin{aligned} & 25,664 \\ & 19,247 \end{aligned}$ | $\begin{aligned} & 66,234 \\ & 49,052 \end{aligned}$ | $\begin{aligned} & 96 \\ & 95 \end{aligned}$ | $\begin{aligned} & 583,811 \\ & 407,893 \end{aligned}$ | $\begin{aligned} & 554,874 \\ & 388,726 \end{aligned}$ | $\begin{aligned} & 28,937 \\ & 19,167 \end{aligned}$ | 95 95 |
| 3995 | Umbrellas, parasols, and canes.... 1963.. | $\begin{aligned} & 36,630 \\ & 35,161 \end{aligned}$ | $\begin{aligned} & 33,365 \\ & 32,973 \end{aligned}$ | $\begin{aligned} & 1,848 \\ & 1,470 \end{aligned}$ | 1,417 718 | $\begin{aligned} & 95 \\ & 96 \end{aligned}$ | $\begin{aligned} & 34,135 \\ & 34,658 \end{aligned}$ | $\begin{aligned} & 33,365 \\ & 32,973 \end{aligned}$ | $\begin{array}{r} 770 \\ 1.685 \end{array}$ | 98 95 |
| 3999 | Miscellaneous products, n.e.c.... $\begin{array}{r}\text { 1963.. } \\ \text { 1958.. }\end{array}$ | $\begin{aligned} & 458,471 \\ & 358,076 \end{aligned}$ | $\begin{aligned} & 395,469 \\ & 309,987 \end{aligned}$ | $\begin{aligned} & 27,319 \\ & 26,953 \end{aligned}$ | $\begin{aligned} & 35,683 \\ & 21,136 \end{aligned}$ | $\begin{aligned} & 94 \\ & 92 \end{aligned}$ | $\begin{aligned} & 471,907 \\ & 357,101 \end{aligned}$ | $\begin{aligned} & 395,469 \\ & 309,987 \end{aligned}$ | $\begin{aligned} & 76,438 \\ & 47,114 \end{aligned}$ | 84 87 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ Includes receipts for work done on materials owned by others.

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

In thousands of dollars except for ranges (shown in parentheses) which are expressed in millions of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary nroducts). (b) products classified in other industries (secondary products), and (c) miscellaneous
receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." In. dustries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963 -Continued


## TABLE 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958



See footnotes at end of table
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued


See footnotes at end of table.

## table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958-Continued

| Product code | Product | Value of shipments including interplant transfers $(\$ 1,000)$ |  |
| :---: | :---: | :---: | :---: |
|  |  | 1963 | 1958 |
| 3993- -- | SIGNS AND ADVERTISING DISPLAYS, TOTAL. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 583,811 | 407,893 |
| 3993111 | Luminous tubing, flourescent lamp and incandescent bulb signs (electric).............................. | 144,524 | 99,855 |
| 39932 -- | Nonelectric signs and advertising displays, total | 302,317 | 193,482 |
|  | Metal signs, by any application process, including point-of-sale signs, road signs, truck signs, highway and street markers, and all other metal signs: |  |  |
| $\begin{aligned} & 3993211 \\ & 3993219 \end{aligned}$ |  | 9,019 50,641 | 13,956 34,758 |
| 3993221 | Screen processed signs (other than metal). | 24,563 | 13,424 |
| 3993231 | Window, backbar, counter, and lobby cutouts and displays. | 52,716 | 39,011 |
| 3993298 | All other signs and advertising displays, including sign letters. | 138,884 | 69,646 |
| 3993200 | Nonelectric signs and advertising displays, n.s.k............. | 26,494 | 22,688 |
| 3993311 | Advertising specialties... | 83,687 | 64,361 |
| 3993000 | Signs and advertising displays, n.s.k. | 53,283 | 50,195 |
| 3995011 | UMBRELLAS, PARASOLS, AND CANES, TOTAL. | 34,135 | 34,658 |

3999- --
39991 --

3999111
3999111
3999115
3999117
3999118
3999119
3999129
3999151
3999161
3999171
3999100
39992 --
3999212
3999298
39993 --
3999312 3999313

3999321
3999342
3999343
399934
3999351
3999398 3999300
3999000
brelias, parasols, and canes, total.

| Unit of measure | Total shipments including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1963 |  | 1958 |  |
|  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | Value $(\$ 1,000)$ |
|  | (X) | 471,907 | (X) | 357,101 |
|  | (x) | 52,319 | (X) | 46,814 |
| No. of units.. | 112,271 | 1,431 | 125,058 | 2,036 |
| . .do......... | 408,552 | 8,700 | 384,817 | 10,118 |
| . do.......... | 92,352 | 663 | 406,327 | 3,203 |
| . . do.. | 1,056,085 | 13,279 |  |  |
| . .do......... | 91,804 109,913 | 2,712 | 348,295 | 9,022 |
| ...do......... | 274,780 | 2,523 | 174,752 | 1,640 |
| ...do. ........ | 7,708 | 1,910 6,020 | 2,718 | 1,206 2,208 |
| ................ |  |  |  |  |
|  | (x) | 9,649 | (X) | 11,904 |
|  | (x) | 4,205 | (X) | 5,477 |
| ............... | (X) | 30,009 | (X) | 39,122 |
| No. of units.. | 24,683 | 9,368 | 52,844 | 24,322 |
|  | (x) | 20,641 | (X) | 14,800 |
|  | (x) | 327,597 | (X) | 271,165 |
|  | (X) | 34,045 |  |  |
|  | (X) | 16,807 |  | 37,165 |
|  | (X) | 19,551 | (X) | 15,351 |
| No. of units.. ...do............ | $\begin{aligned} & 9,646,951 \\ & 3,583,942 \end{aligned}$ | 13,578 2,462 | (X) | 9,145 |
| 1,000......... | 26,455 | 28,731 |  |  |
|  | (x) |  |  |  |
|  | (X) | $\begin{array}{r} 180,645 \\ 15,824 \end{array}$ | (x) | 209,504 |
| . . . . . . . . . . . | (x) | 61,982 |  |  |

(NA) Not available.
(X) Not

[^314]${ }^{2} 1958$ data not strictly comparable with data for 1963 because of changes in product mix.
${ }^{3}$ Includes the value for work done on materials owned by others.

## TABLE 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

| Product code | Product and year | Indexes ( $1954=100$ ) |  | Product code | Product and year | Indexes ( $1954=100)$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production | Unit value |  |  | Production | Unit value |
| 398-- | Miscellaneous manufactures....... 1963.. $1958 .$. | 124 | $\begin{aligned} & 107 \\ & 106 \end{aligned}$ | 3988- | Morticians' goods...................... $1963 .$. | $\begin{aligned} & 155 \\ & 126 \end{aligned}$ | $\begin{aligned} & 105 \\ & 105 \end{aligned}$ |
| 3981- | Brooms and brushes ${ }^{1}$. ${ }^{\text {a }}$............... $1963 .$. $1958 .$. | $\begin{aligned} & 135 \\ & 107 \end{aligned}$ | $\begin{aligned} & 101 \\ & 107 \end{aligned}$ | 39881 | Metal caskets and coffins, completely lined and trimned...........1963.. 1958. | 200 136 | 106 108 |
| 39811 | Brooms. . . . . . . . . . . . . . . . . . . . . . . . $1961963 .$. | 101 | 103 99 | 39882 | Wood caskets and coffins, completely lined and trimned...........1963.. | 96 | 109 |
| 39812 | Paint and varmish brushes..........1963.. | 134 96 | 96 111 | 39883 | Other caskets and coffins, metal vaults, and morticians' supplies..1963.. | 103 175 | 105 95 |
| 3982- | Hard surface floor coverings......... $\begin{array}{r}\text { 1963.. } \\ \\ 1958 . .\end{array}$ | 95 98 | $\begin{aligned} & 114 \\ & 100 \end{aligned}$ |  | $1958 . .$ | 146 | 95 |
| 39821 | Linoleum............................. $1963 .$. | 39 | 120 | 3992- | Furs, dressed and dyed.................. $1963 .$. | $(3)$ <br> $(3)$ <br> $(3)$ | $(3)$ $(3)$ $(3)$ |
| 39822 |  | 60 | 109 | 3993- | Signs and advertising displays.......1963.. | (3) | (3) |
|  |  | 155 137 | 106 | 3995- | Umbrellas, parasols, and canes........ $1963 .$. | (3) <br> $(3)$ | (3) $(3)$ |
| 3983- | Matches. . . . . . . . . . . . . . . . . . . . . . . . . . $1963 .$. | $(2)$ $(2)$ $(3)$ | $(2)$ $(2)$ $(3)$ | 3999- | Miscellaneous products, n.e.c........1963.. | $(2)$ <br> $(2)$ | $(2)$ $(2)$ |
| 3984- | Candles. . . . . . . . . . . . . . . . . . . . . . . . . . $1963 .$. | (3) | (3) |  | 1958. | (2) | ${ }^{(2)}$ |
| $3987-$ | $\qquad$ | $(3)$ <br> $(3)$ | (3) ${ }^{(3)}$ | 39991 | Chemical fire extinguishing equip- |  |  |
|  | Lamp shades............................ $1963 .$. | (3) | (3) |  | ments and parts........................ 1963... | 102 | 115 108 |

[^315]${ }^{1}$ Adjusted to include other brusies (product class 39813).
${ }^{2}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.
${ }^{3}$ No quantity data obtained for these products.

## table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

[^316] (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review
${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. Figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data
${ }^{2}$ For 1963 and 1958 include receipts for work done on materials owned by others. Such receipts are excluded in other years.

# TABLE 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958 


listed only if the value of shipments is more than $\$ 1$ million and the figure does not disclose individual company information. Additional States which had shipments of more than $\$ 1$ million of the individual product classes are listed in footnote 1.


## table 6D. Product Classes-Value Shipped by All Manufacturing Establishments, by Geographic Areas: 1963 and 1958-Continued

| Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  | Product class and geographic area | Value of shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S AND | $1963{ }^{1}$ | 1958 | NONELECTRIC SIGNS AND ADVERTISING DISPLAYS (39932)-Continued | $1963{ }^{1}$ | 1958 | ADVERTISING SPECIALTIES <br> (39933)-Continued | $1963{ }^{1}$ | 1958 |
| (39932)-continued |  |  |  |  | $\begin{array}{r} 13,370 \\ (Z) \end{array}$ | East North Central-Con. Illinois. |  | 11, 333 |
| South Atlantic | 18,158 | 8,199 | Pacific. | 28,147 |  |  | 6,2874,075 |  |
| Maryland. | 2,513 | (z) | Washington. | 2,183 |  | Michigan................. |  |  |
| Virginia...... | 4,090 | 3,212 | Oregon.................... | 2,523 | (Z) | West North Central. | 14,888 | 8,393$(2)$ |
| North Carolina. <br> South Carolina. | 1,682 | (Z) (Z) | California............... | 23,330 | 12,609 | Minnesota........ | 14,888 5,647 |  |
| Georgia. . | 2,099 | (z) | ADVERTISING SPECIALTIES (39933) |  |  | South. | 5,844 | 4,033 |
| Florida. | 4,072 | 2,134 |  |  |  | Tex | 1,797 | 1,182 |
| East South Central..... Kentucky | 7,240 | 6,461 1,478 | United States, total... | 83,687 | 64,361 | West. <br> California. | $\begin{aligned} & 7,678 \\ & 6,104 \end{aligned}$ | $\begin{aligned} & 5,247 \\ & 5,050 \end{aligned}$ |
| Kentucky. <br> Tennessee.......... | 1,895 | 1,478 4,069 |  |  |  | CHEMICAL FIRE EXTINGUISHING AND PARTS (39991) | $1963{ }^{1}$ |  |
| Tennessee....... | 2,985 | 4,069 | New England.... | $\begin{aligned} & 7,540 \\ & 6,361 \end{aligned}$ | $\left({ }^{(2)}\right.$ |  |  |  |  |
| West South Central....... | 12,058 | 7,313 |  |  |  |  | 52,319 |  |
| Arkansas...... | 1,394 | 2,339 | New York..... | 28,063 19,893 | 15,218 | Northeast. . . . . . . . . . . . . . . . . . <br> New Jersey |  |  |  |
| Texas. | 8,336 | 4,609 | New Jersey............... | 5,194 | 5,281 |  | $15,257$ |  |
|  |  |  | Pennsylvania............. | 2,976 | (Z) |  |  |  |  |
| Mourtain. | 4,793 | 2,306 |  |  |  |  |  |  |
| Arizona. | 1,662 | (Z) | East North Central. Ohio........... | 19,674 7,665 | 20,582 5,490 | North Central. South and West |  | 24,825 5,341 |

(Z) Less than $\$ 1$ million reported.
${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 39812, Massachusetts, Ohio, Indiana, Wisconsin, Maryland, Tennessee, Oregon, and California; 39813, New Hampshire, Connecticut, Michigan, Minnesota, Iowa, Maryland, and Kentucky; 39881, Louisiana and Washington; 39332, Alabama; 39933, Wisconsin, Iowa, Missouri, and Tennessee; 39991, Massachusetts, New York, Ohio, Illinois, Wisconsin, and California.
${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.
${ }^{3}$ For product class 39933, the 1958 sum of value of shipments for New England and Niddle Atlantic equals $\$ 26,106$ million.

## TABLE 7A. Materials by Kind: 1963 and 1958



[^317]
## TABLE 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962

| Iten | Brooms and brushes (SIC 3981) | Hard surface floor coverings (SIC 3982) | $\begin{gathered} \text { Matches } \\ \text { (SIC 3983) } \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { Candles } \\ \text { (SIC 3984) } \end{array}$ | $\begin{gathered} \text { Lamp } \\ \text { shades } \\ \text { (SIC 3987) } \end{gathered}$ | $\begin{array}{\|c} \text { Morticians' } \\ \text { goods } \\ \text { (SIC 3988) } \end{array}$ | Furs, dressed and dyed (SIC 3992) | Signs and advertising displays (SIC 3993) | Umbrellas, parasols, and canes (SIC 3995) | MiscelIaneous products, n.e.c. (SIC 3999) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cost of purchased fuels and electric energy.... $\$ 1,000$. . | 2,730 | 3,546 | 638 | 208 | 197 | 2,929 | 253 | 5,693 | 227 | 3,559 |
| Total cost of purchased fuels.........................did | 932 | 1,852 | 294 | 149 | (S) | 1,315 | 119 | 2,365 | 109 | 1,491 |
| Eituminous coal, lignite, and anthracite: <br> Quantity. . . . . . . . . . . . . . . . . . . . . . . . . . ., 000 short tons. <br> cost. $\qquad$ | 60 | $\begin{aligned} & 114 \\ & 886 \end{aligned}$ | $\begin{array}{r} 19 \\ 107 \end{array}$ | $\begin{aligned} & \text { (S) } \\ & \text { (S) } \end{aligned}$ | - | 38 323 | (S) | (S) | (S) | 18 187 |
| Coke and breeze: <br> Quantity..................................... 1,000 short tons <br> Cost. <br> . ........... .\$1,000. | - | - | - | - | - | (S) | - | - | - | - |
| Fuel oil (distillate and residual): Quantity....................., 000 barrels of 42 gallons. cost. . $\qquad$ . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 111 | 158 422 | 27 114 | $\begin{aligned} & 27 \\ & 85 \end{aligned}$ | $\begin{aligned} & \text { (S) } \\ & \text { (S) } \end{aligned}$ | 55 237 | $\begin{aligned} & \text { (S) } \\ & (S) \end{aligned}$ | 92 438 | (S) | 87 341 |
| Gas (natural, manufactured, still, blast furnace, and coke oven): |  |  |  |  |  |  |  |  |  |  |
| cost....................................................... $\$ 1,000 .$. | 221 | 235 | (S) | (S) | (S) | 563 310 | (S) | $\begin{array}{r}1,439 \\ \hline 991\end{array}$ | (S) | 596 417 |
|  | 210 | 309 | 33 | (S) | (S) | 436 | 51 | 891 | 56 | 546 |
| Electric energy: |  |  |  |  |  |  |  |  |  |  |
|  | 98 | 151 | 30 | 2 | (S) | 83 | 6 | 179 | (S) | 112 |
| cost. ............................................ $\$ 1,000 .$. | 1,798 | 1,694 | 344 | 59 | (S) | 1,614 | 134 | 3,328 | (S) | 2,068 |
| Generated less sold......................million kw. hrs.. | (S) | (S) | (S) | (S) | - | (S) | - | (S) | - | - |
| Aggregate horsepower of prime movers and electric motors driven by purchased energy (December 31), total...l,000 hrs.. | 52 | 99 | 13 | 3 | 3 | 63 | 5 | 92 | - | 67 |
| Prime movers, total......................................do. | 3 | 16 | 3 | 2 | (Z) | 9 | (Z) | 2 | - | 3 |
| Driving generators.................................... do.... | 2 | 11 | 2 | 1 | - | 8 | - | 1 | - | 1 |
| Not driving generators.................................do. | 1 | 5 | 1 | 1 | (z) | 1 | (Z) | 1 | - | 2 |
| Electric motors, total.................................. ${ }^{\text {do.. }}$ | 50 | 84 | 14 | 2 | 3 | 56 | 5 | 89 | - | 64 |
| Driven by purchased energy......................................... |  |  | 10 | 1 |  | 54 | 5 | 89 | - | 64 |
| Aggregate horsepower per 100 production workers. | 384 | 1,874 | 316 | 143 | 76 | 463 | 262 | 293 | - | 329 |

Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated ith these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Po er Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
(Z) Less than 500 horsepower. n.e.c. Not elsewhere classified.
(S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated with the figure was too high (generally in excess of 25 percent); to avoid disclosing figures of individual companies; or on the basis of a general consistency review.

# TABLE 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963 

This table presents selected statistics for establishments according to the ir degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishments; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963-Continued

| Industry or product class code | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 3999- | MISCELLANEOUS PRODUCTS, N.E.C.-Continued |  |  |  |  |  |  |  |  |  |  |
| 39997. | ```Chemical fire extinguishing equip- ment and parts (primary product class of estab.) .................. Establishments with- 90% or more specialization.....``` | 31 24 | 1,681 845 | 9,738 5,308 | 1,170 510 | 2,342 1,026 | 5,951 2,833 | 23,612 10,399 | 25,769 14,547 | 48,874 24,485 | 1,090 644 |
| 39992 | Coin-operated amusement machines (primary product class of estab.) | 12 | 2,180 | 10,996 | 1,853 | 3,794 | 8,012 | 15,303 | 15,095 | 31,361 | 137 |
| 39993 | Other miscellaneous fabricated products (primary product class of estab.) $\qquad$ Establishments with- | 572 | 19,926 | 89,000 | 16,250 | 31,750 | 61,925 | 166,236 | 141,918 | 305,158 | 6,333 |
|  | $90 \%$ or more specialization.... <br> 75-89\% specialization.......... | $\begin{array}{r} 516 \\ 30 \end{array}$ | $\begin{array}{r} 16,345 \\ 1,152 \\ \hline \end{array}$ | $\begin{array}{r} 70,905 \\ 5,593 \\ \hline \end{array}$ | $\begin{array}{r} 13,479 \\ 947 \\ \hline \end{array}$ | $\begin{array}{r} 26,436 \\ 1,934 \\ \hline \end{array}$ | $\begin{array}{r} 50,719 \\ 3,600 \\ \hline \end{array}$ | $\begin{array}{r} 137,144 \\ 11,572 \end{array}$ | $\begin{array}{r} 112,571 \\ 15,053 \end{array}$ | $\begin{array}{r} 246,941 \\ 25,882 \end{array}$ | $\begin{array}{r} 4,954 \\ 436 \\ \hline \end{array}$ |

n.e.c. Not elsewhere classified

## Ordnance and Accessories

19A Ordnance and accessories

For 1953 and earlier years, data for Major Group 19, Ordnance and Accessories, are included with Major Group 39 in table 1.

For 1954 and subsequent years Major Group 19 data are published separately. However, in some tables within these volumes, data for Major Group 19 are given both separately and combined with Major Group 39.

Major Group 19 covers establishments primarily engaged in manufacturing artillery, small arms, and related equipment; ammunition; tanks and specialized tank parts; sighting and fire control equipment; complete guided missiles and research and development on complete guided missiles and, miscellaneous ordnance and accessories, not elsewhere classified.

## Ordnance and Accessories: Major Group 19

Value Added by Manufacture by State: 1963


## table 1. General Statistics: 1963 and Earlier Years

| Year and item | Establishments |  | All employees ${ }^{\text {3 }}$ |  | Production workers |  |  | Value added by manufacture, adjusted$(\$ 1,000)$ | Cost of materials ${ }^{3}$$(\$ 1,000)$ | Value of shipments ${ }^{3}$$(\$ 1,000)$ | $\qquad$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \\ & \hline \end{aligned}$ |  |  |  |  |
| ALL MANUFACTURING ESTABLISHMENTS, TOTAL: |  |  |  |  |  |  |  |  |  |  |  |
| 1963. . . . . . . . . | 295 | 175 | 249 225 | 1981583 | 122891 | 246572 | 799990 | 2882521 | 1902383 | 4784047 | 88 218 |
| 1958 . . . . . . . . . . . | 235 | 159 | 198598 | 1322867 | 114319 | 237750 | 652349 | 1956378 | ( NA) | 3686316 | 74986 |
| 1954 . . . . . . . . . . | (NA) | (NA) | 230247 | 1039121 | 170972 | 342458 | 716273 | 1653325 | (NA) | (NA) | 61073 |
| AOMINISTRATIVE AND AUXILIARY UNITS: |  |  |  |  |  |  |  |  |  |  |  |
| $1963{ }^{5}$. | 37 | 12 | 2291 | 24729 | (x) | (x) | (x) | (x) | (x) | (x) | \| $\times 1$ |
| 1958 - . . . . . . | 12 | 10 | 2728 | 20125 | $(x)$ | $(x)$ | $(\mathrm{x})$ | $(x)$ | $(x)$ | $(x)$ | (x) |
| 1954 . . . . . . . | (NA) | (NA) | (5) | (5) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| OPERATING MANUFACTURING ESTABLI SHMENTS: |  |  |  |  |  |  |  |  |  |  |  |
| 19636. | 253 | 163 | 245934 | 1956954 | 12? 891 | 246512 | 788990 | 2882521 | 1902383 | 4784047 | 88218 |
| $1958{ }^{6}$. | 223 | 149 | 195870 | 1302742 | 114319 | 237750 | 652349 | 1956378 | (NA) | 3696316 | 74986 |
| 1954 . . . . . . . . . | 494 | 380 | 230247 | 1038121 | 170972 | 342458 | 716273 | 1659385 | (x) | ( x ) | 61073 |
| OPERATING MANUFACTURING ESTABLISHMENTS: |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | (NA) | (NA) | 189 <br> 14867 <br> 185 | $\begin{array}{lll}1 & 448 & 162 \\ 1 & 029 & 453\end{array}$ | 104957 81573 | 212272 158603 | $\begin{array}{ll}643 & 236 \\ 494 & 087\end{array}$ | $\begin{array}{lll}2 & 196 & 474 \\ 1 & 804 & 286\end{array}$ | 1 804 <br> 1 6483 | $\begin{array}{lll}3 & 911 & 199 \\ 3 & 417 & 227\end{array}$ | $\begin{array}{ll}80 & 299 \\ 52 & 094\end{array}$ |
| $1960^{6} 7^{\circ}$. . . . . . . . | ( NA) | ( NA) | 200674 | $1 \begin{array}{lll}1 & 445 & 081\end{array}$ | 100178 | 204718 | 595900 | 2109361 | (NA) | (NA) | 49569 |
| $1959{ }^{6}{ }^{\circ}$. . . . . . . . | (NA) | (NA) | 204237 | 1418739 | 108586 | 225035 | 646026 | 2096295 | (NA) | (NA) | 56405 |
| $1957{ }^{7}$. . . . . . . . . . . | (NA) | ( NA) | 171433 | 949385 | 111517 | 220029 | 519669 | 1443272 | (NA) | ( NA) | 61001 |
| $19567^{7}$. . . . . . . . | (NA) | (NA) | 170399 | 901738 | 119495 | 242901 | $540 \quad 491$ | 1329019 | ( NA) | (NA) | 47622 |
| $1955^{7}$. . . . . . . | (NA) | ( NA) | 193522 | 913028 | 138579 | 276667 | 577735 | 1394335 | ( NA) | (NA) | 63272 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for
(NA) Not available. individual companies. (NA) Not available. ( $X$ ) Not applicable,
${ }^{1}$ The figures for 1939 through 1963 include data for employees of manufacturing establishments who were engaged in distribution and construction work. The extent to which data for such employees are included in the figures for earlier years is not know.
${ }^{2}$ For the period 1954 to 1963, figures represent adjusted value added by manufacture and for earlier years, unadjusted value added. Adjusted value added is equal to value of shipments (including resales of finished products) less cost of finished products, materials, supplies, fuel, electric energy and contract work, plus the net change in the of the year, without adjustment for price changes. Unadjusted value added is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year.
${ }^{3}$ The total value of shipments and cost of materials for industry groups (2- and 3digit) include extensive duplication arising from shipments between establishments in the same industry classification. For more information, see Introduction.
${ }^{4}$ The figures for 1958 to 1963 include expenditures for plants under construction and not yet in operation.
SIn 1954, data for administrative and auxiliary establishments for Major Group 19,
"Ordnance and Accessories", are included with Major Group 39, "Miscellaneous
Manufactures"
${ }^{6}$ Data for 1958 to 1963 include establishments primarily engaged in manufacturing complete guided missiles, and in performing research and development on complete guided missiles.
${ }^{7}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates therefore, may differ from the results that would have been obtained from a complete zanvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

## table 2. General Statistics, by Geographic Areas: 1963 and 1958-Continued

| Code | Industry group and geographic area | 1963 |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Establishments |  | All employees |  | Production workers |  |  | Value added by manufacture, adjusted $(\$ 1,000)$ | Capital expendi tures, new$(\$ 1,000)$ |  | Value added by manufacture, adjusted $(\$ 1,000)$ |
|  |  | Total (number) | With 20 employees or more (number) | Total <br> (number) | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Total <br> (number) | Man-hours <br> $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  | All employees <br> (number) |  |
| 19 | Ordnance and accessories, total ${ }^{2}$ | 258 | 163 | 245934 | 1956954 | 122891 | 246512 | 738990 | 2882521 | 88218 | 195870 | 1956378 |

[^318]
## TABLE 3. Detailed Statistics: 1963

| Item | Ordnance and accessories (SIC 19) | $\begin{gathered} \text { Missiles and } \\ \text { ammunition, n.e.c. } \\ \text { (SIC 192). } \end{gathered}$ | Tanks and tank components (SIC 193) | Sighting and fire control equipment (SIC 194) | Small arms, 30 mm, and under (SIC 195) | Small arms ammunition (SIC 196) | Guns, howitzers, and mortars and ordnance and accessories, n.e.c. (SIC 191 and 199) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| establi shments, total . . . . . . . . . . . . . . . Number. | 258 | 75 | 26 | 13 | 52 | 31 | 61 |
| WIth 1 to 19 EmPLOYEES. . . . . . . . . . . . . . . . DO. | 95 | 12 | 7 | 5 | 29 | 18 | 24 |
| WITH 20 to 99 Employees . . . . . . . . . . . . . . . Do. | 48 | 12 | 8 | 1 | 11 | 3 | 13 |
| WITH 100 employees or more. . . . . . . . . . . . . . DO. | 115 | 51 | 11 | 7 | 12 | 10 | 24 |
| PROPRIETORS AND WORKING PARTNERS. . . . . . . . . . . . DO. | 41 | 5 | 7 | 1 | 11 | 10 | 7 |
| all employees (average for the year). . . . . . . . . . do. | 245934 | 181486 | 11307 | 9249 | 9995 | 8909 | 24988 |
| PAYROLL (ALL EMPLOYEES), TOTAL FOR YEAR . . . . . $\$ 11000$. | 1956954 | 1528011 | 76583 | 66949 | 57347 | 51895 | 176169 |
| PRODUCTION WORKERS: |  |  |  |  |  |  |  |
| average for the year. . . . . . . . . . . . . . . number. | 122891 | 79586 | 7788 | 5810 | 7497 | 7061 | 15149 |
| march . . . . . . . . . . . . . . . . . . . . . . . do. | 126425 | 78846 | 12507 | 6284 | 7329 | 6789 | 14670 |
| MAY . . . . . . . . . . . . . . . . . . . . . . . . DO. | 120191 | 78474 | 6168 | 5950 | 7324 | 7131 | 15144 |
| august. . . . . . . . . . . . . . . . . . . . . . . Do. | 123111 | 81154 | 5867 | 5796 | 7705 | 7278 | 15311 |
| november. $:$. | 121843 | 79860 | 6603 | 5211 | 7635 | 7051 | 15483 |
| MAN-HOURS . . . . . . . . . . . . . . . . . . . .11000. | 246512 | 159324 | 16234 | 11085 | 15085 | 14083 | 30701 |
| JANUARY-march . . . . . . . . . . . . . . . . . . . Do. | 62131 | 39765 | 4174 | 3185 |  |  | 7651 |
| APRIL-JUNE. . . . . . . . . . . . . . . . . . . . DO. | 61149 | 39098 | 4099 | 2892 | 3729 | 3542 | 7789 |
| JULY-SEPTEMBER. . . . . . . . . . . . . . . . . . . DO. | 60549 | 39449 | 3864 | ${ }_{2} 643$ | 3503 | 3556 | 7534 |
| осtober-december. . . . . . . . . . . . . . . . . . do. | 62779 | 41018 | 4113 | 2375 | 3948 | 3598 | 7727 |
| wages . . . . . . . . . . . . . . . . . . . . . . \$1,000. | 788990 | 532846 | 48421 | 36639 | 39288 | 38099 | 93697 |
|  | 1902383 | 1339221 | 258861 | 60258 | 42965 | 85715 | 115363 |
| MATERIALSI PARTS, CONTAINERSI AND SUPPLIES CONSUMED . DO. | 1659084 | 1126493 | 255930 | 54289 | 39661 | 79734 | 102977 |
| COST Of resales . . . . . . . . . . . . . . . . . . . DO. | 128253 | (0) |  | 1975 | 1329 | 3193 | 101 |
| fuels consumed. . . . . . . . . . . . . . . . . . . . do. | 9604 | 101 | 603 | 134 | 942 | 1410 | 101 |
| ELECTRIC ENERGY: PURCHASED: |  |  |  |  |  |  |  |
| QUANTITY. . . . . . . . . . . . . . .MILLION KW.-HRS. | 1906 | 1145 | 105 | 55 | 64 | 113 | 424 |
| cost. . . . . . . . . . . . . . . . . . . . . \$10000. | 20176 | 12047 | 1226 | 616 | 807 | 1259 | 4221 |
| generated less sold . . . . . . . . . .million kw.-hrs. | 4545 | 4235 | - | - | (D) | (D) | - |
| contract work . . . . . . . . . . . . . . . . . . \$1,000. | 95086 | 89840 | 922 | 3244 | 226 | 119 | 735 |
| value of shipments (including resales), total ${ }^{1}$. . . . . do. Value of resales. | $\begin{array}{lll} 4 & 784 & 047 \\ 2 & 672 & 489 \end{array}$ | $\begin{array}{lll} 3 & 556 & 864 \\ 2 & 654 & 317 \end{array}$ | $\begin{array}{ll}394 & 144 \\ \\ 288\end{array}$ | 156 (D68 | $\begin{array}{rr}133 & 042 \\ 2412\end{array}$ | $192 \begin{gathered}454 \\ \text { (D) }\end{gathered}$ | 350975 6707 |
| Value added by manufacture, adjusted. . . . . . . . . . do. | 2882521 | 2210586 | 148369 | 96281 | 88302 | 103772 | 235211 |
| manufacturers inventories: |  |  |  |  |  |  |  |
| BEGINNING OF YEAR, TOTAL. . . . . . . . . . . . . . . DO. | 467388 | 212897 | 66053 | 28291 | 41487 | 74221 | 44439 |
| FINISHED PRODUCTS . . . . . . . . . . . . . . . . . Do. | 35374 | 3572 |  | 1505 | 9189 | 15541 | 4668 |
| WORK-IN-PROCESS . . . . . . . . . . . . . . . . . DO. | 311628 | 162433 | 57948 | 23754 | 22728 | 13902 | 30863 |
| materialst suppliest fuelr etc. . . . . . . . . . do. | 120388 | 46894 | 7206 | 3032 | 9570 | 44778 | 8908 |
| end of yeari total. . . . . . . . . . . . . . . . . . do. | 454455 | 196010 | 81967 | 33648 | 35983 | 63540 | 43307 |
| FINISHED PRODUCTS . . . . . . . . . . . . . . . . . DD. | 29825 | 3204 |  | 705 | 7614 | 12378 | 4415 |
| WORK-IN-PROCESS . . . . . . . . . . . . . . . . Do. | 293635 | 132180 | 70424 | 24525 | 22528 | 14098 | 29880 |
| materials, supplies, fueli etc. . . . . . . . do do. | 130995 | 60626 | 10034 | 8 418 | 5841 | 37064 | 9012 |
| EXPENDITURES FOR PLANT AND EQUIPMENT, TOTAL . . . . . . DO. | 96989 | 58520 |  | 3631 | 5402 | 11299 |  |
| NEWI TOTAL. . . . . . . . . . . . . . . . . . . . . DO. | 88218 | 56468 | 5249 | 3631 | 5123 | 5478 | 12269 |
| NEW STRUCTURES AND additions to plant . . . . . . . do. | 25881 | 16435 | 674 | 1678 |  | 1586 | 4373 |
| NEW MACHINERY AND EQUIPMENT . . . . . . . . . . . . Do. | 62337 | 40033 | 4575 | 1953 | 3988 | 3892 | 7896 |
| used plant and equipment. . . . . . . . . . . . . . . do. | 8771 | 2052 | 316 | - | 279 | 5821 | 303 |
| selected operating ratios: |  |  |  |  |  |  |  |
| PAYROLL/TOTAL EMPLOYMENT. . . . . . | 7957 | 8419 | 6773 | 7239 | 5738 | 5825 | 7050 |
| PRODUCTION WORKERS/TOTAL EMPLOYMENT | . 50 | . 44 | . 69 | . 63 | . 75 | . 79 | . 61 |
| MAN-HOURS/PRODUCTION WORKERS. ${ }^{\text {P }}$ PROD | 2006 | 2002 | 2084 | 1908 | 2012 | 1994 | 2027 |
| PRODUCTION WORKER WAGES/MAN-HOURS . . . . . . . | 3.20 | 3.34 | 2.98 | 3.31 | 2.60 | 2.71 | 3.05 |
| COST OF MATERIALS AND PAYROLLS/TOTAL VALUE OF SHIPMENTS Cost of materials/total value of Shipments. | . 81 | . 81 | . 85 | . 81 | . 75 | . 72 | . 83 |
| ADJUSTED VALUE ADDED/TOTAL EMPLOYMENT . . | 11721 | 12 180 | 13122 | 10410 | 8.835 | 11648 | 413 |
| SALARIES AND WAGES/adJusted value added | . 68 | . 69 | . 52 | . 70 | . 65 | . 50 | . 75 |

 Note: Aetailed explanation of terms used.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual conpanies.
(NA) Not available.
(x) Not applicable.
${ }^{1}$ The value of shipments and cost of materials for industry
industry. For a more complete explanation, see Introduction.


## ORDNANCE AND ACCESSORIES

This report shows 1963 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC Code and Title<br>1911 -Guns, Howitzers, Mortars, and Related Equipment<br>1925-Guided Missiles and Space Vehicles, Completely Assembled<br>1929-Ammunition, Not Elsewhere Classified<br>1931-Tanks and Tank Components<br>1941-Sighting and Fire Control Equipment<br>1951-Small Arms<br>1961-Small Arms Ammunition<br>1999-Ordnance and Accessories, Not Elsewhere Classified

The general statistics (employment, payrolls, value of shipments, cost of materials, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments in the industry, but also their activities in the manufacture of secondary products and, for that matter, their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 to 4) with product statistics (table 6A) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5 A which shows the value of primary and secondary products shipped by establishments classified in the specified industry and also the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

## 1911 -GUNS, HOWITZERS, MORTARS, AND RELATED EQUIPMENT

This industry comprises establishments primarily engaged in the manufacture of naval, aircraft, anti-aircraft, tank, coast, and field artillery having a bore over 30 mm . (or over 1.18 inch), and components. Establishments primarily engaged in manufacturing small arms and parts 30 mm . (or 1.18 inch ) and below are classified in industry 1951. However, all statistics for industry 1911 combined with those for industry 1999 in 1963, with the exception of a value of shipments figure for the products primary to industry 1911. The latter figure is shown separately in table 6A.

## 1925-GUIDED MISSILES AND SPACE VEHICLES, COMPLETELY ASSEMBLED

This industry comprises establishments primarily engaged in the manufacture of completely assembled guided missiles and space vehicles. Establishments primarily engaged in manufacturing guided missiles and space vehicle engines and engine parts are classified in industry 3722; space satellites, guided missile and space vehicle airborne and ground guidance, check-out and launch electronic systems and components in industry 3662; and guided missile and space vehicle airframes, nose cones, and space capsules in industry 3729. This industry is now a separate one under the Standard Industrial Classification System. In 1958 the SIC included it as part of industry 1929; it was published separately at that time as census industry 1925. For a detailed list of products of industry 1925, refer to table 6A, product codes 1925111 to 1925115.

Value of work done and other receipts of the Complete Guided Missiles lndustry totaled $\$ 3,054$ million. This amount included work on complete guided missiles and space vehicles (primary products) valued at $\$ 2,735$ million, shipments of other products (secondary products) valued at $\$ 176$ million, and miscellaneous receipts at $\$ 143$ million.

This industry's receipts for work done on complete guided missiles and space vehicles represented 94 percent of its total product shipments. The industry specialization ratio in 1958 was 73 percent. Secondary products shipped by this industry in 1963 consisted mainly of aircraft and parts ( $\$ 131$ million).

Shipments of complete guided missiles and space vehicles by this industry represented 69 percent of all shipments of these products ( $\$ 3,957$ million) by all industries. In 1958 the coverage ratio was 83 percent. Other industries shipping complete guided missiles and space vehicles consisted mainly of industry 3721, Aircraft, and industry 3729, Aircraft Equipment, N.E.C.

## 1929-AMMUNITION, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in the manufacture of ammunition, n.e.c., or in loading and assembling ammuntion over 30 mm . (or over 1.18 inch) for naval, aircraft, anti-aircraft, tank, coast, and field artillery; including component parts. This industry also includes establishments primarily engaged in manufacturing bombs, mines, torpedoes, grenades, depth charges, chemical warfare projectiles, and their component parts. Establishments primarily engaged in manufacturing small arms ammunition are classified in industry 1961; explosives in industry 2892; and military pyrotechnics in industry 2899. This industry has been amended to include industry 1921, Artillery Ammunition and industry 1922, Ammunition, Loading and Assembling, which were defined as separate industries in the 1957 Standard Industrial Classification Manual. Also, establishments producing guided missiles and space vehicles are now classified in industry 1925, Complete Guided Missiles. For a detailed list of products of industry 1929, refer to table 6A, product class codes 19291 to 19293.

The code number for this industry in the Standard Industrial Classification Manual is unchanged, but the content of the industry has been significantly changed from the classification systemused in 1958. The change in composition of the industry as now constituted, compared with that under the classification system followed in the 1958 census, is due principally to industries 1921, Artillery Ammunition, and 1922, Ammunition Loading and Assembling, being included in this industry for 1963.

Value of shipments and other receipts of the Ammunition, N.E.C., Industry totaled $\$ 503$ million. This amount included shipments of ammunition, n.e.c. (primary products) valued at $\$ 290$ million, shipments of other products (secondary products) valued at $\$ 123$ million, and miscellaneous receipts (mainly contract work on materials owned by others) at $\$ 89$ million.

This industry's shipments of ammunition, n.e.c., represented 70 percent of its total product shipments.

Shipments of ammunition, n.e.c., by this industry represented 82 percent of all shipments of these products ( $\$ 356$ million) by all industries. Other industries shipping ammunition, except for small arms, n.e.c. (primary products) included industry 3461, Metal Stampings; industry 3545, Machine Tool Accessories; and industry 3621, Motors and Generators.

## 1931-TANKS AND TANK COMPONENTS

This industry comprises establishments primarily engaged in the manufacture or assembly of complete tanks and other tracked military vehicles and specialized components for
tanks. Establishments primarily engaged in manufacturing wheeled military vehicles are classified in group 371, and tank engines in industry 3519.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Tanks and Tank Components Industry totaled $\$ 394$ million. This amount included shipments of tanks and tank components (primary products) valued at $\$ 358$ million, shipments of other products (secondary products) valued at $\$ 18$ million, and miscellaneous receipts at $\$ 18$ million.

This industry's shipments of tanks and tank components represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 89 percent.

Shipments of tanks and tank components by this industry in 1963 represented 79 percent of all shipments of these products ( $\$ 454$ million) by all industries. In 1958 the coverage ratio was 84 percent. Another industry shipping tanks and tank components was industry 3717, Motor Vehicles and Parts, $\$ 5$ million.

## 1941-SIGHTING AND FIRE CONTROL EQUIPMENT

This industry comprises establishments primarily engaged in the manufacture of sighting and fire control equipment, but which are not engaged in manufacturing optical lenses and prisms. Important products of this industry include bomb sights, percentage correctors, wind correctors, directors, and sound locators. Establishments engaged in manufacturing optical lenses and prisms, and also manufacturing sighting and fire control equipment, are classified in industry 3831.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Sighting and Fire Control Equipment Industry totaled $\$ 157$ million. This amount included shipments of sighting and fire control equipment (primary products) valued at $\$ 86$ million, shipments of other products (secondary products) valued at $\$ 66$ million, and miscellaneous receipts at $\$ 5$ million.

This industry's shipmerts of sighting and fire control equipment represented 57 percent of its total product shipments. The industry specialization ratio in 1958 was 62 percent. Secondary products shipped by this industry in 1963 consisted mainly of test equipment for testing electrical, radio, and communication circuits and motors, electronic navigational aids, and missile-borne and space vehicle-borne navigation and guidance systems and equipment.

Shipments of sighting and fire control equipment by this industry represented 80 percent of all shipments of these products ( $\$ 107$ million) by all industries. In 1958 the coverage ratio was 89 percent. Ariother industry shipping sighting and fire control equipment was industry 3662, Radio, TV Communications Equipment, $\$ 13$ million.

## 1951-SMALL ARMS

This industry comprises establishments primarily engaged in the manufacture of small firearms having a bore 30 mm . (or 1.18 inch ) and below, and parts for small firearms. Establishments primarily engaged in manufacturing artillery and mortars having a bore over 30 mm . (or over 1.18 inch ), and component parts are classified in industry 1911. For a detailed list of products of industry 1951, refer to table 6A, product codes 1951113 to 1951281.

Value of shipments and other receipts of the Small Arms, 30 mm . and Under, Industry totaled $\$ 133$ million. This amount included shipments of small arms, 30 mm . and under, (primary products) valued at $\$ 122$ million, shipments of other products (secondary products) valued at $\$ 6$ million, and miscellaneous receipts (mainly resales) at $\$ 5$ million.

This industry's shipments of small arms, 30 mm . and under, represented 95 percent of its total product shipments. The industry specialization ratio in 1958 was 91 percent.

Shipments of small arms, 30 mm . and under, by this industry represented 82 percent of all shipments of these products ( $\$ 149$ million) by all industries. In 1958 the coverage ratio was also 81 percent. Other industries shipping small arms, 30 mm . and under, included industry 3722, Aircraft Engines and Parts; and industry 3729, Aircraft Equipment, N.E.C.

## 1961~SMALL ARMS AMMUNITION

This industry comprises establishments primarily engaged in the manufacture of ammunition for small arms having a bore of 30 mm . (or 1.18 inch ) and below. Establishments primarily engaged in manufacturing ammunition except for small arms are classified in industry 1929, blasting and detonating caps and safety fuses in industry 2892, and fireworks in industry 2899 . For a detailed list of products of industry 1961, refer to table 6A, product codes 1961012 to 1961089.

The code number as well as the definition of this industry was unchanged between 1958 and 1963.

Value of shipments and other receipts of the Small Arms Ammunition Industry totaled $\$ 192$ million. This amount included shipments of small arms ammunition (primary products) valued at $\$ 177$ million and shipments of other products (secondary products) and miscellaneous receipts which together totaled $\$ 16$ million.

This industry's shipments of small arms ammunition are between 85 and 99 percent of its total product shipments. The industry specialization ratio in 1958 also was between 85 and 99 percent.

Shipments of small arms ammunition by this industry represented 92 percent of all shipments of these products ( $\$ 192$ million) by all industries. In 1958 the coverage ratio was 94 percent. Other industries shipping small arms ammunition included industry 1999, Ordnance and Accessories, N.E.C.; industry 3352, Aluminum Rolling and Drawing; and industry 3694, Engine Electrical Equipment,

## 1999-ORDNANCE AND ACCESSORIES, NOT ELSEWHERE CLASSIFIED

This industry comprises establishments primarily engaged in the manufacture of ordnance and accessories, n.e.c. Complete guided missiles and space vehicles are classified in industry 1925. However, in 1963 all statistics for industry 1999 include those for industry 1911, with the exception of a value of shipments figure for the products primary to industry 1911. The latter figure is shown separately in table 6A.

Therefore, the textual material below represent the activities of industries 1999 and 1911 combined.

Value of shipments and other receipts of the Ordnance and Accessories, N.E.C., Industry (including SIC 1911) totaled $\$ 351$ million. This amount included shipments of ordnance and accessories, n.e.c.; and howitzers, mortars, and other artillary over 30 mm . (primary products) valued at $\$ 175$ million, shipments of other products (secondary products) valued at $\$ 49$ million, and miscellaneous receipts (mainly contract work on materials owned by others) at $\$ 126$ million.

These industry's shipments of ordnance and accessories, n.e.c., and howitzers, mortars. and other artillary over 30 mm . represented 78 percent of the total product shipments. (The specialization ratio for industry 1999 alone is not affected by the inclusion of industry 1911).

Shipments of ordnance and accessories, n.e.c., and howitzers, mortars, and other artillary over 30 mm . represented 69 percent of all shipments of these products ( $\$ 256$ million) by all industries. (The coverage ratio for industry 1999 alone in 1963 was 72 percent.) Other industries shipping ordnance and accessories, n.e.c., and howitzers, mortars, and other artillary over 30 mm . consisted mainly of industry 3729, Aircraft Equipment, N.E.C., $\$ 7$ million; industry 3662, Radio, TV Communication Equipment, $\$ 6$ million; and industry 3722, Aircraft Engines and Parts, $\$ 4$ million.


## table 1. General Statistics: 1963 and Earlier Years



NOTE: See Introduction for an explanation of terms used. The following variations in definition of terms should be considered in the use of this table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nonproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies,
(NA) Not available.
(X) Not
applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ Industry 1911 combined with industry 1999 for 1963. However, a value of shipments figure for the products primary to this industry is shown in table 6A.
${ }^{2}$ The adjusted value added for the Guided Missiles and Space Vehicles Industry does not take into account the change in inventory between the beginning and end of the year, since the figures reported by establishments in this industry represent value of work done rather than value of shipments. It does include value added by resales.
${ }^{3}$ For industry 1925, represents value of work done.
«Excludes 1958 SIC 1922, ammunition loading.

TABLE 2. General Statistics, by Geographic Areas: 1963 and 1958

| Geographic area ${ }^{\text {² }}$ | 1963 |  |  |  |  |  |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Establishments |  | All employees |  | Production workers |  |  | Valueadded by manufacture, adjusted $(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures, new$(\$ 1,000)$ | All employees <br> (number) | Value added by manufacture adjusted $(\$ 1,000)$ |
|  | Total <br> (number) | With 20 employees or more (number) | Total <br> (number) | Payroll <br> $(\$ 1,000)$ | Total <br> (number) | $\begin{gathered} \begin{array}{c} \text { Man- } \\ \text { hours } \end{array} \\ (1,000) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |
| Total.......... | MAJOR GROUP 19.-ORDNANCE AND ACCESSORIES |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 257 | 163 | 245,934 | 1,956,954 | 122,891 | 246,512 | 788,990 | 2,882,521 | 1,902,383 | 4,784,047 | 88,218 | (NA) | (NA) |
| New England....... | 32 | 22 | 15,151 | 87,441 | 11,014 | 21,957 | 57,874 | 143,317 | 85,041 | 231,565 | 6,291 | (NA) | (NA) |
| Connecticut..... | 19 | 12 | 8,099 | 49,084 | 6,245 | 12,404 | 33,658 | 79,563 | 48,304 | 130,145 | 5,369 | (NA) | (NA) |
| Middle Atlantic.... | 39 | 28 | 8,659 | 51,754 | 6,652 | 13,525 | 35,733 | 86,858 | 92,571 | 181,874 | 2,681 | (NA) | (NA) |
| New York..... | 13 | 9 | 4,877 | 30,751 | 3,573 | 6,946 | 20,017 | 48,383 | 32,418 | 78,507 | 2,169 | (NA) | (NA) |
| Pennsylvania..... | 23 | 17 | 3,713 | 20,546 | 3,030 | 6,459 | 15,524 | 38,171 | 59,102 | 101,857 | 502 | (NA) | (NA) |
| North Central...... | 70 | 45 | 39,647 | 267,097 | 26,029 | 52,321 | 156,464 | 397,707 | 349,189 | 753,584 | 11,235 | (NA) | (NA) |
| Ohio.............. | 14 | 10 | 6,212 | 4, 104 | 3,779 | 7,596 | 24,144 | 79,703 | 78,317 | 162,425 | (D) | (NA) | (NA) |
| Michigan.......... | 19 | 9 | 2,182 | 14,909 | 1,286 | 2,646 | 7,856 | 30,137 | 58,687 | 88,452 | 24.4 | (NA) | (NA) |
| Nebraska.......... | 3 | 2 | 119 | 513 | 101 | 227 | 361 | 558 | 400 | 989 | 28 | (NA) | (NA) |
| South Atlantic..... | 18 | 12 | 15,551 | 127,891 | 5,426 | 10,916 | 28,651 | 233,223 | 115,900 | 329,096 | 10,847 | (NA) | ( NA ) |
| East South Central. | 11 | 9 | 7,075 | 47,336 | 4,776 | 8,719 | 25,670 | 65,134 | 16,652 | 83,089 | 1,844 | (NA) | (NA) |
| West South Central. | 15 | 6 | 9,902 | 63,049 | 6,852 | 13,499 | 35,743 | 86,634 | 25,872 | 112,283 | 2,948 | (NA) | (NA) |
| Mountain. . | 17 | 11 | 13,587 | 103,262 | 8,067 | 16,234 | 54,368 | 126,989 | 90,609 | 221,448 | 6,686 | (NA) | ( NA ) |
| Pacific.. | 55 | 30 | 136,362 | 1,209,124 | 54,075 | 109,341 | 394,487 | 1,742,659 | 1,126,549 | 2,871,108 | 45,686 | (NA) | (NA) |
| California. | 51 | 30 | 136,342 | 1,209,043 | 54,060 | 109,310 | 394,431 | 1,742,508 | 1,126,402 | 2,870,805 | 45,675 | (NA) | (NA) |

Standard Notes: - Represents zero
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.
${ }^{1}$ General statistics for some producing States, have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. MG 19, Ordnance and Accessories: New England-Maine, 1 (500-999); Massachusetts, 11 ( $5,000-9,999$ ); Rhode Island, 1 (1-19); Middle AtlanticNew Jersey, 3 (20-99); East North Central-Indiana, 9 (5,000-9,999); Illinois, 8 (5,200); Wisconsin, 2 (500-999); West North Central-Minnesota, 3 (5,930); Iowa, 6 (2,736); Missouri, 6 (11,024); South Atlantic-Maryland, 3 (1,000-2,499); Virginia, 1 (20-99); West Virginia, 3 (1,0002,499); North Carolina, 3 (1,493); Georgia, 1 (100-249); Florida, 7 (11,330); East South Central-Tennessee, 6 (2,024); Alabama, 5 (5,051); West South Central-Arkansas, 1 (1-19); Iouisiana, 3 (2,500-4, 999); Oklahoma, 3 (1-19); Texas, 8 (5,000-9,999); Mountain-Idaho, 2 (100-249); Colorado, 7 (3,065); New Mexico, 3 (2,711); Arizona, 3 (4,165); Utah, 2 (2,500-4,999); Pacific-Oregon, 4 (20-99).

