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# 1982

## Census of Mineral Industries

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MIC82-A-4

GEOGRAPHIC AREA SERIES

### West North Central States

Iowa, Kansas, Minnesota, Missouri, Nebraska,  
North Dakota, South Dakota

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The publications  
from the 1982 Economic and  
Agriculture Censuses are dedicated  
to the memory of Shirley Kallek,  
Associate Director for Economic Fields.  
During her career at the Bureau of the  
Census (1955 to 1983), she continually  
directed efforts to improve  
the timeliness and accuracy of  
economic statistics.

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MIC82-A-4

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## West North Central States

Iowa, Kansas, Minnesota, Missouri, Nebraska,  
North Dakota, South Dakota

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Issued April 1985



**U.S. Department of Commerce**  
**Malcolm Baldrige**, Secretary  
**Clarence J. Brown**, Deputy Secretary  
**Sidney Jones**, Under Secretary for  
Economic Affairs

**BUREAU OF THE CENSUS**  
**John G. Keane**,  
Director

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**BUREAU OF THE CENSUS**  
**John G. Keane, Director**  
**C. L. Kincannon, Deputy Director**

**Charles A. Waite, Associate Director for**  
**Economic Fields**

**John H. Berry, Assistant Director for**  
**Economic and Agriculture Censuses**

**INDUSTRY DIVISION**  
**Gaylord E. Worden, Chief**

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## ECONOMIC CENSUSES OVER TIME

The early beginnings of America's industrial output were first measured in the United States in the 1810 Decennial Census and again in 1820, when questions on manufacturing were included with those for population. Beginning with the 1840 Decennial Census, there were enumerations of manufactures and mineral industries at 10-year intervals up to and including the year 1900 for manufactures and 1940 for mineral industries. The latter census was taken again for 1954, 1958, 1963, and 1967.

Because of the increasing dominance of manufacturing in the early 20th century, Congress directed that quinquennial censuses of manufactures be taken beginning in 1905. However, from 1919 through 1939, these censuses were conducted every 2 years. The need for war-related current surveys in the early 1940's postponed the next census of manufactures until 1948 (for 1947). That census was again taken for 1954, 1958, 1963, and 1967.

Retail and wholesale trade data were first collected in 1930, and in 1933 information on selected service industries was added to the data-collection operation. These business censuses, as they were called, were again taken for 1935, 1939 (as part of the 1940 decennial program), 1948, 1954, 1958, 1963, and 1967.

Information on construction industries was first obtained in 1930 and again for 1935 and 1939. Data for the full spectrum of construction industries were not gathered again until 1968 (for 1967).

The need for transportation data to supplement information available from existing governmental or private sources was recognized by Congress in the late 1950's and early 1960's. The census of transportation (consisting of several surveys) was first taken for 1963 and again for 1967.

Since 1967, all of the above censuses have been taken quinquennially as part of the Census Bureau's economic census program. (For the 1977 censuses, the coverage of the service

industries was broadened from "selected services" to all services, except religious organizations and private households. A total of 41 additional four-digit standard industrial classifications<sup>1</sup> (SIC's) in 7 SIC major groups was added to the scope of the census. While most of the industries included for the first time for 1977 were covered again for 1982, some were not, i.e., hospitals; elementary and secondary schools; colleges, universities, and professional schools; junior colleges and technical institutes; labor unions; and political organizations.)

The first manufacturing census for an outlying area was conducted in Puerto Rico for the year 1909. Thereafter, with the exception of 1929, a census was taken at 10-year intervals through 1949. The first censuses of retail trade, wholesale trade, and selected service industries in Puerto Rico were conducted for 1939. These censuses also were taken for the years 1949, 1954, 1958, 1963, and 1967. A census of construction industries was first introduced in Puerto Rico for 1967. These censuses of Puerto Rico have been taken since then for the years 1972, 1977, and 1982.

Censuses of manufactures, retail trade, wholesale trade, and selected service industries were conducted in Guam and the Virgin Islands of the United States for 1958, 1963, 1967, 1972, 1977, and 1982. Censuses of mineral industries were taken in the Virgin Islands of the United States for the years 1958, 1963, and 1967 but not since that time. A census of construction industries was also undertaken in these areas for 1972, 1977, and 1982.

Retail trade, wholesale trade, selected service industries, manufacturing, and construction industries were canvassed for the first time in the Northern Mariana Islands in 1983 (for 1982).

For 1982, the economic censuses and the agriculture census were conducted concurrently.

## USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source for facts about the structure and functioning of the Nation's economy and provide essential information for government, business, industry, and the general public. They provide an important part of the framework for such composite measures as the gross national product, input-output measures, indexes of industrial production, and indexes measuring productivity and price levels. Information from the censuses is used to establish sampling frames and as benchmarks for current surveys of business activity, which are essential for measuring short-term economic conditions.

<sup>1</sup>Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

State and local governments use census data to assess business activities within their jurisdictions. The private sector uses the data to forecast general economic conditions; analyze sales performance; lay out sales territories; allocate funds for advertising; decide on locations for new plants, warehouses, or stores; and measure potential markets in terms of size, geographic areas, kinds of business, and kinds of products made or sold.

Following every census, thousands of businesses and other users purchase reports. Likewise, census facts are widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. All 1982 data are available on microfiche from the U.S. Government Printing Office and most data on computer tape from the Census Bureau. Finally, the more than 50 State Data Centers also are suppliers of economic census statistics.

## **AUTHORITY AND SCOPE OF THE ECONOMIC CENSUSES**

The economic censuses are required by law under title 13 of the United States Code, sections 131, 191, and 224, which directs that they be taken at 5-year intervals for the years ending in 2 and 7. The 1982 Economic Censuses covered manufacturing, mining, construction industries, retail trade, wholesale trade, service industries, and selected transportation activities. Special programs also cover minority-owned and women-owned businesses. The next economic censuses are scheduled to be taken in 1988 for the year 1987.

## **CENSUS OF MINERAL INDUSTRIES**

### **General**

The 1982 Census of Mineral Industries is the 19th census of mining establishments in the United States. For 1982, it was conducted jointly with the censuses of manufactures, construction industries, retail and wholesale trades, service industries, selected transportation activities, and minority-owned and women-owned businesses.

This report, from the 1982 Census of Mineral Industries, is one of a series of 9 geographic division reports, each of which provides statistics for individual states within a defined geographic area. Additional separate reports are issued for individual industries or groups of related industries and on special subjects, such as size of establishments, type of organization, assets, capital expenditures, type of operation, and fuels and electric energy consumed.

These separate reports subsequently will be issued as portions of the final census volume. The volume—Subject, Industry, and Area Statistics— will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments and receipts, capital expenditures, value added by mining, selected supplies consumed, and energy used. It will include, besides the industry statistics, geographic area statistics (number of establishments, employment, payrolls, value added, cost of supplies, value of shipments and receipts, and capital expenditures) for each State and county, by industry group and

statistics on selected subjects. The introduction to the final volume of the census of mineral industries will discuss; at greater length, many of the subjects described in this introduction. For example, the volume text will discuss the economic significance of the mining sector, the relation of value added by mining to value added by manufacture, some of the changes in statistical concepts over the history of the census, and the valuation problems arising from intracompany transfers between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

## **Scope of Census and Definition of Mineral Industries**

The 1982 Census of Mineral Industries covers all establishments with one paid employee or more primarily engaged in mining as defined in the 1972 Standard Industrial Classification (SIC) Manual.<sup>1</sup> This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Office of Information and Regulatory Affairs, Office of Management and Budget. This system of classification is in general use among government agencies as well as organizations outside the government.

The SIC manual defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids such as coal and ores, liquids such as crude petroleum, and gases such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.) and other preparation needed to make minerals marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the exploration and development of mineral properties are classified separately but within this division.

Mining operations are classified by industry on the basis of the principal mineral produced or, if there is no production, on the basis of the principal mineral for which exploration or development work is in progress. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) also are excluded.

Mining operations carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on such mining activities have been obtained in the 1982 Census of Manufactures and are included in the mining reports. They are clearly specified wherever included.

<sup>1</sup>Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

## Establishment Basis of Reporting

The census of mineral industries covers each mining establishment of firms with one paid employee or more operating in the United States. A firm operating more than one establishment is required to file a separate report for each location. A mineral establishment is defined as a single physical location where mineral operations are conducted.

For oil and gas field operations and for contract services, the basis for reporting is different from the "establishment" basis used for other types of mining. Firms operating oil and gas wells, drilling wells, or exploring for oil and gas for their own account were required to submit a separate report for each State or off-shore area adjacent to a State in which it conducted such activities and to include employment, production, and capital expenditures data at the county level. Firms that performed contract services for oil and gas field operations or for mining establishments were required to submit one report covering all such activities in the United States and to include information on receipts for services by State and county. These consolidated reports were then allocated to county establishments based on the data reported at the county level. The 1982 figures for establishments include the summation of operations within each county allocated from these State or nationwide reports and, therefore, are not comparable to prior censuses.