## TABLE 3. Detailed Statistics: 1963

| Item | $\begin{aligned} & \text { Complete guided } \\ & \text { missiles } \\ & \text { (SIC 1925) } \end{aligned}$ | Ammunition, п.e.c. (SIC 1929) | Tanks and tank components (SIC 1931) | Sighting and fire control equipment (SIC 1941) | Small arms, 30 mm . and under (SIC 1951) | Small arms ammunition (SIC 1961) | Guns, howitzers <br> and mortars and <br> ordnance and <br> accessories, <br> n.e.c. <br> (SIC 1911 and <br> 1999) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Primary product specialization ratio ${ }^{1}$. | . 94 | . 70 | . 95 | . 57 | . 95 | (NA) | . 78 |
| Coverage ratio ${ }^{2}$.................... | . 69 | . 82 | . 79 | . 80 | . 82 | . 92 | . 69 |
| Establishments, total......................................number. . | 31 | 44 | 26 | 13 | 52 | 31 | 60 |
| With 1 to 19 employees.................................. . . . . . . | 2 | 10 | 7 | 5 | 29 | 18 | 24 |
| With 20 to 99 employees.................................do. . . | 6 | 6 | 8 | 1 | 11 | 3 | 13 |
| With 100 employees or more.............................do. . . . . | 23 | 28 | 11 | 7 | 12 | 10 | 24 |
| Proprietors and working partners......................do.... |  | 5 | 7 | 1 | 11 | 10 | 7 |
| All employees (average for the year).....................do.... | 148,908 | 32,578 | 11,307 | 9,249 | 9,995 | 8,909 | 24,988 |
| Payroll (all employees), total for year............... $\$ 1,000 .$. | 1,325,803 | 202,208 | 76,583 | 66,949 | 57,347 | 51,895 | 176,169 |
| Production workers: |  |  |  |  |  |  |  |
| Average for the year...................................number.. | 54,527 | 25,059 | 7,788 | 5,810 | 7,497 | 7,061 | 15,149 |
| March. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . do. . . . | 53,318 | 25,528 | 12,507 | 6,284 | 7,329 | 6,789 | 14,670 |
| May................................................... .do. . . | 52,739 | 25,735 | 6,168 | 5,950 | 7,324 | 7,131 | 15,144 |
| August. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 55,658 | 25,496 | 5,867 | 5,796 | 7,705 | 7,278 | 15,311 |
| November. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .do. . . . | 56,394 | 23,466 | 6,603 | 5,211 | 7,635 | 7,051 | 15,483 |
| Man-hours. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1,000$. . | 110,358 | 48,966 | 16,234 | 11,085 | 15,085 | 14,083 | 30,701 |
| January-March. ........................................ .do. . . . | 26,881 | 12,884 | 4,174 | 3,185 | 3,923 | 3,433 | 7,651 |
| April-June.............................................. . do. | 26,584 | 12,514 | 4,099 | 2,892 | 3,729 | 3,542 | 7,789 |
| July-September......................................... . . do. | 27,589 | 11,860 | 3,864 | 2,643 | 3,503 | 3,556 | 7,534 |
| October-December....................................... ${ }^{\text {do.... }}$ | 29,304 | 11,714 | 4,113 | 2,375 | 3,948 | 3,598 | 7,727 |
| Wages. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1,000. . | 395,184 | 137,662 | 48,421 | 36,639 | 39,288 | 38,099 | 93,697 |
| Cost of materials, etc., total..........................do.... | 1,129,051 | 210,170 | 258,861 | 60,258 | 42,965 | 85,715 | 115,363 |
| Materials, parts, containers, and supplies consumed..do.... | 946,198 | 180,295 | 255,930 | 54,289 | 39,661 | 79,734 | 102,977 |
| Cost of resales......................................... ${ }^{\text {do.. }}$ | (D) | 26 | 180 | 1,975 | 1,329 | 3,193 | (D) |
| Fuels consumed...........................................do.... | (D) | 2,957 | 603 | 134 | 942 | 1,410 | (D) |
| Electric energy: |  |  |  |  |  |  |  |
| Purchased: |  |  |  |  |  |  |  |
| Quantity................................................................ cost. |  |  |  | 55 616 | 84 | 113 259 | $424$ |
| Cost.............................................. $\$ 1,000$. . | 8,988 | 3,059 | 1,226 | 616 | 807 | 1,259 | 4,221 |
| Generated less sold......................million kw.-hrs.. | (D) | (D) | - | - | (D) | (D) | - |
| Contract work. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1,000 .$. | 66,007 | 23,833 | 922 | 3,244 | 226 | 119 | 735 |
| Value of shipments (including resales), total${ }^{3} . . . . . .$. do..... Value of resales.............................................................. | 3,053, 863 | 503, 001 | 394,144 | $\begin{array}{r} 1.56,568 \\ \text { (D) } \end{array}$ | $\begin{array}{r} 133,042 \\ 2,412 \end{array}$ | $\begin{array}{r} 192,454 \\ \text { (D) } \end{array}$ | $\begin{array}{r} 350,975 \\ (\mathrm{D}) \end{array}$ |
| Value added by manufacture, adjusted ${ }^{4}$ | 1,924,812 | 285,774 | 148,369 | 96,281 | 88,302 | 103,772 | 235,211 |
| Manufacturers' inventories: |  |  |  |  |  |  |  |
| Beginning of year, total..............................do.... | 159,861 | 53,036 | 66,053 | 28,291 | 41,487 | 74,221 | 44,439 |
| Finished products....................................do. | 101 | 3,471 | 899 | 1,505 | 9,189 | 15,541 | 4,668 |
| Work-in-process...................................... . do... | 128,227 | 34,206 | 57,948 | 23,754 | 22,728 | 13,902 | 30,863 |
| Materials, supplies, fuel, etc.......................do... | 31,533 | 15,361 | 7,206 | 3,032 | 9,570 | 44,778 | 8,908 |
| End of year, total......................... . . . . . . . . . . do. | 151,598 | 44,412 | 81,967 | 33,648 | 35,983 | 63,540 | 43,307 |
| Finished products...................................... . . . . . . . | - 40 | 3,164 | 1,509 | , 705 | 7,614 | 12,378 | 4,415 |
| Work-in-process....................................... .do.... | 104,724 | 27,456 | 70,424 | 24,525 | 22,528 | 14,098 | 29,880 |
| Materials, supplies, fuel, etc.....................do.... | 46,834 | 13,792 | 10,034 | 8,418 | 5,841 | 37,064 | 9,012 |
| Expenditures for plant and equipment, total............do.... | 50,561 | 7,959 | 5,565 | 3,631 | 5,402 | 11,299 | 12,572 |
|  | 48,849 | 7,619 | 5,249 | 3,631 | 5,123 | 5,478 | 12,269 |
| New structures and additions to plant..............do.... | 13,458 | 2,977 | 674 | 1,678 | 1,135 | 1,586 | 4,373 |
| New machinery and equipment.........................do.... | 35,391 | 4,642 | 4,575 | 1,953 | 3,988 | 3,892 | 7,896 |
| Used plant and equipment..............................do.... | 1,712 | 340 | 316 | - | 279 | 5,821 | 303 |
| Selected operating ratios: |  |  |  |  |  |  |  |
| Payroll/Total employment...................................... | 8,903 | 6,207 | 6,773 | 7,239 | 5,738 | 5,825 | 7,050 |
| Production workers/Total employment. . . . . . . . . . . . . . . . . . . . . | . 37 | . 777 | . 69 | . 63 | . 75 | . 79 | . 61 |
| Man-hours/Production workers. | 2,023 | 1,954 | 2,084 | 1,908 | 2,012 | 1,994 | 2,027 |
| Production worker wages/Man-hours............................ | 3.58 | 2.81 | 2.98 | 3.31 | 2.60 | 2.77 | 3.05 |
| Cost of materials and payrolls/Total value of shipments.... | . 80 | . 82 | . 85 | . 81 | . 75 | . 72 | . 83 |
| Cost of materials/Total value of shipments.................. | . 37 | . 42 | . 66 | . 38 | . 32 | .45 | . 33 |
| Adjusted value added/Total employment. | 12,764 | 9,134 | 13,122 | 10,410 | 8,835 | 11,648 | 9,413 |
| Salaries and wages/Adjusted value added. | . 70 | . 68 | . 52 | . 70 | . 65 | . 50 | . 75 |

Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of tiousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not
applicable.
${ }^{2}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary proancts. such products by all manufac-
turing establishments.
${ }^{3}$ For industry 1925, represents value of work done.
${ }^{4}$ See table 1 , footnote 2.

## TABLE 4. Selected Statistics, by Employment Size of Establishments: 1963

| Item | Establishments, total | Establishments with an average of- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 to 4 employees | $\begin{aligned} & 5 \text { to } 9 \\ & \text { employees } \end{aligned}$ | 10 to 19 employees | 20 to 49 employees | 50 to 99 employees | $\begin{gathered} 100 \text { to } \\ 249 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 250 \text { to } \\ 499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 500 \text { to } \\ 999 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 1,000 \text { to } \\ 2,499 \\ \text { employees } \end{gathered}$ | $\begin{gathered} 2,500 \\ \text { employees } \\ \text { and over } \end{gathered}$ |
|  | INDUSTRY 1925.-COMPLETE GUIDED MISSILES |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 31 | - | 2 | - | 4 | 2 | 2 | 2 | - | 6 | 13 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 148,908 | - | 279 | - | (D) | (D) | 976 | (D) | - | 9,409 | 138,244 |
| Payroll.................. $\$ 1,000$. . | 1,325,803 | - | 2,923 | - | (D) | (D) | 8, $\overline{516}$ | (D) | - | 93,187 | 1,221,177 |
| Value added, adjusted ${ }^{\text {i }}$......do.... | 1,924,812 | - | 4,570 | - | (D) | (D) | $\frac{25,459}{40,06}$ | (D) | - | 153,194 | 1,741,589 |
| Value of shipments..........do.... | 3,053,863 |  | 7,078 | - | (D) | (D) | 40,066 | (D) | - | 232,077 | 2,774,642 |
| Capital expenditures, new...do.... | 48,849 | - | $\underline{56}$ | - | (D) | (D) | 1,366 | (D) | - | 2,853 | 44,574 |
|  | INDUSTRY 1929. -AMMUNITION, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 44 | 6 | 3 | 1 | 5 | 1 | 10 | 3 | 7 | 4 | 4 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total..................... do.... | 32,578 | 9 | 37 | (D) | 223 | (D) | 1,615 | 1,155 | 5,716 | 7,297 | 16,526 |
| Pay roll. . . . . . . . . . . . . . \$1,000. . | 202,208 | 64 | 262 | (D) | 1, $\overline{420}$ | (D) | 9,273 | 6,796 | 33,807 | 40,471 | 110,115 |
| Value added, adjusted.......do.... | 285,772 | 133 | 295 | (D) | 4,155 | (D) | 14,485 | 10,663 | 38,538 | 52,743 | 164,762 |
| Value of shipments..........dd.... | 503,001 | 183 | 736 | (D) | 9,140 | (D) | 25,697 | 21,024 | 84,273 | 85,399 | 276,549 |
| Capital expenditures, new...do.... | 7,619 | ${ }^{2} 572$ | (D) | (D) | (D) | (D) | 466 | 105 | 846 | 3,216 | 2,414 |
|  | INDUSTRY 1931. -TANKS AND TANK COMPONENTS |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 26 | 4 | 2 | 1 | 3 | 5 | 3 | 4 | 1 | 1 | 2 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total........................do.... | 11,307 | $\begin{array}{r}3 \\ 17 \\ \hline\end{array}$ | - 25 | (D) | 111 509 | 378. 2,666 | $\begin{array}{r}498 \\ 2,384 \\ \hline\end{array}$ | 1,697 11,433 | ¢ 89.595 | (D) | (D) |
| Payroll................. $\$ 1,000$. . Value added, adjusted.....do... | 76,583 148,369 | 17 31 | $\frac{124}{182}$ | (D) | 509 745 | 2,666 3,619 | 2,384 4,280 | 11,433 16,139 | 59,450 | (D) | (D) |
| Value added, adjusted.......do.... | 148,369 394,144 | 31 60 | $\frac{182}{425}$ | (D) | 2,246 | 3,619 | 13,099 | 61,342 | $\frac{123,333}{307,333}$ | (D) | (D) |
| Capital expenditures, new...do.... | 5,249 | 5 | (D) | (D) | 13 | 5,231 | (D) | (D) | (D) | (D) | (D) |
|  | INDUSTRY 1941. -SIGHTING AND FIRE CONTROL EQUIPMENT |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 13 | 3 | 1 | 1 | - | 1 | 3 | - | 1 | 2 | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do. . . | 9,249 | 124 | (D) | (D) | - | (D) | 1,068 | - | (D) | 8,057 | (D) |
| Payroll. . . . . . . . . . . . . . $\$ 1,000$. . | 66,949 | 700 | (D) | (D) | - | (D) | 7.581 | - | (D) | 58,668 | (D) |
| Value added, adjusted.......do.... | 96,281 | 822 | (D) | (D) | - | (D) | 11,569 | - | (D) | 83,890 | (D) |
| Value of shipments.........do.... | 156,568 | 1,368 | (D) | (D) | - | (D) | 18,484 | - | (D) | 136,716 | (D) |
| Capital expenditures, new...do.... | 3,631 | $\underline{23}$ | (D) | (D) | - | (D) | 844 | - | (D) | 2,764 | (D) |
|  | INDUSTRY 1951. -SMALL ARMS, 30 MM. AND UNDER |  |  |  |  |  |  |  |  |  |  |
| Establishments.............number. . | 52 | 21 | 3 | 5 | 7 | 4 | 2 | 3 | 5 | 1 | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do.... | 9,995 | 25 | 22 | 68 | 245 | 721 | (D) | 1,179 | 7,735 | (D) | (D) |
| Payroll.................. $\$ 1,000$. . | 57,347 | 229 | 103 | 324 | 1,265 | 3, 9 905 | (D) | 6,470 | 45,051 | (D) | (D) |
| Value added, adjusted.......do.... | 88,302 | 459 | 139 | 598 | 2,664 | 7,185 | (D) | 9,671 | 67,586 | (D) | (D) |
| Value of shipments..........ddo.... | 133,042 | 659 | 244 | 871 | 3,765 | 12,610 | (D) | 14,928 | 99,965 | (D) | (D) |
| Capital expenditures, new...do.... | 5,123 | 14 | 7 | 26 | 74 | 724 | (D) | 182 | 4,096 | (D) | (D) |
|  | INDUSTRY 1961.-SMAIL ARMS AMMUNITION |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 31 | 14 | 2 | 2 | 3 | - | 4 | 2 | 1 | 2 | 1 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
| Total......................do. . . | 8,909 | 21 | 39 | (D) | 104 | - | 1,122 | (D) | 7,623 | (D) | (D) |
| Payroll. . . . . . . . . . . . . . . $\$ 1,000$. . | 51,895 | 90 | 101 | (D) | 526 | - | 6,106 | (D) | 45,072 | (D) | (D) |
| Value added, adjusted.......do.... | 103,772 | 207 | 291 | (D) | 955 | - | 12,376 | (D) | 89,943 | (D) | (D) |
| Value of shipments..........ddo.... | 192,454 | 472 | 542 | (D) | 2,078 | - | 21,396 | (D) | 167,966 | (D) | (D) |
| Capital expenditures, new...do.... | 5,478 | 17 | 41 | (D) | 421 | - | 547 | (D) | 4,452 | (D) | (D) |
|  | INDUSTRIES 1911 AND 1999.-GJNS, HOWITZERS, AND MORTARS AND ORDNANCE AND ACCESSORIES, N.E.C. |  |  |  |  |  |  |  |  |  |  |
| Establishments............. number. . | 60 | 16 | 4 | 3 | 4 | 9 | 12 | 3 | 3 | 2 | 4 |
| All employees: |  |  |  |  |  |  |  |  |  |  |  |
|  | 24,988 176,169 | 421 | (D) | 40 271 | 105 | 718 3,486 | 2,061 | 1,135 6,189 | 3 3 , 495 | (D) | 16,383 123,438 |
| Payroll..................\$1,000. . Value added, adjusted......do... | 176,169 | $\frac{422}{739}$ | (D) | 271 | 441 | 3,486 5,837 | 11,222 | 6,189 10,888 | $\frac{30,700}{60,456}$ | (D) | 138,858 |
| Value of shipments...........do.... | 350,975 | 4,945 | (D) | 351 | 1,221 | 9,162 | 30,496 | 19,505 | 80,275 | (D) | 205,020 |
| Capital expenditures, new...do.... | 12,269 | $\underline{25}$ | (D) | 21 | 51 | 137 | 4,319 | 356 | 2,234 | (D) | 5,126 |

[^319]
## TABLE 5A. Industry-Product Analysis-Industry and Primary Product Shipments; Specialization Ratios and Coverage Ratios: 1963 and 1958

An establishment is assigned to an industry based on the shipment values of products representing the largest amount considered as primary to an industry. Frequently the establishment shipments comprise mixtures of products assigned to an industry (primary products), those considered primary to other industries (secondary products of a given industry) and receipts for activities such
as merchandising or contract work. This product pattern for an industry is shown in columns A through $D$ and the primary product specialization ratio in column $E$. The extent to which the given industry's primary products are shipped by establishments classified in and out of the given industry is summarized in columns F through H and shown as a ratio in column I .

| Ind. code | Industry and census year | Value of shipments |  |  |  |  | Value of primary product shipments |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total $(\$ 1,000)$ | Primary products $(\$ 1,000)$ | Secondary products $(\$ 1,000)$ | Miscellaneous receipts $(\$ 1,000)$ | Primary product specialization ratio <br> Col. B <br> Col. B+C <br> (percent) | Total, made in all industries $(\$ 1,000)$ | Made in this industry $(\$ 1,000)$ | Made in other industries <br> $(\$ 1,000)$ | Coverage ratio <br> Col. B Col. F (percent) |
|  |  | A | B | C | D | E | F | G | H | 1 |
| 1911 | Guns, howitzers, and mortars....... 1963.. | $(1)$ 6,892 | $(1)$ <br> $(2)$ | $\left(\begin{array}{l}1 \\ (2) \\ (2)\end{array}\right.$ | $\left(\begin{array}{l}1 \\ (2) \\ \\ \\ \end{array}\right.$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | $\left(\begin{array}{l}1 \\ (2) \\ (2)\end{array}\right.$ | ( $(2)$ | $\left(\begin{array}{l}1 \\ (2) \\ (2)\end{array}\right.$ | $\begin{aligned} & (\mathrm{NA}) \\ & (\mathrm{NA}) \end{aligned}$ |
| 1925 | Complete guided missiles......... $1963 .$. | $33,053,863$ $32,206,710$ | $2,734,776$ $1,565,534$ | 175,678 584,218 | $\begin{array}{r} 143,409 \\ 56,958 \end{array}$ | 94 | $33,957,159$ $3_{1}, 886,682$ | $2,734,776$ $1,565,534$ | $1,222,383$ 321,148 | $\begin{aligned} & 69 \\ & 83 \end{aligned}$ |
| 1929 | Ammunition, n.e.c................. 1963.. | $\begin{aligned} & 503,001 \\ & 138,445 \end{aligned}$ | $\begin{gathered} 290,272 \\ (\mathrm{NA}) \end{gathered}$ | $\begin{array}{r} 123,418 \\ \text { (NA) } \end{array}$ | $\begin{array}{r} 89,311 \\ (\mathrm{NA}) \end{array}$ | $\begin{array}{r} 70 \\ \text { (NA) } \end{array}$ | $\begin{aligned} & 355,893 \\ & 133,031 \end{aligned}$ | $\begin{gathered} 290,272 \\ \text { (NA) } \end{gathered}$ | $\begin{array}{r} \text { 65,621 } \\ (\mathrm{NA}) \end{array}$ | $\begin{array}{r} 82 \\ \text { (NA) } \end{array}$ |
| 1931 | Tanks and tank components.........1963.. | $\begin{aligned} & 394,144 \\ & 212,372 \end{aligned}$ | $\begin{aligned} & 358,016 \\ & 177,756 \end{aligned}$ | $\begin{aligned} & 17,746 \\ & 20,698 \end{aligned}$ | $\begin{aligned} & 18,382 \\ & 13,918 \end{aligned}$ | $\begin{aligned} & 95 \\ & 89 \end{aligned}$ | $\begin{aligned} & 454,396 \\ & 210,752 \end{aligned}$ | $\begin{aligned} & 358,016 \\ & 177,756 \end{aligned}$ | $\begin{aligned} & 96,380 \\ & 32.996 \end{aligned}$ | $\begin{aligned} & 79 \\ & 84 \end{aligned}$ |
| 1941 | Sighting and fire control equipment. . . . . . . . . . . . . . . . . . . . . . ...... . 1963.. | $\begin{aligned} & 156,568 \\ & 682,580 \end{aligned}$ | $\begin{array}{r} 85,739 \\ 417,170 \end{array}$ | $\begin{array}{r} 65,579 \\ 253,267 \end{array}$ | $\begin{array}{r} 5,250 \\ 12,143 \end{array}$ | 57 62 | $\begin{aligned} & 106,984 \\ & 470,914 \end{aligned}$ | $\begin{array}{r} 85,739 \\ 417,170 \end{array}$ | $\begin{aligned} & 21,245 \\ & 53,744 \end{aligned}$ | $\begin{aligned} & 80 \\ & 89 \end{aligned}$ |
| 1951 | Small arms, 30 mm , and under...... $1963 .$. | $\begin{array}{r} 133,042 \\ 79,107 \end{array}$ | $\begin{array}{r} 122,227 \\ 69,611 \end{array}$ | $\begin{aligned} & 5,882 \\ & 6,961 \end{aligned}$ | $\begin{aligned} & 4,933 \\ & 2,535 \end{aligned}$ | $\begin{aligned} & 95 \\ & 91 \end{aligned}$ | $\begin{array}{r} 148,542 \\ 86,037 \end{array}$ | $\begin{array}{r} 122,227 \\ 69,611 \end{array}$ | $\begin{aligned} & 26,315 \\ & 16,426 \end{aligned}$ | 82 81 |
| 1961 | Small arms ammunition............... 1963.. | $\begin{aligned} & 192,454 \\ & 167,446 \end{aligned}$ | $\begin{aligned} & 176,617 \\ & 141,352 \end{aligned}$ | $\begin{aligned} & \left(\begin{array}{l} 4 \\ (4) \\ (4) \end{array}\right) \end{aligned}$ | $\begin{aligned} & 415,837 \\ & 426,094 \end{aligned}$ | $\left(\begin{array}{l}4 \\ 4 \\ 4\end{array}\right)$ | $\begin{aligned} & 192,399 \\ & 150,651 \end{aligned}$ | $\begin{aligned} & 176,617 \\ & 141,352 \end{aligned}$ | $\begin{array}{r} 15,782 \\ 9,299 \end{array}$ | 92 94 |
| 1999 | Ordnance and accessories, n.e.c...1963.. | $\begin{aligned} & 1350,975 \\ & { }^{2} 208,698 \end{aligned}$ | $\begin{aligned} & 1_{175,523}^{175} \\ & { }^{2} 139,761 \end{aligned}$ | $\begin{aligned} & 149,195 \\ & { }^{2} 11,872 \end{aligned}$ | $\begin{array}{r} { }^{1} \frac{126,257}{2} 57,065 \end{array}$ | $\begin{array}{r} 578 \\ \text { (NA) } \end{array}$ | $\begin{aligned} & 1255,940 \\ & 2210,043 \end{aligned}$ | $\begin{aligned} & 1_{175,523} \\ & { }^{2} 139,761 \end{aligned}$ | $\begin{aligned} & 180,417 \\ & { }^{2} 70,282 \end{aligned}$ | $\begin{array}{r} 669 \\ \text { (NA) } \end{array}$ |

Note: See Introduction for an explanation of terms used.
Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ Data for industry 1911 included with industry 1999 in 1963 .
${ }^{2}$ Data for industry 1911 and a portion of industry 1929 has been included with industry 1999 in 1958 to avoid disclosing figures of individual ${ }^{2}$ Data for industry 1911 and a
${ }^{3}$ Represents value of work done.
${ }^{4}$ For industry 1961, value of shipments of secondary products are included with miscellaneous receipts. The specialization ratios are between 85 and 99 percent.
${ }^{5}$ The inclusion of data for industry 1911 does not effect the specialization ratio for industry 1999 in 1963.
${ }^{6}$ The coverage ratio for industry 1999 alone for 1963 is 72 percent. The difference in coverage by inclusion of the products primary to industry 1911 results from the fact that most of the value for industry 1911 is accounted for by establishments in industries other than 1911.

## TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963

## In thousands of dollars. The "All industries" column shows the total value of shipments of the primary products of the industry by all manufacturing industries. The next column(s) shows the total value of shipments of the specified industry divided among (a) products classified in the industry (primary products), (b) products classified in other industries (secondary products), and (c)

miscellaneous receipts. The value of shipments of the primary products of the specified industry reported by establishments not classified in that industry is shown under the caption "Other industries." Industries accounting for significant amounts of the primary products listed are shown in separate columns provided that the figures for individual companies are not thereby disclosed.


See footnotes at end of table.

TABLE 5B. Industry-Product Analysis-Shipments by Product Class and Industry: 1963-Continued

${ }^{1}$ Includes $\$ 372,326$ shipped by industry 3721, Aircraft. In addition, the following industries had shipments of $\$ 2$ million or more; however, the exact values are withheld to avoid disclosing individual company figures: 3662, Radio, TV Communications Equipment; 3722, Aircraft Engines and Parts; and ${ }_{\frac{1}{2}} 3729$, Aircraft Equipment, N.E.C.
${ }^{3}$ Includes shipments of $\$ 2$ million or more by the following industries; however, the exact values are withheld to avoid disclosing individual company figures: 3662, Radio, TV Communications Equipment: 3721, Aircraft; and 3729, Aircraft Equipment, N.E.C.

# TABLE 5B. Industry-Product Analysis-Production by Product Class and Industry: 

## 1963-Continued

## Footnotes for Table 5B-19A-Continued

${ }^{3}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 27313 , Technical, scientific, and professional books; 36624, Electronic navigational aids (except missile-borne and space vehicle basin equipment) and 36628, Missile-borne and space vehicle-borne navigation and guidance systems and equipment.
${ }^{4}$ Includes shipments of $\$ 2$ million or more by the following industries; however, the exact values are withheld to avoid disclosing individual company figures: 3461, Metal Stampings; 3545, Machine Tool Accessories; 3621, Motors and Cenerators; 3661, Telephone; Telegraph Apparatus; and 3871, Watches and Clocks.
${ }^{5}$ Includes $\$ 2$ million shipped by industry 3729, Aircraft Equipment, N.E.C. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 1941, Sighting and Fire Control Equipment; 3443, Boiler Shop Products; 3599, Miscellaneous Machinery; and 3636, Sewing Machines.
${ }^{6}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 19310, Tanks and tank components; 33991, Metal powders and paste; 34320, Plumbing fixtures and fittings and trim (brass goods); 34434, Gas cylinders; 34612, Job stampings, except automotive; 34615, Stamped and spun hospital utensils and cooking and kitchen household utensils except aluminum: 36621, Radio and TV commercial communication equipment; 37775, Parts and accessories for passenger cars, trucks, and busses, shipped to motor vehicle manufacturers; 37221, Aircraft engines for military customers; 37223, Research and development on aircraft engines; 37291, Other aircraft parts and auxiliary equipment; and 37292, Guided missile components and subassemblies, n.e.c.
${ }^{7}$ Includes $\$ 5,029$ shipped by industry 3777, Motor Vehicles and Parts. In addition, the following industries had shipments which totaled $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 1929, Ammunition, N.E.C.; 3323, Steel Foundries, 3585, Refrigeration Machinery; 3722, Aircraft Engines and Parts; and 3742, Railroad and Street Cars.
${ }^{7}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 37291, Other aircraft parts and auxiliary equipment; and 37292, Guided missile components and subassemblies, n.e.c.
${ }^{9}$ Includes $\$ 12,997$ thousand shipped by industry 3662, Radio, TV Communications Equipment. In addition, industry 3585, Refrigeration Machinery, had shipments which totaled $\$ 2$ million or more, but is withheld to avoid disclosing figures for individual companies.
${ }^{10}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing figures for individual companies: 19293, Ammunition, n.e.c.; 36112, Test equipment for testing electrical, radio, and communication circuits and motors; 36624, Electronic navigational aids; 36628, Missile-borne and space vehicle-borne navigation and guidance systems and equipment; 37291, Other aircraft parts and auxiliary equipment; 37292, Guided missile components and subassemblies, n.e.c.; 38311, Optical instruments and lenses, except sighting and fire-control equipment; and 38410, Surgical and medical instruments and apparatus.

Includes shipments of over $\$ 2$ million of the following industries, however, the exact values are withheld to avoid disclosing individual company figures: 3722, Aircraft Engines and Parts; and 3729, Aircraft Equipment, N.E.C.
${ }^{12}$ Includes shipments of over $\$ 2$ million of products classified in industry 3717, Motor Vehicles and Parts; however, the exact figures are withheld to avoid disclosing individual company figures.
${ }^{13}$ Includes the following industries which total $\$ 2$ million or more but are withheld to avoid disclosing company figures: 1999, Ordnance and Accessories, N.E.C.; 3352, Aluminum Rolling and Drawing; and 3694, Engine Electrical Equipment.
${ }^{14}$ Includes the following product classes which total $\$ 2$ million or more but are withheld to avoid disclosing company figures: 19990, Ordnance and accessories, n.e.c., and 34295, Other hardware.
${ }^{15}$ Includes shipments (in thousands of dollars) by the following: \$2,020 by industry 1929, Ammunition, N.E.C.; \$6,134 by industry 3662 , Radio, TV Communication Equipment; $\$ 3,562$, by industry 3722 , Aircraft Engines and Parts; $\$ 7,227$ by industry 3729, Aircraft Equipment, N.E.C.; as weil as by the following industries, the shipments of which total $\$ 2$ million or more but are withheld to avoid disclosing individual company figures: 1961 , Small Arms Ammunition; 2522, Metal Office Furniture; 3011, Tires and Inner Tubes; 3433, Heating Equipment, Except Electric; 3443, Boiler Shop Products; 3461, Metal Stampings; 3519, Internal Combustion Engines; 3544, Special Dies and Tools; 3571, Computing and Related Machines; 3599, Miscellaneous Machinery; 3679, Electronic Components, N.E.C.; 3721, Aircraft; and 3861, Photographic Equipment.
${ }^{16}$ Includes the following product classes which total $\$ 2$ million or more, but are withheld to avoid disclosing individual company figures: 19610 , Small arms ammunition, 30 mm . and undre (or 1.18 inches and under); 351ll, Steam, gas, and hydraulic turbine generator set units and parts; 35595, Other special industry machinery and equipment; 36122, Power and distribution transformers, except parts; 36131, Switchgear, including power switchgear assemblies, and other switching and interrupting devices 2,300 volts; 36212 , Integral horsepower motors and generators, except land transportation; and 36220, General industry power circuit devices and controls.
table 6A. Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958

| Product code | Product | Total shipments including inteplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity <br> (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ | Quantity <br> (number of units) | $\begin{gathered} \text { Value } \\ (\$ 1,000) \end{gathered}$ |
| 1911- -- | GUNS, HOWITZFRS, MORTARS, AND RELATED EQUIPMENT, OVER 30 MM .(OR OVER 1.18 INCHES). | (x) | ${ }^{12,444}$ | (X) | $\begin{array}{r} \left({ }^{2}\right) \\ { }^{3} 1,886,682 \\ 900,837 \end{array}$ |
| 1925- -- | guided missiles and space vehicles, completely assembled, total. | (x) | 33,957,159 | (x) |  |
| 19251 -- | Guided missiles and space vehicles, complete. | (x) | 1,644,181 | (x) |  |
| 1925111 | Complete missile systems (excluding propulsion) | (x) | 1,241,792 |  |  |
| 1925113 | Complete space vehicle systems (excluding propulsion): <br> For United States Government military customers..... |  |  | \} (x) | 900,837 |
| 1925115 | For United States Government nonmilitary customers... |  | 349,585 |  |  |
| 19253 -- | Research and development on guided missiles and space vehicles (complete) | (x) | 1,628,268 | (x) | 4985,845 |
| 1925311 | Research and development on complete missile systems. | (x) | 778,107 | (x) | (NA) |
|  | Research and development on complete space vehicle systems: |  |  |  |  |
| $\begin{aligned} & 1925313 \\ & 1925315 \end{aligned}$ | For United States Government military customers.... For United States Government nonmilitary customers. | ( ${ }_{\text {(x) }}$ | $205,143$ $645,018$ | (x) (x) | ( NA ) |
| 19255 -- | All other services on complete missiles and space vehicles. | (x) | 684,710 |  | $(4)$ |
| 1925511 | All other services on complete missiles... | (x) | 593,869 |  | (NA) |
|  | All other services on complete space vehicles: |  |  |  |  |
| 1925513 | For United States Government military customers. | (x) | 39,921 | (x) | (NA) |
| 1925515 | For United States Government nonmilitary customers |  | 50,092 |  |  |
| 1925523 | For nongovernment customers. | (X) | 828 |  | (NA) |
| 1929--- | ammunition, n.e.c. | (x) | 355,893 | (x) | ${ }^{2} 133,031$ |
| 19291 -- | Ammunition over 30 mm .(or 1.18 inches and over), n.e.c.............. | (x) | 169,222 | (x) | 70,736 |
| 19292 -- | Receipts for ammunition loading and assembly over 30 mm .(or over 1.18 inches) |  | 169,222 | (x) |  |
| $\begin{aligned} & 19293 \text {-- } \\ & 19290 \end{aligned}$ | Ammunition, n.e.c............... <br> Ammunition, n.e.c., n.s.k. | (x) | 186,671 | (x) | 62,295 |
| 1931- -- | TANKS AND TANK COMPONETS | (x) | 454,396 | (X) | 210,752 |
| 1941- -- | SIGHTING AND FIRE CONTROL EQUIPMENT | (x) | 106,984 | (x) | 470,914 |
| 1941010 | As reported in the census of manufactures. As reported on Census Annual Form MA-38B.. | $(\mathrm{X})$ | $\begin{aligned} & 106,984 \\ & 104,380 \end{aligned}$ |  | $470,914(\mathrm{X})$ |
| 1951- -- | SMALL ARMS,30 MM. AND UNDER. | (x) | 148,542 | (x) | 86,037 |
| 1951232 | Pistols and revolvers. | 496,139 | 19,716 | 489,340 | 18,969 |
|  | Rifles: ${ }^{\text {Center }}$ fire, repeatin |  |  |  |  |
| $\begin{aligned} & 1951252 \\ & 1951254 \end{aligned}$ | Center fire, repeating Rim fire, repeating... | 324,420 371,145 | 18,211 9,564 | 224,921 289,540 | 12,495 7,633 |
| 1951256 | Rim fire, single shot. | 179,875 | 2,354 | 163,239 | 1,639 |
|  | Shot guns: |  |  |  |  |
| 1951262 | Single barrel: Repeating. . . |  | 17,916 | 382,945 | 17,072 |
| 1951263 | Single shot. |  | 7,475 | 277 | ,327 |
| 1951264 | Double barrel, including over and under type. |  |  |  |  |
|  | Other small firearms 30 mm .and under including machine guns: |  |  |  |  |
| 1951113 | $\}$ Shipped under U.S. military contract. |  |  |  |  |
| $\begin{aligned} & 1951272 \\ & 1951153 \end{aligned}$ |  |  |  |  |  |
| 1951275 | Shipments under other than U.S. military contracts. | (X) | 68,760 | (X) | 21,853 |
| 1951281 | Parts and attachments for small firearms |  |  |  |  |
| 1951000 | Small arms 30 mm .and under, n.s.k | (x) | 4,546 | (x) | 1,049 |
| 1961- -- | SMALL ARMS AMMUNITION, 30 MM. AND UNDER. | (x) | 192,399 | (x) | 150,651 |
| 1961012 | Shipped under U.S. military contract | (x) | 82,090 | (x) | 55,643 |
|  | Shipments other than U.S. military contracts: <br> For small firearms (rifles, shotguns, and sidearms): Cartridges: |  |  |  |  |
| 1961083 | Rim fire................... |  |  |  |  |
| 1961085 | Center | (X) | 41,501 | - (x) | 92,797 |
| 1961087 | Shotgun shells | (x) | 49,734 |  |  |
| 1961089 | All other, including for machine gun, air rifle, B-B gun, | (X) | 14,616 | J |  |
| 1961000 | Small arms anmunition, n.s.k | (X) | 4,458 | (X) | 2,211 |
| 1999--- | ORDNANCE AND ACCESSORIES, N.E.C.... | (x) | 243,496 | (x) | ${ }^{2} 210,043$ |

[^320]
## table 6B. Product Classes-Indexes of Production and Unit Value for Primary Products Shipped by All Producers: 1963 and 1958

(Indexes of production and unit value are not shown for this area pending further review of the quantity data and associated values pertaining to these products.)
table 6C. Product Classes-Value Shipped by All Manufacturing Establishments: 1947, 1954, 1958 to 1963

| Code | Product class | 1963 | $1962{ }^{\text { }}$ | $1961{ }^{1}$ | $1960^{1}$ | 19591 | 1958 | 1954 | 1947 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1925- | Complete guided missiles....................... | 3,957,159 | 3,001,894 | 2,572,064 | 2,693,118 | 2,248,000 | 1,886,682 | (NA) | (NA) |
| 19251 | Guided missiles, complete................... | 1,644,181 | 1,542,276 | 1,045,125 | 1,048,480 | 995,910 | 900,837 | (NA) | (NA) |
| 19253 | Research and development on guided missiles (complete) <br> All other services on complete space vehicles. | $\begin{array}{r} 1,628,268 \\ 684,710 \end{array}$ | \}1,459,618 | 1,526,939 | 1,644,638 | 1,252,090 | 985,845 | (NA) | (NA) |
| 1951 - | Small arms, 30 rmm , and under. | 148,542 | 180,623 | 138608 | 104,679 | (S) | 86,037 | 56,449 | 54,932 |
| 19610 | Small arms ammunition. | 192,399 | 163,906 | 152,008 | 130,350 | 159,069 | 150,651 | (NA) | (NA) |

[^321]
# table 7A. Materials by Kind: 1963 and 1958 



See footnotes at end of table.

## TABLE 7A. Materials by Kind: 1963 and 1958-Continued



See footnotes at end of table.

## TABLE 7A. Materials by Kind: 1963 and 1958-Continued

| Code | Material | Unit of measure | 1963 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity | Delivered cost $(\$ 1,000)$ | Quantity | Delivered cost $(\$ 1,000)$ |
|  |  |  | INDUSTRY 1951.--SMALL ARMS, 30 MM . AND UNDER |  |  |  |
|  | Materials, parts, containers and supplies, total. <br> Mill shapes and forms (except castings): <br> Carbon steel | .................. | (X) | 39,661 | (X) | 18,070 |
| 331011 | Bars and bar shapes.................................................. | Short tons..... | 8,406 | 1,885 | 6,072 | 1,466 |
| 331012 331013 | Sheet and strip...................................................................... Plates. | ...do............ | 4,906 | 1,781 | 485 60 | 140 17 |
| 331017 | Wire and wire products..................................................... | ....do.............. | \} 354 | 424 | $\left\{\begin{array}{l}60 \\ -8\end{array}\right.$ | 17 |
| 331019 | All other carbon steel mill shapes and forms.................... | . . .do. | ) |  | ( 129 | 431 |
|  | Alloy steel (except stainless): |  |  |  |  |  |
| $\begin{aligned} & 331021 \\ & 331029 \end{aligned}$ | Bar and bar shapes.............................................................. <br> All other alloy steel mill shapes and forms. | ....do.............. |  |  | $\left\{\begin{array}{r}712 \\ 20\end{array}\right.$ | 637 16 |
| 331031 | Stainless steel........................................................... | ...do........... | , |  | - | - |
|  | Copper and copper-base alloy: |  |  |  |  |  |
| 335128 | Bere wire (for electrical conduction only)......................... | 1,000 lbs....... | - | - |  |  |
| 335790 | Insulated wire and cable........................................... | $\begin{aligned} & \text { 1,000 lbs. } \\ & \text { (copper } \\ & \text { content). } \end{aligned}$ | - | - |  |  |
| 335102 | Ron, bar, and mechanical wire including extruded and,or drawn shapes. $\qquad$ | 1,000 lbs....... | (D) |  | 66 | 20 |
| 335123 | Plate, sheet, and strip (including military cups and discs...... | ...do........... | ) | (D) |  |  |
| 335237 | Pipe and tube........................................................ | ...do. | - | - | ) |  |
|  | Aluminum and aluminum-base alloy: |  |  |  |  |  |
| 335202 | Sheet, plate and foil........... | ...do. |  |  |  | - |
| $\begin{aligned} & 335205 \\ & 335209 \end{aligned}$ | Extruded shapes, including extruded rod. bar, pipe, tube, etc... All other aluminum mill shapes and forms (wire, rolled rod and bar, powder, and welded tubing, etc.). | . . .do............ | $\} \quad(N A)$ | 142 | $\} \quad 199$ | 234 |
|  | Castings (rough and semifinished):1 |  |  |  |  |  |
| $\begin{aligned} & 332011 \\ & 332300 \end{aligned}$ |  | Short tons...... | 1, 562 | 790 (D) | 305 | . 186 |
| 336100 | Aluminum and aluminum-base alloy.............................................. | 1,000 1bs........ | 559 | 279 | 2 | 10 |
| 339100 | Forgings: ${ }^{1}$ | Short tons...... |  |  |  |  |
| 339200 | Aluminum and aluminum-base alloy................................................ | Shoxt tons....... | (D) | (D) |  | 219 |
|  | Bearings: |  |  |  |  |  |
| $\begin{aligned} & 356218 \\ & 356228 \end{aligned}$ |  | ...................... | (X) | (D) | (X) | 14 |
| 970099 | All other materials and components, parts, containers, and supplies consumed. |  | (X) | 26,066 | - | 14,331 |
| 976000 | Materials, parts, and supplies, n.s.k............................................ |  | (X) | 24,347 | - | - 349 |
|  |  |  | INDUSTRY 1961.--SMALI ARMS AMMINITION |  |  |  |
|  | Materials, parts, containers and supplies, total................. |  | (X) | 79,734 | (X) | 69,026 |
|  | Mill shapes and forms (except castings): <br> Carbon steel: |  |  |  |  |  |
| 331017 | Wire and wire products.............................................. . | Short tons...... | ) |  | (\} 1,711 | 305 |
| 331012 | Sheet and strip........................................................ | ...do............ |  |  |  |  |
| 331013 | Plates. <br> Bar and bar shapes. | . . .do............ |  |  | ) 3,553 | 843 |
| 331011 331019 | Bar and bar shapes.............................................................. <br> All other carbon steel mill shapes and forms. | ....do............ |  |  | \} 3,583 |  |
| 331019 | All other carbon steel mill shapes and forms....................... Alloy steel (except stainless): | ...do............ | , 4,083 | 2,415 | $\{$ |  |
| 331021 | Bar and bar shapes.................................................. | ...do........... |  |  | - | - |
| 331029 | All other alloy steel mill shapes and forms........................ | .do.......... |  |  | - | - |
| 331031 | Stainless steel.......................................................... | ..do............ | ) |  | - | - |
|  | Copper and copper-base alloy: |  |  |  |  |  |
| 335102 | Rod, bar, and mechanical wire, including extruded and/or drawn shapes......................................................................... | 1,000 lbs....... | (D) | (D) |  |  |
| 335123 | Plate, sheet, and strip, including military cups and discs....... | ...do............ | (D) |  | 3 34,946 | 18,611 |
| 335127 | Pipe and tube................................................................ | ...do............ | - |  |  |  |
|  | Bearings: |  |  |  |  |  |
| $\begin{aligned} & 356218 \\ & 356228 \end{aligned}$ |  |  | (D) | (D) | (X) | (NA) |
| 970099 | All other materials and components, parts, containers, and supplies consumed. |  | (X) | 76,036 | - | 49,075 |
| 976000 | Materials, parts, containers and supplies, n.s.k....................... |  | (X) | 1,283 | - | 192 |

See footnotes at end of table.

## TABLE 7A. Materials by Kind: 1963 and 1958-Continued



Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind
${ }^{1}$ Does not include materials produced and consumed at the same establishnent.
${ }^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."
${ }^{3}$ Includes data for the following industries: 1911, 1929, 1931, 1951, and 1999.

## table 7B. Fuels and Electric Energy Consumed and Horsepower Rating of Power Equipment: 1962



Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power equipment as of December 31, 1962 represent estimates derived from a representative sample of manufacturing establishments. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the reports "Fuels and Electric Energy Consumed in Manufacturing Industries in 1962," MC63(1)-7, and "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
Standard Notes: - Represents zero.
(D) Withheld to avoid disclosing figures for individual companies.
(NA) Not available.
(X) Not applicable.

## table 8. General Statistics for Establishments, by Industry Specialization and Primary Product Class Specialization: 1963

This table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. The measures of plant specialization shown are (1) industry specialization-the ratio of primary product shipments to total product shipments, primary plus secondary, for the establishwents; and (2) product class specialization-the ratio of the largest primary product class shipments to total product shipments, primary plus secondary, for
the establishment. See Introduction for method of computing these ratios. Statistics for establishments with specialization ratios of less than 75 percent are included in total lines but are not shown as a separate class. In addition, data may not be shown for some industries, product classes, or specialization ratios for various reasons, e.g., to avoid disclosure of individual company data.

| Industry | Industry or product class by percent of specialization | Estab-lishments (number) | All employees |  | Production workers |  |  | Valueadded bymanufacture,adjusted$(\$ 1,000)$ | Cost of materials$(\$ 1,000)$ | Value of shipments$(\$ 1,000)$ | Capital expenditures,$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| or <br> .product class code |  |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ |  |  |  |  |
| 1925- | COMPLETE GUIDED MISSILES |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with-- | 31 | 148,908 | 1,325,803 | 54,527 | 110,358 | 395,184 | ${ }^{1} 1,924,812$ | 1,129,051 | 23,053,863 | 48,849 |
|  | $90 \%$ or more specialization. . | 20 | 94,826 | 876,172 | 31,878 | 65,038 | 236,982 | 1,287,032 | 848,958 | 2,135,990 | 36,985 |
| 19253 | Research and development on guided missiles (complete) (primary product class of estab.). | 12 | 92,260 | 853,227 | 26,464 | 53,521 | 202,463 | 1,176,093 | 733,035 | 1,909,128 | 29,686 |
| 1929- | AMMUNITION, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry <br> Establishments with-- | 44 | 32,578 | 202,208 | 25,059 | 48,966 | 137,662 | 285,774 | 210,170 | 503,001 | 7,619 |
|  | 90\% or more specialization.. | 20 | 15,407 | 87,576 | 12,777 | 25,133 | 69,980 | 121,645 | 59,972 | 186,170 | 1,734 |
| 19291 | Ammunition over 30 mm . (or 1.18 inches and over) n.e.c. (primary product class of estab.).......... Establishments with-- | 15 | 7,132 | 41,660 | 5,337 | 10,551 | 27,346 | 60,439 | 59,717 | 122,136 | 807 |
|  | 90\% or more specialization.... | 5 | 1,287 | 6,529 | 1,105 | 2,176 | 5,698 | 9,296 | 10,466 | 20,358 | 120 |
| 19293 | Ammunition, n.e.c. (primary product class of estab.).......... | 12 | 14,810 | 105,269 | 10,894 | 20,712 | 66,411 | 157,925 | 125,031 | 287,127 | 3,482 |
| 1951- | SMALL ARMS, 30 MM . AND UNDER |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry $\qquad$ <br> Establishments with-- | 52 | 9,995 | 57,347 | 7,497 | 15,085 | 39,288 | 88,302 | 42,965 | 133,042 | 5,123 |
|  | $90 \%$ or more specialization. | 46 | 8,694 | 51,516 | 6,627 | 13,294 | 35,963 | 80,954 | 35,857 | 118,421 | 5,027 |
| $\begin{gathered} \text { 1911- } \\ \text { and } \\ 1999 \end{gathered}$ | GUNS, HOWITZERS, AND MORTARS, AND ORDNANCE AND ACCESSORIES, N.E.C. |  |  |  |  |  |  |  |  |  |  |
|  | Entire industry.................. <br> Establishments with- | 60 | 24,988 | 176,169 | 15,149 | 30,701 | 93,697 | 235,211 | 115,363 | 350,975 | 12,269 |
|  | $90 \%$ or more specialization.. 75-89\% specialization....... | 33 5 | $\begin{array}{r} 4,860 \\ 483 \end{array}$ | $\begin{array}{r} 32,905 \\ 2,911 \end{array}$ | $\begin{array}{r} 2,773 \\ 413 \end{array}$ | $\begin{array}{r} 6,014 \\ 806 \end{array}$ | $\begin{array}{r} 16,193 \\ 2,275 \end{array}$ | $\begin{array}{r} 37,793 \\ 4,411 \end{array}$ | $\begin{array}{r} 40,175 \\ 3,980 \end{array}$ | $\begin{array}{r} 79,438 \\ 7,927 \end{array}$ | $\begin{array}{r} 6,019 \\ \text { (D) } \end{array}$ |
| Standard Notes: - Represents zero. applicable. n.e.c. Not elsewhere classified. <br> ${ }^{1}$ See footnote 2, table 1. <br> ${ }^{2}$ Represents value of work done. |  |  | eld to | oid discl | sing figu | s for ind | idual con | anies. | ( A) Not av | ailable. | (X) Not |

## table 9. Establishments and Production Workers for Selected Metalworking Operations: 1963



See footnotes at end of table.

## TABLE 9. Establishments and Production Workers for Selected Metalworking Operations: 1963-Continued

| Metalworking operations | Number of establishments |  |  |  | Employment in the specified operation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Number of production workers ${ }^{1}$ |  |  | Total | Number of production workers ${ }^{1}$ |  |  |
|  |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |  | 1 to 4 | 5 to 19 | $\begin{aligned} & 20 \text { or } \\ & \text { more } \end{aligned}$ |
|  | INDUSTRIES 1911 AND 1999.-GUNS, HOWITZERS AND MORTARS AND ORDNANCE AND ACCESSORIES, N.E.C. |  |  |  |  |  |  |  |
| Nonferrous foundry (except die casting).............. | 1239211552814191617 | 11241633414811 | -1 <br> - <br> 5 <br> 1 <br> 4 <br> 1 <br> 9 <br> 6 <br> - <br>  <br> 4 <br> 5 | 16 | (D) | (D)(D)(D)6(D)12(D)68(D)(D)1820 | (D) ${ }^{-}$ | - |
| Nonferrous die casting............................. |  |  |  |  | (D) |  |  |  |
| manufacture of nuts, bolts, etc.)....................... |  |  |  |  | (D) |  |  | 20 |
| Electroplating and other plating........................ |  |  |  |  | 38 |  | 32 | - |
| Galvanizing and other hot dip coating................ |  |  |  |  | (D) |  | (D) |  |
| Heat treating of metals............................... |  |  |  |  | 59 |  | (D) | (D) |
| Automatic screw machine department.................... |  |  |  |  | (D) |  | (D) | (D) |
| Machine shop............................................ |  |  |  |  | 2,040 |  | 84 | 1,950 |
| Tool and die shop...................................... |  |  |  |  | 205 |  | 49 | 148 |
| Foundry pattern shop.. |  |  |  |  | (D) |  |  | - |
| Plate or structural fabrication........................ |  |  |  |  | 428 |  | (D) | 405 |
| Stamping, blanking and forming of metals.............. |  |  |  |  | 441 |  | 40 | 383 |
| Painting, lacquering and enameling on metals......... |  |  |  |  | 106 |  | (D) | (D) |

Note: Very small establishments were not requested to report their metalworking operations and in some instances a few larger establishments failed to report. The significance of this undercoverage is shown in terms of production worker employment on the last line of the table below.

| Item | Industry |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1925 | 1929 | 1931 | 1951 | 1961 | $\begin{aligned} & 1911 \\ & \text { and } \\ & 1999 \end{aligned}$ |
| Total number of establishments in the industry........... | 31 | 44 | 26 | 52 | 31 | 60 |
| Number of establishments which reported one or more of the specified operations. | 23 | 28 | 18 | 25 | 10 | 30 |
| Percent of industry production workers in these establishments. | 90-95 | 75-80 | 95-100 | 95-100 | 95-100 | 50-55 |
| Number of establishments which reported "none" of the operations apply. | 7 | 4 | - | - | 2 | 5 |
| Percent of industry production workers in these establishments. | 1-5 | 0-5 | - | 0-5 | 0-5 | 0-5 |
| Percent of industry production workers in establishments which completed metalworking operations inquiry.......... | 95-100 | 75-80 | 95-100 | 95-100 | 95-100 | 50-55 |

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
${ }^{1}$ The size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.


# Manufacturing Activity In Government Establishments 

Special Report

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## MANUFACTURING ACTIVITY IN GOVERNMENT ESTABLISHMENTS

This special report presents data of manufacturing activities for selected government establishments within the United States. These data are not included in other 1963 Census of Manufactures reports, which cover privately operated establishments only. Manufacturing establishments owned by the Federal Government and operated by private companies either for the government or for their own account are included with privately operated establishments. Three types of establishments are covered in this report: (1) Manufacturing facilities owned and operated by the Department of Defense; (2) prison industries (Federal, District of Columbia, and State); and (3) manufacturing facilities owned and operated by other U.S. Government agencies. The data were prepared with the cooperation of the Department of Defense, the Department of Justice, the Department of Interior, and the District of Columbia and State prison systems.

## MANUFACTURING FACILITIES OWNED BY THE U.S. GOVERNMENT AND OPERATED BY THE DEPARTMENT OF DEFENSE

Data are shown in tables 1 to 3 for manufacturing facilities owned by the U.S. Government and operated by the Department of Defense. Although these establishments may also be engaged in nonmanufacturing activities at the same location, the statistics represent only their activities relating to manufacturing. All manufacturing installations which produce goods or perform manufacturing services, such as industrial research and development, are covered in this report. Data resulting from the conversion and modification of ships and aircraft by the Army and Navy, but not the Air Force, are also included. Manufacturing activities of the U.S. Air Force are not included because its accounting system is different from that used in the Industrial Fund of the Department of Defense and thus the Air Force concluded it could not provide data comparable to the other respondents (Army and Navy). Also, the report does not include activities of Defense Department installations which serve primarily or exclusively their own installations (e.g., bakeries and some machine shops). All printing and publishing activities are excluded because almost every large government installation engages in these activities to some degree, thus making coverage difficult.

There are approximately twice as many plants reporting in this survey as in the comparable 1958 survey. This increase is primarily because of the additions of research and development activities and manufacturing divisions of supply depots. As a result of this increase, there are two types of tables. The first type shows 1963 data for all Defense Department plants within the scope of this survey. The second shows 1963 data for only those plants that reported in 1958 and their comparable 1958 data.

In all tables, statistics are shown for employment, man-hours, payrolls, costs, and billings. Military personnel are not included in any of the employment, payroll, or manhours data. The data represent only nonmilitary (wage board and graded) employees engaged in manufacturing activities at the plant. The cost and billings data for 1963 are based on the lndustrial Fund accounting system of the Department of Defense. The Industrial Fund concepts of "TotalBillings" and "Total Earned Revenue," which were used for the 1963 data, differ because the latter is the result of increasing or decreasing "Total Billings" to reflect the change in unbilled costs of work in progress.

The 1963 value added by manufacture data, shown in table 1, represent total earned revenue (including the value of manufacturing services) less the cost of materials, parts, and supplies actually consumed or put into production during the year.

## PRISON INDUSTRIES (FEDER AL, DISTRICT OF COLUMBIA, AND STATE)

During 1963, manufactured products valued at $\$ 112,702$ thousand were produced in Federal, District of Columbia, and State prisons in the United States. The comparable 1958 figure of $\$ 97,307$ thousand also includes the value of products produced for use within the institutions as well as for productstransferred to other governmental agencies or for sale in the open market. These data, shown in detail in table 4, cover the activities of the Federal Prison Industries, Inc., as well as those of the prison industries of each State and the District of Columbia.

## MANUFACTURING FACILITIES OWNED AND OPERATED BY OTHER U.S. GOVERNMENT AGENCIES

Manufacturing operations of the Bureau of Mines, U.S. Department of lnterior, are not included in the tables of this report. That agency is the primary producer of refined helium in the United States. During 1963, it operated five plants from which 627 million cubic feet of helium valued at $\$ 21,945$ thousand were shipped. The average number of employees totaled 639 , of which 479 were production and related workers, and the total wages and salaries paid amounted to $\$ 4,195$ thousand. Comparable figures for other years as well as additional detail for production, shipments, consumption, prices, reserves, and activities relating to conservation and technology appear in the Minerals Yearbook, a publication of the Bureau of Mines.

Excluded from this report are the manufacturing activities of the Government Printing Office, the National Aeronautics and Space Administration, and the Tennessee Valley Authority. The operations of these agencies are covered in their annual reports. Also excluded are the minor manufacturing activities of such other government agencies as the Post Office Department and the General Services Administration.
table 1. Department of Defense

| Item | All employees (wage board and graded) |  | Production workers (wage board) |  |  | $\begin{aligned} & \text { Costs } \\ & (\$ 1,000) \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Payroll $(\$ 1,000)$ | Number | Man-hours $(1,000)$ | Wages <br> $(\$ 1,000)$ | Materials, supplies, and parts used | Contractual services and other costs |
| GEOGRAPHIC AREA |  |  |  |  |  |  |  |
| United States, total... | 230,646 | 1,691,651 | 155,300 | 1284,054 | 1,096,785 | 587,976 | 315,017 |
| New England division. | 26,594 | 184,642 | 20,152 | 36,729 | 137,484 | 65,286 | 38,956 |
| New Hampshire...... | 8,825 | 61,396 | 6,950 | 12,628 | 48,418 | 21,078 | 5,519 |
| Massachusetts. | 13,743 | 94,669 | 10,472 | 18,979 | 71,082 | 34,816 | 26,076 |
| Rhode Island. | 3,193 | 21,921 | 2,504 | 4,707 | 16,405 | 5,575 | 7,361 |
| Connecticut.. | 833 | 6,656 | 226 | 415 | 1,579 | 3,817 | - |
| Midale Atlantic division. | 49,190 | 353,850 | 32,068 | 57,851 | 219,217 | 124,306 | 58,689 |
| New York. . | 16,177 | 115,724 | 12,345 | 22,196 | 90,153 | 49,674 | 7,200 |
| New Jersey. | 7,140 | 56,740 | 2,874 | 5,192 | 18,029 | 16,931 | 19,409 |
| Pennsylvania. | 25,873 | 181,386 | 16,849 | 30,463 | 111,035 | 57,701 | 32,080 |
| East North Central division................... | 13,633 | 99,994 | 9,189 | 17,307 | 67,532 | 51,137 | 10,661 |
| Indiana. | 5,534 | 41,556 | 3,500 | 6,824 | 26,417 | 15,005 | 3,814 |
| Illinois. | 8,099 | 58,438 | 5,689 | 10,483 | 41,115 | 36,132 | 6,847 |
| West North Central division. | 27 | 171 | 15 | 26 | 79 | 5 | 32 |
| Iowa. | 27 | 171 | 15 | 26 | 79 | 5 | 32 |
| South Atlantic division. | 59,744 | 439,216 | 37,958 | 69,196 | 263,612 | 133,082 | 104,748 |
| Maryland. ....... | 18,726 | 142,542 | 7,408 | 13,156 | 49,544 | 52,530 | 46,788 |
| District of Columbia. | 4,799 | 40,991 | 1,218 | 2,144 | 7,893 | 10,775 | 30,026 |
| Virginia.... | 19,113 | 137,586 | 15,307 | 28,067 | 109,601 | 39,476 | 15,075 |
| North Carolina. | 1,734 | 12,068 | 1,538 | 2,837 | 10,568 | 2,208 | 2,278 |
| South Carolina. | 7,167 | 49,144 | 5,569 | 10,113 | 38,661 | 14,969 | 4,009 |
| Georgia. | 939 | 5,558 | 687 | 1,274 | 3,876 | 3,507 | 301 |
| Florida. | 7,266 | 51,327 | 6,231 | 11,600 | 43,469 | 9,617 | 6,271 |
| East South Central division. | 10,999 | 92,745 | 3,597 | 6,503 | 26,513 | 19,818 | 16,548 |
| Kentucky. | 2,624 | 19,772 | 1,895 | 3,436 | 14,837 | 9,962 | 1,782 |
| Alabama. . | 8,375 | 72,973 | 1,702 | 3,067 | 11,676 | 9,856 | 14,766 |
| West South Central division. | 3,816 | 21,601 | 2,983 | 5,297 | 16,082 | 13,196 | 3,158 |
| Arkansas. | 1,333 | 8,003 | 800 | 1,352 | 4,258 | 5,892 | 2,170 |
| Oklahoma. | 1,008 | 5,478 | 783 | 1,438 | 4,122 | 494 | 988 |
| Texas. | 1,475 | 8,120 | 1,400 | 2,507 | 7,702 | 6,810 | - |
| Mountain division. | 3,877 | 26,660 | 2,120 | 3,851 | 14,258 | 20,463 | 20,029 |
| Colorado. | 849 | 5,971 | 583 | 1,124 | 4,045 | 14,544 | 7,097 |
| New Mexico. | 442 | 3,990 | 24 | 40 | 158 | 658 | 7,678 |
| Utah. | 2,586 | 16,699 | 1,513 | 2,687 | 10,055 | 5,261 | 5,254 |
| Pacific division. | 62,766 | 472,772 | 47,218 | 87,294 | 352,008 | 160,683 | 62,196 |
| Washington. | 10,055 | 72,879 | 7,887 | 14,449 | 55,401 | 34,175 | 6,121 |
| California. | 47,886 | 363,037 | 35,440 | 65,799 | 267,543 | 113,737 | 53,883 |
| Hawaii. | 4,825 | 36,856 | 3,891 | 7,046 | 29,064 | 12,771 | 2,192 |
| SIC CODES AND MAJOR ACTIVITY |  |  |  |  |  |  |  |
| All manufacturing facilities, total. | 230,646 | 1,691,651 | 155,300 | 284,054 | 1,096,785 | 587,976 | 315,017 |
| 23 Apparel and related products.......... | 1,809 | 8,305 | 1,689 | 2,785 | 7,520 | 1,404 | 723 |
| 281 Basic chemicals........ | 5,836 | 40,441 | 2,365 | 4,038 | 14,440 | 21,557 | 19,968 |
| 289 Miscellaneous chemical products........ | 2,704 | 18,531 | 1,796 | 3,327 | 12,158 | 27,371 | 3,270 |
| 353 Construction and like equipment......... | 300 | 1,867 | 255 | 451 | 1,607 | 154 | 200 |
| 366 Communication equipment...... | 10,697 | 82,393 | 4,488 | 9,706 | 28,016 | 31,191 | 27,787 |
| 372 Aircraft and parts... | 34,471 | 246,883 | 28,644 | 53,226 | 202,616 | 46,420 | 45,822 |
| 373 Ship and boat building. | 94,687 | 691,574 | 76,294 | 138,616 | 560,645 | 253,367 | 45,337 |
| 382 Mechanical measuring devices............ | 27 | 171 | 15 | 26 | 79 | 5 | 32 |
| 19 Ordnance and accessories.. | 66,154 | 495,656 | 35,559 | 64,592 | 243,587 | 174,545 | 121,342 |
| 192 Missiles and ammunition, n.e.c........ | 36,657 | 282,829 | 17,478 | 32,370 | 119,702 | 94,282 | 68,493 |
| -- Research and development................. | 13,961 | 105,830 | 4,195 | 7,287 | 26,117 | 31,962 | 50,536 |

[^322] data shown in the 1958 Census publication "Manufacturing Activity in Government Establishments, MC58(S)-1."

Facilities: 1963

| Item | Value of shipments or receipts for service by type of activity$(\$ 1,000)$ |  |  |  |  |  | Value added by manufacture$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Manufacture and assembly | Construction and conversion | Research and development | Other receipts | Total billings | Total revenues |  |
| GEOGRAPHIC AREA |  |  |  |  |  |  |  |
| United States, total.... | 433,140 | 597,321 | 634,193 | 877,151 | 2,541,805 | 2,641,227 | 2,053,251 |
| New England division. | 68,665 | 128,927 | 37,849 | 49,088 | 284,529 | 292,564 | 227,278 |
| New Hampshire. | 598 | 70,895 | 1,012 | 7,240 | 79,745 | 90,501 | 69,423 |
| Massachusetts. | 67,039 | 39,775 | 13,700 | 40,372 | 160,886 | 155,450 | 120,634 |
| Rhode Island. | 1,028 | 18,257 | 11,568 | 1,476 | 32,329 | 35,044 | 29,469 |
| Connecticut. | - | - | 11,569 |  | 11,569 | 11,569 | 7,752 |
| Middle Atlantic division. | 119,240 | 153,105 | 144,178 | 144,092 | 560,615 | 547,217 | 422,911 |
| New York. | 27,411 | 90,410 | 19,196 | 41,367 | 178,384 | 179,753 | 130,079 |
| New Jersey. | 33,720 | 605 | 42,861 | 26,432 | 103,618 | 93,150 | 76,219 |
| Pennsylvania. | 58,109 | 62,090 | 82,121 | 76,293 | 278,613 | 274,314 | 216,613 |
| East North Central division. | 103,383 | 1,167 | 11,442 | 45,275 | 161,267 | 164,696 | 113,559 |
| Indiana.. | 30,749 | 7 | 8,129 | 18,834 | 57,712 | 61,261 | 46,256 |
| mlinois. | 72,634 | 1,167 | 3,313 | 26,441 | 103,555 | 103,435 | 67,303 |
| West North Central division. | 100 | - | - | 108 | 208 | 208 | 203 |
| Iowa. | 100 | - | - | 108 | 208 | 208 | 203 |
| South Atlantic division. | 69,618 | 28,122 | 261,648 | 289,827 | 649,215 | 688,420 | 555,338 |
| Maryland.. | 51,418 | - | 151,237 | 44,165 | 246,820 | 244,157 | 191,627 |
| District of Columbia. |  | - | 80,628 | 2,838 | 83,466 | 81,918 | 71,143 |
| Virginia.. | 6,804 | 12,832 | 21,467 | 121,455 | 162,558 | 195,255 | 155,779 |
| North Carolina. | 435 | - | 384 | 15,226 | 16,045 | 17,141 | 14,933 |
| South Carolina. | 235 | 15,290 | 1,971 | 48,108 | 65,604 | 70,619 | 55,650 |
| Georgia. | 7,184 | - | 285 | 429 | 7,898 | 9,212 | 5,705 |
| Florida. | 3,542 | - | 5,676 | 57,606 | 66,824 | 70,118 | 60,501 |
| East South Central division. | 19,016 | - | 36,051 | 82,616 | 137,683 | 129,616 | 109,798 |
| Kentucky. | 19,016 | - | 600 | 11,452 | 31,068 | 31,550 | 21,588 |
| Alabama. | - | - | 35,451 | 71,164 | 106,615 | 98,066 | 88,210 |
| West South Central division. | 19,192 | 4,007 | 68 | 16,246 | 39,513 | 38,248 | 25,052 |
| Arkansas. | 14,804 | - | 60 | 2,759 | 17,623 | 16,358 | 10,466 |
| Oklahoma. | 2,618 | - | 8 | 4,334 | 6,960 | 6,960 | 6,466 |
| Texas. | 1,770 | 4,007 | - | 9,153 | 14,930 | 14,930 | 8,120 |
| Mountain division. | 22,475 | - | 22,600 | 23,316 | 68,391 | 67,386 | 46,923 |
| Colorado.. | 20,120 | - | - | 9,876 | 29,996 | 27,740 | 13,196 |
| New Mexico. | - | - | 12,326 | - | 12,326 | 12,326 | 11,668 |
| Utah. | 2,355 | - | 10,274 | 13,440 | 26,069 | 27,320 | 22,059 |
| Pacific division. | 11,451 | 281,993 | 120,357 | 226,583 | 640,384 | 712,872 | 552,189 |
| Washington. | 2,867 | 77,331 | 2,526 | 21,852 | 104,576 | 117,044 | 82,869 |
| California. | 8,548 | 199,976 | 117,831 | 168,429 | 494,784 | 543,037 | 429,300 |
| Hawaii. | 36 | 4,686 | - | 36,302 | 41,024 | 52,791 | 40,020 |
| SIC CODES AND MAJOR ACTIVITY |  |  |  |  |  |  |  |
| All manufacturing facilities, total | 433,140 | 597,321 | 634,193 | 877,151 | 2,541,805 | 2,641,227 | 2,053,251 |
| 23 Apparel and related products........... | 10,908 | - | - | 109 | 11,017 | 10,624 | 9,220 |
| 281 Basic chemicals.......................... | 34,956 | - | 26,927 | 21,042 | 82,925 | 80,835 | 59,278 |
| 289 Miscellaneous chemical products........ | 37,570 | - | 4,266 | 6,408 | 48,244 | 49,831 | 22,460 |
| 353 Construction and like equipment........ |  | - | - | 2,221 | 2,221 | 2,221 | 2,067 |
| 366 Communication equipment................ | 40,587 | 605 | 78,111 | 34,070 | 153,373 | 142,905 | 111,714 |
| 372 Aircraft and parts...................... | 12,985 | 64,540 | 62,948 | 185,520 | 325,993 | 342,270 | 295,850 |
| 373 Ship and boat building.................. | 7,318 | 525,451 | 18,019 | 352,900 | 903,688 | 1,021,847. | 768,480 |
| 382 Mechanical measuring devices........... | 100 |  | - | 108 | 208 | 208 | 203 |
| 19 Ordnance and accessories............... | 288,716 | 6,725 | 260, 533 | 264, 555 | 820,529 | 798,043 | 623,498 |
| 192 Missiles and ammunition, n.e.c...... | 94,145 | 4,007 | 184,910 | 164,136 | 447,198 | 447,063 | 352,781 |
| -- Research and development............... | - | - | 183,389 | 10,218 | 193,607 | 192,443 | 160,481 |

table 2. Department of Defense Facilities,

| Geographic area | 1963 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All employees (wage board and graded) |  | Production workers (wage board) |  |  | $\begin{aligned} & \text { Costs } \\ & (\$ 1,000) \end{aligned}$ |  |
|  | Number | Payroll $(\$ 1,000)$ | Number | Man-hours $(1,000)$ | $\begin{aligned} & \text { Wages } \\ & (\$ 1,000) \end{aligned}$ | Materials, supplies, and parts used | Contractual services and other costs |
| United States, total..... | 149,334 | 1,089,220 | 105,037 | 190,125 | 746,464 | 419,899 | 149,543 |
| New England division. | 22,568 8,825 | 156,065 61,396 | 17,422 6,950 | 31,607 12,628 | 119,500 48,418 | 55,894 21,078 | 31,595 5,519 |
| Massachusetts. | 13,743 | 94,669 | 10,472 | 18,979 | 71,082 | 34,816 | 26,076 |
| Middle Atlantic division. | 40,427 | 296,052 | 27,583 | 49,335 | 192,693 | 106,135 | 41,424 7,200 |
| New York. . | 14,744 | 108,884 | 11,689 | 21,226 | 86,720 | 47,981 | 7,200 |
| New Jersey.. | 7,140 | 56,740 | 2,874 | 5,192 | 18,029 | 16,931 | 19,409 |
| Pennsylvania............. | 18,543 | 130,428 | 13,020 | 22,917 | 87,944 | 41,223 | 14,815 |
| East North Central division. | 10,388 | 73,413 | 7,181 | 13,312 | 50,577 | 36,586 | 7,863 |
| Indiana. . | 2,589 | 16,842 | 1,747 | 3,280 | 11,069 | 608 | 1,216 |
| Illinois. | 7,799 | 56,571 | 5,434 | 10,032 | 39,508 | 35,978 | 6,647 |
| South Atlantic division. | 26,670 | 189,911 | 19,007 | 34,496 | 134,820 | 82,862 | 25,496 |
| Maryland. . | 6,658 | 46,998 | 3,068 | 5,485 | 20,235 | 34,117 | 17,440 |
| District of Columbia. | - | - | , | 17, ${ }^{-}$ | 72,048 | 30, 269 | 3,746 |
| Virginia..... | 11,906 | 88,211 | 9,683 | 17,624 | 72,048 | 30,269 | 3,746 |
| South Carolina. | 7,167 | 49,144 | 5,569 | 10,113 | 38,661 | 14,969 | 4,009 |
| Georgia...... | 939 | 5,558 | 687 | 1,274 | 3,876 | 3,507 | 301 |
| Florida. | - | - | - | - |  | - | - |
| East South Central division. | 10,299 | 88,497 | 3,172 | 5,767 | 23,923 | 19,223 | 15,848 |
| Kentucky. | 1,924 | 15,524 | 1,470 | 2,700 | 12,247 | 9,367 | 1,082 |
| Alabama..... | 8,375 | 72,973 | 1,702 | 3,067 | 11,676 | 9,856 | 14,766 |
| West South Central division. | 2,341 | 13,481 | 1,583 | 2,790 | 8,380 | 6,386 | 3,158 |
| Arkansas. | 1,333 | 8,003 | 800 | 1,352 | 4,258 | 5,892 | 2,170 |
| Oklahoma. | 1,008 | 5,478 | 783 | 1,438 | 4,122 | 494 | 988 |
| Mountain division. | 549 | 3,971 | 293 | 528 | 2,105 | 8,919 | 3,628 |
| Colorado....... | 549 | 3,971 | 293 | 528 | 2,105 | 8,919 | 3,628 |
| Nevada. | - | - | - | - | - | - | - |
| Pacific division. | 36,092 | 267,830 | 28,796 | 52,290 | 214,466 | 103,894 | 20,531 |
| Washington. . | 10,055 | 72,879 | 7,887 | 14,449 | 55,401 | 34,175 | 6,121 |
| California. | 26,037 | 194,951 | 20,909 | 37,841 | 159,065 | 69,719 | 14,410 |

Note: Research and development activities, and manufacturing performed in supply depots are excluded, making 1963 data comparable to 1958.

- Represents zero.
table 3. Department of Defense Facilities,

| Major activity |  | 1963 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | All employees (wage board and graded) |  | Production workers (wage board) |  |  | Costs <br> $(\$ 1,000)$ |  | Value of shipments or receipts for service by type of activity $(\$ 1,000)$ |  |  |
|  |  | Number | Payroll <br> $(\$ 1,000)$ | Number | ManHours $(1,000)$ | Wages <br> $(\$ 1,000)$ | Materials, supplies, and parts used | Contractual services and other costs | Manufacture and assembly | Construction and conversion | Research and development |
|  | All manufacturing facilities, total. | 149,334 | 1,089,220 | 105,037 | 190,125 | 746,464 | 419,899 | 149,543 | 370,249 | 524,088 | 172,716 |
| 23 | Apparel and related products. | 1,809 | 8,305 | 1,689 | 2,785 | 7,520 | 1,404 | 723 | 10,908 | - | - |
| 281 | Basic chemicals...... | 5,836 | 40,441 | 2,365 | 4,038 | 14,440 | 21,557 | 19,968 | 34,956 | - | 26,927 |
| 289 | Miscellaneous chemical products......... | 2,704 | 18,531 | 1,796 | 3,327 | 12,158 | 27,371 | 3,270 | 37,570 | - | 4,266 |
| 366 | Communication equipment. | 7,140 | 56,740 | 2,874 | 5,192 | 18,029 | 16,931 | 19,409 | 33,720 | 605 | 42,861 |
| 373 | Ship and boat building. | 84,862 | 654,718 | 72,403 | 131,570 | 531,581 | 240,596 | 43,145 | 7,282 | 520,765 | 18,019 |
| 384 | Personal safety devices. | - |  |  |  | 531, | , |  |  |  | , |
| 19 | Ordnance and accessories................ | 41,983 | 310,485 | 23,910 | 43,213 | 162,736 | 112,040 | 63,028 | 245,813 | 2,718 | 80,643 |
| 192 | Missiles and ammunition, n.e.c. | 18,361 | 143,574 | 8,660 | 15,939 | 59,074 | 41,973 | 24,054 | 63,095 | - | 40,140 |

[^323]
## by Geographic Areas: 1963 and 1958

| Geographic area | 1963-Continued |  |  |  |  |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value of shipments or receipts for service by type of activity $(\$ 1,000)$ |  |  |  |  |  | All employees (wage board and graded) |  |
|  | Manufacture and assembly | Construction and conversion | Research and development | Other receipts | Total billings | Total revenues | Number | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ |
| United States, total. | 370,249 | 524,088 | 172,716 | 552,878 | 1,619,931 | 1,693,663 | 125,440 | 717,130 |
| New England division. | 67,637 | 110,670 | 14,712 | 47,612 | 240,631 79,745 | 245,951 90501 | 20,025 | $113,295$ |
| New Hampshire.... Massachusetts... | 598 67,039 | 70,895 39,775 | 1,012 13,700 | 7,240 40,372 | 79,745 160,886 | 90,501 155,450 | 7,390 12,635 | $\begin{aligned} & 41,486 \\ & 71,809 \end{aligned}$ |
| Middle Atlantic division. | 114,341 | 153,105 | 78,034 | 121,581 | 467,061 | 453,663 | 31,252 | 171,285 |
| New York. | 27,411 | 90,410 | 14,310 | 37,399 | 169,530 | 170,899 | 15,040 | 87,009 |
| New Jersey. | 33,720 | 605 | 42,861 | 26,432 | 103,618 | 93,150 | 1,915 | 10,595 |
| Pennsylvania. | 53,210 | 62,090 | 20,863 | 57,750 | 193,913 | 189,614 | 14,297 | 73,681 |
| East North Centrai division. | 79,516 | 1,167 | 4,667 | 34,650 | 120,000 | 119,880 | 4,219 | 23,607 |
| Indiana.. | 6,882 | - | 1,354 | 10,430 | 18,666 | 18,666 | 185 | 895 |
| Illinois. | 72,634 | 1,167 | 3,313 | 24,220 | 101,334 | 101,214 | 4,034 | 22,712 |
| South Atlantic division. | 52,792 | 28,122 | 34,300 | 144,951 | 260,165 | 302,191 | 26,555 | 143,624 |
| Maryland......... | 41,920 | , | 31,133 | 21,591 | 94,644 | 97,662 | 1,263 | 6,824 |
| District of Columbia. |  | 12,832 | 911 | 74,823 | 92,015 | 124,698 | 5,266 11,880 | 29,002 65,361 |
| Virginia....... | $\begin{array}{r}3,453 \\ \hline 235\end{array}$ | 12,832 15,290 | 911 1,971 | 74,823 48,108 | 92,015 65,604 | 124,698 70,619 | 11,880 7,075 | 65,361 37,146 |
| South Carolina. | 7,184 | 15,290 | 1,971 | 48,108 | 7,898 | 9,212 | -702 | 37,146 3,338 |
| Florida. . | 7, | - | - | - | 7, | - | 369 | 1,953 |
| East South Central division. | 18,473 | - | 36,051 | 77,616 | 132,140 | 124,073 | 7,192 | 52,047 |
| Kentucky. | 18,473 | - | 600 | 6,452 | 25,525 | 26,007 | 1,737 | 9,890 |
| Alabama. . |  | - | 35,451 | 71,164 | 106,615 | 98,066 | 5,455 | 42,157 |
| West South Central division. | 17,422 | - | 68 | 7,093 | 24,583 | 23,318 | 84.4 | 3,978 |
| Arkansas. | 14,804 | - | 60 | 2,759 | 17,623 | 16,358 | 191 | 1,023 |
| Oklahama. | 2,618 | - | 8 | 4,334 | 6,960 | 6,960 | 653 | 2,955 |
| Mountain division. | 15,802 | - | - | 3,100 | 18,902 | 16,646 | 1,251 | 6,500 |
| Colorado. | 15,802 | - | - | 3,100 | 18,902 | 16,646 | 78 | 449 |
| Nevada. |  | - | - | - | - | - | 1,173 | 6,051 |
| Pacific division. | 4,266 | 231,024 | 4,884 | 116,275 | 356,449 | 407,941 | 34,102 | 202,794 |
| Washington. | 2,867 | 77,331 | 2,526 | 21,852 | 104,576 | 117,044 | 10,942 | 63,373 |
| California. | 1,399 | 153,693 | 2,358 | 94,423 | 251,873 | 290,897 | 22,160 | 139,421 |

## by Type of Activity: 1963 and 1958

| Major activity |  | 1963--Continued |  |  | 1958 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Value of shipments or receipts for service by type of activity-.Continued $(\$ 1,000)$ |  |  | $\begin{gathered} \text { All employees } \\ \text { (wage board and graded) } \end{gathered}$ |  | Production workers (wage board) |  |  | Value added by manufacture$(\$ 1,000)$ |
|  |  | Other receipts | Total billings | Total revenues | Number | $\begin{aligned} & \text { Payroll } \\ & (\$ 1,000) \end{aligned}$ | Number | Man-hours $(1,000)$ | $\begin{gathered} \text { !ages } \\ (\$ 1,000) \end{gathered}$ |  |
|  | All manufacturing facilities, total. | 552,878 | 1,619,931 | 1,693,663 | 125,440 | 717,130 | 93,871 | 173,833 | 531,587 | 799,239 |
| 23 | Apparel and related products. |  | 11,017 | 10,624 | 2,513 | 9,515 | 2,212 | 4,308 | 7,937 | 10,501 |
| 281 | Basic chemicals....................... | 21,042 | 82,925 | 80,835 | 269 | 1,472 | 222 | 4,40 | 1,249 | 1,655 |
| 289 | Miscellaneous chemical products.......... | 6,408 | 48,24.4 | 49,831 | 1,160 | 6,188 | + 789 | 1,394 | 3,980 | 7,500 |
| 366 373 | Cormunication equipment................ Ship and boat building.............. | 26,432 316,598 | 103,618 | 93,150 969,056 | -1,915 | 10,595 522,649 | 1,435 73,174 | 2,508 135,278 | 7,940 420,944 | -18,657 |
| 384 | Personal safety devices................... |  |  |  | -103 |  |  |  | 420,526 |  |
|  | Ordnance and accessories................ | 182,289 | 511,463 | 490,167 | 28,397 | 166,075 | 15,953 | 29,740 | 89,011 | 189,100 |
| 192 | Missiles and ammunition, n.e.c........ | 110,658 | 213,893 | 210,134 | 9,605 | 65,096 | 4,649 | 8,759 | 26,602 | 69,087 |

# table 4. Federal, District of Columbia, and State Prisons: 1963 and 1958 

| Product ${ }^{1}$ | Unit of measure | Total shipments, including interplant transfers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1963 |  | 1958 |  |
|  |  | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ | Quantity | $\begin{aligned} & \text { Value } \\ & (\$ 1,000) \end{aligned}$ |
| Total. |  | (x) | 112,702 | (x) | 97,307 |
| Meat products. |  | $\binom{$ ( }{x} | 5,696 | $(\mathrm{x})$ | 5,893 |
| Canned foods.......... |  | (x) | 2,588 | (x) | 1,129 |
| Coffee and tea....... |  | (x) | , 795 | (x) | 1,171 |
| Chewing and smoking tobacco.... |  | (X) | 1,273 | (X) | 1,067 |
| Blankets.. |  | (x) | 2,275 | (x) | 1,506 |
| Woven fabrics. | 1,000 lbs. | 13,266 | 8,465 | 14,682 | 11,277 |
| Cordage and twine.. | ...do... | 13,812 | 1,862 | 15,334 | 2,707 |
| Apparel and related products.. |  | (X) | 14,966 1,754 |  | 12,364 |
| Sheets and pillow cases....... |  | (X) | 1,754 |  | 948 |
| Canvas specialties. |  | (x) | 3,735 | (x) | 4,309 |
| Mattresses....... | ........ | (x) | 2,696 | (X) | 3,369 |
| Wooden furniture. |  | (x) | 7,182 3,324 |  |  |
| Printing and binding |  | (x) | 3,324 2,370 | (X) | 2,317 2,068 |
| Soaps............... |  | (x) | 2,370 | (x) | 2,068 |
| Paints. |  | (x) | 3,325 | (X) | 2,006 |
| Shoes. | 1,000 prs. | 1,1.43 | 6,327 | 1,030 | 5,674 |
| Clay and concrete brick.......... | 1,000..... | 15,915 | 212 | (x) | 264 |
| Concrete block............... | 1,000.. |  | 11,481 |  |  |
| Motor vehicle license plates. | 1,000.. | 97,796 | 11,481 | 94,004 | 10,899 |
| Miscellaneous metal products. |  | (x) | 10,157 | (x) |  |
| Brooms and brushes... |  | (x) | 4,859 | (X) | 4,178 |
| Highway and road signs. | 1,000..... | 1,659 | 6,931 5,286 | 1,340 | 3,693 23,964 |
| Miscellaneous products. |  | (X) | 5,286 |  | 23,964 |

Note: Excludes agricultural products, road building, and other nonmanufacturing activities.
(X) Not applicable.

The products listed are classified within the Standard Industrial Classification System as follows:

| SIC code | Product | SIC code | Product | $\begin{aligned} & \text { SIC } \\ & \text { code } \end{aligned}$ | Product |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 201 | Meat products | 230 | Apparel and related products | 314 | Shoes |
| 203 | Canned foods | 239 | Sheets and pillowcases | 325 | Clay and concrete brick |
| 204 | Prepared animal feeds | 239 | Canvas specialties | 327 | Concrete block |
| 209 | Coffee and tea | 251 | Mattresses | 346 | Motor vehicle license plates |
| 213 | Chewing and smoking tobacco | 253 | Wooden furmiture | 349 | Miscellaneous metal products |
| 221 | Blankets | 275 | Printing and binding | 398 | Brooms and brushes |
| 223 | Woven fabrics | 284 | Soaps | 399 | Highway and road signs |
| 229 | Cordage and twine | 285 | Paints | 900 | Miscellaneous products |

${ }^{2}$ Includes the following values reported separately in 1958, but for which separate data are not available in 1963 : Dairy products, 202, $\$ 1,807$ thousand; flour, 204, $\$ 276$ thousand; miscellaneous textile products, $229, \$ 270$ thousand; castings, 330 , $\$ 300$ thousand; and fartn equipment, 352 , \$913 thousand.

## Appendixes



## Appendix A

## COMPARABILITY OF CENSUSES OF MANUFACTURES IN TERMS OF THE VALUE ADDED MEASURE

It is doubtful whether any census could be kept fully comparable with one taken for an earlier period. Even if all systems of classification, such as the SIC, and definitions were identical and if the same procedures were employed in compiling the statistics, the changes in the structure of industry would introduce elements of noncomparableness. For example, a shift to the use of commercial services instead of the manufacturers' own labor force in performing some functions would affect the comparability of operating ratios such as output per man-hour associated with an industry.

The changes in definitions and procedures introduced in a census are described in the introductory text of the census volumes and historical data are revised where practical. (See Introductory text, Section 5.) Nevertheless, over long periods of time the comparableness of series will be significantly affected and the problems of revising historical data become difficult.

One way of displaying the problems connected with comparing the statistics from two censuses is to review the history of a single concept. For this example, value added by manufactures has been chosen. Currently, it is looked upon as the "best" additive measure of manufacturing activity provided by the census of manufactures. It is widely relied upon for comparative statistics by industry and by geographic location.

The phrase, "value added to materials by manufacturing processes," first appeared as a column heading in the census for 1904, where it was proposed as a measure suitable for comparing industries and areas. Earlier censuses had provided information on value of product and varying amounts of information on costs of materials, the two sets of figures which census analysts use to compute value added (table A). In connection with the census for 1869, costs of materials were subtracted from value of product for each industry but the difference, which was labeled "excess of product over materials," was used primarily to indicate variation among industries classified by the ratio of materials to employees and by the manner in which products were valued for census purposes.

[^324]During the 19th century, interest centered chiefly in obtaining an aggregate which would reflect the growth of the American economy. In 1889, the subtraction of costs of materials from value of product was labeled, "net value of products." It was later criticized as a "statistical absurdity" unsuitable for measuring the growth of manufactures since the net value of products was made to appear less than the cost of materials. The census for 1899 proposed as a measure of growth the sum of "(1) the value of all raw materials which have entered this output; and (2) the entire value added to these ,raw materials by manufacturing processes," and, (3) the value of the partially fabricated materials imported "since their value is counted nowhere else."

The concern with the appropriate basis for the measurement of growth, and the desire to include within the measure all activities not explicitly included elsewhere, probably had its roots in the sparsity of available data. The census of manufactures was almost the only source of information on output and apparently there was a desire to make it as comprehensive as possible. It purported to cover output wherever it occurred-in factories, in the hand trades, in stores, and even in homes if the output was commercial-though the censuses for 1869 and later disclaimed an ability to obtain reliable statistics from the hand trades.

The census for 1899 devoted 77 pages of text to the emergence of a "factory system" and to formation of 185 "industrial combinations" or "trusts," consisting of 2,040 plants in 12 industrial groups and 36 States. All but eight of the "combinations" had been formed between 1890 and 1899. After 1899, the census was confined to the "factory system." Its frequency increased and emphasis shifted to the organization and structure of manufactures.

The formulation of net value of products as the sum of raw materials and value added had required that data be collected separately for raw materials and for fabricated materials and, as is shown in table A, data were obtained on many other expenses. The problem of allocating net value of products among industries and areas was discussed extensively in the census for 1899 but a satisfactory solution was not found. "Value added" was adopted, almost reluctantly, for this purpose in the census for 1904, but only the cost of materials consumed directly was subtracted from value of products to arrive at the value added used for that year. Materials consumed by the manufacturing process (e.g., mill supplies, fuels, etc.), but not embodied in the product, were not subtracted even though information on their magnitude was available in the census.

## Table A.--Approaches to Value Added, Selected Census Years 1869 to 1958

In millions of dollars. The entries are from the original reports for the years shown. Estimates adjusted for changes in the scope of manufactures are shown in table 1, General Summary. The exclusion of the hand trades and neighborhood operations from the 1899 census reduced the value added shown in this table by 44 percent; the adjustments for 1809 and later censuses were about 4 percent.]

*Subtracted from value of product in computing value added by manufacture.

- Represents zero.
${ }^{1}$ Includes only items named in a request for separate information.
${ }^{2}$ For 1947, value of shipments; for 1958, value of shipments and miscellaneous receipts, sales of goods bought and resold without further manufacture, and changes in inventories of work in process and finished goods.
${ }^{3}$ Includes all materials consumed in the manufacture of products plus an increasingly comprehensive list of supplies consumed currently in the operation of the plant.
${ }^{4}$ Specifically mentioned as included in item 2, but not shown separately.
${ }^{5}$ Obtained separately but cambined with item 7 for publication.
${ }^{6}$ Information requested but no mention of it was found in publication.
${ }^{7}$ Excluded from value of product and, thus, from value added. Data on excise taxes were obtained for 1947 and published as a memorandum item in the tables for industry, but have not been requested since 1947.
${ }^{8}$ Data were obtained in a sample survey conducted in connection with the census for 1958 and relate to 1957.
${ }^{9}$ Specifically mentioned as included in item 15.
10 Items 13 and 14 were combined and requested as item 12.
${ }^{11}$ The instructions for 1899 and 1904 requested the inclusion of the following expenses: Federal excise taxes, rent of office and buildings, interest paid, insurance premiums paid, advertising, ordinary repairs of buildings and machinery, all other sundries. The instructions for 1909 modified this list by requesting the separate reporting of Federal excise taxes, dropping interest paid, and adding traveling expenses, royalties, use of patents.
${ }^{12}$ Published only for individual industries; total not shown for all industries.
${ }^{13}$ For 1869 , labeled, "excess of value over materials;" for 1899 , labeled, "net value of product."

The chief concern of those first deciding upon the appropriate definition of value added was to circumvent the problem discussed in most censuses under the heading, "Duplication in cost of materials and value of products.'" To them, it must have seemed undesirable to subtract from value of products anything not essential to reduce "duplication" to manageable proportions. The considerations which went into the decisions to subtract additional costs from value of products are incompletely recorded, but there is no doubt that such decisions were taken. By 1909, mill supplies and fuels, including rented heat and power, were subtracted. To this list were added purchased electricity in 1929, and the cost of contract work, partially in 1935, and fully in 1939. Beginning with the 1947 Census of Manufactures, Federal excise taxes were excluded from value of shipments and thus from value added by manufacture. In a special table in the 1954 Census of Manufactures (Volume I, General Summary, table 2B), the concept of adjusted value added was introduced. Value added by resales was added to standard value added by manufacture and the total further adjusted by the change in finished products and work-inprocess inventories. During the 1955 to 1959 Annual Surveys of Manufactures, both adjusted and unadjusted value added were calculated for each industry. Since the 1958 census, only adjusted value added has been used.

While there was an increase in the range of costs subtracted from value of product in arriving at value added since 1869, there was also a curtailment of the detailed information obtained on costs. Why some items were dropped is not known precisely but perhaps the following information is relevant. The census reports contain testimony that difficulty had been experienced in collecting data on costs or expenses and that respondents had
complained about the burden of providing such information. The reports also contain statements, with increasing emphasis, that profits could not be calculated from published figures; such statements also appear in the reports for 1899 and 1904, the years when maximum detail was requested. There may have been more effort by the Census Bureau to obtain data essential to a "key" measure, such as value added, than there was for data to be presented only as supplementary information. Too, the introduction, in 1921, of the biennial census of manufactures, coupled with uncertain and fluctuating appropriations, may have led to the adoption of a policy to concentrate on a minimum number of key measures. The appropriations for the census for 1933, for example, were too small even to cover the key measures.

It is not clear whether the inclusion of fuels and electricity in the value to be subtracted from value of product was simply to reduce "duplication" within the manufacturing sector or is evidence of a growing awareness of the contribution of other sectors to the value of manufactured product, a contribution that must be subtracted to arrive at value added by manufacture. During the opening decades of this century, coke and manufactured gas had a larger share of the fuels market and much of the electricity consumed by manufactures was produced in manufacturing plants. On the other hand, a continuous attempt was made from the early censuses to exclude transportation costs from the value of products and value added, by requesting that products be valued f.o.b. the plant and that materials costs include the cost of transporting them to the plant. Item 6, table A, was provided as "correction" to costs of materials which were reported exclusive of delivery costs.


## Appendix B

## INDUSTRY DESCRIPTIONS

This appendix is included in Volume I, Summary and Subject Statistics, and in Volume III, Area Statistics, but has been omitted from this volume. The appendix shows the industry descriptions and the primary product coverage and specialization ratios for each industry. Similar but more extensive information of this type is contained elsewhere in this volume: industry descriptions are shown in the text pre. ceding the tables for each industry, and the ratios in table 5A for each industry.

## Appendix C

## COMPOSITION OF INDUSTRIES IN THE 1963 STANDARD INDUSTRIAL CLASSIFICATION

The 1963 and 1958 Censuses of Manufactures covered all establishments primarily engaged in manufacture as defined in the revised edition of the Standard Industrial Classification Manual (SIC), issued by the Bureau of the Budget. For 1958, the published census statistics were for the manufacturing industries as defined in the 1957 edition of the SIC Manual. For 1963, statistics are for the manufacturing industries as defined in an amended version of the 1957 edition.

The 1957 revised edition of the classification represented a considerable revision from the previously existing structure. Several appendixes in the published volumes of the 1958 Census of Manufactures dealt with the contents of that revision as it affected the manufacturing sector. (See 1958 Appendix A, "Notes on Comparability of 1954 and 1958 Data for Selected Industries and Industry Groups;" Appendix B, "Industry Descriptions;" and Appendix C, "Composition of Industries in the New SIC.'") Several appendixes to the 1963 Census of Manufactures volumes, including this appendix, likewise make reference to the relatively minor revisions of the SIC following the issuance of the 1957 revised edition.

Presented in two parts, this appendix traces, in part 1, the industries as defined for 1963 in terms of their 1958 counterparts and, in part 2, the industries as defined for 1958 in terms of their 1963 equivalents. Where no change in code or definition occurred, the short industry title and 4-digit code apply to both census years. Most of the industries fall into this category. Where change occurred, the title for a line showing only a 1958 code is a 1958 title and that for a line showing only a 1963 code, a 1963 title. In these instances of change in the SIC (a new industry
broken out of an existing industry, existing industries combined into one, or products shifted between existing industries) the relationship between the two periods is clarified by the manner of presentation. For example, in part 2, in the columns under "Industry code," the 1958 SIC industry 2025, "Special Dairy Products," is shown as part of 1963 industry 2022, "Natural and Process Cheese." This situation, that is, being part of an industry in the other year, is notated by an asterisk (*). Part 2 also indicates that 1958 industry 2022, "Natural Cheese," is likewise a part of 1963 industry 2022. Part 1 shows that, for 1963, industry 2022 encompasses 1958 industries 2022 and 2025. Thus, to determine comparability between the years, parts 1 and 2 of this appendix should be studied together. In both parts, 1963 data shown are for the following items: Number of establishments (total and those with 20 employees or more); employment; and value added by manufacture.

The manner of coding products and classifying establishments in the 1963 Census of Manufactures (utilizing only 1963 SIC codes) did not, in general, permit a tabulation of 1963 data in terms of 1958 industry definitions. Thus, in part 2 it was not possible to show the data for that part of 1963 industry 2022 which is equivalent to 1958 industry 2025. However, where the change in industry definition between the two years was such as to subdivide an old SIC industry into two new industries, the 1963 data for the former industry can be derived by summing the figures for the component parts; e.g., the 1958 industry 2649, "Paper and Board Products, N.E.C.," consists of the 1963 industries 2647 and 2649 , and totals for 2647 and 2649 are added together in part 2 to show their 1958 SIC industry equivalent.

Manufacturing industry codes used by the Bureau of the Census are identical to the SIC industry codes, with a single exception: SIC industries 3711 (Motor Vehicles), 3712 (Passenger Car Bodies), and 3714 (Motor Vehicle Parts and Accessories) are combined by Census into a single industry, number 3717, entitled "Motor Vehicles and Parts."

## Composition of Industries in the 1963 SIC

Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries

| Industry code |  | Industry title | Establishments |  | All employees (number) | Value added by manufacture$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{1963}{\text { SIC }}$ | $\begin{aligned} & 1958 \\ & \text { SIC } \end{aligned}$ |  | Total (number) | With 20 employees or more (number) |  |  |
| 2011 | 2011 | Meat slaughtering plants.................... | 2,992 | 976 | 180,873 | 1,908,309 |
| 2013 | 2013 | Meat processing plants....................... | 1,341 | 483 | 48,599 | 563,362 |
| 2015 | 2015 | Poultry dressing plants...................... | 967 | 559 | 70,104 | 410,909 |
| 2021 | 2021 | Creamery butter................................ | 766 | 178 | 11,992 | 132,665 |
| 2022 | ---- | Natural and process cheese................. | 1,138 | 206 | 17,956 | 179,750 |
|  | $\begin{aligned} & 2022 \\ & 2025 \end{aligned}$ | Natural cheese. Special dairy products | 1,138 | 206 | 17,956 | 179,750 |
| 2023 | 2023 | Condensed and evaporated milk.............. | 281 | 166 | 12,255 | 236,250 |
| 2024 | 2024 | Ice cream and frozen desserts............... | 1,081 | 387 | 29,143 | 433,006 |
| 2026 | 2026 | Fluid milk............ | 4,619 | 1,948 | 185,050 | 2,203,196 |
| 2031 | 2031 | Canned and cured seafoods................... | 405 | 196 | 17,271 | 174,634 |
| 2032 | 2032 | Canned specialties........................... | 173 | 77 | 25,156 | 540,835 |
| 2033 | 2033 | Canned fruits and vegetables. | 1,430 | 836 | 102,388 | 1,029,467 |
| 2034 | 2034 | Dehydrated foods products.. | 176 | 80 | 9,152 | 115,795 |
| 2035 | 2035 | Pickles, sauces, salad dressings. | 588 | 184 | 19,041 | 249,397 |
| 2036 | 2036 | Fresh or frozen packaged fish... | 547 | 255 | 20,066 | 118,451 |
| 2037 | 2037 | Frozen fruits and vegetables. | 650 | 346 | 51,750 | 550,231 |
| 2041 | 2041 | Flour mills.. | 618 | 218 | 22,405 | 373,090 |
| 2042 | 2042 | Prepared animal feeds........................ | 2,590 | 711 | 54,649 | 983,691 |
| 2043 | 2043 | Cereal preparations......................... | 48 | 30 | 11,358 | 365,022 |
| 2014 | 2044 | Rice milling................................. | 74 | 49 | 4,256 | 80,507 |
| 2045 | 2045 | Blended and prepared flour................. | 165 | 60 | 7,199 | 177,826 |
| 2046 | 2046 | Wet corn milling.. | 60 | 20 | 13.236 | 290,918 |
| 2051 | 2051 | Bread and related products. | 5,010 | 1,904 | 236,984 | 2,403,782 |
| 2052 | 2052 | Biscuit, crackers and cookies. | 356 | 208 | 43,160 | 627,040 |
| 2061 | 2061 | Raw cane sugar.... | 74 | 73 | 8,263 | 135,686 |
| 2062 | 2062 | Cane sugar refining. | 25 | 25 | 12,443 | 254,418 |
| 2063 | 2063 | Beet sugar..................................... | 65 | 62 | 11,297 | 200,698 |
| 2071 | 2071 | Confectionery products....................... | 1,211 | 411 | 63,643 | 635,393 |
| 2072 | 2072 | Chocolate and cocoa products................ | 28 | 23 | 8,743 | 184,796 |
| 2073 | 2073 | Chewing gum................................... | 24 | 17 | 5,558 | 135,848 |
| 2082 | 2082 | Malt liquors.................................... | 222 | 180 | 62,643 | 1,286,036 |
| 2083 | 2083 | Malt........................................... . . | 42 | 31 | 1,925 | 43,979 |
| 2084 | 2084 | Wines and brandy............................ | 222 | 70 | 6,111 | 137,281 |
| 2085 | 2085 | Distilled liquor, except brandy. | 107 | 89 | 18,009 | 623,736 |
| 2086 | 2086 | Bottled and canned soft drinks. | 3,905 | 1,530 | 106,850 | 1,233,629 |
| 2087 | 2087 | Flavorings........... | 520 | 97 | 9,083 | 400,173 |
| 2091 | 2091 | Cottonseed oil mills........................ | 188 | 153 | 8,372 | 100,815 |
| 2092 | 2092 | Soybean oil mills............................ | 102 | 71 | 6,478 | 152,143 |
| 2093 | 2093 | Vegetable oil mills, n.e.c................. | 47 | 22 | 1,952 | 42,692 |
| 2094 | ---- | Animal and marine fats and oils........... | 615 | 211 | 14,276 | 193,326 |
|  | $\begin{aligned} & 2094 \\ & 2095 \end{aligned}$ | Grease and tallow. <br> Animal oils, n.e.c. $\qquad$ | 615 | 211 | 14,276 | 193,326 |
| 2095 | 2099* | Roasted coffee. $\qquad$ Food preparations, n.e.c.................... | 324 | 133 133 | $\begin{aligned} & 17,175 \\ & 17,175 \end{aligned}$ | $\begin{aligned} & 616,407 \\ & 616,407 \end{aligned}$ |
| 2096 | 2096 | Shortening and cooking oils. | 115 | 86 | 13,511 | 264,501 |
| 2097 | 2097 | Manufactured ice......... | 1,199 | 135 | 10,757 | 90,204 |
| 2098 | 2098 | Macaroni and spaghetti | 221 | 70 | 7,270 | 96,012 |
| 2099 | ---- | Food preparations, n.e.c....................... | 2,190 | 547 547 |  |  |
|  | 2099* | Food preparations, n.e.c..................... | 2,190 | 547 | $54,277$ | $849,610$ |
| 2111 | 2111 | Cigarettes..................................... | 14 | 14 | 35,568 | 1,310,325 |
| 2121 | 2121 | Cigars......................................... | 193 | 82 | 20,731 | 192,998 |
| 2131 | 2131 | Chewing and smoking tobacco................ | 51 | 25 | 4,058 | 73,975 |
| 2141 | 2141 | Tobacco stemming and redrying............... | 136 | 110 | 16,973 | 103,296 |
| 2211 | 2211 | Weaving mills, cotton....................... | 407 | 350 | 208,993 | 1,256,753 |
| 2221 | 2221 | Weaving mills, synthetics................... | 355 | 300 | 88,157 | 661,535 |
| 2231 | 2231 | Weaving, finishing mills, wool............. | 361 | 249 | 47,429 | 386,622 |
| 2241 | 2241 | Narrow fabric mills.......................... | 384 | 215 | 23,154 | 172,493 |

*Represents part of the specified industry. (NA) Not available.

## Composition of Industries in the 1963 SIC--Continued

Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries-Continued


[^325]Composition of Industries in the 1963 SIC--Continued
Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries-Continued

| Industry code |  | Industry title | Establishments |  | All employees (number) | Value added by manufacture$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1963 \\ & \text { SIC } \end{aligned}$ | $\begin{aligned} & 1958 \\ & \text { SIC } \end{aligned}$ |  | Total <br> (number) | With 20 employees or more (number) |  |  |
| 2411 | 2411 | Logging camps and contractors.............. | 13,588 | 557 | 73,130 | 520,457 |
| 2421 | 2421 | Sawmills and planing mills.................. | 12,189 | 2,151 | 207,365 | 1,376,080 |
| 2426 | 2426 | Hardwood dimension and flooring............. | 642 | 317 | 28,128 | 155,083 |
| 2429 | 2429 | Special product sawmills, n.e.c............. | 541 | 107 | 7,164 | 41,355 |
| 2431 | 2431 | Millwork plants.............................. | 3,770 | 748 | 65,283 | 524,041 |
| 2432 | 2432 | Veneer and plywood plants................... | 641 | 503 | 66,155 | 559,211 |
| 2433 | 2433 | Prefabricated wood products. | 559 | 203 | 15,806 | 156,593 |
| 2441 | 2441 | Nailed wooden boxes and shook | 663 | 183 | 14,483 | 85,046 |
| 2442 | 2442 | Wirebound boxes and crates. | 117 | 70 | 9,893 | 55,606 |
| 2443 | 2443 | Veneer and plywood containers. | 99 | 44 | 3,953 | 16,086 |
| 2445 | 2445 | Cooperage....... | 107 | 23 | 2,616 | 17,494 |
| 2491 | 2491 | Wood preserving. . . . . . . . . . . . . . . . . . . . . . . . . | 338 | 157 | 11,178 | 93,265 |
| 2499 | ---- | Wood products, n.e.c......................... | 2,896 | 702 | 57,981 | 420,283 |
|  | $\begin{aligned} & 2499 \\ & 2661^{*} \end{aligned}$ | Wood products, n.e.c.......................... Building paper and board mills............ | 2,896 | 702 | 57,981 | 420,283 |
| 2511 | 2511 | Wood furniture, not upholstered............. | 3,063 | 992 | 140,982 | 993,200 |
| 2512 | 2512 | Wood furniture, upholstered................. | 1,785 | 713 | 67,850 | 506,727 |
| 2514 | 2514 | Metal household furniture................... | 517 | 244 | 29,346 | 247,003 |
| 2515 | 2515 | Mattresses and bedsprings................... | 1,120 | 340 | 30,061 | 285,510 |
| 2519 | 2519 | Household furniture, n.e.c.................. | 75 | 30 | 2,054 | 15,054 |
| 2521 | 2521 | Wood office furniture........................ | 138 | 58 | 6,516 | 57,018 |
| 2522 | 2522 | Metal office furniture. | 170 | 107 | 19,928 | 228,329 |
| 2531 | 2531 | Public building furniture. | 430 | 165 | 17,317 | 147,253 |
| 2541 | 2541 | Wood partitions and fixtures. | 1,594 | . 347 | 24,343 | 219,194 |
| 2542 | 2542 | Metal partitions and fixtures. | 513 | 167 | 20,290 | 214,301 |
| 2591 | 2591 | Venetian blinds and shades. | 777 | 59 | 10,102 | 88,905 |
| 2599 | 2599 | Furniture and fixtures, n.e.c | 356 | 91 | 7,540 | 65,871 |
| 2611 | 2611 | Pulp mills.. | 45 | 40 | 15,123 | 295,804 |
| 2621 | 2621 | Paper mills, except building. | 325 | 313 | 129,848 | 1,857,203 |
| 2631 | 2631 | Paperboard mills..... | 271 | 259 | 63,398 | 1,186,224 |
| 2641 | 2641 | Paper coating and glazing. | 387 | 181 | 31,983 | 457,367 |
| 2642 | 2642 | Envelopes.. | 230 | 173 | 20,728 | 188,963 |
| 2643 | 2643 | Bags, except textile bags. | 586 | 297 | 42,343 | 369,685 |
| 2644 | 2644 | Wallpaper............... | 79 | 31 | 2,194 | 20,907 |
| 2645 | 2645 | Die cut paper and board.. | 425 | 156 | 15,135 | 183,185 |
| 2646 | 2646 | Pressed and molded pulp goods................ | 59 | 42 | 5,720 | 70,006 |
| 2647 | 2649** | Sanitary paper products........................ Paper and board products, n.e.c........... | 119 | 77 | $\begin{aligned} & 19,108 \\ & 19,108 \end{aligned}$ | $\begin{aligned} & 369,711 \\ & 369,711 \end{aligned}$ |
| 2649 | ---- | Converted paper products, n.e.c.............. Paper and board products, n.e.c........... | $\begin{aligned} & 610 \\ & 610 \end{aligned}$ | $\begin{aligned} & 239 \\ & 239 \end{aligned}$ | $\begin{aligned} & 29,514 \\ & 29,514 \end{aligned}$ | $\begin{aligned} & 302,546 \\ & 302,546 \end{aligned}$ |
| 2651 | 2651 | Folding paperboard boxes. | 636 | 418 |  |  |
| 2652 | 2652 | Set-up paperboard boxes....... | 503 | 317 | 20,459 | 131,688 |
| 2653 | 2653 | Corrugated shipping containers | 923 | 651 | 83,229 | 80, 012 |
| 2654 | 2654 | Sanitary food containers..................... | 186 | 144 | 32,879 | 402,211 |
| 2655 | 2655 | Fiber cans, tubes, drums, etc............... | 246 | 137 | 13,188 | 126,196 |
| 2661 | ---- | Building paper and board mills. | 83 |  |  |  |
|  | 2661* | Building paper and board mills............. | 83 | 77 | 11,874 | 153,103 |
| 271 | 2711 | Newspapers. | 8,331 | 1,865 | 306,439 | 3,201,872 |
| 2721 | 2721 | Periodicals. | 2,630 | 402 | 67,730 | 1,349,030 |
| 2731 | 2731 | Books, publishing and printing. | 993 | 256 | 46,812 | 995,736 |
| 2732 | 2732 | Book printing..... | 683 | 275 | 36,101 | 358,294 |
| 2741 | 2741 | Miscellaneous publishing. | 1,374 | 177 | 22,551 | 252,932 |
| 2751 | 2751 | Printing, except lithographic.. | 12,109 | 1,404 | 170,215 | 1,578,275 |
| 2752 | 2752 | Printing, lithographic....................... | 6,822 | 1,339 | 121,072 | 1,302,046 |
| 2753 | 2753 | Engraving and plate printing............... | 580 | 105 | 9,022 | 80,748 |
| 2761 | 2761 | Manifold business forms..................... | 502 | 250 | 28,796 | 377,710 |
| 2771 | 2771 | Greeting card manufacturing.................. | 257 | 93 | 21,535 | 204,608 |

*Represents part of the specified industry. (NA) Not available.

# Composition of Industries in the 1963 SIC-Continued 

Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries--Continued

| Industry code |  | Industry title | Establishments |  |  | Value added by manufacture ( 81,000 ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1963 \\ & \text { SIC } \end{aligned}$ | $\begin{aligned} & 1958 \\ & \text { SIC } \end{aligned}$ |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | With 20 employees or more (number) |  |  |
| 2782 | 2782 | Blank books; looselear binders. | 410 | 158 | 17,899 | 168,465 |
| 2789 | 2789 | Bookbinding and related work.. | 1,043 | 311 | 24,338 | 172,298 |
| 2791 | 2791 | Typesetting... | 1,289 | 282 | 20,997 | 205,450 |
| 2793 | 2793 | Photoengraving. | 883 | 218 | 14,620 | 171,796 |
| 2794 | 2794 | Electrotyping and stereotyping. | 184 | 80 | 5,116 | 57,173 |
| 2812 | 2812 | Alvalies and chlorine. | 38 | 37 | 19,652 | 389,243 |
| 2813 | 2813 | Industrial gases. | 456 | 146 | 9,809 | 260,182 |
| 2814 | 2814 | Cyclic (coal tar) crudes. | 36 | 17 | 1,636 | 35,103 |
| 2815 | 2815 | Intermediate coal tar products | 141 | 84 | 26,089 | 570,234 |
| 2816 | 2816 | Inorganic pigments. | 96 | 49 | 11,544 | 286,407 |
| 2818 | 2818 | Orgenic chemicals, n.e.c... | 464 | 241 | 85,492 | 2,727,450 |
| 2819 | 2819 | Inorganic chemicals, n.e.c. | 674 | 323 | 82,430 | 1,902,563 |
| 2821 | 2821 | Plastics materials and resins...... | 509 | 256 | 61,366 | 1,202,349 |
| 2822 | 2822 | Synthetic rubber........... | 24 | 24 | 11,840 | 329,520 |
| 2823 | 2823 | Cellulosic man-made fibers. | 19 | 19 | 30,086 | 411,529 |
| 2824 | 2824 | Organic fibers, noncellulosic. | 25 | 24 | 41,421 | 922,001 |
| 2831 | 2831 | Biological products......................... | 113 | 40 | 5,789 | 60,377 |
| 2833 | 2833 | Medicinals and botanicals.. | 138 | 42 | 8,128 | 151,297 |
| 2834 | 2834 | Pharmaceutical preparations | 1,011 | 319 | 85,084 | 2,595,657 |
| 2841 | 2841 | Soap and other detergents.. | 704 | 172 | 30,794 | 1,137,425 |
| 2842 | 2842 | Polishes and sanitation goods | 1,101 | 173 | 16,332 | 420,440 |
| 2843 | 2843 | Surface active agents. | 148 | 59 | 4,108 | 75,698 |
| 2844 | 2844 | Toilet preparations. | 707 | 183 | 34,338 | 1,232,883 |
| 2851 | --75 | Paints and allied products. | 1,788 | 654 | 61,267 | 1,111,681 |
|  | $\begin{aligned} & 2851 \\ & 2852 \end{aligned}$ | Paints and varnishes........ Putty and caulking compound | 1,788 | 654 | 61,267 | 1,111,681 |
| 2861 | 2861 | Oum and wood chemicals. | 246 | 53 | 6,787 | 100,329 |
| 2871 | 2871 | Fertilizers..... | 281 | 199 | 19,992 | 287,800 |
| 2872 | 2872 | Fertilizers, mixing only | 733 | 232 | 13,752 | 164,140 |
| 2879 | ---- | Agricultural chemicals, n.e.c | 340 | 112 | 9,090 | 176,333 |
|  | $\begin{aligned} & 2873 \\ & 2879 \end{aligned}$ | Agricultural pesticides........................ | 340 | 112 | 9,090 | 176,333 |
| 2891 | 2891 | Glue and gelatin.. | 368 | 104 | 8,521 | 147,006 |
| 2892 | 2892 | Explosives..... | 68 | 47 | 14,814 | 165,733 |
| 2893 | 2893 | Printing ink. | 348 | 103 | 8,455 | 125,138 |
| 2895 | 2895 | Carbon black. | 33 | 31 | 3,010 | 91,752 |
| 2899 | ---- | Chem1cal preparations, |  |  | 25,788 |  |
|  | 2894 | Fatty acids......... | 12 | (NA) | 1,711 | $36,473$ |
|  | 2899 | Chemical preparations, | 1,372 | ( NA ) | 24,077 |  |
| 2911 | 2911 | Petroleum refining......... | 427 | 297 | 119,297 | 3,137,603 |
| 2951 | 2951 | Paving mixtures and blocks. | 762 | 127 | 9,680 | 165,584 |
| 2952 | 2952 | Asphalt felts and coatings.. | 230 | 140 | 14,581 | 189,981 |
| 29922999 | 2992 | Lubricating oils and greases..... | 353 | 108 | 8,433 | 199,074 |
|  | 2999 | Petroleum and coal products, n.e.c | 67 | 17 | 1,495 | 20,989 |
| 3011 | 3011 | Tires and inner tubes. | 155 | 96 | 85,259 | 1,321,712 |
| 3021 | 3021 | Rubber footwear.. | 53 | 46 | 29,147 | 216,959 |
| 3031 | 3031 | Reclaimed rubber. | 13 | 13 | 2,010 | 27,378 |
| 3079 | 3069 | Rubber products, n.e. | 1,173 | 620 | 132,228 | 1,427,022 |
|  | 3079 | Plastic products, n.e.c | 4,334 | 1,674 | 166,315 | 1,660,882 |
| 3111 | 3111 | Leather tanning and finishing | 525 | 256 | 31,417 | 273,092 |
| 3121 | 3121 | Industrial leather belting. | 83 | 23 | 2,870 | 32,915 |
| 3131 | 3131 | Footwear cut stock.. | 446 | 204 | 14,339 | 90,611 |
| 3141 | 3141 | Shoes, except rubber. | 1,040 | 815 | 201,728 | 1,214,740 |
| 3142 | 3142 | House slippers............................... | 153 | 97 | 11,039 | 64,555 |
| 3151 | 3151 | Leather gloves. | 166 | 87 | 7,718 | 32,194 |
| 3161 | 3161 | Luggage.......... | 379 | 145 | 16,409 | 112,796 |
| 3171 | 3171 | Handbags and purses | 545 | 262 | 24,548 | 142,554 |
| 3172 | 3172 | Small leather goods.. | 340 | 117 | 12,432 | 82,385 |
| 3199 | 3199 | Leather goods, n.e.c. | 370 | 67 | 4,989 | 32,730 |

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## Composition of Industries in the 1963 SIC.-Continued

Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries--Continued

| Industry code |  | Industry title | Establishments |  | All employees <br> (number) | Value added by manufacture <br> ( 81,000 ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1963 \\ & \text { SIC } \end{aligned}$ | 1958 |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | With 20 or more (number) |  |  |
| 3211 | 3211 | Flat glass.. | 31 | 30 | 22,815 | 364,466 |
| 3221 | 3221 | Glass container | 113 | 105 | 59,987 | 629,608 |
| 3229 | 3229 | Pressed and blown glass, n.e.c. | 107 | 95 | 37,999 | 472,212 |
| 3231 | 3231 | Products of purchased glass... | 1,044 | 249 | 26,158 | 309,734 |
| 3241 | 3241 | Cement, hydraulic........... | 188 | 179 | 34,863 | 785,681 |
| 3251 | 3251 | Brick and structural tile. | 512 | 400 | 28,620 | 216,548 |
| 3253 | 3253 | Ceramic wall and floor tile.. | 90 | 64 | 12,795 | 110,571 |
| 3255 | 3255 | Clay refractories........... | 150 | 109 | 11,431 | 118,248 |
| 3259 | 3259 | Structural clay products, | 164 | 108 | 12,188 | 108,442 |
| 3261 | 3261 | Vitreous plumbing fixtures. | 49 | 43 | 9,280 | 101,502 |
| 3262 | 3262 | Vitreous china food utensils.. | 31 | 21 | 6,314 | 42,504 |
| 3263 | 3263 | Fine earthenware food utensils. | 21 | 18 | 7,349 | 41,046 |
| 3264 | 3264 | Porcelain electrical supplies. | 79 | 49 | 10,170 | 90,001 |
| 3269 | 3269 | Pottery products, n.e.c.. | 458 | 98 | 9,085 | 62,107 |
| 3271 | 3271 | Concrete block and brick | 1,841 | 367 | 23,759 | 245,525 |
| 3272 | 3272 | Other concrete products.. | 3,451 | 716 | 52,297 | 539,967 |
| 3273 | 3273 | Ready mixed concrete., | 4,621 | 1,021 | 71,523 | 981,997 |
| 3274 | 3274 | Lime...... | 125 |  | 6,778 | 95,135 |
| 3275 | 3275 | Gypsum products. | 122 | 72 | 11,491 | 259,659 |
| 3281 | 3281 | Cut stone and stone products. | 893 | 211 | 18,340 | 131,465 |
| 3291 | 3291 | Abrasive products........... | 378 | 149 | 28,170 | 416,415 |
| 3292 | 3292 | Asbestos products.. | 124 | 84 | 19,516 | 269,067 |
| 3293 | 3293 | Gaskets and insulations. | 295 | 111 | 16,825 | 160,734 |
| 3295 | 3295 | Minerals, ground or treated. | 415 | 97 | 7,330 | 102,079 |
| 3296 | 3296 | Mineral wool... | 123 | 67 | 14,733 | 206,846 |
| 3297 | 3297 | Nonclay refractories | 93 | 68 | 8,572 | 129,139 |
| 3299 | 3299 | Nonmetallic products, n.e.c. | 320 | 56 | 5,471 | 53,289 |
| 3312 | 3312 | Blast furnaces and steel mills. | 288 | 247 | 500,550 | 7,506,433 |
| 3313 | 3313 | Electrometallurgical products | 36 | 30 | 10,437 | 145,503 |
| 3315 | 3315 | Steel wire drawing, etc...... | 200 | 133 | 21,280 | 253,009 |
| 3336 3317 | 3316 3317 | Cold finishing of steel shape | 81 | 68 | 13,700 | 223,977 |
| 3317 | 3317 | Steel pipe and tube. | 141 | 115 | 22,882 | 295,242 |
| 3321 | 3321 | Gray iron foundries | 1,139 | 767 | 120,528 | 1,168,478 |
| 3322 | 3322 | Malleable iron foundries. | 81 | 71 | 22,297 | 204,557 |
| 3323 | 3323 | Steel foundries. | 267 | 220 | 56,810 | 586,914 |
| 3331 | 3331 | Primary copper | 33 | 33 | 14,949 | 285,510 |
| 3332 | 3332 | Primary lead.. | 10 | 10 | 2,578 | 24,876 |
| 3333 | 3333 | Primary zinc....... | 18 | 18 | 8,065 | 98,789 |
| 3334. | 3334 | Primary aluminum. | 23 | 22 | 18,133 | 499,576 |
| 3339 | 3339 | Primary nonferrous metals, n . | 35 | 26 | 5,064 | 103,830 |
| 3341 | 3341 | Secondary nonferrous metals. | 459 | 179 92 | 15,445 | 228,190 478,393 |
| 3351 | 3351 | Copper rolling and drawing. | 112 | 92 | 38,949 | 478,393 |
| 3352 | 3352 | Aluminum rolling and drawing. | 212 | 153 | 54,263 | 721,171 |
| 3356 | 3356 | Rolling and drawing, n.e.c.. | 125 | 67 | 17,375 | 250,589 |
| 3357 | 3357 | Nonferrous wire drawing, | 299 954 | 227 | 56,418 | 677,535 343,863 |
| 3361 | 3361 | Aluminum castings....... | 954 | 321 | 36,216 | 343,863 |
| 3362 3369 | 3362 3369 | Brass, bronze, copper castings. | 549 | 193 | 15,341 | 144,092 |
| 3369 | 3369 | Nonferrous castings, n.e.c | 391 | 165 | 17,686 | 168,530 |
| 3391 | 3391 | Iron and steel forgings....... | 272 | 189 | 36,317 | 395,302 |
| 3392 3399 | 3392 3399 | Nonferrous forgings.......... Primary metal industries, | $\begin{array}{r}34 \\ \text { 754 } \\ \hline\end{array}$ | 19 | 6,297 14,956 | 71,378 192,250 |
| 3411 | 3411 | Metal | 270 | 206 | 53,245 | 830,515 |
| 3421 | 3421 | Cutlery | 161 | 67 | 11,837 | 213,998 |
| 3423 | 3423 | Hand and edge tools. | 716 | 255 | 31,480 | 364,265 |
| 3425 | 3425 | Hand saws and saw blade | 76 | 42 | 5,095 | 65,634 |
| 3429 | 3429 | Hardware, n.e.c. | 1,070 | 447 | 88,729 | 1,069,080 |
| 3431 | 3431 | Metal plumbing fixtures. | 81 | 45 | 11,011 | 139,859 |

*Represents part of the specified industry. (NA) Not available.

Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries-Continued

| Industry code |  | Industry title | Establishments |  | All employees (number) | Value added by manufacture <br> $(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1963 \\ & \text { SIC } \end{aligned}$ | $\begin{aligned} & 1958 \\ & \text { SIC } \end{aligned}$ |  | Total <br> (number) | With 20 employees or more (number) |  |  |
| 3432 | 3432 | Plumbing fittings, brass goods............... | 250 | 102 | 15,129 | 154,752 |
| 3433 | 3433 | Heating equipment, except electric......... | 648 | 280 | 42,020 | 495,652 |
| 3441 | 3441 | Fabricated structural steel.................... | 1,718 | 817 | 85,423 | 814,805 |
| 3442 | 3442 | Metal doors, sash, and trim. | 1,817 | 628 | 62,799 | 570,370 |
| 3443 | 3443 | Boiler shop products. | 1,383 | 601 | 75,018 | 770,064 |
| 3444 | 34.4 | Sheet metal work. | 3,250 | 755 | 61,651 | 632,384 |
| 3446 | 3449* | Architectural metal work. ...................... . Miscellaneous metal work, n.e.c........... | $\begin{aligned} & 1,334 \\ & 1,334 \end{aligned}$ | 173 | $\begin{aligned} & 15,587 \\ & 15,587 \end{aligned}$ | $\begin{aligned} & 148,763 \\ & 148,763 \end{aligned}$ |
| 3449 | 3449* | Miscellaneous metal work, n.e.c.............. Miscellaneous metal work, n.e.c........... | $\begin{aligned} & 697 \\ & 697 \end{aligned}$ | 246 246 | $\begin{aligned} & 24,992 \\ & 24,992 \end{aligned}$ | $\begin{aligned} & 283,427 \\ & 283,427 \end{aligned}$ |
| 3451 | 3451 | Screw machine products....................... | 1,874 | 516 | 36,909 | 358,961 |
| 3452 | 3452 | Bolts, nuts, rivets and washers............. | 573 | 323 | 57,618 | 695,276 |
| 3461 | 3461 | Metal stampings.................................. | 2,574 | 1,116 | 132,179 | 1,368,993 |
| 3471 | 3471 | Plating and polishing.......................... | 3,023 | 677 | 44,962 | 370,202 |
| 3479 | 3479 | Metal coating, engraving, etc............... | 1,258 | 276 | 20,669 | 184,546 |
| 3481 | 3481 | Fabricated wire products, n.e.c............. | 1,567 | 557 | 55,514 | 539,137 |
| 3491 | 3491 | Metal barrels, drums, and pails............ | 145 | 93 | 10,508 | 119,617 |
| 3492 | 3492 | Safes and vaults. | 32 | 15 | 3,346 | 56,223 |
| 3493 | 3493 | Steel springs. | 96 | 49 | 6,287 | 69,305 |
| 3494 | 3494 | Valves and pipe fittings. . . . . . . . . . . . . . . . . | 646 | 374 | 80,407 | 942,700 |
| 3496 | 3496 | Collapsible tubes............................... | 24 | 19 | 3,984 | 30,562 |
| 3497 | 3497 | Metal foil and leaf........................... | 67 | 40 | 4,981 | 63,486 |
| 3498 | 3498 | Fabricated pipe and fittings.................. | 349 | 146 | 13,007 | 144,598 |
| 3499 | 3499 | Fabricated metal products, n.e.c............ | 1,277 | 346 | 28,302 | 299,326 |
| 3511 | 3511 | Steam engines and turbines. . . . . . . . . . . . . . . . | 22 | 21 | 30,917 | 379,875 |
| 3519 | 3519 | Internal cambustion engines..... . . . . . . . . . . | 143 | 81 | 55,687 | 733,628 |
| 3522 | 3522 | Farm machinery and equipment. . . . . . . . . . . . . . | 1,568 | 558 | 112,614 | 1,328,381 |
| 3531 | 3531 | Construction machinery........................ | 617 | 305 | 104,520 | 1,301,266 |
| 3532 | 3532 | Mining machinery and equipment............. | 204 | 93 | 16,910 | 215,406 |
| 3533 | 3533 | Oilfield machinery................... . . . . . . . . | 408 | 176 | 29,203 | 398,152 |
| 3534 | 3534 | Elevators and moving stairways............... | 142 | 74 | 12,393 | 201,527 |
| 3535 | 3535 | Conveyors. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 454 | 175 | 20,778 | 270,475 |
| 3536 | 3536 | Hoists, cranes, and monorails................ | 120 | 56 | 9,585 | 112,327 |
| 3537 | 3537 | Industrial trucks and tractors............ | 314 | 108 | 17,570 | 233,116 |
| 3541 | 3541 | Metal-cutting machine tools.................. | 801 | 269 | 61,058 | 699,341 |
| 3542 | 3542 | Metal-forming machine tools............. . . . . | 366 | 146 | 22,078 | 281,287 |
| 3544 | 3544 | Special dies and tools........................ | 5,896 | 1,133 | 90,860 | 1,029,338 |
| 3545 | 3545 | Machine tool accessories...................... | 1,038 | 347 | 46,994 | 559,258 |
| 3548 | 3548 | Metalworking machinery, n.e. | 435 | 168 | 38,012 | 468,435 |
| 3551 | 3551 | Food products machinery...................... | 681 | 279 | 31,684 | 380,406 |
| 3552 | 3552 | Textile machinery. . . . . . . . . . . . . . . . . . . . . . . . | 561 | 216 | 36,004 | 314,190 |
| 3553 | 3553 | Woodworking machinery . . . . . . . . . . . . . . . . . . . . . | 249 | 91 | 12,057 | 146,998 |
| 3554 | 3554 | Paper industries machinery. . . . . . . . . . . . . . . . | 217 | 92 | 18,605 | 217,475 |
| 3555 | 3555 | Printing trades machinery................... | 490 | 136 | 22,952 | 285,879 |
| 3559 | 3559 | Special industry machinery, n.e.c.......... | 1,091 | 387 | 49,950 | 561,768 |
| 3561 | 3561 | Pumps and compressors................. . . . . . . . | 642 | 267 | 61,322 | 768,787 |
| 3562 | 3562 | Ball and roller bearings...................... | 125 | 93 | 52,316 | 627,694 |
| 3564 | 3564 | Blowers and fans................................ | 237 | 97 | 15,244 | 180,801 |
| 3565 | 3565 | Industrial patterns........................... . . | 1,209 | 106 | 9,914 | 112,587 |
| 3566 | 3566 | Power transmission equipment. . . . . . . . . . . . . . | 532 | 272 | 46,670 | 555,710 |
| 3567 | 3567 | Industrial furnaces and ovens................ | 239 | 94 | 12,394 | 153,477 |
| 3569 | 3569 | Ceneral industry machines, n.e.c............ | 777 | 277 | 35,559 | 424,084 |
| 3571 | 3571 | Computing and related machines............... | 248 | 139 | 96,370 | 1,101,484 |
| 3572 | 3572 | Typewriters... . . . . . . . . . . . . . . . . . . . . . . . . . . . | 21 | 16 | 18,023 | 243,190 |
| 3576 | 3576 | Scales and balances............................. | 85 | 35 | 5,765 | 64,362 |
| 3579 | 3579 | Office machines, n.e.c......................... | 161 | 75 | 16,980 | 224,654 |
| 3581 | 3581 | Autamatic vending machines............... . . . | 158 | 68 | 11,672 | 121,365 |
| 3582 | 3582 | Commercial laundry equipment. . . . . . . . . . . . . . | 115 | 58 | 6,542 | 70,771 |
| 3585 | 3585 | Refrigeration machinery....................... | 698 | 347 | 72,330 | 892,686 |
| 3586 | 3586 | Measuring and dispensing pumps.............. | 43 | 27 | 6,768 | 91,713 |

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## Composition of Industries in the 1963 SIC--Continued

Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries--Continued

| Industry code |  | Industry title | Establishments |  | $\underset{\substack{\text { All } \\ \text { employees }}}{ }$ <br> (number) | Value added by manufacture$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1963 \\ & { }_{\text {SIC }} \end{aligned}$ | $\begin{aligned} & 1958 \\ & \text { SIC } \end{aligned}$ |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | With 20 employees (number) (number) |  |  |
| 3589 | $\begin{aligned} & 3584 \\ & 3589 \end{aligned}$ | Service industry macnines, n.e.c........... <br> Vacuum cleaners, industrial.. <br> Service industry machines, n.e.c.......... | 506 506 | $\begin{aligned} & 142 \\ & 142 \end{aligned}$ | $\begin{aligned} & 15,257 \\ & 15,257 \end{aligned}$ | $\begin{aligned} & 192,379 \\ & 192,379 \end{aligned}$ |
| 3599 | 3599 | Miscellaneous machiner | 12,090 | 1,402 | 135,820 | 1,366,327 |
| $\begin{aligned} & 3611 \\ & 3612 \\ & 3613 \\ & 3621 \\ & 3622 \end{aligned}$ | $\begin{aligned} & 3611 \\ & 3612 \\ & 3613 \\ & 3621 \\ & 3622 \end{aligned}$ | Electric measuring instruments. <br> Transformers.. <br> Switchgear and switchboards <br> Motors and generators. <br> Industrial controls. | 560 177 400 384 339 | $\begin{aligned} & 209 \\ & 99 \\ & 214 \\ & 244 \\ & 2408 \end{aligned}$ | $\begin{aligned} & 44,715 \\ & 33,365 \\ & 54,045 \\ & 4,1,170 \\ & 32,990 \end{aligned}$ | $\begin{aligned} & 505,309 \\ & 381,514 \\ & 647,838 \\ & 993,207 \\ & 450,507 \end{aligned}$ |
| $\begin{aligned} & 3623 \\ & 3624 \\ & 3629 \\ & 3631 \\ & 3632 \end{aligned}$ | $\begin{aligned} & 3623 \\ & 3624 \\ & 3629 \\ & 3631 \\ & 3632 \end{aligned}$ | Electric welding apparatus. Carbon and graphite products. Electric industrial goods, n.e.c........... Household cooking equipment. Household refrigerators. | 149 53 231 83 34 | $\begin{array}{r} 75 \\ 40 \\ 109 \\ 53 \\ 25 \end{array}$ | $\begin{array}{r} 9,629 \\ 10,123 \\ 14,041 \\ 19,191 \\ 43,065 \end{array}$ | 162,411 141,423 141,633 230,285 631,269 |
| $\begin{aligned} & 3633 \\ & 3634 \\ & 3635 \\ & 3636 \\ & 3639 \end{aligned}$ | $\begin{aligned} & 3633 \\ & 3634 \\ & 3635 \\ & 3636 \\ & 3639 \end{aligned}$ | Household laundry equipment. <br> Electric housewares and fans. $\qquad$ <br> Household vacuum cleaners. $\qquad$ <br> Sewing machines. <br> Household appliances, n.e.c.............................. | 39 312 34 86 86 112 | $\begin{aligned} & 28 \\ & 136 \\ & 13 \\ & 17 \\ & 67 \end{aligned}$ | $\begin{array}{r} 18,343 \\ 38,801 \\ 5,682 \\ 7,646 \\ 13,127 \end{array}$ | 353,863 463,845 116,137 98,328 204,188 |
| $\begin{aligned} & 3641 \\ & 3642 \\ & 3643 \\ & 3644 \\ & 3651 \end{aligned}$ | $\begin{aligned} & 3641 \\ & 3642 \\ & 3643 \\ & 3644 \\ & 3651 \end{aligned}$ | Electric lamps.... Lighting fixtures. <br> Current carrying devices. <br> Noncurrent carrying devices. <br> Radio and TV receiving sets.................. | $\begin{array}{r}81 \\ 1,239 \\ 4.49 \\ 182 \\ 348 \\ \hline 167\end{array}$ | $\begin{array}{r} 50 \\ 480 \\ 180 \\ 103 \\ 178 \end{array}$ | $\begin{aligned} & 23,404 \\ & 53,866 \\ & 35,424 \\ & 20,290 \\ & 81,264 \end{aligned}$ | $\begin{aligned} & 362,235 \\ & 587,83 \\ & 355,64 \\ & 253,918 \\ & 911,954 \end{aligned}$ |
| $\begin{aligned} & 3652 \\ & 3661 \\ & 3662 \\ & 3671 \\ & 3672 \\ & 3673 \end{aligned}$ | $\begin{aligned} & 3652 \\ & 3661 \\ & 3662 \\ & 3671 \\ & 3672 \\ & 3673 \end{aligned}$ | Phonograph records. <br> Telephone; telegraph apparatus. <br> Radio, TV carmunication <br> Electron tubes, receiving type. <br> Cathode ray picture tubes. <br> Electron tubes, transmitting. | 167 90 1,132 42 151 57 57 | $\begin{array}{r} 60 \\ 56 \\ 535 \\ 22 \\ 28 \\ 28 \\ 45 \end{array}$ | $\begin{array}{r} 9,554 \\ 89,465 \\ 387,384 \\ 25,850 \\ 10,916 \\ 18,704 \end{array}$ | $\begin{array}{r} 125,388 \\ 1,013,792 \\ 4,327,671 \\ 250,681 \\ 128,354 \\ 204,614 \end{array}$ |
| 3674 | $-\overline{3679^{*}}$ | Semiconductors. $\qquad$ Electronic components, n.e.c................ | $\begin{aligned} & 107 \\ & 107 \end{aligned}$ | $\begin{aligned} & 87 \\ & 87 \end{aligned}$ | $\begin{aligned} & 56,349 \\ & 56,349 \end{aligned}$ | $\begin{aligned} & 467,035 \\ & 467,035 \end{aligned}$ |
| 3679 | -7679* | Electronic components, n.e.c................ Electronic components, n.e.c............... | $\begin{aligned} & 1,934 \\ & 1,934 \end{aligned}$ | $\begin{aligned} & 968 \\ & 968 \end{aligned}$ | $\begin{aligned} & 176,708 \\ & 176,708 \end{aligned}$ | $\begin{aligned} & 1,457,433 \\ & 1,457,433 \end{aligned}$ |
| 3691 | 3691 | Storage batteries. | 252 | 120 | 17,512 | 244,152 |
| 3692 | 3692 | Primary batteries, dry and we | 46 58 | 29 | 8,478 | 113,787 |
| 3693 3694 | 3693 | X-ray apparatus and tubes... | $\begin{array}{r}58 \\ 182 \\ \hline\end{array}$ | 30 98 | $\begin{array}{r}6,236 \\ 40,559 \\ \hline 109\end{array}$ | 86,534 496,662 |
| 3694 3699 | 3694 3699 | Engine electrical equipment.... Electrical products, | 182 350 | 106 | 10,923 | 101,221 |
| 3713 | 3713 | Truck and bus bodies.. | 610 | 208 | 24,466 | 229,472 |
| 3715 | 3715 | Truck trailers.... | 197 | 105 | 19,429 | 205,475 |
| 3717 | 3717 | Motor vehicles and parts. |  | 909 |  | 12,345,630 |
| $\begin{aligned} & 3721 \\ & 3722 \end{aligned}$ | 3721 3722 | Aircraft.................. Aircraft engines and parts. | 100 232 | $\begin{array}{r} 65 \\ 172 \end{array}$ | $\begin{aligned} & 302,201 \\ & 190,834 \end{aligned}$ | $\begin{array}{r} 3,542,695 \\ 2,244,317 \end{array}$ |
| $\begin{aligned} & 3723 \\ & 3729 \\ & 3731 \\ & 3732 \end{aligned}$ | $\begin{aligned} & 3723 \\ & 3729 \\ & 3731 \\ & 3732 \end{aligned}$ | Aircraft propellers and parts................. Aircraft equipment, n.e.c....................... Ship building and repairing Boat building and repairing. | 14 1,000 334 1,626 | $\begin{array}{r} 8 \\ 470 \\ 200 \\ 268 \end{array}$ | $\begin{array}{r} 11,183 \\ 175,167 \\ 114,649 \\ 24,861 \end{array}$ | 113,433 $1,96,904$ $1,009,690$ 1,009,690 |
| 3741 | 3741 | Locamotives and parts....... | 24 | 12 | 14,337 | 186,241 |
| 3742 3751 | 3742 3751 | Railroad and street cars.................. Motorcycles, bicycles, and parts......... | 78 88 88 | 58 33 | 30,742 9,662 | 355,230 |
| 3791 | 3791 | Motorcycles, bicycles, and parts. Trailer coaches............. | 88 413 | $\begin{array}{r}33 \\ 252 \\ \hline\end{array}$ | 2,662 25,69 | 82,245 232,460 |
| 3799 | 3799 | Trensportation equipment, n.e | 522 | 108 | 8,032 | 68,823 |
| 3811 | 3811 | Scientific instruments. | 594 | 213 | 33,084 | 358,588 |
| 3821 | 3821 | Mechanical measuring devices. | 670 | 258 | 62,353 | 732,529 |
| 3831 | 3832 | Automatic temperature contro Optical instruments and lense | 1280 | ${ }_{79}^{54}$ | 31,685 | 379,091 131,917 |
| 3841 | 3841 | Surgical and medical instruments. | 294 | 117 | 15,145 | 168,556 |

*Represents part of the specified industry. (NA) Not available.

## C-8

Composition of Industries in the 1963 SIC--Continued
Part 1. Derivation of 1963 SIC Industries from 1958 SIC Industries-Continued

| Industry code |  | Industry title | Establishments |  | All employees (number) | Value added by manufacture$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 1963 \\ \text { SIC } \end{gathered}$ | $\begin{aligned} & 1958 \\ & \text { SIC } \end{aligned}$ |  | $\begin{gathered} \text { Total } \\ \text { (number) } \\ \hline \end{gathered}$ | With 20 employees or more (number) |  |  |
| 3842 | 3842 | Surgical appliances and supplies........... | 704 | 162 | 28,267 | 370,273 |
| 3843 | 3843 | Dental equipment and supplies............... | 316 | 66 | 8,008 | 95,876 |
| 3851 | 3851 | Ophthalmic goods............ | 229 | 109 | 20,296 | 177,898 |
| 3861 | 3861 | Photographic equipment. | 538 | 187 | 64,937 | 1,270,132 |
| 3871 | 3871 | Watches and clocks... | 167 | 76 | 27,047 | 288,053 |
| 3872 | 3872 | Watcheases....................... . . . . . . . . . . . | 53 | 22 | 2,706 | 19,218 |
| 3911 | 3911 | Jewelry, precious metal.. | 1,438 | 218 | 23,551 | 234,925 |
| 3912 | 3912 | Jewelers' findings and materials........... | 228 | 67 | 4,816 | 33,958 |
| 3913 | 3913 | Lapidary work................................ | 318 | 15 | 1,535 | 16,129 |
| 3914 | 3914 | Silverware and plated ware. | 209 | 87 | 13,249 | 130,735 |
| 3931 | 3931 | Musical instruments and parts............... | 320 | 126 | 20,095 | 179,035 |
| 3941 | 3941 | Games and toys............................... | 797 | 351 | 51,835 | 444,101 |
| 3942 | 3942 | Dol1s..... | 410 | 160 | 16,213 | 138,100 |
| 3943 | 3943 | Children's vehicles.......................... | 64 | 31 | 4,542 | 35,304 |
| 3949 | 3949 | Sporting and athletic goods................. | 1,419 | 345 | 40,543 | 360,980 |
| 3951 | 3951 | Pens and mechanical pencils................. | 139 | 67 | 11,562 | 119,069 |
| 3952 | 3952 | Lead pencils and art goods.................. | 144 | 57 | 6,868 | 64,731 |
| 3953 | 3953 | Marking devices............................. | 616 | 90 | 7,625 | 85,572 |
| 3955 | 3955 | Carbon paper and inked ribbons............. | 102 | 52 | 5,539 | 68,353 |
| 3961 | 3961 | Costume jewelry............................... | 912 | 204 | 21,655 | 150,999 |
| 3962 | 3962 | Artificial flowers............................ | 384 | 70 | 4,958 | 29,194 |
| 3963 | 3963 | Buttons........................................ . | 290 | 69 | 5,599 | 43,751 |
| 3964 | 3964 | Needles, pins, and fasteners................ | 343 | 149 | 20,271 | 190,868 |
| 3981 | 3981 | Brooms and brushes........................... | 643 | 167 | 16,637 | 167,866 |
| 3982 | 3982 | Hard surface floor coverings................. | 16 | 13 | 6,192 | 118,832 |
| 3983 | 3983 | Matches. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 26 | 23 | 4,647 | 38,666 |
| 3984 | 3984 | Candles......................................... . | 111 | 32 | 3,167 | 26,306 |
| 3987 | 3987 | Lamp shades. . . . . . . . . . . . . . . . . . . . . . . . . . . | 228 | 48 | 3,583 | 20,476 |
| 3988 | 3988 | Morticians' goods. | 617 | 224 | 17,283 | 158,422 |
| 3992 | 3992 | Furs, dressed and dyed...................... | 132 | 26 | 2,577 | 30,240 |
| 3993 | 3993 | Signs and advertising displays............. | 3,206 | 570 | 43,476 | 407,478 |
| 3995 | 3995 | Umbrellas, parasols, and canes.............. | 112 | 35 | 2,604 | 16,101 |
| 3999 | 3999 | Miscellaneous products, n.e.c............... | 1,499 | 322 | 30,138 | 252,170 |
| 1911 | 1911 | Guns, howitzers, and mortars................ | 60 | 37 | 24,988 | 235,211 |
| 1999 | 1999 | Ordnance and accessories, n.e.c............ Complete guided missiles................. | 31 | 29 | 148,908 | 1,924,812 |
| 1929 | ---- | Ammunition, n.e.c.. | 44 | 34 | 32,578 | 285,774 |
|  | 1921 | Artillery ammunition...................... |  |  |  |  |
|  | 1922 | Ammunition loading. . . . . . . . . . . . . . . . . . . . Ammunition, n.e.c................. . . | 44 | 34 | 32,578 | 285,774 |
| 1931 |  |  |  |  |  |  |
|  | 1931 | Tanks and tank components... | 26 | 19 | 11,307 | 148,369 |
| 1941 | 1941 | Sighting and fire control equipment........ | 13 | 8 | 9,249 | 96,281 |
| 1951 | 1951 | Small arms, 30 mm and under. | 52 | 23 | 9,995 | 88,302 |
| 1961 | 1961 | Small arms ammunition. | 31 | 13 | 8,909 | 103,772 |

[^328]Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries

| Industry code |  | Industry title | Establishments |  | $\begin{gathered} \text { All } \\ \text { employees } \\ \text { (number) } \end{gathered}$ | Value added by manufacture$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1958 \\ & \text { SIC } \end{aligned}$ | $\begin{gathered} 1963 \\ \text { SIC } \end{gathered}$ |  | Total <br> (number) | With 20 employees or more (number) |  |  |
| 2011 | 2011 | Meat slaughtering plants..................... | 2,992 | 976 | 180,873 | 1,908,309 |
| 2013 | 2013 | Meat processing plants......................... | 1,341 | 483 | 48,599 | 563,362 |
| 2015 | 2015 | Poultry dressing plants...................... | 967 | 559 | 70,104 | 410,909 |
| 2021 | 2021 | Creamery butter................................ | 766 | 178 | 11,992 | 132,665 |
| 2022 | 2022* | Natural cheese......................................... Natural and process cheese.................... | $\begin{gathered} (\mathrm{NA}) \\ \text { (NA) } \end{gathered}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | (NA) <br> (NA) | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ |
| 2023 | 2023 | Condensed and evaporated milk............... | 281 | 166 | 12,255 | 236,250 |
| 2024 | 2024 | Ice cream and frozen desserts................ | 1,081 | 387 | 29,143 | 433,006 |
| 2025 | -2022 * | Special dairy products. $\qquad$ Natural and process cheese. $\qquad$ | $\begin{aligned} & (\mathrm{NA}) \\ & (\mathrm{NA}) \end{aligned}$ | (NA) <br> (NA) | $\begin{aligned} & \text { (NA) } \\ & (\mathrm{NA}) \end{aligned}$ | $\begin{aligned} & (\mathrm{NA}) \\ & (\mathrm{NA}) \end{aligned}$ |
| 2026 | 2026 | Fluid milk......... | 4,619 | 1,948 | 185,050 | 2,203,196 |
| 2031 | 2031 | Canned and cured seafoods. | 405 | 196 | 17,271 | 174,634 |
| 2032 | 2032 | Canned specialties............................ | 173 | 77 | 25,156 | 540,835 |
| 2033 | 2033 | Canned fruits and vegetables................ | 1,430 | 836 | 102,388 | 1,029,467 |
| 2034 | 2034 | Dehydrated foods products.................... | 176 | 80 | 9,152 | 115,795 |
| 2035 | 2035 | Pickles, sauces, salad dressings............ | 588 | 184 | 19,041 | 249,397 |
| 2036 | 2036 | Fresh or frozen packaged fish............... | 547 | 255 | 20,066 | 118,451 |
| 2037 | 2037 | Frozen fruits and vegetables................. | 650 | 346 | 51,750 | 550,231 |
| 2041 | 2041 | Flour mills.................................... | 618 | 218 | 22,405 | 373,090 |
| 2042 | 2042 | Prepared animal feeds........................... | 2,590 | 71 | 54,649 | 983,691 |
| 2043 | 2043 | Cereal preparations............................ | 48 | 30 | 11,358 | 365,022 |
| 2044 | 2044 | Rice milling.................................. | 74 | 49 | 4,256 | 80,507 |
| 2045 | 2045 | Blended and prepared flour.................. | 165 | 60 | 7,199 | 177,826 |
| 2046 | 2046 | Wet corn milling............................. | 60 | 20 | 13,236 | 290,918 |
| 2051 | 2051 | Bread and related products................... | 5,010 | 1,904 | 236,984 | 2,403,782 |
| 2052 | 2052 | Biscuit, crackers, and cookies................ | 356 | 208 | 43,160 | 627,040 |
| 2061 | 2061 | Raw cane sugar................................. | 74 | 73 | 8,263 | 135,686 |
| 2062 | 2062 | Cane sugar refining.............................. | 25 | 25 | 12,443 | 254,418 |
| 2063 | 2063 | Beet sugar..................................... | 65 | 62 | 11,297 | 200,698 |
| 2071 | 2071 | Confectionery products......................... | 1,211 | 411 | 63,643 | 635,393 |
| 2072 | 2072 | Chocolate and cocoa products................. | 28 | 23 | 8,743 | 184,796 |
| 2073 | 2073 | Chewing gum. . ................................... | 24 | 17 | 5,558 | 135,848 |
| 2082 | 2082 | Malt liquors................................... | 222 | 180 | 62,643 | 1,286,036 |
| 2083 | 2083 | Malt........................................... | 42 | 31 | 1,925 | 43,979 |
| 2084 | 2084 | Wines and brandy.............................. | 222 | 70 | 6,111 | 137,281 |
| 2085 | 2085 | Distilled liquor except brandy............... | 107 | . 89 | 18,009 | 623,736 |
| 2086 | 2086 | Bottled and canned soft drinks............... | 3,905 | 1,530 | 106,850 | 1,233,629 |
| 2087 | 2087 | Flavorings....................................... | 520 | 97 | 9,083 | 400,173 |
| 2091 | 2091 | Cottonseed oil mills.......................... | 188 | 153 | 8,372 | 100,815 |
| 2092 | 2092 | Soybean oil mills.............................. | 102 | 7 | 6,478 | 152,143 |
| 2093 | 2093 | Vegetable oil mills, n.e.c.................... | 47 | 22 | 1,952 | 42,692 |
| 2094 | ---3- | Grease and tallow.......................... | (NA) | (NA) | (NA) | (NA) |
|  | 2094* | Animal and marine fats and oils.......... | (NA) | (NA) | (NA) | (NA) |
| 2095 | 2094* | Animal oils, n.e.c........................ <br> Animal and marine fats and oils. | (NA) | (NA) | (NA) | (NA) (NA) |
| 2096 | 2096 | Shortening and cooking oils................. | 115 | 86 | 13,511 | 264,501 |
| 2097 | 2097 | Manufactured ice.. | 1,199 | 135 | 10,757 | 90,204 |
| 2098 | 2098 | Macaroni and spaghetti......................... | 221 | 70 | 7,270 | 96,012 |
| 2099 | --- | Food preparations, n.e.c..................... | 2,514 | 680 | 71,402 | 1,466,017 |
|  | 2095 | Roasted coffee................................ | 324 | 133 | 17,125 | 616,407 |
|  | 2099 | Food preparations, n.e.c................... | 2,190 | 547 | 54,277 | 849,610 |
| 2111 | 2111 | Cigarettes..................................... | 14 | 14 | 35,568 | 1,310,325 |
| 2121 | 2121 | Cigars........................................... | 193 | 82 | 20,731 | 192,998 |
| 2131 | 2131 | Chewing and smoking tobacco................... | 51 | 25 | 4,058 | 73,975 |
| 2141 | 2141 | Tobacco stemming and redrying. | 136 | 110 | 16,9731 | 103,296 |

## C-10

Composition of Industries in the 1963 SIC--Continued
Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries--Continued


# Composition of Industries in the 1963 SIC--Continued 

Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries--Continued

| Industry code |  | Industry title | Establishments |  | All employees (number) | Value added by manufacture$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1958 \\ & \text { SIC } \end{aligned}$ | $\begin{aligned} & 1963 \\ & \text { SIC } \end{aligned}$ |  | Total <br> (number) | With 20 employees or more (number) |  |  |
| 2411 | 2411 | Logging camps and contractors. | 13,588 | 557 | 73,130 | 520,457 |
| 2421 | 2421 | Sawnills and planing mills. | 12,189 | 2,151 | 207,365 | 1,376,080 |
| 2426 | 2426 | Hardwood dimension and flooring. | 642 | 317 | 28,128 | 155,083 |
| 2429 | 2429 | Special products sawnills, n.e.c. | 541 | 107 | 7,164 | 41,355 |
| 2431 | 2431 | Millwork plants..... | 3,770 | 748 | 65,283 | 524,041 |
| 2432 | 2432 | Veneer and plywood plants.................... | 641 | 503 | 66,155 | 559,211 |
| 2433 | 2433 | Prefabricated wood products................... | 559 | 203 | 15,806 | 156,593 |
| 2441 | 2441 | Nailed wooden baxes and shook................ | 663 | 183 | 14,483 | 85,046 |
| 2442 | 2442 | Wirebound baxes and crates.. | 117 | 70 | 9,893 | 55,606 |
| 2443 | 2443 | Veneer and plywood containers................ | 99 | 44 | 3,953 | 16,086 |
| 2445 | 2445 | Cooperage........................................ | 107 | 23 | 2,616 | 17,494 |
| 2491 | 2491 | Wood preserving.................................. | 338 | 157 | 11,178 | 93,265 |
| 2499 | 2499* | Wood products, n.e.c................................. Wood products, n.e.c............................. | (NA) | (NA) | (NA) <br> (NA) | (NA) |
| 2511 | 2511 | Wood furniture, not upholstered.............. | 3,063 | 992 | 140,982 | 993,200 |
| 2512 | 2512 | Wood furniture, upholstered................... | 1,785 | 713 | 67,850 | 506,727 |
| 2514 | 2514 | Metal household furniture.................... | 517 | 244 | 29,346 | 247,003 |
| 2515 | 2515 | Mattresses and bedsprings..................... | 1,120 | 340 | 30,061 | 285,510 |
| 2519 | 2519 | Household furniture, n.e.c.................... | 75 | 30 | 2,054 | 15,054 |
| 2521 | 2521 | Wood office furniture.......................... | 138 | 58 | 6,516 | 57,018 |
| 2522 | 2522 | Metal office furniture.. | 170 | 107 | 19,928 | 228,329 |
| 2531 | 2531 | Public building furniture..................... | 430 | 165 | 17,317 | 147,253 |
| 2541 | 2541 | Wood partitions and fixtures................. | 1,594 | 347 | 24,343 | 219,194 |
| 2542 | 2542 | Metal partitions and fixtures................ | 513 | 167 | 20,290 | 214,301 |
| 2591 | 2591 | Venetian blinds and shades. | 717 | 59 | 10,102 | 88,905 |
| 2599 | 2599 | Furniture and fixtures, $\mathrm{n} . \mathrm{e} . \mathrm{c} . . . . . . . . . . . . . .$. . | 356 | 91 | 7,540 | 65,871 |
| 2611 | 2611 | Pulp mills.. | 45 | 40 | 15,123 | 295,804 |
| 2621 | 2621 | Paper mills, except building. | 325 | 313 | 129,848 | 1,857,203 |
| 2631 | 2631 | Paperboard mills............ | 27 | 259 | 63,398 | 1,186,224 |
| 2641 | 2641 | Paper coating and glazing. | 387 | 181 | 31,983 | 457,367 |
| 2642 | 2642 | Envelopes. | 230 | 173 | 20,728 | 188,963 |
| 2643 | 2643 | Bags, except textile bags. | 586 | 297 | 42,343 | 369,685 |
| 2644 | 2644 | Wall paper...... | 79 | 31 | 2,194 | 20,907 |
| 2645 | 2645 | Die cut paper and board. | 425 | 156 | 15,135 | 183,185 |
| 2646 | 2646 | Pressed and molded pulp good | 59 | 42 | 5,720 | 70,006 |
| 2649 | -- | Paper and board products, n.e. | 729 | 316 | 48,622 | 672,257 |
|  | 2647 | Sanitary paper products...................... | 119 | 77 | 19,108 | 369,711 |
|  | 2649 | Converted paper products, n.e.c............ | 610 | 239 | 29,514 | 302,546 |
| 2651 | 2651 | Folding paperboard baxes...................... | 636 | 418 | 51,291 | 476,866 |
| 2652 | 2652 | Set-up paperboard baxes........................ | 503 | 317 | 20,459 | 131,688 |
| 2653 | 2653 | Corrugated shipping containers | 923 | 651 | 83,229 | 804,012 |
| 2654 | 2654 | Sanitary food containers. | 186 | 144 | 32,879 | 402,211 |
| 2655 | 2655 | Fiber cens, tubes, drums, etc. | 246 | 137 | 13,188 | 126,196 |
| 2661 | --- | Building paper and board mills............... | (NA) | (NA) | (NA) | (NA) |
|  | $\begin{aligned} & 2661 \\ & 2499^{*} \end{aligned}$ | Building paper and board mills.............. Wood products, n.e.c.............................. | (NA) | (NA) | (NA) | (NA) |
| 2711 | 2711 | Newspapers. | 8,331 | 1,865 | 306,439 | 3,201,872 |
| 2721 | 2721 | Periodicals. | 2,630 | 402 | 67,730 | 1,349,030 |
| 2731 | 2731 | Books, publishing and printing. | 993 | 256 | 46,812 | 995,736 |
| 2732 | 2732 | Book printing. .... | 683 | 275 | 36,101 | 358,294 |
| 2741 | 2741 | Miscellaneous publishing...................... | 1,374 | 177 | 22,551 | 252,932 |
| 2751 | 2751 | Printing, except lithogrephic................ | 12,109 | 1,404 | 170,215 | 1,578,275 |
| 2752 | 2752 | Printing, lithographic........................ | 6,822 | 1,339 | 121,072 | 1,302,046 |
| 2753 | 2753 | Engraving and plate printing................. | 580 | 105 | 9,022 | 80,748 |
| 2761 | 2761 | Manifold business forms...................... | 502 | 250 | 28,796 | 377,710 |
| 2771 | 2771 | Greeting card manufacturing.. | 257 | 93 | 21,535 | 204,608 |

*Represents part of the specified industry. (NA) Not available.

## C-12

Composition of Industries in the 1963 SIC--Continued
Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Indusries--Continued

| Industry code |  | Industry title | Establishments |  | All employees (number) | Value added by manuiacture$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1958 \\ & \text { SIC } \end{aligned}$ | $\begin{gathered} 1963 \\ \text { SIC } \end{gathered}$ |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | With 20 employees or more (number) |  |  |
| 2782 | 2782 | Blankbooks; looseleaf binders. | 410 | 158 | 17,899 | 168,465 |
| 2789 | 2789 | Bookbinding and related work.. | 1,043 | 317 | 24,338 | 172,298 |
| 2791 | 2791 | Typesetting. . . | 1,289 | 282 | 20,997 | 205,450 |
| 2793 | 2793 | Photoengraving. . | 883 | 218 | 14,620 | 171,796 |
| 2794 | 2794 | Electrotyping and stereotyping. .............. | 184 | 80 | 5,116 | 57,173 |
| 2812 | 2812 | Alkalies and chlorine.. | 38 | 37 | 19,652 | 389,243 |
| 2813 | 2813 | Industrial gases................................ | 456 | 146 | 9,809 | 260,182 |
| 2814 | 2814 | Cyclic (coal tar) crudes..................... | 36 | 17 | 1,636 | 35,103 |
| 2815 | 2815 | Intermediate coal tar products............... | 141 | 84 | 26,089 | 570,234 |
| 2816 | 2816 | Inorganic pigments............................. | 96 | 49 | 11,544 | 286,407 |
| 2818 | 2818 | Organic chemicals, n.e.c...................... | 464 | 241 | 85,492 | 2,727,450 |
| 2819 | 2819 | Inorganic chemicals, n.e.c. | 674 | 323 | 82,430 | 1,902,563 |
| 2821 | 2821 | Plastics materials and resins. | 509 | 256 | 61,366 | 1,202,349 |
| 2822 | 2822 | Synthetic rubber. | 24 | 24 | 11,840 | 329,520 |
| 2823 | 2823 | Cellulosic man-made fibers. | 19 | 19 | 30,086 | 411,529 |
| 2824 | 2824 | Organic fibers, noncellulosic. | 25 | 24 | 41,421 | 922,001 |
| 2831 | 2831 | Biological products... | 113 | 40 | 5,789 | 60,377 |
| 2833 | 2833 | Medicinals and botanicals. | 138 | 42 | 8,128 | 151,297 |
| 2834 | 2834 | Pharmaceutical preparations. | 1,011 | 319 | 85,084 | 2,595,657 |
| 2841 | 2841 | Soap and other detergents.. | 704 | 172 | 30,794 | 1,137,425 |
| 2842 | 2842 | Polishes and sanitation goods. | 1,101 | 173 | 16,332 | 420,440 |
| 2843 | 2843 | Surface active agents... | 148 | 59 | 4,108 | 75,698 |
| 2844 | 2844 | Toilet preparations... | 707 | 183 | 34,338 | 1,232,883 |
| 2851 | 2851* | Paints and varnishes. Paints and allied products | (NA) <br> (NA) | (NA) (NA) | (NA) <br> (NA) | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ |
| 2852 | 2851* | Putty and caulking compounds. $\qquad$ Paints and allied products. $\qquad$ | (NA) <br> (NA) | $\begin{aligned} & (\mathrm{NA}) \\ & (\mathrm{NA}) \end{aligned}$ | $\begin{aligned} & (\mathrm{NA}) \\ & (\mathrm{NA}) \end{aligned}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ |
| 2861 | 2861 | Gum and wood chemicals. | 246 | 53 | 6,787 | 100,329 |
| 2871 | 2871 | Fertilizers.. | 281 | 199 | 19,992 | 287,800 |
| 2872 | 2872 | Fertilizers, mixing only....................... | 733 | 232 | 13,752 | 164,140 |
| 2873 | -2879* | Agricultural pesticides. $\qquad$ Agricultural chemicals, n.e.c................ | (NA) <br> (NA) | (NA) <br> (NA) | (NA) <br> (NA) | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ |
| 2879 | -2879* | Agricultural chemicals, n.e.c................. | (NA) | (NA) | (NA) | (NA) |
|  | 2879* | cultural chemicals, n.e.c.................... | (NA) | (NA) | (NA) | (NA) |
| 2891 | 2891 | Glue and gelatin. | 368 | 104 | 8,521 | 147,006 |
| 2892 | 2892 | Explosives........................................ | 68 | 47 | 14,814 | 165,733 |
| 2893 | 2893 | Printing ink. | 348 | 103 | 8,455 | 125,138 |
| 2894 | 2899* | Fatty acids. $\qquad$ Chemical preparations, n.e.c.................. | 12 | $\begin{aligned} & (\mathrm{NA}) \\ & (\mathrm{NA}) \end{aligned}$ | $\begin{aligned} & 1,711 \\ & 1,711 \end{aligned}$ | $\begin{aligned} & 36,473 \\ & 36,473 \end{aligned}$ |
| 2895 | 2895 | Carbon black. | 33 | 31 | 3,010 | 91,752 |
| 2899 | 2899* | Chemical preparations, n.e.c.................... <br> Chemical preparations, n.e.c. | 1,372 1,372 | (NA) <br> (NA) | 24,077 24,077 | $\begin{aligned} & 469,395 \\ & 469,395 \end{aligned}$ |
|  | 2899* | Chemical preparations, n.e.c................ |  |  |  |  |
| 2911 | 2911 | Petroleum refining. | 427 | 297 | 119,297 | 3,137,603 |
| 2951 | 2951 | Paving mixtures and blocks. | 762 | 127 | 9,680 | 165,584 |
| 2952 | 2952 | Asphalt felts and coatings. | 230 | 140 | 14,581 | 189,981 |
| 2992 | 2992 | Lubricating oils and greases. | 353 | 108 | 8,433 | 199,074 |
| 2999 | 2999 | Petroleum and coal products, n.e.c | 67 | 17 | 1,495 | 20,989 |
| 3011 | 3011 | Tires and inner tubes. | 155 | 96 | 85,259 | 1,321,72 |
| 3021 | 3021 | Fuubber footwear. | 53 | 46 | 29,147 | 216,959 |
| 3031 | 3031 | Reclaimed rubber. | 13 | 13 | 2,010 | 27,378 |
| 3069 | 3069 | fubber products, n.e.c......................... | 1,173 | 620 | 132,228 | 1,427,022 |
| 3079 | 3079 | Plastics products, n.e.c...................... | 4,334 | 1,674 | 166,315 | 1,660,882 |
| 3171 | 3171 | Leather tanning and finishing. | 525 | 256 | 31,417 | 273,092 |
| 3121 | 3121 | Industrial leather belting..................... | 83 | 23 | 2,870 | 32,915 |
| 3131 | 3131 | Footwear cut stock. . | 446 | 204 | 14,339 | 90,611 |
| 3141 | 3141 | Shoes, except rubber. | 1,040 | 815 | 201,728 | 1,214,740 |
| 3142 | 3142 | House slippers......... | 153 | 97 | 11,039 | 64,555 |

*hepresents part of the specified industry. (NA) Not available.

## Composition of Industries in the 1963 SIC--Continued

Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries--Continued

| Industry code |  | Industry title | Establishments |  | $\begin{gathered} \text { All } \\ \text { employees } \\ \text { (number) } \end{gathered}$ | Value added by manufacture$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1958 \\ & \text { SIC } \end{aligned}$ | $\begin{aligned} & 1963 \\ & \text { SIC } \end{aligned}$ |  | $\begin{gathered} \text { Total } \\ \text { (number) } \end{gathered}$ | With 20 employees or more (number) |  |  |
| 3151 | 3151 | Leather gloves. | 166 | 87 | 7,718 | 32,194 |
| 3161 | 3161 | Luggage. ... | 379 | 145 | 16,409 | 112,796 |
| 3171 | 3171 | Handbags and purses. | 545 | 262 | 24,548 | 142,554 |
| 3172 | 3172 | Small leather goods. | 340 | 117 | 12,432 | 82,385 |
| 3199 | 3199 | Leather goods, n.e.c........................... | 370 | 67 | 4,989 | 32,730 |
| 3211 | 3211 | Flat glass. | 31 | 30 | 22,815 | 364,466 |
| 3221 | 3221 | Glass containers. | 113 | 105 | 59,987 | 629,608 |
| 3229 | 3229 | Pressed and blown glass, n.e.c............... | 107 | 95 | 37,999 | 472,212 |
| 3231 | 3231 | Products of purchased glass.................. | 1,044 | 249 | 26,158 | 309,734 |
| 3241 | 3241 | Cement, hydraulic................................ . | 188 | 179 | 34,863 | 785,681 |
| 3251 | 3251 | Brick and structural tile. | 512 | 400 | 28,620 | 216,548 |
| 3253 | 3253 | Ceramic wall and floor tile | 90 | 64 | 12,795 | 110,571 |
| 3255 | 3255 | Clay refractories. | 150 | 109 | 11,431 | 118,248 |
| 3259 | 3259 | Structural cloy products, n.e. | 164 | 108 | 12,188 | 108,442 |
| 3261 | 3261 | Vitreous plumbing fixtures..................... | 49 | 43 | 9,280 | 101,502 |
| 3262 | 3262 | Vitreous china food utensils. | 31 | 21 | 6,314 | 42,504 |
| 3263 | 3263 | Earthenware food utensils.. | 21 | 18 | 7,349 | 41,046 |
| 3264 | 3264 | Porcelain electrical supplies. | 79 | 49 | 10,170 | 90,001 |
| 3269 | 3269 | Pottery products, n.e.c. | 458 | 98 | 9,085 | 62,107 |
| 3271 | 3271 | Concrete block and brick. | 1,841 | 367 | 23,759 | 245,525 |
| 3272 | 3272 | Other concrete products. | 3,451 | 716 | 52,297 | 539,967 |
| 3273 | 3273 | Ready mixed concrete. | 4,621 | 1,021 | 71,523 | 981,997 |
| 3274 | 3274 | Lime. . . . | 125 | 68 | 6,778 | 95,135 |
| 3275 | 3275 | Gypsum products.. | 122 | 72 | 11,491 | 259,659 |
| 3281 | 3281 | Cut stone and stone products. | 893 | 211 | 18,340 | 131,465 |
| 3291 | 3291 | Abrasive products.... | 378 | 149 | 28,170 | 416,415 |
| 3292 | 3292 | Asbestos products. | 124 | 84 | 19,516 | 269,067 |
| 3293 | 3293 | Gaskets and insulations. | 295 | 111 | 16,825 | 160,734 |
| 3295 | 3295 | Minerals, ground or treated. | 415 | 97 | 7,330 | 102,079 |
| 3296 | 3296 | Mineral wool. | 123 | 67 | 14,733 | 206,846 |
| 3297 | 3297 | Nonclay refractories | 93 | 68 | 8,572 | 129,139 |
| 3299 | 3299 | Nonmetallic products, n.e.c | 320 | 56 | 5,471 | 53,289 |
| 3312 | 3312 | Blast furnaces and steel mills. | 288 | 247 | 500,550 | 7,506,433 |
| 3313 | 3313 | Electrometallurgical products. | 36 | 30 | 10,437 | 145,503 |
| 3315 | 3315 | Steel wire drawing, etc. . | 200 | 133 | 21,280 | 253,009 |
| 3316 | 3316 | Cold finishing of steel shapes | 81 | 68 | 13,700 | 223,977 |
| 3317 | 3317 | Steel pipe and tube. | 141 | 115 | 22,882 | 295,242 |
| 3321 | 3321 | Gray iron foundries.... | 1,139 | 767 | 120,528 | 1,168,478 |
| 3322 | 3322 | Malleable iron foundries | 81 | 71 | 22,297 | 204,557 |
| 3323 | 3323 | Steel foundries. | 267 | 220 | 56,810 | 586,914 |
| 3331 | 3331 | Primary copper.................................. | 33 | 33 | 14,949 | 285,510 |
| 3332 | 3332 | Primary lead. | 10 | 10 | 2,578 | 24,876 |
| 3333 | 3333 | Primary zinc.. | 18 | 18 | 8,065 | 98,789 |
| 3334 | 3334 | Primary aluminum.. | 23 | 22 | 18,133 | 499,576 |
| 3339 | 3339 | Primary nonferrous metals, n . | 35 | 26 | 5,064 | 103,830 |
| 3341 | 3341 | Secondary nonferrous metals. | 459 | 179 | 15,445 | 228,190 |
| 3351 | 3351 | Copper rolling and drawing. | 112 | 92 | 38,949 | 478,393 |
| 3352 | 3352 | Alumimum rolling and drawing. | 212 | 153 | 54,263 | 721,171 |
| 3356 | 3356 | Rolling and drawing, n.e.c.. | 125 | 67 | 17,375 | 250,589 |
| 3357 | 3357 | Nonferrous wire drawing, etc | 299 | 227 | 56,418 | 677,535 |
| 3361 | 3361 | Aluminum castings........ | 954 | 321 | 36,216 | 343,863 |
| 3362 | 3362 | Brass, bronze, copper castings................ | 549 | 193 | 15,341 | 144,092 |
| 3369 | 3369 | Nonferrous castings, n.e.c................... | 391 | 165 | 17,686 | 168,530 |
| 3391 | 3391 | Iron and steel forgings. | 272 | 189 | 36,317 | 395,302 |
| 3392 | 3392 | Nonferrous forgings....... | 34 | 19 | 6,297 | 71,378 |
| 3399 | 3399 | Primary metal industries, n.e.c | 754 | 218 | 14,956 | 192,250 |
| 3411 | 3411 | Metal cans. | 270 | 206 | 53,245 | 830,515 |
| 3421 | 3421 | Cutlery...... | 161 | 67 | 11,837 | 213,998 |
| 3423 | 3423 | Hand and edge tool's. | 716 | 255 | 31,480 | 364,265 |
| 3425 | 3425 | Hand saws and saw blades. | 76 | 42 | 5,095 | 65,634 |

Composition of Industries in the 1963 SIC-Continued
Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries-Continued

| Industry code |  | Industry title | Establishments |  | All employees (number) | Value added by manufacture$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1958 \\ & \text { SIC } \end{aligned}$ | $\begin{aligned} & 1963 \\ & \text { SIC } \end{aligned}$ |  | Total <br> (number) | With 20 employees or more (number) |  |  |
| 3429 | 3429 | Hardware, n.e.c. | 1,070 | 447 | 88,729 | 1,069,080 |
| 3431 | 3431 | Metal plumbing fixtures. . . . . . . . . . . . . . . . . . | 81 | 45 | 11,011 | 139,859 |
| 3432 | 3432 | Plumbing fittings, brass goods. | 250 | 102 | 15,129 | 154,752 |
| 3433 | 3433 | Heating equipment, except electric... | 648 | 280 | 42,020 | 495,652 |
| 3441 | 3441 | Fabricated structural steel. | 1,718 | 817 | 85,423 | 814,805 |
| 3442 | 3442 | Metal doors, sash, and trim.................. | 1,817 | 628 | 62,799 | 570,370 |
| 3443 | 3443 | Boiler shop products........................... | 1,383 | 601 | 75,018 | 770,064 |
| 34.44 | 3444 | Sheet metal work.............................. | 3,250 | 755 | 61,651 | 632,384 |
| 3449 | -- | Miscellaneous metal work, n.e | 2,031 | 419 | 40,579 | 432,190 |
|  | 3446 | Architectural metal work.... | 1,334 | 173 | 15,587 | 148,763 |
|  | 3449 | Miscellaneous metal work. | 697 | 246 | 24,992 | 283,427 |
| 3451 | 3451 | Screw machine products. | 1,874 | 516 | 36,909 | 358,961 |
| 3452 | 3452 | Bolts, nuts, rivets and washers. | 573 | 323 | 57,618 | 695,276 |
| 3461 | 3461 | Metal stampings. | 2,574 | 1,116 | 132,179 | 1,368,993 |
| 3471 | 3471 | Plating and polishing. | 3,023 | 677 | 44,962 | 370,202 |
| 3479 | 3479 | Metal coating, engraving, etc................ | 1,258 | 276 | 20,669 | 184,546 |
| 3481 | 3481 | Fabricated wire products, $\mathrm{n}_{0} \mathrm{e} . \mathrm{c}$. | 1,567 | 557 | 55,514 | 539,137 |
| 3491 | 3491 | Metal barrels, drums and pails.. | 145 | 93 | 10,508 | 119,617 |
| 3492 | 3492 | Safes and vaults.. | 32 | 15 | 3,346 | 56,223 |
| 3493 | 3493 | Steel springs..... | 96 | 49 | 6,287 | 69,305 |
| 3494 | 3494 | Valves and pipe fittings..................... | 646 | 374 | 80,407 | 942,700 |
| 3496 | 3496 | Collapsible tubes. | 24 | 19 | 3,984 | 30,562 |
| 3497 | 3497 | Metal foil and leaf. | 67 | 40 | 4,981 | 63,486 |
| 3498 | 3498 | Fabricated pipe and fittings. | 349 | 146 | 13,007 | 144,598 |
| 3499 | 3499 | Fabricated metal products, n.e. | 1,277 | 346 | 28,302 | 299,326 |
| 3511 | 3511 | Steam engines and turbines. | 22 | 21 | 30,917 | 379,875 |
| 3519 | 3519 | Internal combustion engines. | 143 | 81 | 55,687 | 733,628 |
| 3522 | 3522 | Farm machinery and equipment. | 1,568 | 558 | 112,614 | 1,328,381 |
| 3531 | 3531 | Construction machinery.... | 617 | 305 | 104,520 | 1,301,266 |
| 3532 | 3532 | Mining machinery and equipnent | 204 | 93 | 16,910 | 215,406 |
| 3533 | 3533 | 011 field machinery.. | 408 | 176 | 29,203 | 398,152 |
| 3534 | 3534 | Elevators and moving stairways. | 142 | 74 | 12,393 | 201,527 |
| 3535 | 3535 | Canveyors....................................... | 454 | 175 | 20,778 | 270,475 |
| 3536 | 3536 | Hoists, cranes, and monorails............... | 120 | 56 | 9,585 | 112,327 |
| 3537 | 3537 | Industrial trucks and tractors... | 314 | 108 | 17,570 | 233,116 |
| 3541 | 3541 | Metal-cutting machine tools.. | 801 | 269 | 61,058 | 699,341 |
| 3542 | 3542 | Metal-forming machine tools. | 366 | 146 | 22,078 | 281,287 |
| 3544 | 3544 | Special dies and tools... | 5,896 | 1,133 | 90,960 | 1,029,338 |
| 3545 | 3545 | Machine tool accessories. | 1,038 | 347 | 46,994 | 559,258 |
| 3548 | 3548 | Metalworking machinery, n.e.c. | 435 | 168 | 38,012 | 468,435 |
| 3551 | 3551 | Food products machinery. | 681 | 279 | 31,684 | 380,406 |
| 3552 | 3552 | Textile machinery. | 561 | 216 | 36,004 | 314,190 |
| 3553 | 3553 | Woodworking machinery. | 249 | 91 | 12,057 | 146,998 |
| 3554 | 3554 | Paper industries machinery | 217 | 92 | 18,605 | 217,475 |
| 3555 | 3555 | Printing trades machinery. | 490 | 136 | 22,952 | 285,879 |
| 3559 | 3559 | Special industry machinery, n.e.c | 1,091 | 387 | 49,950 | 561,768 |
| 3561 | 3561 | Pumps and compressors............ | 642 | 267 | 61,322 | 768,787 |
| 3562 | 3562 | Ball and roller bearings..................... | 125 | 93 | 52,316 | 627,694 |
| 3564 | 3564 | Blowers and fans........ | 237 | 97 | 15,244 | 180,801 |
| 3565 | 3565 | Industrial patterns............ | 1,209 | 106 | 9,914 | 112,587 |
| 3566 | 3566 | Power transmission equipment. . . . . . . . . . . . . . . | 532 | 272 | 46,670 | 555,710 |
| 3567 | 3567 | Industrial furnaces and ovens................ | 239 | 94 | 12,394 | 153,477 |
| 3569. | 3569 | General industry machines, n.e.c............ | 777 | 277 | 35,559 | 424,084 |
| 3571 | 3571 | Computing and related machines. | 248 | 139 | 96,370 | 1,101,484 |
| 3572 | 3572 | Typewriters........ | 21 | 16 | 18,023 | 243,190 |
| 3576 | 3576 | Scales and balances. | 85 | 35 | 5,765 | 64,362 |
| 3579 | 3579 | Office machines, n.e.c. | 161 | 75 | 16,980 | 224,654 |
| 3581 | 3581 | Automatic vending machines................... | 158 | 68 | 11,672 | 121,365 |
| 3582 | 3582 | Commercial laundry equipment.................. | 115 | 58 | 6,542 | 70,771 |
| 3584 | 3589* | Vacuum cleaners, industrial.................... Service industry machines, n.e.c........... | $\begin{aligned} & \text { (NA) } \\ & (\mathrm{NA}) \end{aligned}$ | $\begin{aligned} & (\mathrm{NA}) \\ & (\mathrm{NA}) \end{aligned}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | (NA) <br> (NA) |

*Represents part of the specified industry. (NA) Not available.

# Composition of Industries in the 1963 SIC.-Continued 

Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries.-Continued

| Industry code |  | Industry title | Establishments |  | All employees(number) | Value added by manufacture$(\$ 1,000)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1958 \\ & \text { SIC } \end{aligned}$ | $\begin{aligned} & 1963 \\ & \text { SIC } \end{aligned}$ |  | Total <br> (number) | With 20 employees or more (number) |  |  |
| 3585 | 3585 | Refrigeration machinery..................... | 698 | 347 | 72,330 | 892,686 |
| 3586 | 3586 | Measuring and dispensing pumps............. | 43 | 27 | 6,768 | 91,713 |
| 3589 | -3589** | Service industry machines, n.e.c............ Service industry machines, n.e.c.......... | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | $\begin{aligned} & \text { (NA) } \\ & \text { (NA) } \end{aligned}$ | $\begin{aligned} & \text { (NA) } \\ & (\mathrm{NA}) \end{aligned}$ | (NA) <br> (NA) |
| 3599 | 3599 | Miscellaneous machinery.................... | 12,090 | 1,402 | 135,820 | 1,336,327 |
| 3611 | 3611 | Electric measuring instruments. | 560 | 209 | 44,715 | 505,309 |
| 3612 | 3612 | Transformers. | 177 | 99 | 33,365 | 381,514 |
| 3613 | 3613 | Switchgear and switchboards.. | 400 | 214 | 54,045 | 647,838 |
| 3621 | 3621 | Motors and generators. | 384 | 244 | 94,170 | 993,207 |
| 3622 | 3622 | Industrial controls. | 339 | 108 | 32,990 | 450,507 |
| 3623 | 3623 | Welding apparatus..... | 149 | 75 | 9,629 | 162,411 |
| 3624 | 3624 | Carbon and graphite products.............. | 53 | 40 | 10,123 | 141,423 |
| 3629 | 3629 | Electric industrial goods, n.e.c............ | 231 | 109 | 14,041 | 141,633 |
| 3631 | 3631 | Household cooking equipment.................. | 83 | 53 | 19,191 | 230,285 |
| 3632 | 3632 | Household refrigerators...................... | 34 | 25 | 43,065 | 631,269 |
| 3633 | 3633 | Household laundry equipment. | 39 | 28 | 18,343 | 353,863 |
| 3634 | 3634 | Electric housewares and fans. | 312 | 136 | 38,801 | 463,845 |
| 3635 | 3635 | Household vacuum cleaners. | 34 | 13 | 5,682 | 116,137 |
| 3636 | 3636 | Sewing machines.. | 86 | 17 | 7,646 | 98,328 |
| 3639 | 3639 | Household appliances, n.e.c. | 112 | 67 | 13,127 | 204,188 |
| 3641 | 3641 | Electric lamps... | 81 | 50 | 23,404 | 362,235 |
| 3642 | 3642 | Lighting fixtures. | 1,239 | 480 | 53,866 | 587,834 |
| 3643 | 3643 | Current carrying devices. | 49 | 180 | 35,424 | 355,643 |
| 3644 | 3644 | Noncurrent carrying devices. | 182 | 103 | 20,290 | 253,918 |
| 3651 | 3651 | Radio and TV receiving sets...... | 348 | 178 | 81,264 | 911,954 |
| 3652 | 3652 | Phonograph records....... | 167 | 60 | 9,554 | 125,388 |
| 3661 | 3661 | Telephone; telegraph apparatus. | 90 | 56 | 89,465 | 1,013,792 |
| 3662 | 3662 | Radio, TV communications equipment.......... | 1,132 | 635 | 387,384 | 4,327,671 |
| 3671 | 3671 | Electron tubes, receiving type............. | 42 | 22 | 25,850 | 250,681 |
| 3672 | 3672 | Cathode ray picture tubes................... | 151 | 28 | 10,916 | 128,354 |
| 3673 | 3673 | Electron tubes, transmitting................ | 57 | 45 | 18,704 | 204,614 |
| 3679 | --- | Electronic components, n.e.c | 2,041 | 1,055 | 233,057 | 1,924,468 |
|  | 3674 | Semiconductors. | 107 | 87 | 56,349 | 467,035 |
|  | 3679 | Electronic components, n.e.c............. | 1,934 | 968 | 176,708 | 1,457,433 |
| 3691 | 3691 | Storage batteries............... | 252 | 120 | 17,512 | 244,152 |
| 3692 | 3692 | Primary batteries, dry and wet. | 46 | 29 | 8,478 | 113,787 |
| 3693 | 3693 | X-ray apparatus and tubes................... | 58 | 30 | 6,236 | 86,534 |
| 3694 | 3694 | Engine electrical equipment................. | 182 | 98 | 40,559 | 496,662 |
| 3699 | 3699 | Electrical products, n.e.c.................. | 350 | 106 | 10,923 | 101,221 |
| 3713 | 3713 | Truck and bus bodies. | 610 | 208 |  |  |
| 3715 | 3715 | Truck trailers....... | 197 | 105 | 19,429 | 205,475 |
| 3717 | 3717 | Motor vehicles and parts.................... | 1,958 | 909 | 649,926 | 12,345,630 |
| 3721 | 3721 | Aircraft...................................... | 100 | 65 | 302,201 | 3,542,695 |
| 3722 | 3722 | Aircraft engines and parts................... | 232 | 172 | 190,834 | 2,244,317 |
| 3723 | 3723 | Aircraft propellers and parts. | 14 | 8 | 11,183 | 113,433 |
| 3729 | 3729 | Aircraft equipment, n.e.c.................. | 1,000 | 470 | 175,167 | 1,966,904 |
| 3731 | 3731 | Ship building and repairing................ | 334 | 200 | 114,649 | 1,009,690 |
| 3732 | 3732 | Boat building and repairing................ | 1,626 | 268 | 24,861 | 183,059 |
| 3741 | 3741 | Locomotives and parts.............. | 24 | 12 | 14,337 | 186,241 |
| 3742 | 3742 | Railroad and street cars. | 78 | 58 | 30,742 | 355,230 |
| 3751 | 3751 | Motorcycles, bicycles, and parts. | 88 | 33 | 9,662 | 82,245 |
| 3791 | 3791 | Trailer coaches................... | 413 | 252 | 25,669 | 232,460 |
| 3799 | 3799 | Transportation equipment, n.e.c............. | 522 | 108 | 8,032 | 68,823 |
| 3811 | 3811 | Scientific instruments...................... | 594 | 213 | 33,084 | 358,588 |
| 3821 | 3821 | Mechanical measuring devices................ | 670 | 258 | 62,353 | 732,529 |
| 3822 | 3822 | Automatic temperature controls.............. | 104 | 54 | 31,685 | 379,091 |
| 3831 | 3831 | Optical instruments and lenses. | 280 | 79 | 11,924 | 131,917 |
| 3841 | 3841 | Surgical and medical instruments | 294 | 117 | 15,145 | 168,556 |
| 3842 | 3842 | Surgical appliances and supplies.. | 704 | 162 | 28,267 | 370,273 |

[^329]
## C-16

Composition of Industries in the 1963 SIC--Continued
Part 2. Distribution of 1958 SIC Industries Among 1963 SIC Industries--Continued


[^330](NA) Not available.


## Appendix D

## CENSUS REPORT FORMS AND PUNCH CARDS

In the 1963 Census of Manufactures, approximately 180 standard length report forms were employed in collecting data from all "annual survey of manufactures" establishments and from all of the larger "non-annual survey" establishments. A typical report form, MC-35Q, sent to establishments primarily producing industrial furnaces and ovens, is reproduced on pages $\mathrm{D}-2$ to $\mathrm{D}-13$ of this appendix. Inquiry items 1 to 16 were identical on all forms. Differences among forms are reflected in items 17 and 18 , requesting information, respectively, on materials consumed in manuíacture and products and services of the establishment. These items were "tailored" to reporting by establishments primarily utilizing the selected materials shown and primarily producing the products or performing the manufacturing services listed. Items 19, 20, and 21 are similarly different among forms and were intended to secure information of special significance to the industries primarily covered on the report form. For annual survey establishments, the front sheet of the 1963 report form was the annual survey report form used for 1962 and 1963 with provisions for entering figures for 1963.

In addition to the standard length forms, 50 short or abbreviated forms were used for smaller establishments. A copy of one such short form, MC-36Z, covering electrical machinery, equipment and supplies, is reproduced on pages $D-22$ to $D-24$ of this appendix. The size cut-off for the use of these short forms varied by industry, in most instances below 6 and in the others below 10 employees. The abbreviated forms requested information on a few key items: Number of employees; payrolls; total
cost of materials; and value of shipments by class of product. For those few industries in which small plants constituted a significant proportion of the total value of shipments, modified short forms were designed to collect some detail on the individual products shipped and less frequently on the types of materials used. The appendix also reproduces the general instructions for completing the standard length report forms. No instructions accompanied the short forms; all reporting instructions were contained on the form itself.

Copies of the basic punch cards utilized for tabulating the data reported on the 1963 Census of Manufactures forms are shown on page $\mathrm{D}-25$. One card was used for punching data reported on the standard length form; the other for the short form.

For the 1963 Census of Manufactures, additional report forms were used to cover separately operated central administrative offices and auxiliary units, plants under construction but not operated in 1963, etc. Copies of these forms are not shown in this appendix but are described in the introductory text appearing at the beginning of this volume.

A copy of Form MC-D3, covering Department of Defense owned and operated establish. ments, primarily engaged in manufacture or in research and development, will be found on pages $D-26$ to $D-29$ of this appendix. Statistics developed from these forms will be found in the special report section of this volume.

On pages $D-30$ to $D-31$ is a copy of supplemental report form MA-175, Report on Shipments to or Receipts for Work Done for Federal Government Agencies and Their Contractors and Suppliers in 1963. Pages D-32 to D-33 contain a copy of supplemental form MA-161, Exports of Manufactured Products 1963. Data from both of these supplemental surveys are published in the special reports section of this volume.


FORM MC-35Q
ITEM 8 QUANTITY OF ELECTRICITY DURING 1963
ITEMS 9-11 Not applicable to this form.
ITEM 12 CHANGES IN OWNERSHIP OR OPERATION OF ESTABLISHMENT
Please check proper box and furnish information requested below for 1963.
a. Did the company have any manufacturing plants under construction but not yet in operation during 1963?
b. Changes in ownership or operation of this
(1) Purchased (Enter date, name, and address of former oumer in Remarks Section)
(2) Sold (Enter date, name, and address of purchaser in Remarks Section)
(3) Discontinued operations:
(a) Plant dismantled or destroyed

## (b) Inactive

(4) Reorganized (Partnership change or change in corporate status)
(5) Started new business in 1963 (No previous owner)
(6) Remained the same as in the previous year
(7) Other changes in ownership (Describe in Remarks Section)

## ITEM 13 <br> ITEM 13 CHECKS TO ASSURE A COMPLETE AND ACCURATE REPORT (Pleose complete this item after you have answered all items on the report.)

The Census Bureau reviews your report for omissions, inconsistencies, and unusual ratios. To save you future correspondence about these problems, please make the following checks before returning your report:
b. Enter the results after calculating the four "reasonableness" checks (described below) and review the results.
c Correct your report for any errors you find; explain unusual figures in Remarks Section.

|  | "Reasonableness" checks | Calculation required tor each check <br> (Use figures reported in "Millions and Thousands" columns) | Resulting figures for 1963 |
| :---: | :---: | :---: | :---: |
|  | Average hourly wages per production worker | Item 3a (Production workers' wages) $\div$ Item 4e (Total man-hours) | \$ |
|  | Hours worked per year per production worker | Item 4e (Total man-hours) $\times 1000 \div$ Item $2 f$ ( Average number of production workers) | Hrs. |
|  | Salaries and wages per dollar of shipments | ```Item 3c (Total payroll) - Item }18\mathrm{ (Total value of shipments)``` | $\uparrow$ |
|  | Materials cost per dollar of shipments | Item 5 (Total materials cost) $\div$ Item 18 (Total value of shipments) | $\uparrow$ |
| (5) Is the total for value of shipments (Item 18) greater than the sum for payroll (Item 3c) plus total cost of materials, etc. (Item 5f)?$\square$ YesNo (If "No," please explain in Remarks Section |  |  |  |
| ARKS PERTANING TO THE R |  |  |  |


| $\underset{\substack{\text { FORM } \\(3517)}}{\text { MC-35Q }}$ <br> U.S. DEPARTMENT OF COMMERCE dUREAU OF THE CENSUS | File No. |  |  |  |  |  | Page 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1963 CENSUS OF MANUFACTURES | Name of establishment (Same as address boox) |  |  |  |  |  |  |
| INDUSTRIAL FURNACES AND OVENS-Continued |  |  |  |  |  |  |  |
| 4 - 40 |  |  |  |  |  |  |  |
| ITEM 16 INDUSTRIAL WATER USE DURING 1963 |  |  |  |  |  |  |  |
| -. The Total quantity of water intake (fresh and breckish) in this establishment during the entire year 1963-(Cbeck une bov only) |  |  |  |  |  |  |  |
| $1 \square$ Under 1 million gallons $3 \square 10$ to 19 million gallons $\quad 3 \square 100$ m |  |  |  |  |  |  |  |
| $2 \square 1$ to 9 million gallons $4 \square 20$ to 99 million gallons |  |  |  |  |  |  |  |
| b. Was your principal source of water (1) from a publichy- or privately-owned utility; or, (2) from other source? . . $1 \square$ Utility |  |  |  |  |  |  |  |
| ITEM 17 CONSUMPTION OF SELECTED MATERIALS D |  |  |  |  |  |  |  |
| REPORT SEPARATELY FOR EACH LISTED MATERIAL THAT WAS ACTUALLY CONSUMED OR PUT IN PRODUCTION DURING 1963 |  |  |  |  |  |  |  |
| Section A-CONSUMPTION OF MATERIALS PURCHASED OR RECEIVED FROM OTHER ESTABLISHMENTS |  |  |  |  |  |  |  |
| UNSTRUCFIONS |  |  |  |  |  |  |  |
| The sum (Line 17) of the costs of the listed items, including that for | If \$5,000 or mere of the llstod lfem wes consumed- |  |  |  |  |  |  |
| All other materials, parts, containers, and supplies consumed, should be the same as Item Sa. | Column (C)-Quonfity-Enter the quantity in the unit of measure specified in Column (B-2). Omir quantities if column is shaded. |  |  |  |  |  |  |
| Detailed instructions regarding the valuation of materials transferred from other establishments of your company are included in the Instruction Manual. | Column (D)-Deliverod Cest-Enter the amount paid or payable, including delivery cost (freight-in). |  |  |  |  |  |  |
| If consumption records are unavailable. figures may be derived from purchase or receipt records. (See Instruction Manual) |  |  |  |  |  |  |  |
|  | M some but less thon \$5,000 of the Msted tiom was consumed- |  |  |  |  |  |  |
| For items produced in this establishment and consumed or incorporated in products made in this establishment, enter quantities in Section B of Item 17, Page 4. | Column (E)-Enter an " X " in the box opposite the listed item. (Include the cost of materials checked with "All other materials, components, etc." Line 16.) |  |  |  |  |  |  |
| NOTE: Cost figures preferably should be rounded to THOUSANDS OF DOLLARS. If you wish, you may report to the nearest dollar. Please be caroful to enter your figures in the CORRECT COLUMNS. (See example at right) <br> EXAMPLE |  | If the material cost for Line 1 is $\$ 1,948,376$ : | Delivered cost |  |  |  |  |
|  |  | $\begin{gathered} \text { Mil- } \\ \text { Mions } \end{gathered}$ | Thou1 sands |  |  |  |
|  |  |  | 000 | 000 |  | 人 |  |
|  |  | Preferred method | \$ 11 | 948 |  | 反 \% |  |
|  |  |  | \$ 11 | 948 |  | \%* |  |



Section B-CONSUMPTION OF CASTINGS PRODUCED IN THIS ESTABLISHMENT AND CONSUMED IN MANUFACTURING OTHER PRODUCTS MADE IN THIS ESTABLISHMENT


## INSTRUCTIONS

 Materials Section A of Item 17 aboveMaterials used to produce the items specified below should be reported in Section $A$ of Item 17 above. products should be reported in Item 18 below.
Quantities produced for sale as such and not for incorporation in other
Report quantities in the unit of measure specified in Column (B-2)

$$
7
$$

Report below the quantity of each listed item produced in this establishment and consumed in manufacturing other products made in this establishment.
Purchases or receipts of the items specified below should be reported only in Section A above.

$$
7-5
$$

(F)

Quantities produced in this establishment and consumed in Quantacturing other products made in this establishment

| $7-1 \times X X$ |  |
| :---: | :---: |
| Census <br> material <br> code <br> $(8-1)$ |  |
| 332300 | 3 |

$$
\longrightarrow-
$$

Secal casingt (rough and seminn
please read the entire list of products and services below before answering this inquiry

> Report on Lines 1-20 for oll products made; and on Lines 21-26 for sorvices and other activifles performed at this establishment during 1963.

> DO NOT COMBINE PRODUCT LINES. If any of your products are not included in the listed items, report these on Lines 17-20.

> Praducts shlpped ond orter recolpts-Report the quantity and value of each product made and physically shipped during 1963 from this establishment, Including products shlpped to ofher plants, sales branches, retail stores, or warehouses of your company and on consignformed at this establishment.
INSTRUCTIONS



FORM MC-35Q

REMARKS

| PERIOD OF REPORT | This report covers the period from$\qquad$ to$\qquad$ |  |  |
| :---: | :---: | :---: | :---: |
| ITEM 22 |  |  |  |
| ITEM 23 | CERTIFICATION-This report is substantially accurate and has been prepared in accordance with instructions. <br> Name of company |  |  |
|  |  |  |  |
|  | Signature of authorized official | Title | Date |

The following instructions supplement the "General Instructions to Manufacturers
INSTALLATION (OR CONSTRUCTION) OF PRODUCTS OF YOUR OWN MANUFACTURE
Include these workers engaged in installing your products in Items 2 and
3, "Employment and Payrolls 1963."
Receipts for installation services should be reported separately on Line
Do not include these receipts in the value of industrial furnaces and ovens as reported on Lines 1-16, Item 18.
If your records do not provide exact figures on the value of installa-
In no case should installation costs (or the value of the service) be included in your report where the installing or erecting is performed by a separate company, whether the services of that company have been contracted for by your customer or by yourself.
Please sfate In the Remarks Sectlon of this form whether you install or erect your manufactured products. -If you do such installing or erecting, you should further indicate whether or not the installation costs and value of such services are included in your report (using the above instructions as the basis for reporting.

# 1963 CENSUS OF MANUFACTURES 

## REPORTING INSTRUCTIONS

In all correspondence with the Census Bureau, please include the 11-digit file number which appears in the address box of the report form. Highspeed electronic equipment will be used to identify both the correspondence and the reports in the 1963 Economic Censuses. If your correspondence does not include the Census file number, it will be returned for the addition of that number. Address all correspondence to JEFFERSONVILLE CENSUS OPERATIONS OFFICE, 1208 East 10th Street, Jeffersonville, Indiana.

Please do not mark or mar the two lines of symbols above the address on each form. These symbols or rectangles which are unique to each establishment will be photographed and used to record mechanically the receipt of your report form.

As you complete the reports for each establishment, please enter the 11-digit file number at the top of the odd numbered pages as requested.

This booklet is provided to assist you in filling out the enclosed Census of Manufactures form(s) MC19A through MC39L. Please read these instructions and those appearing on the individual report forms for each item before entering your figures.

## A. Who Should Report?

The Census of Manufactures reports are required by an Act of Congress (13 U.S.C.). The reports submitted are confidential and may be seen only by sworn Census employees. They may not be used for purposes of taxation, investigation, or regulation. Copies retained in your files are also immune from legal process.

Every concern is required to submit a separate Census report for each of its manufacturing establishments in the United States, the Virgin lslands, and Guam. Enterprises with more than one establishment must submit a separate report for each establishment operated during all or any part of 1963. Reports should be returned to the Jeffersonville Census Operations Office as shown on the enclosed envelope.

Based on Census Bureau records, a report form is provided for each establishment which your company operated in 1963. If you have not received sufficient forms to cover all the manufacturing establishments operated by your company, write for additional copies. Be sure to describe the type of activity carried on at the establishments for which you request additional forms.

## 1. What ls a Manufacturing Establishment?

For purposes of the Census, a manufacturing establishment is defined as a single physical location where manufacturing operations are performed; for example, a factory, mill, or plant. Since the information reported will be summarized to totals for each industry, State, county and standard metropolitan statistical area, separate reports are required for different physical locations even though the establishments may be engaged in the same line of manufacturing.
lf your company operates two or more units in distinctly different lines of manufacturing at the same location, you should also file a separate establishment report for each unit, provided separate records are maintained or substantially accurate reports for these separate activities can be prepared. It is not necessary to file separate reports for departments or organizational subdivisions within an establishment.
In completing your reports, a limited amount of prorating or estimating is acceptable when book records are not readily available.

## 2. How To Report for Establishments not in Operation During 1963 ?

lf any of your company's manufacturing establishments were not in operation at all during 1963, you should nevertheless return the report for each such establishment with a notation as to its status in ltem 12 "Changes in ownership or operation of the establishment." If a manufacturing location was not in production, but had custodial employees, maintained inventories, or made shipments during the year, the information should be reported in the appropriate section of the report form.

## B. What Activities Should Be Reported?

Each report should cover all the activities (manufacturing, fabricating, processing, and assembling) conducted within the establishment. The reported figures should also include activities such as the maintenance of plant and equipment, receiving, shipping, warehousing, storage, research, record keeping, health, safety, cafeteria, and other services, when carried on at the same physical location by the manufacturing establishment. The manufacturing establishment reports should exclude sales branches, sales offices, research laboratories, retail stores, mining activities, and general administrative offices, if they are operated as separate establishments. However, separate Census of Business, Census of Mineral Industries, or Central office or auxiliary reports should be submitted for each of these establishments.

Please note that establishments engaged in the activities listed below are considered to be manufacturing for the purposes of this Census:

Apparel jobbing and contracting
Assembling from purchased components
Commission processing of materials owned by others Job casting, stamping, machinery
Lapidary work
Logging camps and logging
Machine shops, including those operating on a job order basis
Manufacturing and delivering ready-mixed concrete
Milk pasteurizing and bottling
Plating, galvanizing, polishing materials owned by others etc.
Poultry dressing
Printing
Publishing: Book, magazine, periodical, etc.
Rebuilding on a factory basis
Sawmills
Seafood, fresh packaged or frozen
Ship and boat repairing
Wood preserving

## C. What Period Should Each Report Cover?

Each report should cover the calendar year 1963. If your book records are not on a calendar year basis, carefully prepared estimates will be acceptable. If reporting on a calendar year basis will involve considerable additional costs, and your fiscal year covers at least 10 months of calendar year 1963 (i.e., ends between October 31, 1963 and February 29,1964 ), you may report on a fiscal basis. However, all employment, payroll, and man-hour figures should relate to the calendar year rather than the fiscal year. (These calendar year payroll records should be available from your tax records.)

In the certification, the dates should show the exact period which the report covers. Thus, if an establishment began to operate or ceased to operate within the year, the dates should span only that part of the year during which the plant was in operation. If the ownership changed during the year, complete the report only for that part of 1963 in which your company owned and operated the establishment. Report in ltem 12 the appropriate information on changes in ownership or operations.

## D. How Should Multiple Establishment Companies <br> Determine Transfer Values of Products and Materials from One Establishment to Another ('Interplant Transfers")?

One of the important statistical measures of manufacturing activity is "value added by manufacture," which is derived by the Census Bureau from the figures reported for value of shipments, cost of materials and inventories.

In order for statistics on value added and other subjects to be comparable from industry to industry or area to area, it is necessary that the operations of each establishment of a multiple establishment organization be reported as though the establishment were a separate "economic" unit. This means that the value of interplant transfers within a company should include, in addition to
direct costs of production, a reasonable proportion of "all other costs (company overhead) and profits." The establishments receiving such transfers should report them as materials consumed (or inventories of materials, etc.) at the same value plus costs of freight and other direct handling charges. (See ltem 5.)

## ITEMS ON THE REPORT FORM

## ltem 1. (See instructions on Form.)

ltem 2. Number of employees.-(You may follow the definition of employees specified by your State Employment Security Agency.)--Report employees at the establishment who worked or received pay for any part of the pay period (preferably one week) ending nearest the 15th of the specified months (i.e., March, May, August, and November of 1963 for "production workers" and March only for "all other employees"). lnclude all persons on paid sick leave, paid holidays, and paid vacation during these pay periods; exclude members of armed forces and pensioners carried on your active rolls. Include officers at this establishment, if a corporation; if an unincorporated concern, exclude proprietor or partners.
ltems 2 e and 2 f .--Divide the total on Line 2 e by FOUR and enter the result on Line 2f; divide by FOUR even if the establishment did not operate in all four periods.
ltem 3. Payrolls. (You should follow the definition of salaries and wages that is used for calculating the withholding tax.) Report the gross earnings paid in calendar year 1963 to employees on the payroll at the establishment prior to such deductions as employee's Social Security contributions, withholding taxes, group insurance premiums, union dues, and savings bonds. lnclude in gross earnings commissions, dismissal pay, pay bonuses, vacation and sick-leave pay, and the cash equivalent of compensation paid in kind. Include salaries of officers of this establishment, if a corporation; if an unincorporated concern, exlcude payments to proprietor or partners. Exclude payments to agricultural employees, fishermen, members of armed forces, and pensioners carried on your active payroll.

Item 4. Plant Man-Hours of Production Workers, by Quar-ter.-"Plant man-hours" of production workers are designed to measure the over-all activity of the plant during each quarter. The figures should include all man-hours worked or paid for, except hours paid for vacations, holidays, or sick leave. If an employee elects to work during the vacation period, report only actual hours worked by such employee. Overtime hours should be reported as actual hours worked, not straight-time equivalent hours.
ltem 5. Cost of Materials, Fuels, Electricity and Contract Work.-The entries in this item are used by the Census Bureau to calculate the 1963 value added by manufacture. The figures reported, therefore, should represent the total cost of materials, supplies, semi-finished goods, fuels, etc., actually consumed or put into production during 1963.
If your records do not show the amounts actually consumed or put into production during 1963, the reported figures may be derived from purchase and other records. Cost of purchases may be used if these do not differ significantly from the amounts actually used. However, if
consumption of any major item differs significantly from purchases, the amount used may be estimated by adding beginning inventories to the amounts purchased and subtracting from this total the cost of goods on hand at the end of the year.

Cost is delivered cost and should be the amount actually paid or payable after discounts and should include freight and other direct charges incurred by the establishment in acquiring materials and supplies consumed. The cost figures for consumption should represent receipts from all sources, i.e., amounts purchased from other establishments, withdrawn from inventories, or obtained from other establishments of the same company. However, if intermediate products were made in this establishment in 1963 and incorporated into other products also made in this establishment, the reported figures should only include the costs of the materials from which the semi-finished items were made.

For materials, parts, and supplies received from other establishments of your company, cost should be checked against the values reported for the plant producing and transferring the codes (see ltem D above). Freight and other direct handling charges should be added.
Item 5a. Cost of Materials, Parts, Components, Containers, Supplies, Etc., Consumed. --The delivered cost figures reported in Item 5 a should cover all raw materials, containers, scrap, and supplies, etc., which were: (1) put into production, (2) used as operating supplies, (3) used in repair and maintenance. Include also cost of materials owned by you but consumed by other companies to make products for your establishment under contract. Amounts paid to other companies for such contract work should be reported on Line 5 e and should include freight in and out. If semi-finished goods, parts, or components were produced during 1963 and incorporated into finished products at the same plant during 1963, include the cost of raw materials used rather than the value of the intermediate products.

Include only physical goods used or put into production. Exclude services used or overhead charges. Exclude cost of such services as advertising, telephone, telegram and cable, insurance, developmental and research services or engineering, management, marketing and other professional consultants, etc., unless charges for such services are included in the prices paid for materials. Exclude also such overhead items as depreciation charges against plant and equipment; rent and rental allowances, interest payments, royalties, and patent fees. Exclude materials, supplies, machinery, and equipment which were used in the construction of new structures or additions to your plant, or new machinery and equipment, and which are chargeable to fixed assets accounts. Exclude products purchased and resold without further manufacture or processing or assembly; their costs should be included in ltem 5 b.
ltem 5b. Cost of Goods Sold Without Further Manufacture, Processing or Assembly in this Establishment.-Report the cost of all products bought and resold in the same condition as when purchased and not made part of another product manufactured by this establishment. (Total sales value of all products resold is to be reported in ltem 18 on the line for "Resales.")
ltem 5c. Fuel Consumed.-Report the total amount actually paid or payable during 1963 for all fuels consumed for heat, power, or the generation of electricity. Do not include the estimated cost of fuels, such as sawdust or blast furnace gas, produced as a byproduct of your manufacturing activities. Include anthracite and bituminous coal, coke, natural and manufactured gas, fuel, oil, liquified petroleum gas, gasoline, and all other fuels including purchased steam. For selected industries, such as Carbon Black, Blast Furnaces and Coke Ovens, special reporting instructions on the report form provide that the above fuel types should be reported as materials in ltem 5 a rather than as a fuel Item 5 c .
ltem 5d. Purchased Electric Energy.-Report the total amount actually paid or payable for electric energy purchased during 1963 from other companies, or received from other establishments of your company. Exclude the value of electricity generated and used at this establishment.
Item 5e. Cost of Work Done for You by Others on Your Own Materials (Contract Work).-lf any work was done by others on materials furnished by your establishment, report the total payments made during 1963 for such work, including freight out and in. Exclude the cost of materials worked on, which should be included in Item 5 a.
Item 6. Inventories of this Establishment. - See report form.
ltem 7. Capital Expenditures for This Establishment (Exclude Expenditures for Land).-Capital expenditures during 1963 may be determined by the following computation: The cost of additions completed during the year, plus con-struction-in-progress at the end of the year, minus construction-in-progress at the beginning of the year.
ltem 7a. New Structures and Additions to Plant.-Report total expenditures during 1963 for new construction, (whether constructed on contract or by your own forces) major alterations, capitalized repairs, and improvement of buildings (including all new elevators, cranes, heating and ventilating equipment, essentially a part of the buildings), other fixed structures (such as blast furnaces, brick kilns, fractionating towers, shipways, and similar types of structures), and site improvements (such as roads, docks, tracks, parking lots, fences, utilities.)
Item 7b. New Machinery and New Equipment.-Report total expenditures at this establishment for new production machinery and equipment and other new machinery and equipment. lnclude replacements as well as additions to capacity. Include the value of improvements and capitalized repairs to machinery and equipment transferred from other establishments of this company or produced and used at this establishment. Include all new motors, lathes, punch presses and similar machinery and equipment for use in production, as well as all new office machines and fixtures, furniture, cafeteria and dressing room furnishings, automobiles and trucks, and other similar equipment.
ltem 7c. Used Plant and Used Equipment Acquired from Others.-Report total expenditures at this establishment for old or existing plants and for second-hand equipment acquired from others (including the U.S. Government). lnclude at approximate market value machinery or equipment transferred from other plants of your company.

Item 8. Quantity of Electricity.-All quantities for electricity preferably should be reported in thousands of kilowatt hours. Please be careful to enter your figures in the CORRECT COLUMNS.
ltem 8a. Purchased Electricity.-Report the quantity for which cost is reported in ltem 5d.
ltem 8b. Generated Electricity. - Enter the total quantity of electric energy generated in this plant (gross less generating station use) during 1963.
When totals are reported on this line, data relating to the activity of the power stations would also be included in other sections of this report. For example, the number of employees assigned to the power station, their wages and man-hours should be included in the figures reported in ltems 2, 3, and 4; and the cost of fuels used to generate electricity, in ltem 5 c .
ltem 8c. Electricity Sold or Transferred.--Enter the quantity of electric energy, which was also included in ltems 8 a and 8 b but which was sold to other companies or transferred, to other manufacturing or non-manufacturing establishments of your company.

1tems 9-11. - Not applicable to these forms.
ltems 12-15.-See Report forms.
Item 16. Industrial Water Use During 1963 (See Instructions on Forms).-A selected group of establishments, consisting mainly of those consuming large quantities of water, will be required to supply the following additional detail on water consumed during 1964: total intake during the year distributed by source and type of use; quantity discharged; quantity recirculated; and quantity treated.

## Items 17-23-(See instructions on form.)

Period of Report. - Enter the month and day of the beginning and the end of period your report covers. If a calendar year report: "From January 1 to December 31, 1963;" if a fiscal year, specify which (such as "From December 1, 1962 to November 30, 1963)." If a part year report is submitted because the establishment was not in operation or under your company's control for the entire year, specify the actual period covered: For example, January 1, 1963 to August 15, 1963 or June 1 to December 31, 1963.
ligg ity th on nejing paspag :panosday mod CONFIDENTIAL. Response to this inquiry is required by Act of Congress (13) U.S.C.). The report you submit to the Census Bureau is confidential and may taxation, investigation, or regulation. Copies retained in your filcs are also
and immune from legal process.
In correspondence portaining to this report please rofer to the 11 -diglt
file number in the box $\rho$ obove your nome.
ANNUAL SURVEY OF MANUFACTURES
(For 1963 this is the fronf shoet of the
1963 Consus of Manufactures form)
dUe 30 days after receipt
PLEASE COMPLETE EVERY ITEM TO AVOID CORRESPONDENCE
EAD INSTRUCTION MANUAL BEFORE
COMPLETING REPORT
COMPLETING REPORT
TTEM 1- GENERAL INFORMATION
ITEM 1- GENERAL INFOEMAIION
(1) Streat ond number at establishment locotion*
If estobishment location connot be described by
streat ond number, give name (ond number, if any)
ot road or highwar and sufficient information to
locuto esoblishment, e.g., Rf. 25, 3 miles south
(2) Ploce (Cherk trpe of ploce ound enter nome)
Name of -place
e. July hrober through December
c. Cost of fuels cons electricity
(Sum of Lines o-d)
(Please correct If mailing address has shangod)
-
$\qquad$ $[3]$

|  |  |
| :--- | :--- |
| AREA |  |
|  | 4 |
|  |  |


B. PHYSICAL LOCATION OF ESTABLISHMEN
ITEM 2
NUMBER
OF
EMPLOYEES




PENALTIES FOR FAILURE TO REPORT


Form MC-36Z

| Remarks <br> Itom B . Number of Employees-Report the total number of employees paid during the pay period ending nearest the 15 th of the specified months. If an unincorporated business, exclude proprietor and partners from the reported totals. <br> liem C -Payrolls-Report the total paid as wages, salaries, bonuses and commission during 1963. If an unincorporated business, exclude payment to proprietor or partners. The definition of salaries and wages used for calculating the withholding tax may be followed. <br> Item D - Cost of Materials, Parts, Supplies, Fuels, Electricity, and Contract Work-Report the cost of all materials, parts, supplies, and containers consumed during 1963, which were used (a) directly to produce products, (b) as operating supplies, and (c) for repair and maintenance. Include the cost of goods bought for resale, the value for which is reported separately in Item E, Line 20. Include also the cost of fuels and electricity purchased. <br> The total reported should also include the cost of materials owned by you but processed by other companies which make products under contract for your firm and the cost of such contract work. <br> fiem E-3 - Value of All Products Sold or Shipped, and Receipis-Enter on Line 21, Column (E), the total rece products sold or shipped, or services performed by this lishment during 1963. Account for all receipts of this e ment. Then report separately on Lines 1-12 in Column value of shipments of each product listed. Do not comb printed product lines. <br> Lines 13-17- If some of the products you made in 1963 listed, please list each such product on a separate lin "All other products," and enter in Column (E) the 196 of shipments. <br> Line 20 -Report sales of products which were resold nally purchased and not used in further manufacturing, ing, or assembling of products made in this establishment <br> After completing this schedule, would you please- <br> (a) Review to see that entries have been made for all applat items. <br> (b) Compare the sum reported for payrolls (Item C) and (ltem D) with the total reported in liem E-3, Total Products Shipped and Other Receipts. <br> (c) If the sum for Items C and D exceeds the total on Item E-3, please explain in "Remarks." <br> PLEASE NOTE: in all correspondence with the Census Bureau, please include the 11-digit file number which appears in the addres report form. High-speed electronic equipment will be used to identify both the correspondence and the reports in the 1963 Economic If your correspondence does not include the Census file number it will be returned for the addition of that number. Address all corre to JEFFERSONVILLE CENSUS OPERATIONS OFFICE, 1201 East 10th Street, Jeffersonville, Indiana. <br> Please do not mork or mar the two lines of symbols above the address on each form. These symbols or rectangles which are unique establ ishment will be photographed and used to record mechanically the receint of your report form. |  |  |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
|  |  |  |






| ITEM 6 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| BILLINGS <br> BY THIS <br> ESTABLISH- <br> MENT <br> DURING <br> CALENDAR <br> YEAR 1963 | Enter below the specified classes of billings of this establishment for calendar year 1963. |  |  |
|  | Billings for products and services (including progress billings) | Line <br> No. |  |



[^331]REPORT ON SHIPMENTS TO OR
RECEIPTS FOR WORK DONE FOR FEDERAL GOVERNMENT AGENCIES AND THEIR CONTRACTORS AND SUPPLIERS IN 1963
(Based on the Totol Shipment Figures from the Annual Survay of Manufoctures, Consus Form MA-100)

TO: Buroou of the Consua, Industry Divialon Woshington, D.C. 20233
(PLEASE RETURN THIS COPY)
ITEM 2 Please check the box which describes the 1963 receipts for shipments or other work done in this plant for Federal Government agencies and their contractors and suppliers:

## $\square$ None

Up to $\$ 100,000$For purposes of this report, such receipts will include payments received by you for work done by you on Federal by you to Federal Government contractors and suppliers for use in their performance of Federal Government contracts.
If your response to this question was " $\$ 100,000$ or more," please complete the form on the reverse side. Otherwise, sign the form in the space provided below and return it.

INTRODUCTORY NOTE


#### Abstract

The Census Bureau is conducting this survey to develop a measure of the level of industrial activity generated by the expenditures made by Federal Government agencies. expenditures made by Federal Government agencies. Special attenrion is directed toward expenditures made by the Department of Defense (DOD), the National Aeronautics and Space Administration (NASA), and the Atomic Energy Commission (AEC). Industrial activity generated by Federal Government expenditures is being measured in terms of receipts (includng value of shipments) for work done, or for value of products shipped to Federal agencies, their contractors, subcontractors and suppliers. corsist of two kinds of payments. The first is payments received for work done directly for Federal agencies on Government prime contracts. The second is payments received for work done for other Government contractors and suppliers for use in the per-


formance of Federal Government contracts. Subcontract receipts reported will normally be based on payments made or work done on Government subcontracts when subject to he Renegotiation Act of 1951 , as amended. These receipta assemblies, and services supplied to other plants of the company (interplant transfers) as well as to contractors and suppliers outside the company for use in the performance of contracts. This is in accord with standard Census reporting procedures.
This survey is being conducted on an establishment or lant basis. This method of reporting is necessary or that the data reported by each plant may be tabulated by he geographic area in which the work is actually being performed. Additionally, it will permit the data to be classified by appropriate product claaa and Standard lndustrial Classification.

## SPECIFIC INSTRUCTIONS

Except as may be specificaily requesred, a reporr should be submitted for each establishment for which you received a preaddressed form. If additional forms are needed, ment for which a blank form is required. If you have any questions about the survey, write to the Bureau of the Census, Washington, D.C., 20233, referring to form MA-175 and to the file number in the upper right-hand corner of the address box. The basic concepts used in this survey (establishment, shipments, receipts, materials consumed, employment, etc.) are the same as tbose uaed in the Annual Survey of Manufactures (Form MA-100), and related figures reported on each form should agree.
Columna (1), (2), and (3) - These entries--lines a through item 9A for the Product Class Description, the Product tem 9 A for the Product Class Description, the Product Class Code, and the for 1963 .
The three lines " $i$, " " $j$," and " $k$ " that follow specific product class entries, are in the same position in which they appear on form MA-100. Only "'" is expected to be of particular importance on form MA-175; "i" is an item primarily of interest to manuracturing industries nor
covered by form MA-175, such as textiles and apparel, coating and engraving, etc.; " $k$ " ia used by manufacturers coating and engraving, etc.; to list the shipments of products they buy and ship without any manufacturing of assembling, usually to round out a product line. Line " j "" on the other hand, can be very important in this survey. Receipts for research and development that have not been separately identified on form MA-100 ahould be reported here. (Note that research and development receipts for certain aerospace activities are to be aupplied in lines "a" " $h$ "' in tbe appropriate class of product (37216,37223,37226,37293,37294,19253).) (Line " $j$ would also be used for reporting receipts for installation or testing. Installation or testing costs of more than $\$ 1$ million done at other locations should not be reported on MA- 175 form should be filed for each such inatallation or test sice. If you have such cases it would be desirable to test site. If you have such cases, it would be desirable to completing the MA-175 forms.

Columns (4) through (7) - Data reported should represent the total value of shipments, billinga, or receipts (in \$000) from Federal Government agencies during 1963. For long ead time production or research, development, testing, the evar is reported on the Annual Survey of Manufacture and on this report. Such a figure is represented by net and on this report. Such a figure is represented by net payments), for work done during the. year. This method of payments), for work done during the. year. This method of application to work done on aircraft, abips, missilea, space vehicles, and the like, as well as work done on related syatems.
Columna (8) through (13) - Data reported should represent the value of recelpts (in $\$ 000$ ) for work done by you for Government prime contractors and subcontractors for uae in the performance of Government contrsctactors it is recosnized that indirect Government work is not always identified as such. In view of thia, it will be acceptable to use as base receipts on Government subcontracta subject to he Renegotiation Act of 1951, as amended. Note particu arly that the value of transfers to orher plants of the company as well as receipts from contractors outaide tbe ompany are to be included.
Columna (8) through (11) - Data entered should represent the value of receipts (in $\$ 000$ ) for work done by you on aubcontracta of DOD NASA, AEC, and other Government agencies wben the Government agency placing the prime contract is known to you.
Columna (12) or (13) - Receipta for work done by you on overament subcontracts, for whicb Government agency tbe prime contract is not specifically known to you should be NASA, or AEC, but you cannot specifically determine wbicb, enter the value of receipts (in \$000) in column (12). If the subcontract work is for anotber Government agency, or for Government agency unknown to you, enter tbe value of receipts (in $\$ 000$ ) in eolumn (13).
Column (14) - Data reported should represent the difference etween che total values of shipments and/or receipts, eol Name of person to contact regarding this report umn (3), and the aum of entries in columna (4) through' (13).

| Name of person to contact regarding this report | Address (Number and etroet, city, Stato, zIP codo) | Telephone No. |  |
| :--- | :--- | :--- | :--- |
| CERTIFICATION - This report is aubstsntially accurate and haa been prepared in accordance with instructions. |  |  |  |
| Name of company | Addreas (Number and etreot, chty, Stato, ZIP code) |  |  |
| Signature of surhorized official | Title |  | Date |

REPORT ON SHIPMENTS TO OR RECEIPTS FOR WORK DONE FOR FEDERAL GOVERNMENT AGENCIES AND THEIR CONTRACTORS AND SUPPLIERS IN 1963


FORM MA-161
(6-23-64)
U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS

CONFIDENTIAL-Response to this inquiry is required by Act of Congress (13 U.S.C.). The report you submit to the Census Bureau is confidential and may be seen only by sworn Census employees. It may not be used for purposes of taxation, investigation, or regulation. Copies retained in your files are al so immune from legal process.

Item 1 - Name ond oddress of manufocturing plont (In correspondence pertaining to this report please refer to the 11 -digit file number in the box above your name.)

(PLEASE RETURN THIS COPY)


FOR CENSUS
USE ONLY
Remarks

| Name of person to contact regarding this report | Address (Number and street, city, State, ZIP code) | Telephone No. |
| :--- | :--- | :--- | :--- |
| CERTIFICATION - This report is substantially accurate and has been prepared in accordance with instructions. |  |  |
| Name of company | Address (Number and street, city, State, ZIP code) |  |
| Signature of authorized official | Title | Date |

## INSTRUCTIONS

## INTRODUCTORY NOTE

We are conducting this survey to obtain statistics on the origin of exports of manufactured goods by States and smaller areas. This information is needed by various branches of government to assess the impact of foreign trade on the economy. If you have any questions about the survey, please write to the Bureau of the Census, Washington, D.C., 20233, referring to form MA-161 and to the 11-digit file number in the address box.

This survey is being conducted on an establishment or plant basis. This method of reporting is necessary so that export figures reported by each plant may be tabulated in the proper geographic area. A report is required for each establishment for which you received a preaddressed form. If additional forms are needed, please write to us, specifying the address of the establishment for which a blank form is required.

If the figures requested are not readily available from your records, carefully prepared estimates will be accepted.

## DEFINITION OF EXPORTS

The following description of exports is consistent with definitions used in compiling official foreign trade statistics of the United States. It is provided as a guide for respondents. A manufacturer would be expected to report according to his own definitions except where major differences might be expected. In such cases, he would be expected to estimate rather than compile revised data from detailed records. 1

Exports as understooci in this survey include shipments from the United States to foreign countries of products which are not subjected to further manufacture, fabrication, or assembly in this country before being shipped abroad. Exports include shipments to foreign subsidiaries or divisions of your company and its affiliates. Sales to the United States Govemment for shipment abroad are considered an expori if the products are for a foreign nation. They are not classified as an export if for use by the United States Armed Forces.

[^332]Sales (shipments) to customers in Canada are classified as exports. Shipments to Alaska and Hawaii are not exports. Shipments to Puerto Rico are not classified as exports.

Exports do not include products shipped to domestic customers or other plants of your company who will further manufacture, fabricate, or assemble them. Please note, however, that the breaking down of bulk shipments of your products into smaller lots or packages by a wholesale exporter or by other units of your company is not considered to be further manufacturing, processing, or assembly.

## EXPORT VALUES

The export values to be reported on this form should be on the same basis as the values in item 3a, total shipments of the plant in 1963.

## EXPORTS OF THE PRODUCTS OF THIS PLANT BY THIS FIRM (item 3b)

Item 3b will include-Export shipments of your products by this establishment and export shipments of the products of this establishment by or on order of other parts of your company or its affiliates such as sales branches, sales offices, warehouses, export offices, and export subsidiaries.

It will also include-Sales for export of your products to or on order of export firms, and other sales known to you to be for export. Also, sales to the United States Govemment in this country for shipment abroad under military and economic assistance programs.

## 1960 EXPORTS

The value of products shipped for export by this establishment in 1960 has been entered in item 5 , wherever the 1960 report form could be precisely matched. Please be sure the figure posted for 1960 is consistent with the 1963 figure entered in item 3b. Make revision, if necessary.

If no figure has been posted but the 1960 export figure is readily available, please enter the 1960 figure in item $S$, otherwise leave the item blank.


## Appendix E

## AUTHORITY FOR CENSUS: TITLE 13, UNITED STATES CODE

(Codification of August 1954 amended by Acts of August 1957, September 1960, and June and October 1962)

## Collection and publication: Five-year periods (131)

The Secretary shall take, compile, and publish censuses of manufactures, of mineral industries, and of other businesses . . . in the year 1954 and every fifth year thereafter, and each such census shall relate to the year immediately preceding the taking thereof: Provided, That the censuses of manufactures, of mineral industries, and of other businesses, including the distributive trades and service establishments, directed to be taken in the year 1954 relating to the year 1953, shall be taken instead in the year 1955 relating to the year 1954.

## Geographic scope of censuses (191a)

Each of the censuses authorized by this chapter (other than censuses of population) shall include each State, the District of Columbia, Alaska, Hawaii, the Virgin Islands, Guam, and the Commonwealth of Puerto Rico, and as may be determined by the Secretary, such other possessions and areas over which the United States
exercises jurisdiction, control, or sovereignty. Censuses of population shall include all geographic areas referred to in the preceding sentence. Inclusion of other areas over which the United States exercises jurisdiction or control shall be subject to the concurrence of the Secretary of State.

Failure to answer questions affecting companies, businesses, religious bodies, and other organizations: False answers (224)

Whoever, being the owner, official, agent, person in charge, or assistant to the person in charge, of any company, business, institution, establishment, religious body, or organization of any nature whatsoever, neglects or refuses, when requested by the Secretary or other authorized officer or employee of the Department of Commerce or bureau or agency thereof, whether such request be made by registered mail, by certified mail, by telegraph, by visiting representative, or by one or more of these methods, to answer completely and correctly to the best of his knowledge all questions relating to his company, business, institution, establishment, religious body, or other organization, or to records or statistics in his official custody, contained on any census or other schedule prepared and submitted to him under the authority of this title, shall be fined not more than $\$ 500$ or imprisoned not more than sixty days, or both; and if he willfully gives a false answer to any such question, he shall be fined not more than $\$ 10,000$ or imprisoned not more than one year, or both.



## Appendix

## STANDARD METROPOLITAN STATISTICAL AREAS

(Area titles and definitions of the 2 Standard Consolidated Areas and the 217 Standard Metropolitan Statistical Areas in the United States established by the Bureau of the Budget as of August 4, 1964)

| Chicago, III.-Northwestern Indiana Standard Consolidated Area |
| :---: |
| New York, N.Y.-Northeastern New Jersey Standard Consolidated Area $\qquad$ |
| Abilene, Tex. |
| Akron, Ohio |
| Albany, Ga. |
| Albany-Schenectady-Troy, N.Y. |
| Albuquerque, N. Mex. |
| Allentown-Bethlehem-Easton, Pa.-N.J. |
| Altoona, Pa. |
| Amarillo, Tex. |
| Anaheim-Santa Ana-Garden Grove, Calif. |
| Ann Arbor, Mich. |
| Asheville, N.C. |
| Atlanta, Ga. |
| Atlantic City, N.J. |
| Augusta, Ga.-S.C. |
| Austin, Tex. |
| Bakersfield, Calif. |
| Baltimore, Md. |
| Baton Rouge, La. |
| Bay City, Mich. |
| Beaumont-Port Arthur, Tex. |
| Billings, Mont. |
| Binghamton, N.Y.-Pa. |
| Birmingham, Ala. |
| Boise City, Idaho |
| Boston, Mass. |

Bridgeport, Conn

## Brockton, Mass.

## Brownsville-Harlingen-San Benito, Tex.

Buffalo, N.Y.
Canton, Ohio
Cedar Rapids, lowa
Champaign-Urbana, III. $\qquad$
Charleston, S.C.
Charleston, W. Va.
Charlotte, N.C.
Chattanooga, Tenn.-Ga.

Consists of Chicago, III., and Gary-Hammond-East Chicago, Ind., Standard Metropolitan Statistical Areas
Consists of the following Standard Metropolitan Statistical Areas: New York, N.Y.; Newark, N.J.; Jersey City, N.J.; Paterson-Clifton-Passaic, N.J.; and of Middlesex and Somerset Counties, N.J.

Consists of Jones and Taylor Counties, Tex.
Consists of Portage and Summit Counties, Ohio
Coextensive with Dougherty County, Ga.
Consists of Albany, Rensselaer, Saratoga, and Schenectady Counties, N.Y.

Coextensive with Bernalillo County, N. Mex.
Consists of Lehigh and Northampton Counties, Pa.; and Warren County, N.J.

Coextensive with Blair County, Pa.
Consists of Potter and Randall Counties, Tex.
Coextensive with Orange County, Calif.
Coextensive with Washtenaw County, Mich.
Coextensive with Buncombe County, N.C.
Consists of Clayton, Cobb, De Kalb, Fulton, and Gwinnett Counties, Ga.
Coextensive with Atlantic County, N.J.
Consists of Richmond County, Ga., and Aiken County, S.C.
Coextensive with Travis County, Tex.
Coextensive with Kern County, Calif.
Consists of Baltimore city and Anne Arundel, Baltimore, Carroll, and Howard Counties, Md.
Coextensive with East Baton Rouge Parish, La.
Coextensive with Bay County, Mich.
Consists of Jefferson and Orange Counties, Tex.
Coextensive with Yellowstone County, Mont.
Consists of Broome and Tioga Counties, N.Y., and Susquehanna County, Pa.
Coextensive with Jefferson County, Ala.
Coextensive with Ada County, Idaho
Consists of all of Suffolk County; Beverly, Lynn, Peabody, and Salem cities, and Danvers, Hamilton, Lynnfield, Manchester, Marblehead, Middleton, Nahant, Saugus, Swampscott, Topsfield, and Wenham towns in Essex County; Cambridge, Everett, Malden, Medford, Melrose, Newton, Somerville, Waltham, and Woburn cities, and Arling. ton, Ashland, Bedford, Belmont, Burlington, Concord, Framingham, Lexington, Lincoln, Natick, North Reading, Reading, Sherborn, Stoneham, Sudbury, Wakefield, Watertown, Wayland, Weston, Wilmington, and Winchester towns in Middlesex County; Quincy city, and Braintree, Brookline, Canton, Cohasset, Dedham, Dover, Holbrook, Medfield, Millis, Milton, Needham, Norfolk, Norwood, Randolph, Sharon, Walpole, Wellesley, Westwood, and Weymouth towns in Norfolk County; and Duxbury, Hanover, Hingham, Hull, Marshfield, Norwell, Pembroke, Rockland, and Scituate towns in Plymouth County, Mass.
Consists of Bridgeport and Shelton cities, and Easton, Fairfield, Monroe, Stratford, and Trumbull towns in Fairfield County; and Milford town in New Haven County, Conn.
Consists of Easton town in Bristol County; Avon and Stoughton towns in Norfolk County; and Brockton city, and Abington, Bridgewater, East Bridgewater, Hanson, West Bridgewater, and Whitman towns in Plymouth County, Mass.
Coextensive with Cameron County, Tex.
Consistṣ of Erie and Niagara Counties, N.Y.
Coextensive with Stark County, Ohio
Coextensive with Linn County, Iowa
Coextensive with Champaign County, III.
Consists of Berkeley and Charleston Counties, S.C.
Coextensive with Kanawha County, W. Va.
Consists of Mecklenburg and Union Counties, N.C.
Consists of Hamilton County, Tenn., and Walker County, Ga.

Chicago, III.
Cincinnati, Ohio-Ky.Ind.
Cleveland, Ohio
Colorado Springs, Colo.
Columbia, S.C.
Columbus, Ga.-Ala.
Columbus, Ohio
Corpus Christi, Tex.
Dallas, Tex.
Davenport-Rock Island-Moline, Iowa-III.
Dayton, Ohio.
Decatur, III.
Denver, Colo.
Des Moines, lowa
Detroit, Mich.
Dubuque, lowa
Duluth-Superior, Minn.Wis.
Durham, N.C.
El Paso, Tex.
Erie, Pa.
Eugene, Oreg.
Evansville, Ind.Ky.
Fall River, Mass.-R.I.
Fargo-Moorhead, N. Dak.-Minn.
Fitchburg-Leominster, Mass.

Flint, Mich.
Fort Lauderdale-Hollywood, Fla.
Fort Smith, Ark.Okla.
Fort Wayne, Ind.
Fort Worth, Tex.
Fresno, Calif.
Gadsden, Ala.
Galveston-Texas City, Tex.
Gary-Hammond-East Chicago, Ind.
Grand Rapids, Mich.
Great Falls, Mont.
Green Bay, Wis.
Greensboro-High Point, N.C.
Greenville, S.C.
Hamilton-Middletown, Ohio
Harrisburg, Pa.
Hartford, Conn.

Honolulu, Hawaii
Houston, Tex.
Huntington-Ashland, W. Va.-Ky.-Ohio
Huntsville, Ala.
Indianapolis, Ind.
Jackson, Mich.
Jackson, Miss.
Jacksonville, Fla.
Jersey City, N.J.

Consists of Cook, Du Page, Kane, Lake, McHenry, and Will Counties, III.
Consists of Clermont, Hamilton, and Warren Counties, Ohio; Boone, Campbell, and Kenton Counties, Ky.; and Dearborn County, Ind.
Consists of Cuyahoga, Geauga, Lake, and Medina Counties, Ohio
Coextensive with El Paso County, Colo.
Consists of Lexington and Richland Counties, S.C.
Consists of Chattahoochee and Muscogee Counties, Ga., and Russell County, Ala.
Consists of Delaware, Franklin, and Pickaway Counties, Ohio
Coextensive with Nueces County, Tex.
Consists of Collin, Dallas, Denton, and Ellis Counties, Tex.
Consists of Scott County, Iowa, and Henry and Rock Island Counties, III.
Consists of Greene, Miami, Montgomery, and Preble Counties, Ohio
Coextensive with Macon County, III.
Consists of Adams, Arapahoe, Boulder, Denver, and Jefferson Counties, Colo.
Coextensive with Polk County, Iowa
Consists of Macomb, Oakland, and Wayne Counties, Mich.
Coextensive with Dubuque County, Iowa
Consists of St. Louis County, Minn., and Douglas County, Wis.
Coextensive with Durham County, N.C.
Coextensive with El Paso County, Tex.
Coextensive with Erie County, Pa.
Coextensive with Lane County, Oreg.
Consists of Vanderburgh and Warrick Counties, Ind., and Henderson County, Ky.
Consists of Fall River city, and Somerset, Swansea, and Westport towns in Bristol County, Mass.; and Tiverton town in Newport County, R.I.
Consists of Cass County, N. Dak., and Clay County, Minn.
Consists of Shirley and Townsend towns in Middlesex County; and Fitchburg and Leominster cities, and Lunenburg and Westminster towns in Worcester County, Mass.
Consists of Genesee and Lapeer Counties, Mich.
Coextensive with Broward County, Fla.
Consists of Crawford and Sebastian Counties, Ark.; and LeFlore and Sequoyah Counties, Okla.
Coextensive with Allen County, Ind.
Consists of Johnson and Tarrant Counties, Tex.
Coextensive with Fresno County, Calif.
Coextensive with Etowah County, Ala.
Coextensive with Galveston County, Tex.
Consists of Lake and Porter Counties, Ind.
Consists of Kent and Ottawa Counties, Mich.
Coextensive with Cascade County, Mont.
Coextensive with Brown County, Wis.
Coextensive with Guilford County, N.C.
Consists of Greenville and Pickens Counties, S.C.
Coextensive with Butler County, Ohio
Consists of Cumberland, Dauphin, and Perry Counties, Pa.
Consists of Hartford city, and Avon, Bloomfield, Canton, East Granby, East Hartford, East Windsor, Enfield, Farmington, Glastonbury, Granby, Manchester, Newington, Rocky Hill, Simsbury, South Windsor, Suffield, West Hartford, Wethersfield, Windsor, and Windsor Locks towns in Hartford County; Cromwell town in Middlesex County; and Andover, Bolton, Coventry, Ellington, and Vernon towns in Tolland County, Conn.
Coextensive with Honolulu County, Hawaii
Coextensive with Harris County, Tex.
Consists of Cabell and Wayne Counties, W. Va.; Boyd County, Ky.; and Lawrence County, Ohio
Consists of Limestone and Madison Counties, Ala.
Consists of Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan, and Shelby Counties, Ind.
Coextensive with Jackson County, Mich.
Consists of Hinds and Rankin Counties, Miss.
Coextensive with Duval County, Fla.
Coextensive with Hudson County, N.J.

Johnstown, Pa.
Kalamazoo, Mich.
Kansas City, Mo.-Kans.
Kenosha, Wis.
Knoxville, Tenn.
Lafayette, La.
Lake Charles, La.
Lancaster, Pa.
Lansing, Mich.
Laredo, Tex.
Las Vegas, Nev.
Lawrence-Haverhill, Mass.-N.H.

Lawton, Okla.
Lewiston-Auburn, Maine
Lexington, Ky.
Lima, Ohio.
Lincoln, Nebr.
Little Rock-North Little Rock, Ark.
Lorain-Elyria, Ohio

Louisville, Ky.-Ind.
Lowell, Mass.
Lubbock, Tex.
Lynchburg, Va.
Macon, Ga.
Madison, Wis.
Manchester, N.H.

## Memphis, Tenn.-Ark.

Meriden, Conn.
Miami, Fla.
Midland, Tex.
Milwaukee, Wis
Minneapolis-St. Paul, Minn
Mobile, Ala.
Monroe, La.
Montgomery, Ala.
Muncie, Ind.
Muskegon-Muskegon Heights, Mich.
Nashville, Tenn.
New Bedford, Mass.

New Britain, Conn
New Haven, Conn.

New London-Groton-Norwich, Conn.

New Orleans, La.
New York, N.Y.
Newark, N.J.
Newport News-Hampton, Va.
Norfolk-Portsmouth, Va.

Consists of Cambria and Somerset Counties, Pa.
Coextensive with Kalamazoo County, Mich.
Consists of Cass, Clay, Jackson, and Platte Counties, Mo., and Johnson and Wyandotte Counties, Kans.
Coextensive with Kenosha County, Wis.
Consists of Anderson, Blount, and Knox Counties, Tenn.
Coextensive with Lafayette Parish, La.
Coextensive with Calcasieu Parish, La.
Coextensive with Lancaster County, Pa.
Consists of Clinton, Eaton, and Ingham Counties, Mich.
Coextensive with Webb County, Tex.
Coextensive with Clark County, Nev.
Consists of Lawrence and Haverhill cities, and Andover, Georgetown, Groveland, Merrimac, Methuen, North Andover, and West Newbury towns in Essex County, Mass.; and Newton, Plaistow, and Salem towns in Rockingham County, N.H.
Coextensive with Comanche County, Okla.
Consists of Auburn and Lewiston cities, and Lisbon town in Androscoggin County, Maine
Coextensive with Fayette County, Ky.
Coextensive with Allen County, Ohio
Coextensive with Lancaster County, Nebr.
Coextensive with Pulaski County, Ark.
Coextensive with Lorain County, Ohio
Coextensive with Los Angeles County, Calif.
Consists of Jefferson County, Ky., and Clark and Floyd Counties, Ind.
Consists of Lowell city, and Billerica, Chelmsford, Dracut, Tewksbury, Tyngsborough, and Westford towns in Middlesex County, Mass.
Coextensive with Lubbock County, Tex.
Consists of Lynchburg city, and Amherst and Campbell Counties, Va.
Consists of Bibb and Houston Counties, Ga.
Coextensive with Dane County, Wis.
Consists of Manchester city, and Bedford and Goffstown towns in Hillsborough County; and Hooksett town in Merrimack County, N.H.
Consists of Shelby County, Tenn., and Crittenden County, Ark.
Coextensive with Meriden city in New Haven County, Conn.
Coextensive with Dade County, Fla.
Coextensive with Midland County, Tex.
Consists of Milwaukee, Ozaukee, and Waukesha Counties, Wis.
Consists of Anoka, Dakota, Hennepin, Ramsey, and Washington Counties, Minn.
Consists of Baldwin and Mobile Counties, Ala.
Coextensive with Ouachita Parish, La.
Consists of Elmore and Montgomery Counties, Ala.
Coextensive with Delaware County, Ind.
Coextensive with Muskegon County, Mich.
Consists of Davidson, Sumner, and Wilson Counties, Tenn.
Consists of New Bedford city, and Acushnet, Dartmouth, and Fairhaven towns in Bristol County; and Marion and Mattapoisett towns in Plymouth County, Mass.
Consists of New Britain city, and Berlin, Plainville, and Southington towns in Hartford County, Conn.
Consists of New Haven city, and Bethany, Branford, East Haven, Guilford, Hamden, North Branford, North Haven, Orange, West Haven, and Woodbridge towns in New Haven County, Conn.
Consists of New London and Norwich cities, and East Lyme, Griswold, Groton, Ledyard, Lisbon, Montville, Old Lyme, Preston, Sprague, Stonington, and Waterford towns in New London County, Conn.
Consists of Jefferson, Orleans, St. Bernard, and St. Tammany Parishes, La.
Consists of New York City, and Nassau, Rockland, Suffolk, and Westchester Counties, N.Y.
Consists of Essex, Morris, and Union Counties, N.J.
Consists of Newport News and Hampton cities, and York County, Va.
Consists of Chesapeake, Norfolk, Portsmouth, and Virginia Beach cities, Va.

## STANDARD METROPOLITAN STATISTICAL AREAS-Continued

| Norwalk, Con | Consists of Norwalk city, and Westport and Wilton towns in Fairfield County, Conn. |
| :---: | :---: |
| Odessa, Tex | Coextensive with Ector County, Tex. |
| Ogden, Utah | Coextensive with Weber County, Utah |
| Oklahoma City, | Consists of Canadian, Cleveland, and Oklahoma Counties, Okla. |
| Omaha, Nebr.-lowa | Consists of Douglas and Sarpy Counties, Nebr., and Pottawattamie County, lowa |
| Orlando, | Consists of Orange and Seminole Counties, Fla. |
| Paterson-Clifton-Passaic, | Consists of Bergen and Passaic Counties, N.J. |
| Pensacola, Fla. | Consists of Escambia and Santa Rosa Counties, Fla. |
| Peoria, | Consists of Peoria, Tazewell, and Woodford Counties, III. |
| Philadelphia, Pa.N.J. | Consists of Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties, Pa., and Burlington, Camden, and Gloucester Counties, N.J. |
| Phoenix, | Coextensive with Maricopa County, Ariz. |
| Pine Bluff, Ark. | Coextensive with Jefferson County, Ark. |
| Pittsburgh, Pa. | Consists of Allegheny, Beaver, Washington, and Westmoreland Counties, Pa . |
| Pittsfield, Mass. | Consists of Pittsfield city, and Dalton, Lanesborough, Lee, and Lenox towns in Berkshire County, Mass. |
| Portland, Maine | Consists of Portland, South Portland, and Westbrook cities, and Cape Elizabeth, Cumberland, Falmouth, Gorham, Scarborough, and Yarmouth towns in Cumberland County, Maine |
| Portland, Oreg.Wash. | Consists of Clackamas, Multnomah, and Washington Counties, Oreg., and Clark County, Wash. |
| Providence-Pawtucket-Warwick, R.I.-Mass. | Consists of all of Bristol County; Warwick city, and Coventry, East Greenwich, and West Warwick towns in Kent County; Jamestown town in Newport County; Central Falls, Cranston, East Providence, Pawtucket, Providence, and Woonsocket cities, and Burrillville, Cumberland, Johnston, Lincoln, North Providence, North Smithfield, and Smithfield towns in Providence County; and Narragansett and North Kingstown towns in Washington County, R.I. Also, Attleboro city and North Attleborough, Rehoboth, and Seekonk towns in Bristol County, Mass.; Bellingham, Franklin, Plainville, and Wrentham towns in Norfolk County, Mass.; and Blackstone and Millville towns in Worcester County, Mass. |
| Provo-Orem, Uta | Coextensive with Utah County, Utah |
| Pueblo, Colo. | Coextensive with Pueblo County, Colo. |
| Racine, Wis. | Coextensive with Racine County, Wis. |
| Raleigh, N | Coextensive with Wake County, N.C. |
| Reading, | Coextensive with Berks County, Pa. |
| Reno, Nev. | Coextensive with Washoe County, Nev. |
| Richmond, Va. | Consists of Richmond city, and Chesterfield, Hanover, and Henrico Counties, Va. |
| Roan | Consists of Roanoke city and Roanoke County, Va. |
| Rochester, N.Y | Consists of Livingston, Monroe, Orleans, and Wayne Counties, N.Y. |
| Rockford, III. | Consists of Boone and Winnebago Counties, III. |
| Sacramento, Cali | Consists of Placer, Sacramento, and Yolo Counties, Calif. |
| Saginaw, Mich | Coextensive with Saginaw County, Mich. |
| St. Joseph, Mo. | Coextensive with Buchanan County, Mo. |
| St. Louis, Mo.-III. | Consists of St. Louis city, and Franklin, Jefferson, St. Charles, and St. Louis Counties, Mo.; and Madison and St. Clair Counties, III. |
| Salt Lake City, Utah | Consists of Davis and Salt Lake Counties, Utah |
| San Angelo, Tex. | Coextensive with Tom Green County, Tex. |
| San Antonio, Tex | Consists of Bexar and Guadalupe Counties, Tex. |
| San Bernardino-Riverside-Ontario, | Consists of Riverside and San Bernardino Counties, Calif. |
| San Diego, Cali | Coextensive with San Diego County, Calif. |
| San Francisco-Oakland, Calif. | Consists of Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties, Calif. |
| San Jose, Calif. | Coextensive with Santa Clara County, Calif. |
| Santa Barbara, Calif. | Coextensive with Santa Barbara County, Calif. |
| Savannah, Ga. | Coextensive with Chatham County, Ga. |
| Scranton, Pa. | Coextensive with Lackawanna County, Pa. |
| Seattle-Everett, Wash. | Consists of King and Snohomish Counties, Wash. |
| Shreveport, La. | Consists of Bossier and Caddo Parishes, La. |
| Sioux City, lowa-Nebr. | Consists of Woodbury County, lowa, and Dakota County, Nebr. |
| Sioux Falls, S. Dak. | Coextensive with Minnehaha County, S. Dak. |
| South Bend, Ind. | Consists of Marshall and St. Joseph Counties, Ind. |
| Spokane, Wash. | Coextensive with Spokane County, Wash. |

Springfield, III.
Springfield, Mo.
Springfield, Ohio
Springfield-Chicopee-Holyoke, Mass.-Conn. --

Stamford, Conn.
Steubenville-Weirton, Ohio-W. Va.

Stockton, Calif.
Syracuse, N.Y.
Tacoma, Wash.
Tampa-St. Petersburg, Fla.
Terre Haute, Ind.
Texarkana, Tex.-Ark.


Toledo, Ohio-Mich.
Topeka, Kans.
Trenton, N.J.
Tucson, Ariz.
Tulsa, Okla.
Tuscaloosa, Ala.
Tyler, Tex.
Utica-Rome, N.Y
Vallejo-Napa, Calif.
Waco, Tex.
Washington, D.C.-Md.-Va $\qquad$

Waterbury, Conn

Waterloo, lowa
West Palm Beach, Fla.
Wheeling, W. Va.-Ohio $\qquad$
Wichita, Kans.
Wichita Falls, Tex.
Wilkes-Barre-Hazleton, Pa.
Wilmington, Del.-N.J.-Md.
Winston-Salem, N.C.
Worcester, Mass.

York, Pa.
Youngstown-Warren, Ohio

Coextensive with Sangamon County, III.
Coextensive with Greene County, Mo.
Coextensive with Clark County, Ohio
Consists of Chicopee, Holyoke, Springfield, and Westfield cities, and Agawam, East Longmeadow, Hampden, Longmeadow, Ludlow, Monson, Palmer, Southwick, West Springfield, and Wilbraham towns in Hampden County; Northampton city, and Easthampton, Granby, Hadley, and South Hadley towns in Hampshire County; and Warren town in Worcester County, Mass.; and Somers town in Tolland County, Conn.
Consists of Stamford city, and Darien, Greenwich, and New Canaan towns in Fairfield County, Conn.
Consists of Jefferson County, Ohio, and Brooke and Hancock Counties, W. Va.

Coextensive with San Joaquin County, Calif.
Consists of Madison, Onondaga, and Oswego Counties, N.Y.
Coextensive with Pierce County, Wash.
Consists of Hillsborough and Pinellas Counties, Fla.
Consists of Clay, Sullivan, Vermillion, and Vigo Counties, Ind.
Consists of Bowie County, Tex., and Miller County, Ark.
Consists of Lucas and Wood Counties, Ohio, and Monroe County, Mich.
Coextensive with Shawnee County, Kans.
Coextensive with Mercer County, N.J.
Coextensive with Pima County, Ariz.
Consists of Creek, Osage, and Tulsa Counties, Okla.
Coextensive with Tuscaloosa County, Ala.
Coextensive with Smith County, Tex.
Consists of Herkimer and Oneida Counties, N.Y.
Consists of Napa and Solano Counties, Calif.
Coextensive with McLennan County, Tex.

- Consists of Washington, D.C.: Montgomery and Prince Georges Counties, Md.; and Alexandria, Fairfax, and Falls Church cities, and Arlington and Fairfax Counties, Va.
Consists of Thomaston, Watertown, and Woodbury towns in Litchfield County; and Waterbury city, Naugatuck borough, and Beacon Falls, Cheshire, Middlebury, Prospect, and Wolcott towns in New Haven, County, Conn.
Coextensive with Black Hawk County, lowa
Coextensive with Palm Beach County, Fla.
Consists of Marshall and Ohio Counties, W. Va., and Belmont County, Ohio
Consists of Butler and Sedgwick Counties, Kans.
Consists of Archer and Wichita Counties, Tex.
Coextensive with Luzerne County, Pa.
Consists of New Castle County, Del., Salem County, N.J., and Cecil County, Md.
Coextensive with Forsyth County, N.C.
Consists of Worcester city, and Auburn, Berlin, Boylston, Brookfield, East Brookfield, Grafton, Holden, Leicester, Millbury, Northborough, Northbridge, North Brookfield, Oxford, Paxton, Shrewsbury, Spencer, Sterling, Sutton, Upton, Westborough, and West Boylston towns in Worcester County, Mass.
Consists of Adams and York Counties, Pa.
Consists of Mähoning and Trumbull Counties, Ohio



## Appendix G

## CURRENT INDUSTRIAL REPORTS (CIR) COMMODITY STATISTICS

This appendix lists the 1963 Current Industrial Reports (CIR), a series of commodity surveys conducted by the Bureau of the Census, together with their frequency of publication. From many of these CIR's, selected data for 1963 were included in table 6 of the industry chapters of Volume II of the 1963 Census of Manufactures. The extreme right column lists the page numbers in the volume, including page numbers for data-containing footnotes, where

CIR data (as published in the 1963 census) may be found. Where the column for page number reference is blank, it signifies that no data from that CIR were published in the 1963 Census of Manufactures. It is to be noted that the CIR numbers and titles in this appendix relate to designations as separate published reports. References in the 1963 census volume itself will usually be in terms of the number and title of the CIR survey forms as mailed to the respondent for reporting in 1963.

For "frequency of publication," the letter symbols have the following meaning: $\mathrm{M}=$ Monthly; $\mathrm{Q}=$ Quarterly; $\mathrm{SA}=$ Semiannually; and $A=$ Annually. In the extreme right column "Ftn." represents "footnote," on the page shown immediately to the left.

# Current Industrial Reports Commodity Statistics Included in Volume II of 1963 Census of Manufactures 

| CIR series number | Title | Frequency of publication | Pages of Volume II containing CIR data | CIR <br> series <br> number | Title | Frequency of publication | Pages of Volume II containing CIR data |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| M20A | Flour Milling Products | M |  | M30E | Plastics Bottles | M |  |
| M20C | Confectionery (Including |  |  | M31A | Shoes and Slippers | M |  |
|  | Chocolate Products) | M |  | M31E | Luggage, Briefcases, and Per- |  |  |
| M20E | Poultry and Livestock Feed Production | A |  | M32C | Sonal Leather Goods Refractories | M | $\begin{aligned} & 31 \mathrm{~B}-16 \\ & 32 \mathrm{~B}-17 ; \\ & 32 \mathrm{E}-21,23 \end{aligned}$ |
| M20F | Salad Dressing, Mayonnaise, and |  |  | M32D | Clay Construction Products | M | 32B-19, Ftn. 3 , |
|  | Related Products | A | 20C-24 | M32E | Pressed and Blown Glassware |  |  |
| M20J | Fats and Oils - Vegetable Oil Crushers | M |  | M32G | (Except Glass Containers) Glass Containers | $\begin{aligned} & \mathrm{A} \\ & \mathrm{M} \end{aligned}$ | 32A-15, 16, 18 |
| M20K | Fats and Oils - Production, Consumption, and Factory and |  |  | M32J | Fibrous Glass <br> Iron and Steel Foundries and | A | 32A-18 |
|  | Warehouse Stocks | M | 20A-16, Ftn. 4 |  | Steel Ingot Producers (Report |  |  |
| M22A | Woven Fabrics: Production, Inventories, and Unfilled |  |  |  | on Products Shipped and Materials Used) | M |  |
|  |  | M |  | M33-1 | Iron and Steel Castings | M | 33B-13, Ftn. 1 |
| M22D | Consumption on the Woolen and Worsted Systems | M | 22F-23, Ftn. 6 | $\begin{aligned} & \text { M33-2 } \\ & \text { M33-3 } \end{aligned}$ | Aluminum Ingot and Mill Products Inventories of Steel Mill Shapes | $\begin{aligned} & M \\ & M \end{aligned}$ | 33D-35, Ftn. 5 |
| M22E | Woolen and Worsted Machinery Activity | A |  | M33B | Steel Mill Products | A | $\begin{aligned} & 33 A-23-26,29,32,34, \\ & 36,38 \end{aligned}$ |
| M22F | Yarn Production | M | 22E-14, Note and Ftn. 7 | M33C | Conmercial Steel Forgings | M | $33 \mathrm{~A}-26, \mathrm{Ftn} .5 ; 33 \mathrm{E}-12,$ |
| M22G | Narrow Fabrics | A | $22 \mathrm{~A}-21$ |  |  |  | Ftn. 2 |
| M22K | Knit Cloth for Sale | A | 22B-29, 30 | M33E | Nonferrous Castings | M |  |
| M22L | Tufted Textile Products | SA | 23E-19 | M33G | Magnesium Mill Products | M | 33D-38 |
| M22M | Stocks of Carpet Wool and |  |  | M34D | Metal Cans | M | $33 \mathrm{~A}-38 ; 34 \mathrm{~A}-16$ |
| M22P | Cotton, Man-Made Fiber Staple, and Linters | M |  | M34 M 3 H | Steel Power Boilers Closures for Containers | $\begin{aligned} & \mathrm{A} \\ & \mathrm{M} \end{aligned}$ | 34D-22, Ftn. 5 |
| M22Q | Rugs, Carpets, and Carpeting | A | 22D-9 | M34K | Steel Shipping Barrels, Drums, |  |  |
| M22S | cotton, Silk, and Man-Made Fiber Woven Goods Finished | A | 22C-14, Ftn. 2 | M34 | and Pails Heating and Cooking Equipment | $\begin{aligned} & \mathrm{M} \\ & \mathrm{M} \end{aligned}$ | 34B-13-17; 36B-17, 20, |
| M22T. 1 | Cotton Broad-Woven Coods | Q | 22A-22, Ftn. 2 |  |  |  | 25 |
| M22T. 2 | Man-Made Fiber Broad-Woven Goods | Q |  | M34P | Aluminum Foil Converted | A |  |
| M22T. 3 | Wool Broad-Woven Goods | Q | 22A-22, Ftn. 7 | M35A | Farm Machines and Equipment | Q | 35A-16, 43; 37c-24 |
| M22T. 4 | Tire Cord and Tire Cord Fabrics | Q | 22F-20 | M35C | Typewriters | M |  |
| M22T. 5 | Nonwoven Fabrics (Bonded Fiber Fabrics and Conventional Felts) | A | 22F-22 | M35D M35F | Construction Machinery <br> Mining Machinery and Equipment | $\begin{aligned} & Q \\ & \text { A } \end{aligned}$ | $\begin{aligned} & 35 \mathrm{~B}-19-23,29 \\ & 35 \mathrm{~B}-24 ; 37 \mathrm{C}-22 \end{aligned}$ |
| M22T. 6 | Felts, Except Woven Felts and |  |  | M35G | Farm Pumps | M | 35E-19, 26 |
|  | Hats | Q |  | M35H | Fans, Blowers, and Unit Heaters | Q | $34 \mathrm{~B}-15,16 ; 35 \mathrm{E}-21,26$ |
|  |  |  | 23A-36-43, 43, Ftn. 4, 5; | M35L | Internal Combustion Engines | A | 35A-15, 19-23, 43 |
| M23A | Apparel | A $\{$ | $\begin{aligned} & \text { 23B-23-26, 26, Ftn. 9; } \\ & 23 \mathrm{C}-31-37,37, \text { Ftn. 20; } \end{aligned}$ | M35M | Afr-Conditioning and Refrigeration Equipment | A | 35G-18-24, 28 |
|  |  |  | 23D-29 | M35P | Pumps and Compressors | A | 35E-18-20, 26 |
| $\begin{aligned} & \text { M23B } \\ & \text { M23C } \end{aligned}$ | Men's Apparel <br> Knit Underwear and Nightwear | M |  | M35R | Office, Computing, and Accounting Machines | A | 12, |
| M23D | Gloves and Mittens | A | 23D-28; 31B-16 | M35S | Tractors (Except Garden |  | 35-12, 13, 15 |
| M23H | Women's, Misses', and Juniors' |  | 23D-28; 318-16 |  | Tractors) | M | 35A-16, 40; 35B-19, 29 |
|  | Apparel | M |  | M35U | Vending Machines | A | 35G-18 |
| M23J | Brassieres, Corsets, and Allied Garments | A | $\begin{gathered} 23 \mathrm{C}-33,37, \text { Ftn. 12, 13, } \\ 23 \mathrm{C}-39 ; 23 \mathrm{D}-30 \end{gathered}$ | $\begin{aligned} & \text { M35W } \\ & \text { M36A } \end{aligned}$ | Metalworking Machinery Switchgear, Switchboard Apparatus, Relays, and Industrial | Q | 35C-17, 27 |
| M23X M24C | Sheets, Pillowcases, and Towels | A | 22A-18; $23 \mathrm{E}-19,20$ |  | Controls | A | $\begin{aligned} & 36 \mathrm{~A}-27,36,39, \text { Ftn. } 5, \\ & 36 \mathrm{~A}-41 ; 36 \mathrm{D}-39, \text { Ftn. } 5 \end{aligned}$ |
| M24F | Hardwood Plywood: Production | A |  | M36B | Electric Lamps | Q | $36 \mathrm{C-14}$ ) $36 \mathrm{D}-39, \mathrm{Ftn}$. |
|  | and Shipments | A | 248-12 | M36C | Fluorescent Lamp Ballasts | Q | 36A-26 |
| M24H | Softwood Plywood and Veneer | A |  | M36D | Electric Lamps | M |  |
| M24T | Lumber Production and Mill |  |  | M36E | Electric Housewares and Fans | A | 36B-19, 25 |
|  | Stocks | A |  | M36H | Motors and Generators | A | 36A-29, 41 |
| M25D | Household Furniture and Bedding Products | A |  | M36K M36L | Wiring Devices and Supplies Electric Lighting Fixtures | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 36 \mathrm{c}-17, \\ & 36 \mathrm{c}-15 \end{aligned}$ |
| M25E | Mattresses and Bedsprings | M | 25A-19 | M36M | Home-Type Radio Receivers and |  |  |
| M25H | Office Furniture | A | 258-21 |  | Television Sets, Automobile |  |  |
| M26A | Pulp, Paper, and Board | M |  |  | Radios, Phonographs, and |  |  |
| M26F | Converted Flexible Packaging Products | M |  | M36N | Record Player Attachments Selected Electronic and Associ- | A | 36D-27, 32 |
| M28A M28D | Inorganic Chemicals and Gases Superphosphate and Other Phos- | M | 28A-20-31 |  | ated Products | A | $\begin{aligned} & 36 \mathrm{~A}-24 ; 36 \mathrm{D}-27-29,32 ; \\ & 36 \mathrm{E}-15,19 \end{aligned}$ |
| M28D | Superphosphate and Other Phosphatic Fertilizer Materials | M |  | M37D | Backiog of Orders for Aerospace |  |  |
| M28F | Paint, Varnish, and Lacquer | M |  |  | Companies | Q |  |
| M28G | Pharmaceutical Preparations, Except Biologicals | A | 28C-9-13 | $\begin{aligned} & \text { M37E } \\ & \text { M37G } \end{aligned}$ | Aircraft Propellers Complete Aircraft and Aircraft | SA |  |
| M28W | Animal Glue | M |  |  | Engines | M |  |
| M29A | Asphalt and Tar Roofing and Siding Products | M |  | $\begin{aligned} & \text { M37L } \end{aligned}$ | Truck Trailers <br> Selected Instruments and Related | M | $37 \mathrm{~A}-13,14$ |
| M30A | Rubber (Supply and Distribution for the United States) | M |  |  | Products | A | $\begin{aligned} & \text { 19A-14; 36A-23, 41; } \\ & 38 \mathrm{~A}-25,32 \end{aligned}$ |
| M30D | Shipments of Selected Plastics Products | A | 30A-19-22 | M38Q | Atomic Energy Products | A |  |

## Appendix H

## COMPARABILITY OF PRODUCT CLASSES BETWEEN THE 1963 AND 1958 CENSUSES OF MANUFACTURERS

This appendix list those classes of products which were changed in coverage and/or in code between the 1958 and 1963 censuses of manufactures. Part 1 traces the comparability of classes as defined in 1963 and as changed from 1958; Part 2 shows comparability of classes as existing in 1958, and as altered for 1963.

The changed relationship between the classes of products between 1958 and 1963 resulted partly from a revision of the Standard Industrial Classification (SIC) (published early in 1963 as a supplement to the SIC Manual), on which classification codes and procedures employed by the Bureau of the Census are based. The supplement and manual referred to are published by the Bureau of the Budget and are available from the U.S. Government Printing Office, Washington, D.C. 20402. The 1963 revision was a limited one, confined to some reordering of 4 -digit industries within 3 digit groups. In addition to product class changes resulting from the deletion of some industries defined in the Manual in 1958, and the defining of new industries out of existing industries, there were a considerable number of changes in product classes within the boundaries of unchanged 4 -digit industries. These resulted from (1) an effort to isolate important product classes in growing areas, (2) a desire to recognize different end-uses or markets, and (3) a reexamination of the detailed commodity structure of some industries (for example, 2821, plastics materials, etc., and 2834, pharmaceutical preparations). All of these changes
are reflected in the accompanying tabular presentation of product class comparability.

Product classes, coded to five digits, represent an intermediate level of classification between the 4 -digit establishment industry coding of the SIC and the 7-digit level used for product coding by the Bureau of the Census for the census of manufactures and for the more than 100 Current Industrial Reports published by the Bureau. Product classes, representing relatively homogeneous groupings of products, are utilized for requesting output data in the Annual Survey of Manufactures (ASM). In addition to data published in the ASM, production and/or shipments information for product classes are shown in the table 6 series of the industry chapters of the Census of Manufactures for 1963 (Volume II, Industry Statistics) and, for product-class specialization, in the general statistics in table 8. Production, shipments, inventory, and other data by product class will be found in numerous publications in the Current Industrial Reports series. Where applicable, table 6A of the industry chapters of the census of manufactures carries product data obtained from the Current Industrial Re: ports.

In the two parts of this appendix, the codes and descriptions of product classes affected by revision between 1958 and 1963 are given. In each of the parts, the product class or classes shown on the left are comparable to the class or classes shown on the right. For example, in Part 1, product classes 20221 and 20222 for 1963 are the equivalent in coverage to classes 20220 and 20252 for 1958. In Part 2, the reverse situation is the case. Where a product class shown in the left column is part of a product class in the right column, the class code in the right column contains an asterisk (*). Thus, it is evident that a product class iit one year may be a part of several product classes in the other year. Where such situations exist, comparability between the cenuses becomes difficult at the product class level.

Comparability of Product Classes
Part 1. 1963 Census of Manufactures as Related to 1958 Census of Manufactures

| 1963 |  | 1958 equivalent |  |
| :---: | :---: | :---: | :---: |
| Product class code | Product class description | Product class code | Product class description |
| 19291 | Ammunition except for small arms, n.e.c. | 19210 | Artillery ammunition over 30 mm (or over 1.18 inches) |
| 19292 | Receipts for ammunition loading and assembly, over 30 mm . (or over 1.18 inches) | 19220 | Receipts for ammunition loading and assembly, over 30 mm . (or over 1.18 inches) |
| 19253 19255 | Research and development on guided missiles and space vehicles <br> All other services on complete missiles and space vehicles | 19253 | Research and development on guided missiles (complete) |
| 19293 | Ammunition, n.e.c. | 19290 | Ammunition, n.e.c. |
| $\begin{aligned} & 20221 \\ & 20222 \end{aligned}$ | Natural cheese, except cottage cheese Process cheese and related products | $\left\{\begin{array}{l} 20220 \\ 20252 \end{array}\right.$ | Cheese, except cottage cheese <br> Process cheese (from purchased cheese) |
| 20341 20342 | Dried and dehydrated fruits and vegetables and freeze dried products <br> Soup Mixes | 20340 | Dried and dehydrated fruits and vegetables and soup mix |
| 20943 | Animal and marine oil mill products, including foots | 20950 | Animal and marine oil mill products, including foots |
| $\begin{aligned} & 20951 \\ & 20952 \end{aligned}$ | Hoasted coffee, whole bean or ground Concentrated coffee | 20995 | Roasted coffee |
| 22513 | Finished seamless hosiery, full-length and kneelength (women's) | 22521 | Women's finished seamless hosiery, except anklets |
| 22514 | Women's full-fashioned hosiery shipped in the greige | 22512 | Women's full-fashioned hosiery shipped in the greige |
| 22515 22524 | Women's seamless full-length and knee-length hosiery shipped in the greige <br> Seamless hosiery shipped in the greige (except women's) | 22524 | Seamless hosiery shipped in the greige |
| 24996 | Hard pressed wood fiber board | 26613 | Hard pressed wood fiber board |
| 26471 | Sanitary napkins and tampons | 26494 | Sanitary napkins and tampons |
| 26472 | Sanitary tissue health products | 26493 | Sanitary tissue health products |
| 28211 | Unsupported plastics film, sheets, rods, tubes, from resins made in same establishment | $\begin{aligned} & 28211^{*} \\ & 28213^{*} \\ & 28214 \end{aligned}$ | Cellulose plastics materials, except from scrap Synthetic resins, except resins for protective coatings <br> Vinyl and polyethylene unsupported film and sheeting, from resins manufactured in same establishment |
| 28213 | Thermoplastic resins, except resins for protective coatings | $\begin{aligned} & 28211 * \\ & 28213 * \end{aligned}$ | Cellulose plastics materials, except from scrap Synthetic resins, except resins for protective coatings |
| 28214 | Thermosetting resins, except resins for protective coatings | $\begin{aligned} & 28213^{*} \\ & 28215 * \end{aligned}$ | Synthetic resins, except resins for protective coatings <br> Plastics and resin materials, n.e.c. |
| 28215 | Adhesives made from plastics and resin materials produced in same establishment | $\begin{aligned} & 28211 * \\ & 28213 * \\ & 28215 * \end{aligned}$ | Cellulose plastics materials, except from scrap Synthetic resins, except resins for protective coatings <br> Plaṣtics and resin materials, n.e.c. |
| 28216 | Synthetic resins for protective coatings | 28215* | Plastics and resin materials, n.e.c. |
| 28217 | Custom compounding of purchased resins | 28215* | Plastics and resin materials, n.e.c. |
| 28219 | Plastics and resin materials, n.e.c. | $\begin{aligned} & 28211 * \\ & 28213 * \\ & 28215 * \end{aligned}$ | Cellulose plastics materials, except from scrap Synthetic resins, except resins for protective coatings <br> Plastics and resin materials, n.e.c. |
| $\begin{aligned} & 28331 \\ & 28332 \end{aligned}$ | Synthetic organic medicinal chemicals in bulk Other medicinal chemicals and botanical products, n.e.c. (in bulk) | $\left\{\begin{array}{l} 28331 \\ 28332 \end{array}\right.$ | Medicinal and botanical drugs, uncompounded, for human use <br> Medicinal drugs for veterinary use |

[^333]
## Comparability of Product Classes

Part 1. 1963 Census of Manufactures as Related to 1958 Census of Manufactures--Con.

|  | 1963 |  | 1958 equivalent |
| :---: | :---: | :---: | :---: |
| Product class code | Product class description | $\begin{array}{\|l\|} \hline \text { Product } \\ \text { class code } \end{array}$ | Product class description |
| 28341 | Pharmaceutical preparations affecting neoplasms, endocrine system and metabolic disease, for human use | $\begin{aligned} & 28348 \\ & 28349 * \end{aligned}$ | Hormone preparations <br> Other pharmaceutical preparations |
| 28342 | Pharmaceutical preparations acting on the central nervous system and the sense organs, for human use | $\begin{aligned} & 28346^{*} \\ & 28347 * \\ & 28349 * \end{aligned}$ | Analgesics, including narcotics Tranquilizers, sedatives, and hypnotics Other pharmaceutical preparations |
| 28343 | Pharmaceutical preparations acting on the cardiovascular system, for human use | $\begin{aligned} & 28347 * \\ & 28349 * \end{aligned}$ | Tranquilizers, sedatives, and hypnotics Other pharmaceutical preparations |
| 28344 | Pharmaceutical preparations acting on the respiratory system, for human use | 28343 | Cough and cold preparations for human use |
| 28345 | Pharmaceutical preparations acting on the digestive or genito-urinary systems, for human use | 28344 <br> 28349* | Laxatives and stomach and ulcer preparations for human use <br> Other pharmaceutical preparations |
| 28346 | Pharmaceutical preparations acting on the skin, for human use | $\begin{aligned} & 28346 * \\ & 28349 * \end{aligned}$ | Analgesics, including narcotics Other pharmaceutical preparations |
| 28347 | Vitamin, nutrient and hematinic preparations, for human use | $\begin{aligned} & 28345 \\ & 28349 * \end{aligned}$ | Vitamins for human use Other pharmaceutical preparations |
| 28348 | Pharmaceutical preparations affecting parasitic and infective diseases, for human use | $\begin{aligned} & 28342 \\ & 28349 * \end{aligned}$ | Antibiotic preparations for human use Other pharmaceutical preparations |
| 28349 | Pharmaceutical preparations for veterinary use | 28341 | Pharmaceutical preparations for veterinary use |
| $\begin{aligned} & 28511 \\ & 28512 \\ & 28513 \\ & 28514 \end{aligned}$ | Exterior oil-type trade sales paint products <br> Exterior water-type trade sales paint products, including tinting bases <br> Interior oil-type trade sales paint products <br> Interior water-type trade sales paint products, including tinting bases | 28511 | Paints, varnishes, and enamels - trade sales products |
| $\begin{aligned} & 28515 \\ & 28516 \\ & 28517 \end{aligned}$ | Trade sales lacquers <br> Industrial product finishes, except lacquers <br> Industrial lacquers | 28512 | Industrial product finishes and special coatings |
| 28518 | Putty, caulking compounds and allied products | 28520 | Putty, caulking compounds and allied products |
| 28519 | Miscellaneous paint products | 28514 | Miscellaneous paint products |
| 28790 | Agricultural pesticides and other agricultural chemicals | $\begin{aligned} & 28730 \\ & 28790 \end{aligned}$ | ```Agricultural pesticides, herbicidal preparations, and similar agricultural chemicals Agricultural chemicals, n.e.c.``` |
| $\begin{aligned} & 28921 \\ & 28922 \end{aligned}$ | Industrial explosives <br> Explosives produced in government-owned, contractoroperated plants | 28920 | Explosives |
| 28992 | Fatty acids | 28940 | Fatty acids |
| 30791 | Unsupported plastics film, sheets, rods, tubes, from purchased resins | 30793* 30794 <br> 30799* | Molded plastics products, n.e.c. <br> Unsupported vinyl and polyethylene film and sheeting made from purchased resins <br> Fabricated plastics products, n.e.c. |
| 30792 | Foamed plastics products | 30796 | Expanded or foamed plastics |
| 30793 | Laminated plastics sheets, rods, tubes | $\begin{aligned} & 30797 \\ & 30798 \end{aligned}$ | High pressure laminated plastics sheets <br> Laminated plastics sheets, rods, tubes, other than high pressure |
| 30794 | Packaging and shipping containers, plastics | $\begin{aligned} & 30793 * \\ & 30799 * \end{aligned}$ | Molded plastics products, n.e.c. <br> Fabricated plastics products, n.e.c. |
| 30795 | Industrial plastics products | $\begin{aligned} & 30793 * \\ & 30799 * \end{aligned}$ | Molded plastics products, n.e.c. <br> Fabricated plastics products, n.e.c. |

* Represents part.


## Comparability of Product Classes

Part 1. 1963 Census of Manufactures as Related to 1958 Census of Manufactures.-Con.

| 1963 |  | 1958 equivalent |  |
| :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Product } \\ \text { class code } \end{gathered}$ | Product class description | Product class code. | Product class description |
| 30796 | Construction plastics products | $\begin{aligned} & 30792^{*} \\ & 30793^{*} \\ & 30795 \\ & 30799^{*} \end{aligned}$ | Plastic pipe, hose, tubing, and fittings Molded plastics products, n.e.c. <br> Unsupported plastics floor and wall covering Fabricated plastics products, n.e.c. |
| 30797 | Plastics dinnerware, tableware, and kitchenware | $\begin{aligned} & 30791^{*} \\ & 30799^{*} \end{aligned}$ | Plastics dinnerware and housewares, except sheet goods products <br> Fabricated plastics products, n.e.c. |
| 30798 | Consumer and commercial plastics products, n.e.c. | $30791^{*}$ <br> 30792* <br> 30793* <br> 30799* | Plastics dinnerware and housewares, except sheet goods <br> Plastic pipe, hose, tubing, and fittings <br> Molded plastics producte, n.e.c. <br> Fabricated plastics products, n.e.c. |
| $\begin{aligned} & 32722 \\ & 32723 \end{aligned}$ | Precast concrete products Prestressed concrete products | 32722 | Precast and prestressed concrete products, except concrete pipe |
| 32950 | Minerals and earths, gound or otherwise treated | $\begin{aligned} & 32950 \\ & 32961^{*} \\ & 32962^{*} \end{aligned}$ | Minerals and earths, ground or otherwise treated Mineral wool for structural insulation <br> Mineral wool for industrial and equipment insulation |
| $\begin{aligned} & 33347 \\ & 33348 \\ & 33417 \\ & 33418 \end{aligned}$ | Aluminum ingot made in primary aluminum industry Aluminum extrusion billet made in primary aluminum industry <br> Aluminum ingot made by secondary smelters Aluminum extrustion billet made by secondary smelters | $\left\{\begin{array}{l}33341 \\ 33342 \\ 33411\end{array}\right.$ | Primary aluminum-base alloys (pig, ingot, shot, etc.) <br> Primary unalloyed aluminum <br> Secondary aluminum base alloys (ingot, shot, etc.) |
| $\begin{aligned} & 33527 \\ & 33528 \end{aligned}$ | Aluminum ingot made in aluminum rolling mills <br> Aluminum extrusion billet made in aluminum rolling mills | $33520^{1}$ | Aluminum-base alloys made in aluminum rolling mills |
| 33573 33575 | Nonferrous metal wire, except insulated (excluding aluminum and copper) <br> Nonferrous wire cloth and other woven wire products made in nonferrous wire drawing plants | 33573 | Nonferrous metal wire, except insulated, but including woven wire products (other than aluminum and copper) |
| $34432$ <br> 34434 | Fabricated steel plate, including stacks and weldments <br> Gas cylinders | 34434 | Gas cylinders and other boiler shop products |
| 34435 34437 | Metal tanks complete at factory (standard line, pressure) <br> Metal tanks complete at factory (standard line nonpressure) | 34.435 | Metal tanks complete at factory (standard line, pressure and nonpressure) and metal septic tanks |
| $34438$ $34439$ | Metal tanks and vessels, custom fabricated at the factory <br> Metal tanks and vessels, custom fabricated and field erected | 34436 | Metal tanks and vessels, custom fabricated at the factory |
| 34460 | Ornamental and structural metal work | 34491 | Ornamental and structural metal work |
| 34522 34523 | Special industrial fasteners <br> Headed products (produced by cold and hot heading) other than industrial fasteners | 34522 | Special industrial fasteners, other than standard types |
| 34814 34815 | Ferrous wire cloth and other woven ferrous wire products, from purchased wire <br> Nonferrous wire cloth and other woven nonferrous wire products | 34817 | Wire cloth and other woven wire products, not produced by wire drawers |

[^334]${ }^{1}$ Did not exist as a product class in 1958. This code was utilized especially to accomodate the products indicated.

## H-4

Part 1. 1963 Census of Manufactures as Related to 1958 Census of Manufactures--Con.

| 1963 |  | 1958 equivalent |  |
| :---: | :---: | :---: | :---: |
| Product class code | Product class description | Product class code | Product class description |
| 35323 35324 | Mining machinery and equipnent (other than underground equipment and crushing, pulverizing, and screening plants, stationary) <br> Parts and attachments for mining machinery and equipment | 35323 | Mining machinery and equipment (other than underground equipment and crushing, pulverizing, and screening plants, stationary) |
| $\begin{aligned} & 35811 \\ & 35812 \end{aligned}$ | Autamatic vending machines (complete units) Coin-operated mechanisms and parts for automatic vending machines | $\}\left\{\begin{array}{l}35811 \\ 35812\end{array}\right.$ | Automatic merchandising machines, refrigerated Automatic merchandising machines, except refrigerated |
| 35893 | Commercial and industrial vacuum cleaners, including parts and attachments | 35840 | Commercial and industrial vacuum cleaners, including parts and attachments |
| $\begin{aligned} & 36421 \\ & 36427 \end{aligned}$ | Residential type electric fixtures (except portable) Residential type electric fixtures (portable) | 36421 | Residential type electric fixtures |
| 36621 36627 | Radio and television comercial commmication equif pment <br> Space satellite-borne commmication systems (complete package) | 36621 | Commercial, industrial, and military electronic commuication equipment, except broadcast equipment and home-type intercommication equipment |
| 36624 <br> 36628 | Electronic navigational aids (except missile_borne and space vehicle-borne equipment) <br> Missile borne and space vehicle borne navigation and guidance systems and equipment | 36624 | Electronic navigational aids |
| 36740 | Solid state semiconductor devices | 36791 | Solid state semiconductor devices |
| $\begin{aligned} & 37221 \\ & 37225 \end{aligned}$ | Aircraft engines for United States military customers Complete missile or space vehicle engines and/or propulsion units | 37221 | Aircraft engines for United States military customers and all missile engines |
| 37223 37226 | Research and development on aircraft engines <br> Receipts for research and development on complete missile or space vehicle engines and/or propulsion units <br> All other services on complete missile or spece vehicle engines and/or propulsion units | 37223 | Aeronautical services on aircraft and missile engines |
| $\begin{aligned} & 37224 \\ & 37228 \end{aligned}$ | Aircraft engine parts and accessories <br> Missile and space vehicle engine and/or propulsion unit parts and accessories | 37224 | Aircraft engine parts (including parts for missile engines |
| $\begin{aligned} & 38112 \\ & 38113 \end{aligned}$ | Laboratory and scientific instruments <br> Survey and drafting instruments and laboratory furniture | 38112 | Engineering, laboratory, and scientific instruments (except aircraft flight, nautical, and navigational instruments and automatic pilots) |
| $\begin{aligned} & 38311 \\ & 38312 \end{aligned}$ | Optical and analytical instruments and lenses Sighting and fire control equipment made from lenses, prisms, etc. produced in same plant | 38310 | Optical instruments and lenses |

Comparability of Product Classes
Part 2. 1958 Census of Manufactures as Related to 1963 Census of Manufactures

| 1958 |  | 1963 equivalent |  |
| :---: | :---: | :---: | :---: |
| Product class code | Product class description | Product class code | Product class description |
| 19210 | Artillery ammunition over 30 mm (or over 1.18 inches) | 19291 | Ammunition except for small arms, n.e.c. |
| 19220 | Receipts for ammunition loading and assembly, over 30 mm (or over 1.18 inches) | 19292 | Receipts for ammunition loading and assembly, over 30 mm (or over 1.18 inches) |
| 19253 | Research and development on guided missiles (complete) | $\begin{aligned} & 19253 \\ & 19255 \end{aligned}$ | Research and development on guided missiles and space vehicles <br> All other services on complete missiles and space vehicles |
| 19290 | Ammunition, n.e.c. | 19293 | Ammunition, n.e.c. |
| 20220 20252 | Cheese, except cottage cheese <br> Process cheese (from purchased cheese) | $\left\{\begin{array}{l}20221 \\ 20222\end{array}\right.$ | Natural cheese, except cottage cheese Process cheese and related products |
| 20340 | Dried and dehydrated fruits and vegetables and soup mix | $20341$ <br> 20342 | Dried and dehydrated fruits and vegetables and freeze dried products Soup mixes |
| 20950 | Animal and marine oil mill products, including foots | 20943 | Animal and marine oil mill products, including foots |
| 20995 | Roasted coffee | $\begin{aligned} & 20951 \\ & 20952 \end{aligned}$ | Roasted coffee, whole bean or ground Concentrated coffee |
| 22512 | Women's full-fashioned hosiery shipped in the greige | 22514 | Women's full-fashioned hosiery shipped in the greige |
| 22521 | Women's finished seamless hosiery, except anklets | 22513 | Finished seamless hosiery, full-length and meelength (women's) |
| 22524 | Seamless hosiery shipped in the greige | $\begin{aligned} & 22515 \\ & 22524 \end{aligned}$ | Women's seamless full-length and knee-length hosiery shipped in the greige <br> Seamless hosiery shipped in the greige (except women's) |
| 26493 | Sanitary tissue health products | 26472 | Sanitary tissue health products |
| 26494 | Sanitary napkins and tampons | 26471 | Sanitary napkins and tampons |
| 26613 | Hard pressed wood fiber board | 24996 | Hard pressed wood fiber board |
| 28211 | Cellulose plastics products, except from scrap | 28211* <br> 28213* <br> 28215* <br> 28219* | Unsupported plastics film, sheets, rods, tubes, from resins made in same establishment <br> Thermoplastic resins, except resins for protective coatings <br> Adhesives made from plastics and resin materials produced in same establishment <br> Plastics and resin materials, n.e.c. |
| 28213 | Synthetic resins, except resins for protective coatings | $\begin{aligned} & 28211^{*} \\ & 28213 * \\ & 28214 * \\ & 28215 * \\ & 28219 * \end{aligned}$ | Unsupported plastics film, sheets, rods, tubes, from resins made in same establishment <br> Thermoplastic resins, except resins for protective coatings <br> Thermosetting resins, except resins for protective coatings <br> Adhesives made from plastics and resin materials produced in same establishment <br> Plastics and resin materials, n.e.c. |
| 28214 | Vinyl and polyethylene unsupported film and sheeting, made from resins manufactured in same establishment | 28211* | Unsupported plastice film, sheets, rods, tubes, from resins made in same establishment |

*Represents part.

## H-6

## Comparability of Product Classes

Part 2. 1958 Census of Manufactures as Related to 1963 Census of Manufactures--Con

|  | 1958 | 1963 equivalent |  |
| :---: | :---: | :---: | :---: |
| Product class code | Product class description | Product class code | Product class description |
| 28215 | Plastics and resin materials, n.e.c. | 28214* <br> 28215* <br> 28216 <br> 28217 <br> 28219* | Thermosetting resins, except resins for protective coatings <br> Adhesives made from plastics and resin materials produced in same establishment <br> Synthetic resins for protective coatings <br> Custan compounding of purchased resins <br> Plastics and resin materials, n.e.c. |
| 28331 28332 | Medicinal and botanical druge, uncompounded, for human use <br> Medicinal drugs for veterinary use | $\int \begin{aligned} & 28331 \\ & 28332\end{aligned}$ | Synthetic organic medicinal chemicals in bulk Other medicinal chemicals and botanical products, n.e.c. (in bulk) |
| 28341 | Pharmaceutical preparations for veterinary use | 28349 | Pharmaceutical preparations for veterinary use |
| 28342 | Antibiotic preparations for human use | 28348* | Pharmaceutical preparations affecting parasitic and infective diseases, for human use |
| 28343 | Cough and cold preparations for human use | 28344 | Pharmaceutical preparations acting on the respiratory system, for human use |
| 28344 | Laxatives and stomach and ulcer preparations for human use | 28345* | Pharmaceutical preparations acting on the digestive or genito-urinary systems, for human use |
| 28345 | Vitamins for human use | 28347* | Vitamin, nutrient and hematinic preparations, for human use |
| 28346 | Analgesics, including narcotics | 28342* <br> 28346* | Antibiotic preparations for human use <br> Pharmaceutical preparations acting on the skin, for human use |
| 28347 | Tranquilizers, sedatives, and hypnotics | $28342 *$ $28343 *$ | Pharmaceutical preparations acting on the central nervous system and the sense organs, for human use <br> Pharmaceutical preparations acting on the cardiovascular system, for human use |
| 28348 | Hormone preparations | 28341* | Pharmaceutical preparations affecting neoplasms, endocrine system and metabolic disease, for human use |
| 28349 | Other pharmaceutical preparations | $\begin{aligned} & 28341 * \\ & 28342 * \\ & 28343 * \\ & 28345 * \\ & 28346 * \\ & 28347 * \\ & 28348 * \end{aligned}$ | Pharmaceutical preparations affecting neoplasms, endocrine system and metabolic disease, for human use <br> Pharmaceutical preparations acting on the central nervous system and the sense organs, for human use <br> Pharmaceutical preparations acting on the cardiovascular system, for human use <br> Pharmaceutical preparations acting on the digestive or genito-urinary systems, for human use <br> Phermaceutical preparations acting on the skin, for human use <br> Vitamin, nutrient and hematinic preparations, for human use <br> Pharmaceutical preparations affecting parasitic and infective diseases, for human use |
| 28511 | Paints, varnishes, and enamels-trade sales peint products | $\begin{aligned} & 28511 \\ & 28512 \\ & 28513 \\ & 28514 \end{aligned}$ | Exterior oil-type trade sales paint products <br> Exterior water-type trade sales paint products, including tinting bases <br> Interior oil-type trade sales paint products <br> Interior water-type trade sales paint products, including tinting bases |
| 28512 | Industrial product finishes and special coatings | $\begin{aligned} & 28515 \\ & 28516 \\ & 28517 \end{aligned}$ | Trade sales lacquers <br> Industrial product finishes, except lacquers <br> Industrial lacquers |
| 28514 | Miscellaneous paint products | 28519 | Miscellaneous paint products |

## Comparability of Product Classes

Part 2. 1958 Census of Manufactures as Related to 1963 Census of Manufactures--Con

| 1958 |  | 1963 equivalent |  |
| :---: | :---: | :---: | :---: |
| Product class code | Product class description | Product class code | Product class description |
| 28520 | Putty, caulking compounds and allied products | 28518 | Putty, caulking compounds and allied products |
| 28730 28790 | Agricultural pesticides, herbicidal preparations, and similar agricultural chemicals <br> Agricultural chemicals, n.e.c. | 28790 | Agricultural pesticides and other agricultural chemicals |
| 28920 | Explosives | $\begin{aligned} & 28921 \\ & 28922 \end{aligned}$ | Industrial explosives <br> Explosives produced in government-owned, contrac-tor-operated plants |
| 28940 | Fatty acids | 28992 | Fatty acids |
| 30791 | Plastics dinnerware and housewares, except sheet goods | $\begin{aligned} & 30797 * \\ & 30798 * \end{aligned}$ | Plastics dinnerware, tableware, and kitchemware Consumer and commercial plastics products, n.e.c. |
| 30792 | Plastic pipe, hose, tubing, and fittings | $\begin{aligned} & 30796 * \\ & 30798^{*} \end{aligned}$ | Construction plastics products Consumer and commercial plastics products, n.e.c. |
| 30793 | Molded plastics products, n.e.c. | 30791* <br> 30794* <br> 30795* <br> 30796* <br> 30798* | Unsupported plastics film, sheets, rods, tubes, from purchased resins <br> Packaging and shipping containers, plastics <br> Industrial plastics products <br> Construction plastics products <br> Consumer and commercial plastics products, n.e.c. |
| 30794 | Unsupported vinyl and polyethylene film and sheeting made from purchased resins | 30791* | Unsupported plastics film, sheets, rods, tubes, from purchased resins |
| 30795 | Unsupported plastics floor and wall coverings | 30796* | Construction plastics products |
| 30796 | Expanded or foamed plastics | 30792 | Foamed plastics products |
| 30797 | High pressure laminated plastics sheets | 30793* | Laminated plastics sheets, rods, tubes |
| 30798 | Laminated plastics sheets, rods, tubes, other than high pressure | 30793* | Laminated plastics sheets, rods, tubes |
| 30799 | Fabricated plastics products, n.e.c. | 30791* <br> 30794* <br> 30795* <br> 30796* <br> 30797* <br> 30798* | Unsupported plastics film, sheets, rods, tubes, from purchased resins <br> Packaging and shipping containers, plastics <br> Industrial plastics producte <br> Construction plastics products <br> Plastics dinnerware, tableware and kitchenware <br> Consumer and commercial plastics products, n.e.c. |
| 32722 | Precast and prestressed concrete products, except concrete pipe | $\begin{aligned} & 32722 \\ & 32723 \end{aligned}$ | Precast concrete products <br> Prestressed concrete products |
| 32950 | Minerals and earths, ground or otherwise treated | 32950* | Minerals and earths, ground or otherwise treated |
| 32961 | Mineral wool for structural insulation | $\begin{aligned} & 32950 * \\ & 32961 \end{aligned}$ | Minerals and earths, ground or otherwise treated Mineral wool for structural insulation |
| 32962 | Mineral wool for industrial and equipment insulation | $\begin{aligned} & 32950 * \\ & 32962 \end{aligned}$ | Minerals and earths, ground or otherwise treated Mineral wool for industrial and equipment insulation |
| $\begin{aligned} & 33341 \\ & 33342 \\ & 33411 \end{aligned}$ | Primary aluminum-base alloys (pig, ingot, shot, etc.) <br> Primary unalloyed aluminum <br> Secondary aluminum base alloy, (ingot, shot, etc.) | $\left\{\begin{array}{l} 33347 \\ 33348 \\ 33417 \\ 33418 \end{array}\right.$ | Aluminum ingot made in primary aluminum industry <br> Aluminum extrusion billet made in primary aluminum industry <br> Aluminum ingot made by secondary smelters <br> Aluminum extrusion billet made by secondary smelters |

*Represents part.

## H-8

## Comparability of Product Classes

Part 2. 1958 Census of Manufactures as Related to 1963 Census of Manufactures-Con.

| 1958 |  | 1963 equivalent |  |
| :---: | :---: | :---: | :---: |
| Product class code | Product class description | Product class code | Product class description |
| $33520^{1}$ | Aluminum-base alloys made in aluminum rolling mills | $\begin{aligned} & 33527 \\ & 33528 \end{aligned}$ | Aluminum ingot made in aluminum rolling mills Aluminum extrusion billet made in aluminum rolling mills |
| 33573 | Nonferrous metal wire, except insulated, but including woven wire products (other than aluminum or copper) | 33573 <br> 33575 | Nonferrous metal wire, except insulated (excluding aluminum and copper) <br> Nonferrous wire cloth and other woven wire products made in nonferrous wire drawing plants |
| 34434 | Gas cylinders and other boiler shop products | $34432$ <br> 34434 | Fabricated steel plate, including stacks and weldments <br> Gas cylinders |
| 34435 | Metal tanks complete at factory (standard line, pressure and nonpressure) and metal septic tanks | $34435$ <br> 34437 | Metal tanks complete at factory (standard line, pressure) <br> Metal tanks complete at factory (standard line, nompressure) |
| 34436 | Metal tanks and vessels, custom fabricated at the factory | 34438 <br> 34439 | Metal tanks and vessels, custom fabricated at the factory <br> Metal tanks and vessels, custom fabricated and field erected |
| 34491 | Ornamental and structural metal work | 34660 | Ornamental and structural metal work |
| 34522 | Special industrial fasteners, other than standard types | $\begin{aligned} & 34522 \\ & 34523 \end{aligned}$ | Special industrial fasteners <br> Headed products (produced by cold and hot heading) other than industrial fasteners |
| 34817 | Wire cloth and other woven wire products, not produced by wire drawers | 34814 <br> 34815 | Ferrous wire cloth and other woven ferrous wire products, from purchased wire <br> Nonferrous wire cloth and other woven nonferrous wire products |
| 35323 | Mining machinery and equipment (other than underground equipment and crushing, pulverizing, and screening pladts, stationary) | $\begin{aligned} & 35323 \\ & 35324 \end{aligned}$ | Mining machinery and equipment (other than underground equipment and crushing, pulverizing, and screening plants, stationary) <br> Parts and attachments for mining machinery and equipment |
| $\begin{aligned} & 35811 \\ & 35812 \end{aligned}$ | Automatic merchandising machines, refrigerated Automatic merchandising machines, except refrigerated | $\int_{35811}^{35812}$ | Automatic vending machines (complete units) <br> Coin-operated mechanisms and parts for automatic vending machines |
| 35840 | Commercial and industrial vacuum cleaners, including parts and attachments | 35893 | Coumercial and industrial vacuum cleaners, including parts and attachments |
| 36421 | Residential type electric fixtures | 36421 <br> 36427 | Residential type electric fixtures (except portable) <br> Residential type electric fixtures (portable) |
| 36621 | Commercial, industrial, and military electronic communication equipment, except broadcast equipment and home-type intercommunication equipment | $\begin{aligned} & 36621 \\ & 36627 \end{aligned}$ | Radio and television commercial communication equipment <br> Space satellite-borne communication systems (complete package) |
| 36624 | Electronic navigational aids | 36624 <br> 36628 | Electronic navigational aids (except missileborne and space vehicle-borne equipment) <br> Missile-borne and space vehicleborne navigation and guidance systems and equipment |
| 36791 | Solid-state semiconductor devices | 36740 | Solid-state semiconductor devices |
| 37221 | Aircraft engines for United States military customers and all missile engines | 37221 <br> 37225 | Aircraft engines for United States military customers <br> Complete missile or space vehicle engines and/or propulsion units |

*Represents part.
${ }^{1}$ Did not exist as a product class in 1958. This code was utilized especially to accommodate the products indicated.

## Comparability of Product Classes

## Part 2. 1958 Census of Manufactures as Related to 1963 Census of Manufactures--Con

| 1958 |  | 1963 equivalent |  |
| :---: | :---: | :---: | :---: |
| Product class code | Product class description | Product class code | Product class description |
| 37223 | Aeronautical services on aircraft and missile engines | $\begin{aligned} & 37223 \\ & 37226 \\ & \\ & 37227 \end{aligned}$ | Research and development on aircraft engines <br> Receipts for research and development on complete missile or space vehicle engines and/or propulsion units <br> All other services on complete missile or space vehicle engines and/or propulsion units |
| 37224 | Aircraft engine parts (including parts for missile engines) | $\begin{aligned} & 37224 \\ & 37228 \end{aligned}$ | Aircraft engine parts and accessories <br> Missile and space vehicle engine and/or propulsion units parts and accessories |
| 38112 | Engineering, laboratory, and scientific instruments (except aircraft flight, nautical, and navigational instruments and automatic pilots) | $\begin{aligned} & 38112 \\ & 38113 \end{aligned}$ | Laboratory and scientific instruments Survey and drafting instruments and laboratory furniture |
| 38310 | Optical instruments and lenses | $\begin{aligned} & 38311 \\ & 38312 \end{aligned}$ | Optical and analytical instruments and lenses Sighting and fire control equipment made from lenses, prisms, etc. produced in same plant |

## Appendix

## ALPHABETIC INDEX OF MANUFACTURED PRODUCTS

This index is designed to assist in locating statistics on manufactured products as published in table 6A, "Products and Product Classes-Quantity and Value Shipped by All Manufacturing Establishments: 1963 and 1958," in the respective industry chapters of the 1963 Census of Manufactures volumes. The product code or codes and the page or pages in the industry chapters where statistics will be found are shown for each of the products or groups of products. The index covers the almost 6,000 coded products as reported in the 1963 Census of Manufactures and several thousand products covered by the Bureau of the Census Current Industrial Reports series of commodity surveys for 1963, which are also included in table 6A. Typically, the products alphabetized in this index are of a broad nature; more detail by size, material components, end use, etc., will be found in
table 6A itself. Occasionally, the same product or group of products will appear under more than one industry; page numbers so indicate. To assist in locating statistics for particular products, cross references or alternate ways of describing products are included in this index.

Product codes are based on the 1957 revised edition of the Standard Industrial Classification Manual (SIC), as amended, issued by the Bureau of the Budget. Bureau of the Census expansion of the 4-digit industry coding of the SIC to 5 -digit product classes and 7 -digit products, as published in table 6A, is used as the basis for this alphabetic index.

Assorted product information is contained in tables other than 6A but no references to such other tables are shown here. For example, summary product information at the industry level may be found in table 5A and at the product class level in table 5B. Product class information may also be found in tables 6B to 6D and in table 8. Occasion. ally, detailed product information may be contained in tables other than 6A, typically in the table 6 series.

Alphabetic Index of Manufactured Products


Alphabetic Index of Manufactured Products--Continued


## Alphabetic Index of Manufactured Products--Continued

| Product | Code | Page | Product | Code | Page |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Boxes-Continued |  |  |
|  |  |  | Burial | 3988381 | 39D-23 |
| Blankets: |  |  | Cigar | 2441111 | 24C-15 |
| Cotton | 2211051, 55 | 22A-18 | Corrugated paperboard and solid |  |  |
| Man-made fiber or | 2221913, 23 | 22A-19 | fiber | 2653010-68 | 26C-15 |
| Wool | 2231921, 25 | 22A-20 | Paperboard............................. . | 26510- | 26C-15 |
| Blanks: |  |  |  | 2652011 |  |
| Plate glass. | 3211498 | 32A-14 | Wirebound, wood | 2442011-71 | 24C-15 |
| Tube and tubing glass, elec | 3229216-18 | 32A-16 | Wooden | 2441121-81 | 24C-15 |
| Blasting accessories | 2892141-61 | 28G-15 | Boxing glove | 3949298 | 39B-17 |
| Bleaching compounds, inorganic | 2819211-53 | 28A-24 | Braces (orthopedic appliances) | 3842111 | 38A-26 |
| Bleaching, dyeing and finishing machin- |  |  | Braided carpets and rugs | 2279041, 73 | $22 \mathrm{D}-9$ |
| ery, t | 3552185 | 35D-17 | Brake lining, asbestos | 3292211-15 | 32E-19 |
| Blinds, venet | 2591212-81 | 25B-19 | Branding irons. | 3953098 | 39C-18 |
| Blocks: |  |  | Brandy, beverage | 2084061 | 20G-18 |
| Concret | 3271011 | 32D-17 | Brandy and fruit spirits, neutral | 2084071 | 20G-18 |
| Paving | 2951011-98 | 29A-18, | Brassieres. | 2342110 | 23C-33 |
|  |  | 19 | Bread and bread-type roll | 2051111-39 | 20E-16 |
| Blouses: |  |  | Breakfast foods, cere | 2043011-59 | 20D-18 |
| Girl's, children's, infants', except |  |  | Brewers' grains. | 2082093, 95 | 20G-17 |
| knit. | 2361041 | 23C-34 | Brick: |  |  |
| Women's, misses' and juniors | 2331710 | 23B-23 | Clay, except ceramic glazed and |  |  |
| Blowers and fans, industrial. | 3564111-45 | 35E-21 | refractory | 3251111, 19 | 328-17 |
| Board, container (paper). | 2631112-52 | 26A-21 | Concrete. | 3271051 | 32D-17 |
| Boat construction kits, prefabricated.. | 3732251 | 37C-22 | Refractory, clay | 3255011-94 | 32B-17, |
| Boat repair. | 3732411-421 | 37C-22 |  |  |  |
| Boat trailers | 3799291 | 370-24 | Bridges, fabricated structural metal.. | 3441211-71 | 34C-18 |
| Boats: |  |  | Brief bags.............................. | 3161071-74 | 318-16 |
| Building and repai | 3732111-319 | 37C-21, | Briefcases............................... | 3161071-98 | 318-16 |
|  |  | 22 | Briquets, petroleum and coal.......... | 2999015 | 29A-19 |
| Pontoons and life rafts (rubber)..... | 3069585 | 30A-18 | Broaches, small cutting tool........... | 3545113, 15 | 35C-23 |
| Boiler shop products, fabricated |  |  | Broaching machines, metal-cutting...... | 3541711-19 | 35C-19 |
| plate.................................. | 3443111-959 | $\begin{gathered} 34 \mathrm{C}-20 \\ 22 \end{gathered}$ | Broadcast equipment: radio; television. | 3662210 | 36D-28 |
| Boilers: |  |  | Broadwoven fabrics: |  |  |
| Heating, cast iron.. | 3433311-20 | 348-14 | Cotton, finished | 2211711-61 | 22A-17 |
| Heating, steel (except electric)..... | 3433512-43 | 34B-15 |  | 2261711-971 | 22C-12 |
| Power, steel | 3443311-52 | 34C-21 | Cotton gray goods. | 2211110-610 | 22A-17 |
| Range.... | 3433651 | 34B-15 | Man-made fiber and silk, finished... | 2221811-61 | 22A-19 |
| Bolts, standard | 3452101-09 | $34 \mathrm{D}-20$ |  | 2262811-961 | 22C-13 |
| Bonded fiber fabrics | 2299101-106 | 22F-22 | Man-made fiber and silk gray |  |  |
| Book and pamphlet printing............. | 2732111-227 | $\begin{aligned} & 27 A^{-}-26 ; \\ & 27 \end{aligned}$ | goods. Wool, finished and gray | 2221115-712 | 22A-19 |
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## CENSUS REGIONS AND GEOGRAPHIC DIVIIIONS





[^0]:    For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, or any Department of Commerce field office. Price $\$ 9.25$

[^1]:    1 The 1963 censuses covered the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1963 were also conducted in Puerto Rico jointly with the Commonwealth Government. The statistics from 1958 onward include establishments in Alaska and Hawaii which achieved statehood in 1959.

[^2]:    ${ }^{2}$ Since the annual survey of manufactures is a sample, the crossclassifications by industry and by area are fewer than in the census of manufactures. At the U.S. level, statistics are published in the annual survey for practically all of the 425 industries. However, at the State and SMSA levels, statistics are published only for 3 -digit and 2 -digit industry groupings, respectively. At the county level, information is published for about 10 percent of the 3,000 counties. These 300 -odd counties are the larger ones in terms of manufacturing activity and account for about 80 percent of total manufacturing employment. No information is published at the city level.

[^3]:    Source: Survey of Current Business, August 1965, pp. 42-45, and July 1966, p. 15.

[^4]:    ${ }^{3}$ The census originally scheduled to cover 1953 was conducted for 1954 on the basis of special legislation authorizing this change． A census covering 1958 and this census covering 1963 were con－ ducted under the legislation of 1948．In an effort to spread its workload more evenly over the decennial period，the Bureau of the Census，in 1964，asked for and obtained legislation（P．L．88－532） specifying that subsequent censuses of manufactures would cover the years ending in＂ 2 ＂and＂ 7 ．＂Consequently，the next census of manufactures is scheduled for 1967.

[^5]:    4 For the manufacturing industries, a revised manual was issued in 1945 which, with minor modifications, was used in the 1947 Census of Manufactures. For the 1954 census, the classification structure used in 1947 was again employed, again with minor modifications. In 1957, the SIC system was extensively revised for manufacturing industries and historical comparability of some data was seriously affected. This revision and its effects on census series are described in the introduction and appendixes to the 1958 census volumes. A minor revision of the SIC between 1958 and 1963 introduced some 4 -digit industry changes but none of them crossed 3 -digit group lines. Also, there were some amendments in industry titles, definitions, and index items, and additions to the index items in the SIC Manual.

[^6]:    ${ }^{5}$ Frequently the business world and other data users look at a group of products from more than one point of view. For example, modern high-speed computers are classified as office machines. This describes the purpose of the product. In a physical sense, however, such computers would be described as electronic devices. Similarly, paper bags, wooden boxes, glass bottles, tin cans, and steel barrels may all be classified as containers or they may be individually grouped with other products of similar materials such as converted paper products, wood products, glass products, etc.

[^7]:    ${ }^{6}$ See Industry Classification and Sector Measures of Industrial Production by James W. McKie, Bureau of the Census Working Paper No. 20, 1965. and Historical Comparability of Census of Manufactures Industries, 1929-1958 by Harold T. Goldstein, Bureau of the Census Working Paper No. 9, 1959.

[^8]:    7 Executive Office of the President, Bureau of the Budget, Standard Metropolitan Statistical Areas, 1964.

[^9]:    X Not applicable.
    ${ }^{1}$ The total is the sum of operatins establishments plus auxiliaries.

[^10]:    ${ }^{8}$ See 1963 Census of Manufactures, MC63-2, Numerical List of Manufactures Products, and MC63-1, Alphabetic List of Manufactures Products.

[^11]:    ${ }^{1}$ Includes $\$ 21$ million shipped from industry 3443 , boiler shop products; $\$ 11$ million shipped from indus ${ }^{4}$ ry 3444 , sheet-metal work; $\$ 10$ million from industry 3449 , miscellaneous metal work, n.e.c.; and $\$ 7$ million from industry 3731, shipbuilding and repair.
    ${ }^{2}$ Includes $\$ 2$ million shipped from industry 3443 , boiler shop products.
    ${ }^{3}$ Includes $\$ 9$ million shipped from industry 3443, boiler shop products, and $\$ 2$ million from industry 3446 , architectural metal products.
    ${ }_{4}^{4}$ Includes the following products: 34421, metal doors and frames (except storm doors), $\$ 7$ million; 34422, metal window sash and frames (except storm sash), $\$ 3$ million; 34432, fabricated steel plate, $\$ 31$ million; 34438, metal tanks and vessels, custom fabricated at the factory, $\$ 7$ million; 34441 , sheet-metal roofing, siding, and drainage equipment, $\$ 15$ million; 34442 culverts, flumes, irrigation pipes, $\$ 8$ million; and 34443 , other sheet metal work, $\$ 8$ million.

[^12]:    ${ }^{1}$ Excludes 13 industries with 297 thousand employees.
    ${ }^{2}$ Excludes 12 industries with 740 thousand employees.
    ${ }^{3}$ Less than 0.5 percent.

[^13]:    ${ }^{9}$ For a few industries (e.g., aircraft, ship building) where value of work done is substituted for value of shipments, no adjustment is made for change in inventories. In a few other industries where value of production is collected, the inventory adjustment is made only on the basis of change in work-in-process inventories.

[^14]:    ${ }^{1}$ Source: National Income and Product Accounts of the U.S., Survey of Current Business, August 1965, p.42;
    July 1966, p. 15.
    ${ }^{2} 1947$ and earlier figures are unadjusted value added.

[^15]:    Standari Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies
    The value of shipments and cost of materials for industry groups (2- and 3-digit) include extensive duplication arising from shipments between establishments in the same industry. For a more complete explanation, see Introduction.

[^16]:    See footnotes at end of table.

[^17]:    See footnotes at end of table.

[^18]:    Standard Notes: - Represents zero
    (D) Witriheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not

[^19]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
    ${ }^{1}$ Includes capital expenditures between $\$ 1$ million and $\$ 2$ million for plants under construction but not in operation.

[^20]:    See footnotes at end of table.

[^21]:    See footnotes at end of table.

[^22]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not
    applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
    $(S)$ Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
    ${ }^{1}$ Reporting companies were requested to classify itens in the same manner as billed by the shipper regardless of how the refinery (or blending and compounding establishments) would otherwise classify them.

    Represents the difference between "Total shipments" (Quantity) and "Receipts" (Quantity).
    ${ }^{3}$ Product code 2911151 included with code 2911111 for 1963.
    ${ }^{4}$ Product code 2911198 included with codes 2911111 and 2911131 for 1958.

[^23]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not
    applicable. (Z) Less than \$l million reported.
    ${ }^{1}$ For the specified product classes, shipments of $\$ 1$ million or more were reported for the States listed, but the exact figures are withheld to avoid disclosure of individual company figures: 29110, Connecticut, Minnesota, Missouri, Kansas, Delaware, Maryland, Virginia, Kentucky, Montana, Colorado, Utah, and California; 29111, Massachusetts, New York, New Jersey, Michigan, Wisconsin, Minnesota, Missouri, North Dakota, Nebraska, Delaware, Maryland, Virginia, West Virginia, South Carolina, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Colorado, New Mexico, Washington, Alaska, and Hawaii; 29112, New York, Pennsylvania, Kansas, Mississippi, Arkansas, Washington, and Hawaii; 29113, Massachusetts, New York, Pennsylvania, Michigan, Wisconsin, Minnesota, Missouri, North Dakota, Delaware, Maryland, Virginia, West Virginia, South Carolina, Kentucky, Tennessee, Arkansas, Oklahoma, Washington, Alaska, and Hawaii; 29114, New York, New Jersey, Michigan, Wisconsin, Missouri, Delaware, Kentucky, Tennessee, Mississippi, Arkansas, Oklahoma, New Mexico, Utah, Washington, and Hawaii; 29115, New York, New Jersey, Indiana, Michigan, Minnesota, Delaware, Maryland, Virginia, West Virginia, Kentucky, Arkansas, Utah, and Washington; 29116, New York, New Jersey, Pennsylvania, Ohio, Indiana, Michigan, West Virginia, Kentucky, Louisiana, and Wyoming; 29117, New York, Pennsylvania, Indiana, Michigan, Louisiana, Oklahoma, and California; 29118, Massachusetts, Rhode Island, Pennsylvania, Ohio, Indiana, Kansas, Maryland, West Virginia, South Carolina, Arkansas, Wyoning, Washington, and Alaska; 29119, Massachusetts, Rhode Island, New York, Pennsylvania, Michigan, Wisconsin, Minnesota, Missouri, Kansas, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Colorado, New Mexico, Utah, Washington, and Oregon; 29522, Massachusetts, Michigan, North Carolina, Georgia, Florida, Tennessee, and Oregon; 29523, Massachusetts, Connecticut, Pennsylvania, Indiana, Mi chigan, Minnesota, Delaware, Maryland, West Virginia, North Carolína, South Carolina, Florida, Tennessee, Mississippi, Colorado, New Mexico, and Washington; 29926, Indiana, Wisconsin, Nebraska, Kansas, West Virginia, Georgia, Florida, Kentucky, Oklahoma, Washington, and Oregon; 29927, Connecticut, New York, Iowa, Kansas, Louisiana, Oklahoma, Texas, and California.
    ${ }^{2}$ Shipments of $\$ 1$ million or more were reported, but exact figures are withheld to avoid disclosure of individual company figures.

[^24]:    ${ }^{1}$ Although it was intended that respondents include petroleum coke in these figures, a comparison of these data with those collected and published for 1962 (table 8 of 1963 Census of Manufactures Report MC63(1)-7, Fuels and Electric Energy Consumed in Manufacturing Industries: 1962) shows that some companies did not report their production and consumption of petroleum coke for 1963 and 1958.

[^25]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available
    ${ }^{1}$ This industry group consists of a single 4-digit industry. Detailed data by State are included in the 4 -digit industry tables.
    (X) Not applicable.

[^26]:    - Represents zero. n.e.c. Not elsewhere classified.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
    ${ }^{1}$ Includes capital expenditures of approximately $\$ 5 \mathbf{-} \$ 10$ million for plants under construction but not in operation.
    ${ }^{2}$ Includes capital expenditures of approximately $\$ 500-\$ 1,000$ thousand for plants under construction but not in operation.
    ${ }^{3}$ Includes capital expenditures of approximately $\$ 1-\$ 2$ million for plants under construction but not in operation.

[^27]:    See footnotes at end of table.

[^28]:    See footnotes at end of table.

[^29]:    See footnotes at end of table.

[^30]:    n.e.c. Not elsewhere classified.
    ${ }^{1}$ Adjusted to include product classes 30694, Rubber floor and wall covering; 30695, Mechanical rubber goods, n.e.c.; and 30698, Other rubber
    goods, n.e.c., for which separate indexes are not shown due to the lack of adequate quantity information covering these products.
    ${ }^{2}$ Not show because comparable quantity data going back to 1958 and 1954 were not obtained for these products.

[^31]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not speciried by kind.
    (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the
    basis of a consistency review.
    ${ }^{2}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

    Because a major revision in the classification of products assigned to Industry 3079, Miscellaneous Plastics products, was introduced in 1963, prior data, for the most part, are not comparable at the product class level.

[^32]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
    
    
     between 20 and 25 percent; thermosetting resins, between 3 and 5 percent.
    
    
     percent.
    ${ }^{3}$ Not separately classified in 1958; included in code 970099.
    
     ${ }^{5}$ forms." 1 neludes $\$ 17,190$ thousand for industry 3031 and $\$ 1,008,067$ thousand for industry 3069.
    ${ }^{6}$ Includes $\$ 14,923$ thousand for industry 3031 and $\$ 750,158$ thousand for industry 3069.

[^33]:    - Represents zero. (D) Withheld to avoid disclosing figures for individual companies, or valued at less than $\$ 100,000$.
    ${ }^{1}$ Includes less than 1 percent synthetic rubber produced and consumed in the same establishment. Value of this rubber is not reflected in the
    "delivered cost" column.
    ${ }^{2}$ Includes 43,642 long tons of reclaimed rubber produced and consumed in the same establishment. Of this total, 6,079 long tons were in New England and 18,161 tons in East North Central. Value of this reclaimed rubber is not reflected in the "delivered cost" column.

[^34]:    See footnotes at end of table.

[^35]:    This industry group consists of a single 4-digit industry. Detailed data by State are included in the 4-digit industry table.

[^36]:    See footnotes at end of table.

[^37]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
    ${ }^{1}$ Includes capital expenditures for plants under construction but not in operation which constitute $\$ 100-\$ 200$ thousand of the total for the size

[^38]:    See footnotes at end of table.

[^39]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.

[^40]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not

[^41]:    See footnotes at end of table.

[^42]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not
    applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind,
    ${ }^{1}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested, and (b) total cost of materials reported for those establishments which failed to report cost of individual materials on "standard forms.
    ${ }^{2}$ Data for broad-woven fabrics are included in "Other materials, parts, containers, and supplies."

[^43]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[^44]:    See footnotes at end of table.

[^45]:    Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See appendix $A$ for an explanation of terms used.

[^46]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
    (X) Not applicable.
    ${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
    ${ }^{2}$ This is a minimum percentage. The exact percentage cannot be shown without disclosing figures for individual companies.
    ${ }^{3}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

[^47]:    See footnotes at end of table.

[^48]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not applicable.
    n.s.k. Not specified by kind.
    ${ }^{1}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individua, materials on "standard forms."

[^49]:    See footnotes at end of table.

[^50]:    See footnotes at end of table.

[^51]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. (NA) Not available. (X) Not applicable.
    n.e.c. Not elsewhere classified.
    ${ }^{1}$ Includes capital expenditures of over $\$ 10 \mathrm{milli}$ ion for plants under construction but not in operation.
    ${ }^{2}$ Includes capital expenditures between $\$ 1$ million and $\$ 2$ million for plants under construction but not in operation.
    ${ }^{3}$ Includes capital expenditures between $\$ 2$ million and $\$ 5$ million for plants under construction but not in operation.

[^52]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not

[^53]:    See footnotes at end of table.

[^54]:    -See footnote 1 , table 3
    2only 291 of the 315 establishments reporting mining activity in conjunction with manufacturing also reported separate data for the operation of the mine or pit. See also footnote 1 , table 3.

[^55]:    See footnotes at end of table.

[^56]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
    n.e.c. Not elsewhere classified.

[^57]:    Standard Notes: - Represents zero.

[^58]:    ${ }^{1}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.

[^59]:    n.e.c. Not elsewhere classified.

[^60]:    See footnotes at end of table.

[^61]:    See footnotes at end of table.

[^62]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
    ${ }^{1}$ Includes capital expenditures between $\$ 1$ million and $\$ 2$ million for plants under construction but not in operation.
    ${ }^{2}$ Includes capital expenditures between $\$ 500$ thousand and $\$ 1$ million for plants under construction but not in operation.
    ${ }^{3}$ Includes capital expenditures for plants under construction but not in operation which constitute a small proportion of the total for the size class.

    4Includes capital expenditures over $\$ 3$ million for plants under construction but not in operation.

[^63]:    ${ }^{1} 1958$ totals shown here may differ from comparable totals in other tables because of the exclusion of 1958 data for Alaska and Hawaii from this table.
    ${ }^{2}$ The cost of shipping containers is included in the value of primary products for 1963. In 1958, $\$ 3,337$ thousand of shipping containers were reported separately and included in miscellaneous receipts.

[^64]:    Standard Notes: - Represents zero.

[^65]:    See footnotes at end of table.

[^66]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not applicable.
    (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
    n.s.k. Not specified by kind.
    ${ }^{1}$ Separate data for prestressed pipe were not collected in 1958, therefore, detailed data shown for codes 3272113-3272198 are not directly comparable between 1958 and 1963.
    ${ }^{2}$ Separate data for precast concrete products and prestressed concrete products were collected for the first time in the 1963 Census of Manufactures. In $\frac{1958}{3}$ shipments of precast and prestressed concrete products were valued at $\$ 287,096$ thousand.
    ${ }^{3}$ For 1963, included in value of products shipped.

[^67]:    ${ }^{1}$ Not shown pending further review of data for industry 3275, Gypsum Products.
    ${ }^{2}$ Not shown pending further review of data for this industry.

[^68]:    See footnotes at end of table.

[^69]:    See footnotes at end of table.

[^70]:    See footnotes at end of table.

[^71]:    See footnotes at end of table.

[^72]:    ${ }^{1}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.

[^73]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not

[^74]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not applicable. (2) Shipments of less than $\$ 1$ million reported.
    
    
    
     Illinois, Virginia, South Carolina, and Texas; 32927, New Hampshire, Massachusetts, New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Missouri, North Carolina, South Carolina, Georgia, Louisiana, Texas, and California; 32932, Connecticut, Virginia, North Carolina, Tennessee, and Alabama; 32933, Massachusetts, Connecticut, Ohio, South Carolina, and Califormia; 3296l, Indiana, Minnesota, Kansas, West Virginia, Tennessee, Colorado, Washington, and Califormia; 32962, Ohio, Michigan, Wisconsin, Missouri, Kansas, West Virginia, Georgia, Florida, and California.
    ${ }_{3}^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual congany figures.
    ${ }^{3}$ See footnote 4, table 1.

[^75]:    See footnotes at end of tabie.

[^76]:    See footnotes at end of table.

[^77]:    Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of tiousands rather than rounding in computer operations. See Introduction for an explanation of terms used.

    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
    ${ }_{2}{ }^{1}$ For definitions of these industries see table 1 footnote 6 .
    ${ }^{2}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
    ${ }^{3}$ There is substantial duplication in value of shipments and cost of materials. (See introductory text.) Specialization and coverage ratio are not meaningful because of such duplication.
     turing establishments.

[^78]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
    ${ }^{1}$ Value of shipments for this industry contains extensive duplication. This duplication arises because the products of some establishments are used as materials by other establishments classified in the same industry.
    ${ }^{2}$ Includes capital expenditures for plants under construction but not in operation of approximately $\$ 50-\$ 100 \mathrm{million}$.
    ${ }^{3}$ See footnote 6, table 1 for definition of these industries.
    ${ }^{4}$ Includes capital expenditures for plants under construction but not in operation of approximately $\$ 500-\$ 1,000$ thousand.
    ${ }^{5}$ Includes capital expenditures for plants under construction but not in operation of approximately $\$ 100-\$ 200$ thousand.

[^79]:    See footnotes at end of table.

[^80]:    Source: Current Industrial Reports Series M33B, Steel Mill Products.

[^81]:    See footnotes at end of table.

[^82]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not applicable.
    ${ }^{\text {Represents }}$ total production
    ${ }^{2}$ Source: Bureau of Mines, Department of Interior.

[^83]:    Source: Annual Survey Form MA-33B, Steel Mill Products.
    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
    ${ }^{1}$ Includes Wisconsin for 1958.
    ${ }^{2}$ Excludes Hawaii for 1958.

[^84]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not

[^85]:    See footnotes at end of table.

[^86]:    See footnotes at end of table.

[^87]:    Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for l962 and horsepower of power
     fore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors
     "Power Equipment in Manufacturing Industries, as of December 31, 1962," MC63(1)-6.
    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not
    applicable.
    (Z) Less than 500 horsepower.
    (S) Withheld because the estimate did not meet publication standards for one or more of the following reasons: The standard error associated
     consistency review.

[^88]:    See footnotes at end of table.

[^89]:    NOTE: See Introduction for an explanation of terms used.

[^90]:    See footnote at end of table.

[^91]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not
    applicable. n.s.k. Not specified by kind.
    ${ }^{1}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

[^92]:    ${ }^{r}$ Revised.

[^93]:    See footnotes at end of table.

[^94]:    See footnotes at end of table.

[^95]:    See footnotes at end of table.

[^96]:    ${ }^{1}$ Adjusted to include products not shown separately below, namely primary nonferrous metals, n.e.c. (products of industry 3339) and lead smelter products (product class 33321).
    ${ }^{2}$ These indexes have been computed on an all-industry or "wherever-made" basis - that is, they include the production (including toll production) not only of primary refiners classified in Group 333, but also of secondary refiners (industry 3341) and, in the case of aluminum, aluminum rolling mills (industry 3352 ) as well.
    ${ }^{3}$ No separate indexes are shown for secondary refiners, since their production and shipments data have entered into the computation of the indexes for the respective refined metals shown above - see footnote 2.

[^97]:    ${ }^{1}$ For the specified product classes, shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosures of individual company figures: Product classes 33312 and 33412, Massachusetts, New York, New Jersey, Indiana, Kansas, Delaware, Maryland, Tennessee, Alabama, Texas, Montana, New Mexico, Arizona, Utah, Washington, and California; 33323 and 33413, Pennsylvania, Indiana, Wisconsin, Minnesota, Missouri, Nebraska, Delaware, Maryland, Florida, Tennessee, Louisiana, Texas, Idaho, Washington and Oregon; 33334 and 33414 , New York, New Jersey, Ohio, Delaware, West Virginia, Arkansas, Texas, Montana, and Idaho; 33347, 33417 and 33527, Connecticut, Michigan, Iowa, Missouri, Nebraska Kansas, Delaware, Virginia, West Virginia, North Carolina, Kentucky, Tennessee, Alabama, Arkansas, Louisiana, Texas, Montana, and Oregon; 33348 , 33418 and 33528, New York, New Jersey, Pennsylvania, Ohio, Indiana, Florida, Kentucky, Arkansas, Louisiana, Texas, Oregon, and California; 33395, 33415, Massachusetts, Rhode Island, New Jersey, Pennsylvania, Illinois, Nebraska, Maryland, Oklahoma, Texas, Idaho, Utah, Washington, and California; 33397 and 33416, New Hampshire, Michigan, Wisconsin, Nebraska, Maryland, Florida, Tennessee, Alabama, Mississippi, Oklahoma, Montana, Idaho, Colorado, Nevada, Oregon, and California.

[^98]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not

[^99]:    | (NA) |  |
    | :---: | :---: |
    | (NA) | ( |
    | (NA) | ( |
    | (NA) |  |
    | 95 | ( |

    86
    (NA)
    (NA)
    (NA)
    (NA)
    83

[^100]:     table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production
    
    
    
    
    
     for resale without further manufacture, processing or assembly. For 1939 and prior years, except l929, the figures represent value of production rather than shipments.

[^101]:    See footnotes at end of table.

[^102]:    See footnotes at end of table.

[^103]:    ${ }^{12}$ Represents aluminum-base alloys made only by establishments classified in industry 3352, Aluminum Rolling and Drawing. Comparable shipments for plants classified in industries 3334, Primary Aluminum, and 3341, Secondary Nonferrous Metals, and other industries are as follows:

[^104]:    n.e.c. Not elsewhere classified.
    ${ }^{1}$ See footnote 4; table 1 for subindustry definition.

[^105]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not
    applicable.
    ${ }^{1}$ See footnote 4 , table 1 in subindustry definitions.
    ${ }^{2}$ See footnote 5, table l in subindustry definitions.

[^106]:    Note: See Introduction for an explanation of terms used.

[^107]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not
    applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
    ${ }^{1}$ Includes $\$ 120,653$ thousand for product class 33129, Press and hamer steel forgings made in steel mills, which is primary to industry 3312.
    ${ }^{2}$ Consists largely of receipts for reclaiming metallics from slag.

[^108]:    Standard Notes: - Represents zero
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not
    available. (X) Not applicable.
    ${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on the total employment in the establishment.

[^109]:    See footnotes at end of table.

[^110]:    ${ }^{\text {Standard }}$ Thotes: - Represents zero. (D)

[^111]:    See footnotes at end of table．

[^112]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.

    Includes capital expenditures for plants under construction but not in operation of approximately $\$ 2-\$ 5$ million.
    ${ }^{2}$ Includes capital expenditures for plants under construction but not in operation of approximately $\$ 1-\$ 2$ million.

[^113]:    n.e.c. Not elsewhere classified.
    ${ }^{1}$ Data for Alaska and Hawaii are excluded.

[^114]:    See footnotes at end of table.

[^115]:    Standard Notes
    Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not applicable
    n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
    $1_{\text {A }}$ base box is an area of 31,360 square inches, equivalent to 112 sheets, $14^{\prime \prime} \times 20^{\prime \prime}$ in size.
    ${ }^{2}$ Data for Alaska and Hawaii are excluded.
    ${ }^{3}$ A metal can is defined as a single-walled container constructed wholly of tinplate, terneplate, blackplate, waste plate, aluminum sheet or impact extrusions (slugs) designed for packing products. This definition excludes steel pails, defined as single-walled shipping containers having capacities of l-12 gallons inclusive that are cylindrically constructed of steel sheet of 29 gauge and heavier.
    ${ }^{4}$ The 1963 and 1958 figures represent, respectively, 4,621 and 4,762 thousand short tons of steel. The 1963 estimate is derived by use of the factor 23.5 base boxes per short tom of steel. The 1958 figure is derived by use of separate conversion factors for each type of can. These factors vary from 20.4 to 25.0 base boxes per short ton of steel depending on the type of can.
    ${ }^{5}$ Represents 43,321 short tons of aluminurn.
    ${ }^{6}$ For 1963 , represents shipments of 20,140 thousand units.
    ${ }^{7}$ For 1958, represents shipments of 15,872 thousand units valued at $\$ 8,978$ thousand; the remaining $\$ 3,458$ thousand had no quantity reported.
    ${ }^{8}$ Includes all types and sizes of solid-tooth circular saw blades for industrial and home workshop type circular saws as well as saw blades for
    portable power saws and for sawing attachments for portable hand tools.
    ${ }^{9}$ Includes only the value of motor vehicle hardware reported as such. It is likely that an indeterminate amount of motor vehicle hardware was reported as motor vehicle parts and classified accordingly in the Motor Vehicle and Parts Industry.

[^116]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
    ${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments.
     in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
    ${ }^{2}$ Data for Alaska and Hawaii are excluded.

[^117]:    Standard Notes: - Represents zero.
    applicable. (Z) Less than $\$ 1$ million.
    ${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 34211, New Hampshire, Rhode Island, Illinois, Wisconsin, Maryland, Virginia, West Virginia, and California; 34231, Indiana, Wisconsin, Missouri, Nebraska, West Virginia, North Carolina, South Carolina, Colorado, and Oregon; 34232, Vermont, Iowa, West Virginia, Colorado, and Washington; 34233, Massachusetts, Connecticut, Iowa, West Virginia, Kentucky, Mississippi, and California: 34250, Massachusetts, Connecticut, Pennsylvania, Ohio, Michigan, Virginia, Kentucky, Mississippi, and Oregon; 34291, Maine, Massachusetts, New Jersey, Pennsylvania, Indiana, Wisconsin, Iowa, North Carolina, Georgia, Florida, Kentucky, Alabama, Colorado, and Washington; 34292, Massachusetts, Pennsylvania, Indiana, Michigan, Virginia, Arkansas, and California; 34294, New Hampshire, Massachusetts, Missouri, Virginia, South Carolina, Tennessee, Mississippi, Oklahoma, and Texas; 34295, Rhode Island, Indiana, Wisconsin, Maryland, West Virginia, North Carolina, Georgia, Kentucky, Arkansas, and Texas.
    ${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

[^118]:    Standard Notes: - Represents zero.
    (NA) Not available. (X) Not applicable.
    (D) Withheld to avoid disclosing figures for individual companies. Data are included in code 970099. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
    ${ }^{1}$ Data for Alaska and Hawaii are excluded.
    ${ }^{2}$ Data on the weight of aluninum consumed in the production of cans constructed wholly of metal are published in Current Industrial Reports Series M34D, "Metal Cans." The consumption total reported in the census also includes aluminum consumed in the production of secondary products. ${ }^{3}$ Material code 331013 , carbon steel plates, is combined with material code 331019 , all other carbon steel mill shapes and forms.
    ${ }^{4}$ Does not include castings or forgings produced and consumed in the same establishment.
    
     forms."
    ${ }^{6}$ In 1963, 3,802 short tons of iron and steel forgings were produced and consumed in the same establishment. No comparable data are available for 1958.
    ${ }^{7}$ In 1963, there were, in addition, 2,748 short tons of iron castings and 2,216 thousand pounds of aluminum castings produced and consumed in the same establishment. Data for other types of castings produced and consumed in the same establishment in l963 are not available. No data are available for 1958.

[^119]:    Note: See Introduction for an explanation of terms used.

[^120]:    See footnotes at end of table.

[^121]:    See footnotes at end of table.

[^122]:    ${ }^{1}$ Adjusted to include product class 34336 (other heating equipment, except electric, including parts) and heating equipment, n.s.k.

[^123]:    See footnotes at end of table.

[^124]:    See footnotes at end of table.

[^125]:    ${ }^{1}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.

[^126]:    See footnotes at end of table.

[^127]:    See footnotes at end of table.

[^128]:    See footnotes at end of table.

[^129]:    - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    n.s.k. Not specified by kind.
    (X) Not applicable.
    ${ }^{1}$ Does not include castings produced and consumed in the same establishment.
    ${ }^{2}$ Includes values for those material items for which separate data could not be published without revealing the operations of individual companies. The symbol, "D", appears for such items.
    ${ }^{3}$ Represents '(a) total cost of materials for small establishments reporting on "short forms" when separate figures for individual materials consumed were not requested, (b) total cost of materials reported for establishments which failed to report costs of individual materials on "standard forms," and (c) discrepancies between total cost of materials and detailed materials on reports for other establishments.

    4 In 1958, industry 3446 and 3449 were combined. Therefore the 1958 data in industry 3449 are comparable to the 1963 data for industry 3446 and industry 34,49 combined.

[^130]:    See footnotes at end of table.

[^131]:    See footnotes at end of table.

[^132]:    See footnotes at end of table.

[^133]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not applicable. (Z) Less than $\$ 1$ million reported.
     disclosure of individual company figures: 3452l, New Hampshire, Rhode Island, Minnesota, Missouri, Maryland, Virginia, North Carolina, Florida, Kentucky, Alabama, Texas, Colorado, and Washington; 34522, Massachusetts, Rhode Island, Mississippi, Oregon, and California; 34523, Connecticut,
     Mississippi, and Oklahoma; 34613, New Jersey, Pennsylvania, Iowa, West Virginia, South Carolina, Ceorgia, Florida, and Mississippi; 34614 , New
     Jersey, Indiana, Missouri, Maryland, West Virginia, and Tennessee; 34617, New York, New Jersey, Indiana, Wisconsin, Missouri, Delware, Maryland, Ceorgia, Alabama, Louisiana, Texas, and California; 34618, Rhode Island, Minnesota, Iowa, Florida, Tennessee, Alabama, Texas, Washington, and Califormia.
    ${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

[^134]:    See footnotes at end of table.

[^135]:    See footnotes at end of table.

[^136]:    See footnotes at end of table.

[^137]:    See footnotes at end of table.

[^138]:    Standard Notes: - Represents zero
    (D) Withheld to avoid disclosing figures for individual companies.

[^139]:    applicable. n.e.c. Not elsewhere classified.

[^140]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
    n.e.c. Not elsewhere classified.
    ${ }^{1}$ Includes capital expenditures for plants under construction but not in operation which constitute $\$ 500-\$ 1,000$ thousand of the total for the size class
    ${ }^{2}$ Includes capital expenditures for plants under construction but not in operation which constitute $\$ 2-\$ 5$ million of the total for the size class.

[^141]:    See footnotes at end of table.

[^142]:    See footnotes at end of table.

[^143]:    See footnotes at end of table.

[^144]:    n.e.c. Not elsewhere classified.

[^145]:    See footnotes at end of table.

[^146]:    See footnotes at end of table.

[^147]:    applicable. n.e.c. Not elsewhere classified.

[^148]:    See footnotes at end of table.

[^149]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
    ${ }^{-}$This industry group consists of a single 4 -digit industry. Detailed data by State are included in the 4-digit industry tables.

[^150]:    See footnotes at end of table.

[^151]:    Source: Current Industrial Reports Series M35L, Internal Combustion Engines.

[^152]:    Source: Current Industrial Reports Series M35L, Internal Combustion Engines.
    ${ }^{1}$ Represents total number of engines shipped and produced and incorporated into products of the same company, including interplant transfers.

[^153]:    See footnotes at end of table.

[^154]:    See footnotes at end of table.

[^155]:    See footnotes at end of table.

[^156]:    See footnotes at end of table.

[^157]:    ${ }^{1}$ Indexes based on horsepower and kilowatt capacity quantities rather than on number of units.

[^158]:    Standard Notes: - Represents zero

    ## applicable. ( $Z$ ) Less than $\$ 1$ million repprted

[^159]:    See footnotes at end of table.

[^160]:    ${ }^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

[^161]:    Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for 1962 and horsepower of power

[^162]:    See footnotes at end of table.

[^163]:    ${ }^{1}$ General statistics for some producing States have been withheld to avoid disclosing figures for individual companies. Such States are shown below with the number of establishments in each State and, in parentheses, the number of employees or the employment-size range for that State. SIC 3531, Construction Machinery: New England-Maine, 3 (250-499); Vermont, 1 (20-99); Rhode Island, 2 (20-99); Connecticut, 4 (1-19); South Atlantic-Delaware, 2 (1-19); Maryland, 1 (100-249); Virginia, 6 (20-99); West Virginia, 2 (1-19); North Carolina, 5 (20-99); South Carolina, 2 (1-19); Georgia, 5 (749); Florida, 5 (20-99); East South Central—Kentucky, 2 (1-19); Tennessee, 5 (100-249); Alabama, 6 (379); Mississippi, 2 (100-249) ; West South Central-Arkansas, 1 (1-19); Louisiana, 2 (250-499); Oklahoma, 16 (1,397); Mountain-Montana, 1 (1-19); Idaho, 3 (20-99); Wyoming, 1 (1-19); Colorado, 9 (175); New Mexico, 1 (1-19); Utah, 3 ( 948 ); Nevada, $2(1-19$ ).
    SIC 3532, Mining Machinery and Equipment: New England-Maine, 1 (20-99); New Harpshire, 1 (500-999); Massachusetts, 1 (1-19); Connecticut. 1 (20-99): Middle Atlantic—New York, 4 (20-99); New Jersey, 2 (500-999); East North Central—Indiana, 4 (155); Michigan, 6 (312); West North CentralMinnesota, 4 (100-249); Iowa, 4 (430); Kansas, 2 (250-499); South Atlantic-Virginia, 9 (100-249); North Carolina, 2 (20-99); East South CentralKentucky, 5 (20-99); Tennessee, 1 (100-249); Alabama, 1 (20-99); West South Central-ZOklahoma, 4 (20-99); Texas, 8 (20-99); Mountain-Idaho, 1 (1-19); New Mexico, 1 (1-19); Arizona, 1 (1-19); Utah, 3 (20-99); Pacific-Washington, 5 (20-99); Oregon, 4 (20-99).
    SIC 3533, Oil Field Machinery: New England-Massachusetts, 2 (20-99); Connecticut, 1 (1-19); Middle Atlantic-New York, 2 (20-99); New Jersey, 2 (20-99); East North Central-Indiana, 4 (20-99); Illinois, 4 (174); Michigan 3 (1-19); Wisconsin, 1 (20-99); West North Central-Minnesota, 2 (20-99) ; Iowa, 1 (1-19); Missouri, 1 (1-19); North Dakota, 1 (1-19); Kansas, 7 (399); South Atlantic-West Virginia, 4 (20-99); South Carolina, 1 (1-19); Florida, 1 (20-99); East South Central-Kentucky, 1 (1-19); Tennessee, 2 (1-19) ; Mississippi, 3 (250-499); West South Central-Arkansas, 3 (1-19); Mountain—Wyoming, 5 (1-19); Colorado, 2 (100-249); New Mexico, 4 (20-99); Utah, 2 (250-499); Pacific-Washington, 1 (20-99); California, 64 (2,500-4, 999).
    SIC 3534, Elevators and Moving Stairways: New England-Massachusetts, 6 (250-499); Rhode Island, 1 (1-19); Connecticut, l (20-99); Middle AtlanticNew York, 18 ( $2,500-4,999$ ); New Jersey, 3 ( $2,500-4,999$ ); East North Central-Illinois, 14 (727); Michigan, 5 (20-99); Wisconsin, 6 (197); West North Central-Iowa, 1 (1-19); Missouri, 4 (20-99); North Dakota, 1 (1-19); Kansas, 1 (1-19); South Atlantic-Maryland, 4 (359); Virginia, 2 (20-99); West Virginia, 1 (1-19); North Carolina, 1 (20-99); Georgia, 1 (100-249); Florida, 1 (20-99); East South Central -Kentucky, 3 (282); Tennessee, 1 (250-499); Alabana, 1 (1-19); Mississippi, 1 (20-99) ; West South Central-Texas, 2 (100-249); Mountain-Colorado, 1 (1-19); Arizona, 1 (1-19); Pacific-Washington, 3 (20-99); Oregon, 2 (20-99).
    SIC 3535, Conveyors: New England—Rhode Island, 3 (20-99) ; Connecticut, 2 (1-19); West North Central—South Dakota, 2 (100-249); Nebraska, 5 (20-99); Kansas, 4 (373) ; South Atlantic-Maryland, 3 (20-99); Virginia, 3 (20-99); West Virginia, 3 (224); South Carolina, 3 (134); Georgia, 4 (232); Florida, 3 (20-99); East South Central-Tennessee, 4 (284); Alabana, 4 (100-249); Mississippi, 2 (100-249); West South Central-Arkansas, 5 (20-99); Okiahoma, 5 (20-99); Mountain-Idaho, 1 (20-99); Colorado, 8 (20-99); Utah, 1 (1-19); Pacific—Oregon, 5 (20-99).
    SIC 3536, Hoists, Cranes and Monorails: New England-Massachusetts, 2 (20-99); Connecticut, 2 (20-99); East North Central-Indiana, 3 (20-99); Wisconsin, 5 (250-499) ; West North Central-Minnesota, 1 (100-249); Iowa, 5 (250-499); Kansas, 1 (1-19); South Atlantic-Florida, 1 (1-19); East South Central-Kentucky, 2 (20-99) ; Tennessee, 1 (100-249); Mississippi, 1 (1-19); West South Central—Arkansas, 1 (250-499); 0klahoma, 2 (20-99); Mountain-Colorado, 4 (20-99) ; Pacific-Oregon, 2 (20-99); California, 23 (250-499).
    SIC 3537, Industrial Trucks and Tractors: New England—Massachusetts, 5 (769) ; Rhode Island, 1 (1-19); Connecticut, 4 (100-249); West North CentralMissouri, 9 (130) ; North Dakota, 1 (1-19); Kansas, 4 (20-99); South Atlantic-Maryland, 2 (1-19); Virginia, 1 (20-99); West Virginia, 1 (1-19); North Carolina, 3 (20-99) ; South Carolina, 2 (20-99); Florida, 6 (20-99); East South Central-Kentucky, 3 (20-99); Alabana, 5 (20-99); Mississippi, 1 (250-499); West South Central—Arkansas, 2 (1-19); Louisiana, 1 (1-19); Oklahoma, 2 (20-99); Mountain-Montana, 1 (1-19); Idaho, 1 (1-19); Colorado, 1 (1-19); Utah, l (1-19); Pacific—Washington, 1 (20-99); Hawaii, 1 (1-19).
    ${ }^{2}$ This State or division was not shown as a separate line in table 2 in the 1958 report for this industry. A footnote to table 2 in the 1958 report showed the number of establishments and total employment (either actual or in size ranges) for such States.

[^164]:    - Represents zero
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

    Includes capital expenditures for plants under construction but not in operation which consitute $\$ 50-\$ 100$ thousand of the total for the size class.
    ${ }^{2}$ Includes capital expenditures for plants under construction but not in operation which constitute $\$ 20-\$ 50$ thousand of the total for the size class.

[^165]:    See footnotes at end of table.

[^166]:    See footnotes at end of table

[^167]:    See footnotes at end of table.

[^168]:    ${ }^{1}$ The indexes for this group and for the products of industries 3531, 3532, 3533, 3535, and 3537 are not shown because comparable quantity data were not obtained for a significant portion of these products.

[^169]:    See footnotes at end of table.

[^170]:    ${ }^{2}$ Represents estimates published in MC58(1)-7 (Supplement), Selected Materials Consumed, from data collected in a supplemental survey on Form MA-131, Consumption of Materials, Parts, Containers and Supplies, During 1958. This survey was limited to large establishments in selected chemical, machinery, and equipment industries and resulted in estimate which are subject to greater error than are the figures on materials consumption collected as a regular part of the census of manufactures.
    ${ }^{3}$ Represents (a) total cost of materials for small establishments reporting on "short forms" when separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."

[^171]:    See footnotes at end of table.

[^172]:    Standard Notes: - Represents zero. (NA) Not available.
    (X) Not applicable.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
    n.e.c. Not elsewhere classified.

[^173]:    See footnotes at end of table.

[^174]:    See footnotes at end of table.

[^175]:    See footnotes at end of table

[^176]:    ${ }^{19}$ For 1963, all machines with an average value of under $\$ 1,000$ for codes 3542212 , 3542213 , 3542215 , 3542241 , and 3542257 are included with code 3542259, "All other mechanical presses."
    ${ }^{20}$ Figures for codes 3542255 and 3542258 are included in code 3542259.
    ${ }^{21}$ For 1963 , all machines with an average value of under $\$ 1,000$ for codes 3542261 , 3542268 , and 3542274 are included with 3542279 , "All other hydraulic presses."
     are included with code 3542279.
    ${ }^{23}$ Includes data for product codes $3542311-98$ and 3542811-59
    ${ }^{24}$ Some machines with an average value of under $\$ 1,000$ for code 3542811 are included with codes 3542855-59, "Spinning lathes."
    ${ }^{25}$ In 1958, product code 3544000 has been combined with product code 3544100.
    26 Excludes industrial molds made and used in the same establishment.
    ${ }^{27}$ For 1958 , data for these products include tips sold separately but exclude blanks.
    ${ }^{28}$ For 1963 , respondents were requested to use the following definitions of blanks, tips, and inserts:
    Blanks are unground material, cast or formed, from which a solid tool or cutting tip can be made.
    Tips are a finished or semifinished form ready to be brazed, soldered, or otherwise bonded to a shank to form a cutting tool. Inserts are replaceable machanically held cutting components of cutting tools, ground on all surfaces or on top and bottom.
    The 1958 report form carried no definitions for these products.
    ${ }^{29}$ Data for product code 3548235 are limited to pneumatic drills. Pneumaticscrewdrivers and nut-runners are included with "Other pneumaticpowered hand tools."
    ${ }^{30}$ The data published in the 1958 report for these products have been revised. As a result, it is not possible to publish separate data for these products without revealing the operation of individual companies.
    ${ }^{31}$ A major portion of this value represents metalworking assembly and automation equipment not elsewhere classified.

[^177]:    ${ }^{1}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.
    ${ }^{2}$ Adjusted to include products not shown separately below (product classes 35418 and 35419 ) as well as a minor amount of machine tools not specified by kind.

[^178]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not applicable.
    ${ }^{2}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual material consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "short
     lishment.
    ${ }_{4}$ For 1958 , carbon steel structural shapes are included with "All other carbon steel mill shapes and forms".

[^179]:    See footnotes at end of table.

[^180]:    See footnotes at end of table.

[^181]:    Represents zero.

[^182]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.

[^183]:    See footnotes at end of table.

[^184]:    ${ }^{1}$ Not shown pending further review of data covering product classes for which indexes are not shown.

[^185]:    - Represents zero. n.s.k. Not specified by kind.
    (S) Withheld because data did not meet publication standards on the basis of consistency review.
    ${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtaihed from a complete canvass of all manufacturing establishments. The standard errors associtated with these estimates are published in the annual survey of manufactures volumes for this period.

[^186]:    See footnotes at end of table.

[^187]:    See footnotes at end of table.

[^188]:    See footnotes at end of table.

[^189]:    
    
    
    
    
    
    
    
    
     rather than shipments.

    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
    (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
    ${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manu-
     lishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The
     data.
    ${ }^{2}$ "Pumps and Compressors" were formerly included with the discontinued classification "Pumps (hand and power), punping equipment, and air compressors." Separate figures are, therefore, not available prior to 1937.
    ${ }^{3}$ No comparable figures are available for earlier years.
    ${ }^{4}$ A revision in the definition of this industry was introduced in the 1957 Standard Industrial Classification. Accordingly, the data for 19581963 are not comparable with those for earlier years.

[^190]:    See footnotes at end of table.

[^191]:    - Represents zero. n.e.c. Not elsewhere classified.

[^192]:    NOTE: See Introduction for an explanation of terms used.

[^193]:    See footnotes at end of table

[^194]:    n.e.c. Not elsewhere classified.
    ${ }^{1}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.
    ${ }^{2}$ Adjusted to include purmps and compressors, n.e.c., except refrigerator compressors (product class 35615) and parts and attachments for pumps, air and gas compressors, and pumping equipment (product class 35616 ).
    ${ }^{3}$ Adjusted to include product class 35673 (high frequency induction and dielectric heating equipment and parts, attachments and components).

[^195]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not
    applicable.
    n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

    These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manuiactures volumes for this pericd. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data. series and related data.
    ${ }^{2}$ These totals represent the sum of 5 -digit product class data obtained from the Current Industrial Reports Series and the census of manufactures or the annual survey of manufactures.
    ${ }^{3}$ Sources for the data in these product classes are listed below:

[^196]:    Standard Notes: - Represents zer
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not ${ }^{2}{ }^{2}{ }_{1}$ Fabable. ( $Z$ ) Less than $\$ 1$ Imillion reported. n.e.c. Not eleswhere classified.
    ${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more in 1963 were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 35611, Rhode Island, Connecticut, Kansas, South Carolina, Georgia, Tennessee, Colorado, Utah, Oregon, and California; 35612, Massachusetts, Connecticut, Illinois, Minnesota, Missouri, Nebraska, Kansas, Mississippi, Oklahoma, and California; 35613, New York, Pennsylvania, Illinois, Wisconsin, Iowa, Missouri, Nebraska, Kansas, Okiahoma, Texas, and California; 35614, Massachusetts, Connecticut, Indiana, Michigan, Missourí, Louisiana, Oklahoma, Texas, and California; 35615, Rhode Island and Oklahoma; 35616, Rhode Island,
     Illinois, Michigan, South Carolina, Okiahoma, and California; 35622, Connecticut, New York, New Jersey, Ohio, Indiana, Michigan, Virginia, North Carolina, South Carolina, and California; 35623, Connecticut, New York, Illinois, Kentucky, and California; 35624, Connecticut, New York, Pennsylvania, Ohio, Michigan, Virginia, South Carolina, and Tennessee; 35641, Massachusetts, Connecticut, Florida, Tennessee, Alabana, and Oklahoma; 35642, Massachusetts, Connecticut, Indiana, Illinois, Minnesota, Maryland, North Carolina, Kentucky, and California; 35661, Connecticut, New Jersey, Tennessee, and California; 35662, Connecticut, Michigan, Wisconsin, Missouri, Texas, Colorado, and Washington; 35663, Connecticut, Iowa, Kansas, Maryland, South Carolina, Kentucky, Oklahoma, and Colorado; 35671, New Hampshire, Rhode Island, Indiana, Michigan, Wisconsin, Minnesota, and Californía; 35672, New Jersey, Indiana, Wisconsin, Minnesota, and California; 35673, Connecticut, Indiana, Wisconsin, Missouri, Maryland, and Washington; 35690, New Hampshire, Rhode Island, South Dakota, Nebraska, Kentucky, Tennessee, Colorado, and Utah.
    ${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

[^197]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

[^198]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not avail-
    able. (X) Not applicable.

[^199]:    See footnotes at end of table

[^200]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies
    (NA) Not available.
    (X) Not

[^201]:    Note: Detailed figures may not add to totals because of independent rounding or independent dropping of fractions of thousands rather than rounding in computer operations. See Introduction for an explanation of terms used.
    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not applicable. n.e.c. Not elsewhere classified.
    ${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
    ${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry total shipments of such products by all manufacturing establishments.

[^202]:    Note: See Introduction for an explanation of terms used.

[^203]:    ${ }^{2}$ Figures include in some cases leased machines as well as machines sold outright. For leased machines the value reported in most instances represents the value placed on such equipment for tax, insurance, or similar purposes.
    ${ }^{3}$ Represents the number of complete systems.
    ${ }^{4}$ Includes billing machines with accounting registers.
    ${ }^{5}$ The number of cash registers shipped during 1963 and 1958 totaled 87,606 and 81,021, respectively.
    ${ }^{6}$ Includes manual change makers, coin counting and sorting, currency counting, and payroll denominating machines.
    ${ }^{7}$ Computing and related machines not included on Census Annual Form MA-35R consist primarily of automatic voting booths, electronic toll collecting equipment, and pari-mutual computing devices for racetracks.
    ${ }^{8}$ Includes rebuilt typewriters for which separate data cannot be shown without disclosing figures of individual companies.
    ${ }^{9}$ Data on typewriters are also published monthly in Current Industrial Reports Series M35C "Typewriters."
    ${ }^{10}$ Includes coded (stored) media typewriters, continuous form handling machines, billing machines without accounting registers, office composing machines, stencil cutting typewriters, and reproduction typewriters.
    ${ }^{11}$ Includes dictating, transcribing and recording machines (disc, wire, and tape) designed as office machines (conference recording, combination dictating and telephone recording, etc.) but excludes wire and tape recorders.
    ${ }^{12}$ Includes cancelling, cutting, dating, endorsing, numbering, protecting, signing, sorting, and writing machines.
    ${ }^{13}$ Includes addressing and plate embossing machines; postage meters and postal permit mailing machines; shorthand writing machines; rebuilt office, computing, and accounting machines, n.e.c.; staplers; tape dispensers; envelope opening and sealing machines; label gurmers; and price marking machines, etc.

[^204]:    See footnotes at end of table.

[^205]:    N.E.C. Not elsewhere classified.

[^206]:    See footnotes at end of table.

[^207]:    See footnotes at end of table.

[^208]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
    n.e.c Not elsewhere classified.
    ${ }^{1}$ Includes capital expenditures for plants under construction but not in operation which constitute a small proportion of the total for the size class.

[^209]:    See footnotes at end of table

[^210]:    See footnotes at end of table.

[^211]:    See footnotes at end of table.

[^212]:    ${ }^{1}$ Adjusted to include products not specified by kind and products not shown separately below namely, condensing units, all refrigerants (product class 35855) and other refrigeration and air-conditioning equipment, including soda fountain and beer dispensing equipment (product class 35857).
    ${ }^{2}$ Adjusted to include products not specified by kind and commercial cooking and food warming equipment (product class 35891).
    ${ }^{3}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.

[^213]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
    ${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this pericd. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data.
    ${ }^{2}$ These data represent the sum of 5 -digit product class data obtained from Current Industrial Reports and the census of manufactures or the annual survey of manufactures.
    ${ }^{3}$ Data for product class 35857 for 1959-1962 included an undeterminate amount for automobile air conditioners. Separate information for automotive air conditioners were collected on Form MA-35M beginning in 1960 and included with data for product class 35851 . Accordingly the 4- digit total figures for 1960-1962 are overstated.
    "Source: Current Industrial Reports Series M35M "Air Conditioning and Refrigeration Equipment."
    ${ }^{5}$ Excludes automotive air conditioners for which separate data are not available.
    ${ }^{6}$ Parts and accessories for commercial cooking and food warming equipment are included in product class 35892 for all years except 1958 and 1963.

[^214]:    See footnotes at end of table.

[^215]:    See footnotes at end of table.

[^216]:    See footnotes at end of table.

[^217]:    See footnotes at end of table.

[^218]:    See footnotes at end of table.

[^219]:    See footnotes at end of table.

[^220]:    See footnotes at end of table.

[^221]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[^222]:    See footnotes at end of table.

[^223]:    See footnotes at end of table.

[^224]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
    ${ }^{1}$ See Current Industrial Reports Series M36C, Fluorescent Lamp Ballasts, for more detailed product data.
    ${ }^{2}$ Included with code 3612198 to avoid disclosing operations of individual companies.
    ${ }^{3}$ Represents over 95 percent of the total value of shipments.
    ${ }_{5}$ Represents between 80 and 90 percent of total value of shipments.
    ${ }^{5}$ Data for product code 3629231 in 1963 are included with 3629251 to prevent disclosing figures for individual companies.

[^225]:    See footnotes at end of table.

[^226]:    Source: Current Industrial Reports Series M36A, "Switchgear, Switchboard Apparatus, Relays, and Industrial Controls.

    - Represents zero.
    n.s.k. Not specified by kind.
    ${ }^{1}$ For 1963, quantity reported totaled 140,905.
    ${ }^{2}$ For 1963, quantity reported totaled 46,284.

[^227]:    See footrotes at end of table.

[^228]:    - Represents zero.
    (NA) Not available.
    (X) Not applicable.
    n.s.k. Not specified by kind.
    ${ }^{1}$ Excludes parts and supplies, except as indicated.
    ${ }^{2}$ Commercial shipments represent over 95 percent of the total value of shipments.
    ${ }^{3}$ Commercial shipments represent between 25 and 50 percent of the total value of shipments,
    ${ }_{5}^{4}$ Conmercial shipments represent between 80 and 90 percent of the total value of shipments.
    ${ }^{5}$ Railway motors, generators, and control equipment are included under code 3621398, "Other electrical apparatus for land transportation equipment""
    ${ }^{6}$ Commercial shipments represent between 90 and 95 percent of the total value of shipments.
    ${ }^{7}$ Commercial shipments represent between 60 and 80 percent of the total value of shipments.

[^229]:    Source: Current Industrial Reports Series MA-36A, "Switchgear, Switchboard Apparatus, and Industrial Controls."
    ${ }^{1}$ In 1963, quantity reported totaled 89,474 .
    ${ }^{2}$ Combined with code 3622098, "All other general industry devices (including brakes and low voltage synchronous motor starters) in 1958.

[^230]:    ${ }^{2}$ Source: Current Industrial Reports Series MB8B, Selected Instruments and Related Products.
    ${ }^{3}$ Source: Current Industrial Reports Series M36A, Switchgear, Switchboard Apparatus, Relays, and Industrial Controls.
    ${ }^{4}$ Source: Current Industrial Reports Series M36H, Motors and Generators.

[^231]:    See footnotes at end of table.

[^232]:    See footnotes at end of table.

[^233]:    See footnotes at end of table.

[^234]:     table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the l5th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production
    
    
    
    
    
    
     rather than shipments.

[^235]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
    ${ }^{n}$ n.e.c. Not elsewhere classified.

[^236]:    See footnotes at end of table.

[^237]:    See footnotes at end of table.

[^238]:    Standard Notes: - Represents zero
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not

    ## applicable. (Z) Less than $\$ 1$ million reported.

    ${ }^{1}$ For the specified product classes, shipments of $\$ 1$ million or more were reported for the States listed, but the exact figures are withheld to avoid disclosure of individual company figures: 36311, New York, Pennsylvania, Michigan, Wisconsin, Kentucky, and California; 36312, Massachusetts, New York, Wisconsin, Missouri, Kansas, Kentucky, Oklahoma, and California; 36321, New York, Ohio, Indiana, Illinois, Michigan, Minnesota, Iowa, Kentucky, Arkansas, and Texas; 36322, Ohio, Indiana, Illinois, Minnesota, Iowa, Kentucky, Arkansas, and Texas; 36331, New York, Pennsylvania, Illinois, Michigan, Wisconsin, Iowa, Kentucky, and Tennessee; 36332, New York, Pennsylvania, Ohio, Illinois, Wisconsin, Iowa, Kentucky, and California; 36341, Massachusetts, Connecticut, New York, Pennsylvania, Illinois, Michigan, Wisconsin, West Virginia, North Carolina, Georgia, Kentucky, Tennessee, Texas, and California; 36343, Massachusetts, Indiana, Michigan, Delaware, Maryland, Virginia, West Virginia, South Carolina, Kentucky, Arkansas, and California; 36344 , New York, New Jersey, Ohio, Illinois, Wisconsin, North Carolina, South Carolina, Kentucky, Tennessee, Mississippi, and California, 36350, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Michigan, Wisconsin, and Minnesota; 36391, Massachusetts, Pennsylvania, Ohio, Michigan, Wisconsin, Georgia, Tennessee, Washington, Oregon, and California; 36392, Rhode Island, New York, Indiana, Michigan, Wisconsin, Iowa, Tennessee, Texas, and California; 36393, Massachusetts, Connecticut, New York, Pennsylvania, Indiana, Wisconsin, Minnesota, Maryland, Kentucky, and California.
    ${ }^{2}$ Shipments of $\$ 1$ million or more were reported, but exact figures are withheld to avoid disclosure of individual company figures.

[^239]:    See footnotes at end of table.

[^240]:    Standard Notes: - Represent zero.
    (D) Withheld to avoid disclosing figures for individual cormpanies. applicable. n.e.c. Not elsewhere classified.

[^241]:    See footnotes at end of table.

[^242]:     table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the l5th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production
    
    
    
    
    
     manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.
    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual comparies.
    (NA) Not available.
    (X) Not applicable.
    ${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manu-
     lishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.
    ${ }^{2}$ Comparable data are not available for earlier years.
    ${ }^{3}$ Data for $1958-1960$ include establishments primarily engaged in the manufacture of electronic connectors. For $1961-1963$ these establishments are included in industry 3679, Electronic Components, N. F., C.
    ${ }^{4}$ The two industries ( 3643 and 3644 ) shown were basically a single industry in 1957 and earlier years. However, due to a revision in the Standard Industrial Classification, a net gain of 16 establishments occurred in new industry 3643 . These establishments were excluded from 1958 data for "old industry," so that comparable historical data may be presented.

[^243]:    See footnotes at end of table.

[^244]:    See footnotes at end of table.

[^245]:    See footnotes at end of table.

[^246]:    See footnotes at end of table.

[^247]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.
    ${ }^{1}$ Includes capital expenditures of $\$ 100-\$ 200$ thousand for plants under construction but not in operation.
    ${ }^{2}$ Includes capital expenditures of $\$ 2-\$ 5$ million for plants under construction but not in operation.
    ${ }^{3}$ Includes capital expenditures of $\$ 500-\$ 1,000$ thousand for plants under construction but not in operation.
    4 Includes capital expenditures of $\$ 5-\$ 10 \mathrm{million}$ for plants under construction but not in operation.

[^248]:    See footnotes at end of table.

[^249]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available
    (X) Not
    applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
    ${ }^{1}$ Figure differs from that previously published for 1958 . TV tuners ( $\$ 34,721$ thousand) previously classified in Industry 3651 are now included under code 3662610 in 1963.

[^250]:    See footnotes at end of table.

[^251]:    See footnotes at end of table.

[^252]:    Source: Current Industrial Reports Series M36N "Selected Electronics and Associated Products."
    Standard Notes: - Represents zero. (NA) Not available. (X) Not applicable. kind
    ${ }^{1}$ Data for 1958 for product class 36621, Commercial, industrial and military electronic conmunication equipment, includes space satellite-bome communications systems (code 3662741), collected separately in 1963.
     avoid disclosing figures of individual companies
    ${ }^{3}$ Data for 1958 for product class 36624, Electronic navigational aids, except missile-borme and space vehicle-borne equipment includes missileborme and space vehicle-borne navigations and guidance system and equipment (code 3662812), collected separately in 1963.
    ${ }^{4}$ Figures on "Other transistors" and "Other diodes" are included with "Other semiconductor devices" (3674095) in order to avoid disclosing figures of individual companies.

[^253]:    Standard Notess: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. revised n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
    ${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period. The figures shown in parentheses either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data. ${ }^{2}$ Source: Current Industrial Reports Series MB6M, Home-Type Radio Receivers and Television Sets, Automobile Radios, Phonographs and Record Players.
    ${ }^{3}$ For 1958-1962 product classes 36627 and 36628 were part of product classes 36621 and 36624, respectively. Refer to Current Industrial Reports Series M36N for 1961 and 1962 comparable data on these two new product classes. Separate data prior to 1961 are unavailable.
    ${ }^{4}$ Source: Current Industrial Reports Series M36N, Selected Electronic and Associated Products.

[^254]:    (Z) Less than $\$ 1$ million reported.
    n.e.c. Not elsewhere classified.
    ${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of ịndividual company figures: 36511, Massachusetts, Connecticut, New Jersey, Pennsylvania, Ohio, Iowa, Maryland, Kentucky, Tennessee, Arkansas, Texas, California; 36512, Massachusetts, New York, New Jersey, Pennsylvania, Indiana, Illinois, Minnesota, Tennessee, Arkansas, Texas, Califormia; 36513, Maine, Connecticut, Ohio, Wisconsin, Minnesota, Iowa, North Carolina, Kentucky, Tennessee, Arkansas, Oklahoma, California; 366ll, New York, New Jersey, Ohio, Illinois, Nebraska, Virginia, Tennessee, Oklahoma; 36612, Connecticut, Pennsylvania, Ohio, Indiana, Wisconsin, Minnesota, Missouri, Nebraska, Maryland, North Carolina, Tennessee, Mississippi, Arkansas, Oklahoma, Oregon; 36621, New Hampshire, Indiana, Michigan, Minnesota, Iowa, Missouri, Kansas, Virginia, South Carolina, Oklahoma, Texas, New Mexico, Arizana, Nevada; 36622, Massachusetts, Indiana, Michigan, Iowa, Texas, California; 36623, New Jersey, Pennsylvania, Minnesota, Iowa, Virginia, Kentucky; 36624, Connecticut, New Jersey, Pennsylvania, Ohio, Indiana, Minnesota, Iowa, Missouri, Maryland, Virginia, North Carolina, Tennessee, Alabama, Texas; 36625, New Hampshire, Rhode Island, Ohio, Indiana, Michigan, Wisconsin, Maryland, Virginia, North Carolina, South Carolina, Florida, Tennessee, Oklahoma, Arizona, Utah, Washington, California; 36626, New Hampshire, Indiana, Wisconsin, North Carolina, Arkansas, Idaho, New Mexico, Arizona, Washington; 36628, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Michigan, Wisconsin, Minnesota, Iowa, Maryland, North Carolina, Florida, Tennessee, Alabama, Texas, Arizona, Washington, Califormia; 36730, Massachusetts, Cannecticut, Ohio, Missouri, Virginia, Florida, Kentucky, Texas, Utah, Califormia; 36792, New Hampshire, Vermont, Rhode Island, Indiana, Minnesota, Nebraska, Fiorida, Tennessee, Alabama, Mississippi, California; 36793, Massachusetts, Rhode Island, Ohio, Illinois, Michigan, Wisconsin, Minnesota, Missouri, Nebraska, Kansas, Maryland, Florida, Texas, California; 36794, Connecticut, Iowa, West Virginia, South Carolina, Tennessee, California; 36795, Maine, New Hampshire, Vermont, Virginia, West Virginia, Georgia, Florida, Kentucky, Alabama, Okiahoma, New Mexico, Utah, Washington.
    ${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

[^255]:    See footnotes at end of table.

[^256]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind. $r_{\text {Revised. }}$
    ${ }^{1}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials on "standard forms."
    ${ }^{2}$ Since industry 3674 was included as part of industry 3679 in 1958, separate statistics on materials consumed for industry 3674 in 1958 are included in the detail for industry 3679.

[^257]:    Stanaard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.

[^258]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.
    ${ }^{1}$ Includes capital expenditures of approximately $\$ 100-\$ 200$ thousand for plants under construction but not in operation.
    ${ }^{2}$ Includes capital expenditures of approximately $\$ 20-\$ 50$ thousand for plants under construction but not in operation.

[^259]:    See footnotes at end of table.

[^260]:    See footnotes at end of table.

[^261]:    n.e.c. Not elsewhere classified.
    ${ }^{1}$ Not shown because comparable quentity data were not obtained for a significant portion of these products.
    ${ }^{2}$ Adjusted to include product class 36912 (Storage batteries, other than SLI type).
    ${ }^{3}$ Adjusted to include ignition harness and cable sets (product class 36941), spark plugs (product class 36944) and components and parts for engine electrical equipment (product class 36946).

[^262]:    Standard Notes: - Represents zero
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available
    (X) Not applicable. (Z) Less than $\$ 1$ million reported
    ${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 36911, Massachusetts, Connecticut, New Jersey, Pennsylvania, Michigan, Wisconsin, Missouri, Nebraska, Kansas, Delaware, Virginia, North Carolina, Kentucky, Mississippi, Oklahoma, Texas, Colorado, and Oregon; 36912, Massachusetts, Connecticut, New York, Pennsylvania, Indiana, Minnesota, Missouri, North Carolina, Florida, and California; 36930, Massachusetts, Connecticut, New Jersey, Pennsylvania, Ohio, Wisconsin, Minnesota, Maryland, Florida, and California; 36941, Rhode Island, Pennsylvania, Ohio, Indiana, Missouri, and California; 36942, Connecticut, New Jersey, Ohio, Indiana, Michigan, Wisconsin, and Alabama; 36944, New Jersey, Pennsylvania, Ohio, Michigan, Iowa, and Alabama; 36945, Massachusetts, Connecticut, Pennsylvania, Ohio, Indiana, Wisconsin, Kentucky, Alabama, Mississippi, Texas, and California; 36946, Massachusetts, Connecticut, New Jersey, Ohio, Indiana, Wisconsin, Missouri, Kentucky, and Arizona; 36992, Maine, Massachusetts, Rhode Island, Missouri, North Carolina, Florida, Texas, and Califormia; 33576 and 36996, Connecticut, Ohio, and Missourí.
    ${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

[^263]:    See footnotes at end of table.

[^264]:    Standard Notes: - Represents zero

[^265]:    See footnotes at end of table.

[^266]:    Standard Notes: - Represents zero applicable.
    (Z) Less than \$1 million reported.

[^267]:    Note: For products identified in this table with an asterisk, it was not considered feasible to request manufacturers to identify automotive type parts separately from similar parts used for tractors, construction machinery, boats, etc. For all other products, the manufacturers were instructed to report separately automotive type versus non-automotive type parts.

    - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
    ${ }^{1}$ For those products classiried in industry 3717 , with the exception of fuel pumps, production figures exclude units produced by establishments in other industries. Although it is not possible to precisely measure the effect of this undercoverage, it is believed to be minor for most products. ${ }^{2}$ The number of motor vehicle parts for replacement, export and other purposes were derived by subtracting from the total number of units produced, the quantities used in the assembly of new vehicles as reported by motor vehicle assembly plants. ${ }^{3}$ For these products, total number of units shipped were used instead of total number of units produced. "In 1958, these products were described respectively as "mufflers (exhaust)," and "muffler tail pipes."

[^268]:    See footnotes at end of table.

[^269]:    See footnotes at end of table.

[^270]:    NOTE: See Introduction for an explanation cf terms used. The following variations in definition of terms should be considered in the use of this table: All erployees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production workers based on 12 monthly figures plus the number of nomproduction workers for one payroll period (usually in October). Production workers: For 1947 and prior years figures represent an average of 12 monthly figures. Value added: Value added prior to 1954 is unadjusted value added which is equal to value of products (excluding resales of finished products) less cost of materials, supplies, fuel, electric energy, and contract work; no adjustment is made for changes in inventories of finished products and work-in-process during the year. Cost of materials: Cost of materials prior to 1958 (except 1954) excludes cost of products bought for resale without further manufacture, processing or assembly. In addition, figures prior to 1935 exclude cost of contract work. Value of shipments: Value of shipments for years prior to 1958 (except 1954) excludes value of products bought for resale without further manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipments.

[^271]:    See footnotes at end of table.

[^272]:    See footnotes at end of table.

[^273]:    See footnotes at end of table.

[^274]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not

[^275]:    See footnotes at end of table.

[^276]:    See footnotes at end of table.

[^277]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
    n.e.c. Not elsewhere classified.
    ${ }^{1}$ See footnote 1 , table 1.
    ${ }^{2}$ Represents value of work done rather than value of shipments.
    ${ }^{3}$ Includes capital expenditures of approximately $\$ 200-\$ 500$ thousand for plants under construction but not in operation.

[^278]:    See footnotes at end of table.

[^279]:    Standard Note: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
     for codes 3731110 through 3731181 are value of shipments.
    ${ }^{2}$ Excludes products manufactured by facilities operated by the Department of Defense, or at Federal, District of Columbia, and State prisons.
     figures for individual companies. They are included with code 3731000 "Ship building and repairing, not specified by kind."
     and reconversions."
    ${ }^{5}$ In 1958 code 3731439 , "All other repairs" was included with code 3731429 , "Military sea transportation service, all other repairs."
     under $26^{\prime}$ in length.
    ${ }^{7} 1958$ data for outboard powered utility boats, codes 3732227,3732237 , and 3732247 , are included with runabouts based on length of boat.
     cabin cruisers are almost all over $\mathbf{1 5}^{\prime \prime} 7^{\prime \prime}$ in length.
    
    
    ${ }^{11}$ Product class 37422 and product code 3742298 include an undetermined value from product class 37423 and 3742331.
    ${ }^{12}$ In 1958 data for box cars (code 3542211) are included with figures for other freight train cars (code 3742298 ) in 1958.
    ${ }^{13}$ In 1958 , an undetermined dollar amount of other automobile trailers (boat, camping, commercial display, etc.) was included in code 3791000.

[^280]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
    lyalues of railroad cars built by railroads for own use represents the amounts at which they were written into property accounts.

[^281]:    See footnotes at end of table.

[^282]:    Note: Detail may not add to totals because of independent rounding. Figures for fuels and electric energy for l962 and horsepower of power

[^283]:    n.e.c. Not elsewhere classified.
    ${ }^{1}$ See footnote 1 , table 1.
    ${ }^{2}$ Represents value of work done rather than value of shipments.

[^284]:    See footnotes at end of table.

[^285]:    See footnotes at end of table.

[^286]:    - Represents zero. (NA) Not available. (X) Not applicable.
    n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.

    Source: Current Industrial Reports Series M38B, "Selected Instruments and Related Proaucts."
    ${ }^{1}$ Included in 3811120 to avoid disclosing operations of individual companies.
    ${ }^{2}$ Data for complete automatic pilots are included with flight and navigation instruments in 1958.
    ${ }^{3}$ Included with 3811198 to avoid disclosing operations of individual companies.
    ${ }^{4}$ Included with 3821156 to avoid disclosing operations of individual companies.
    ${ }^{5}$ Included with 3831178 to avoid disclosing operations of individual companies.
    ${ }^{6}$ Included with 3831179 to avoid disclosing operations of individual companies.

[^287]:    ${ }^{{ }^{1}}$ Not shown because comparable quantity data were not obtained for a significant portion of these products.
    ${ }^{2}$ Ad justed to include personal industrial safety devices (product class 38423).

[^288]:    See footnotes at end of table.

[^289]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not applicable.
    ${ }^{1}$ These size groups are based on the number of employees engaged in each specific operation. They are not based on total employment in the establishment.

[^290]:     table: All employees: For 1949-1954 figures represent the average of all employees for the payroll period ended nearest the 15 th of March, May, August, and November; for 1947 an average of 12 monthly figures for all employees; and for 1939 and prior years the average number of production
    
    
    
    
    
     manufacture, processing or assembly. For 1939 and prior years, except 1929, the figures represent value of production rather than shipnents.

    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
    (Z) Less than $\$ 500$ thousand.
    (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estimate or on the basis of a consistency review.
    ${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manu-
     lishments. The standard errors associated with these estimates are published in the annual survey of manuractures volumes for this period. The
     data.

[^291]:    Note: See Introduction for an explanation of terms used.

[^292]:    See footnotes at end of table.

[^293]:    See footnotes at end of table.

[^294]:    ${ }^{1}$ Adjusted to include products not included below (product classes 38612, 38616), also products, not specified by kind
    ${ }^{2}$ Ad justed to include products not specified by kind.

[^295]:    Standard Notes: - Represents zero.

[^296]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (x) Not applicable. n.s.k. Not specified by kind.
    ${ }^{1}$ Represents estimates published in MC58(1)-7 (Supplement), "Selected Materials Consumed, " from data collected in a supplemental survey on Form MA-131, "Consumption of Materials, Parts, Containers, and Supplies During 1958." This survey was limited to large establishments in selected chemical, machinery, and equipment industries and resulted in estimates which are subject to greater error than are the figures on materials consumption collected as a reguIar part of the Census of Manufactures.
    ${ }^{2}$ Does not include quantities produced and consumed in the same establishment.
    ${ }^{3}$ Represents (a) total cost of materials for small establishments reporting on "short forms" where separate figures for individual materials consumed were not requested and (b) total cost of materials reported for those establishments which failed to report costs of individual materials and "standard forms."

[^297]:    See footnotes at end of table.

[^298]:    Sjenters tctes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.

[^299]:    See footnotes at end of table.

[^300]:    Note: See Introduction for an explanation of terms used.

[^301]:    Standard Notes: - Represents zero. (D) Witrheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not

[^302]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than $\$ 1$ million.
    ${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld
    to avoid disclosure of individual company figures: 39111, Rhode Island, Ohio, Indiana, Minnesota, Oklahoma, Texas, Utah; 39141, Rhode Island, Connecticut, Ohio, Califormia; 39142, Massachusetts, Rhode Island, New York, Illinois, Maryland, Oregon.
    ${ }^{2}$ Shipments of over $\$ 1$ million were reported but exact figures are withheld to avoid disclosure of individual company figures.

[^303]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not

[^304]:    - Represents zero.

[^305]:    See footnotes at end of table.

[^306]:    See footnotes at end of table.

[^307]:    Standard Notes: - Represents zero
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not
    applicable. (Z) Less than \$l million reported.
    ${ }^{1}$ For the specified product classes shipments of $\$ 1$ million or more were reported for the States listed but the exact figures are withheld to avoid disclosure of individual company figures: 39312, Connecticut, New York, New Jersey, Pennsylvania, Indiana, Maryland, Mississippi, Arkansas, and Califormia; 39314, New Jersey, Pennsylvania, and Michigan; 39430, Massachusetts, New Jersey, Pennsylvania, Indiana, Michigan, Wisconsin, Missouri, Tennessee, Alabama, Mississippi, and California; 39420, South Carolina and Califormia; 39491, Iowa, Virginia, South Carolina, Oklahoma, Idaho, and Colorado; 39492, New Hampshire, Rhode Island, Maryland, Virginia, South Carolina, Kentucigy, Mississippi, Iouisiana, and Washington.
    ${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

[^308]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available. applicable
    ${ }^{1}$ The proportion of product shipments (both primary and secondary) of the industry represented by primary products.
    ${ }^{2}$ The proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

[^309]:    Note: See Introduction for an explanation of terms used.

[^310]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind

[^311]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not

[^312]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than $\$ 1$ million reported.
    ${ }^{1}$ For the specified product classes shiprnents of $\$ 1$ million or more were reported for the States listed but the exact figures are witheld to avoid disclosure of individual company figures: 3952l, Connecticut, Ohio, Missouri, Kansas, Georgia, Kentucky, and Tennessee; 39641 , Rhode Island, Connecticut, New Jersey, Pennsylvania, Missouri, Virginia, North Carolina, South Carolina, Georgia, Mississippi, Texas, and Califormia; 39642, Rhode Island, New Jersey, Pennsylvania, Illinois, Wisconsin, Nebraska, South Carolina, Kentucky, and Califormia.
    ${ }^{2}$ Shipments of $\$ 1$ million or more were reported but exact figures are withheld to avoid disclosure of individual company figures.

[^313]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left. n.e.c. Not elsewhere classified.

[^314]:    ${ }^{1}$ Includes upright wound brooms, metal case brooms, or other brooms of similar construction made of broomeorn.

[^315]:    n.e.c. Not elsewhere classified.

[^316]:    Standard Notes: - Represents zero.
    (D) Withheld to avoid disclosing figures for individual companies,
    (NA) Not available.
    (x) Not

[^317]:    Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
    ${ }^{1}$ Data for 1958 not available.

[^318]:    (2Detailed data by State for Major Group 19 are included in table 2 of the 4 -digit industry chapter.)

[^319]:    - Represents zero.
    (D) Withheld to avoid disclosure. Data for this item are included in the underscored figures at the left.
    n.e.c. Not elsewhere classified.
    ${ }^{1}$ See footnote 2, table 1.
    ${ }^{2}$ Includes capital expenditures of approximately $\$ 200-\$ 500$ thousand for plants under construction but not in operation.

[^320]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies.
    (NA) Not available.
    (X) Not
    applicable. n.e.c. Not elsewhere classified. n.s.k. Not specified by kind.
    ${ }_{1}{ }^{\text {Although }}$ general statistics for industry 1911 have been combined with SIC 1999, the value of products primary to SIC 1911 is shown separately.
    Most of this value is accounted for by establishments in industries other than 1911.
    ${ }^{2}$ Value of shipments for 1911 and 19292 included with 1999 for 1958.
    ${ }^{3}$ Data for industry 1925 represents receipts, billings or value of work done.
    4In the 1958 Census of Manufactures, a single value figure for research and development and all other services on complete guided missiles and space vehicles was collected. Consequently, separate detailed statistics comparable to 1963 are not available.

[^321]:    Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
    (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of estinate or on the basis of a consistency review.
    ${ }^{1}$ These figures represent estimates derived from a representative sample of manufacturing establishments canvassed in the annual survey of manufactures. These estimates, therefore, may differ from the results that would have been obtained from a complete canvass of all manufacturing establishments. The standard errors associated with these estimates are published in the annual survey of manufactures volumes for this period.

[^322]:    Note: Includes manufacturing facilities, research and development activities, and manufacturing performed in supply depots. Not comparable to

[^323]:    Note: Research and development activities, and manufacturing performed in supply depots are excluded, making 1963 data comparable to 1958.

[^324]:    This appendix was prepared by Frank H. Hanna, professor of economics, Duke University.

[^325]:    *Represents part of the specified industry. (NA) Not available.

[^326]:    *Represents part of the specified industry. (NA) Not available.

[^327]:    *Represents part of the specified industry. (NA) Not available.

[^328]:    *Represents part of the specified industry. (NA) Not available.

[^329]:    *Represents part ol the specified industry. (NA) Not available.

[^330]:    *Represents part of the specified inudstry.

[^331]:    FORM MC.D3 (12-24-63)

[^332]:    1 For example, some manufacturers are known to treat sales to Post Exchanges or to Puerto Rico differently than here described. These differences in most cases are not statistically significant.

[^333]:    * Represents part.

[^334]:    *Represents part