Establishments, as presented in this report, are those in operation "during the year." In the General Summary report (MIC82-S-1), a comparison will be made at the U.S. level of the number of establishments in operation "during the year" and at the "end of the year."

## Use of Administrative Records

From a mailout universe of about 36,000 mining establishments, approximately 11,000 small single-establishment companies were not mailed a questionnaire. For these establishments, some employment, payroll, and receipts data were obtained from the administrative records of other agencies. Selection of the small establishment nonmail cases was done on an industry-by-industry basis, and a variable cutoff was used to determine those establishments for which administrative records were to be used in place of a census report. This information was then used in conjunction with industry averages and other information to estimate the statistics for administrative-record and nonresponse establishments. The first column in tables 2a and 5 provides an indication of the extent that these establishments account for the figures shown. The value of shipments and receipts and cost of supplies were generally not distributed among specific products and supplies for these establishments, but were included in the product and supply "not specified by kind" categories. Overall, establishments for which administrative-record data were used accounted for less than 2 percent of total value of shipments and receipts.

The industry classification codes included in the administrative-record files were used for those establishments excused from filing census forms. Generally, these codes were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete, or where there are relatively fine lines of demarcation among industries or between mining and nonmining activities, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product or activity information. Therefore, the total establishment count should be

viewed as an approximate measure. The counts for establishments with 20 employees or more are far more reliable.

In the 1982 census, as in the 1977, 1972, and 1967 censuses, data for single-unit firms without paid employees were excluded. This exclusion had only a slight effect on industry aggregates for most industries. Data for firms without employees were included in the 1963, 1958, and 1954 censuses if they reported more than \$500 in (1) value of shipments and receipts, (2) cost of supplies and purchased machinery, or (3) capital expenditures.

## Auxiliaries

Statistics for employment and payroll for individual industries and industry groups also include employment and payroll figures for administrative offices, warehouses, storage facilities, and other auxiliary establishments servicing mining establishments. As in previous censuses, respondents were asked to file separate reports (Form ES-9200) for any separately operated auxiliary establishments. Classification of employment and payroll data at such auxiliary establishments was based on the mining establishments served.

## Industry Classification of Establishments

Each of the establishments covered by the census was classified in one of 42 mineral industries in accordance with the industry definitions in the SIC system. Under this system of classification, an industry is generally defined as a group of establishments producing the same main product or closely related group of products. The resulting group of establishments must be significant in terms of its number, value added by mining, value of shipments and receipts, and number of employees. Application of these criteria led to formulation of 42 mining industries, to each of which a four-digit code number was assigned. The classification system also provides broader groups of industries, with twenty three-digit groups and five two-digit groups. Within industries, the system provides for seven-digit products and five-digit product classes. Products are considered primary to an industry if the first four digits of the product codes are the same as the industry code. Products whose first four code numbers differ from the industry code are called secondary products. To determine the industry classification of an establishment, the seven-digit products are grouped together according to the first four digits of the product code. The first four digits of the group of products with the largest value of production become the industry code for the establishment. (For mineral service industries, the classification is on the basis of receipts for services performed.)

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Whenever possible, separate figures are shown for establishments with mines only, mines with preparation plants, and preparation plants only. Separate figures are provided by type of mine (underground, open pit, and combination). Separate statistics also are provided on producing and nonproducing operations, an establishment being defined as nonproducing if no mineral products were shipped during the year.

Statistics also are usually provided on the production of minerals mined and used in the same establishment for producing prepared minerals or used at the producing establishment for fuel.

Differences in the integration of production processes and types of operation should be considered when relating the general items (employment, payrolls, value added, etc.) to the product and material data.

## CENSUS DISCLOSURE RULES

The Bureau of the Census is prohibited by Federal law from publishing any statistics that disclose information reported by individual companies. However, the number of companies classified in a specific industry is not considered a disclosure, so this item may be given even though other information is withheld.

The disclosure analysis for the State statistics in the tables of this report is based on the total value of shipments and receipts and capital expenditures. Whenever the total value of shipments and receipts cannot be shown without disclosing information for individual companies, the complete line has been suppressed. If capital expenditures alone is a disclosure, only total capital expenditures and cost of supplies statistics are suppressed. However, the suppressed data are included in higher level totals.

## MICROFICHE

All data in the final reports and volume are available on microfiche. Microfiche reports are sold by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

## SPECIAL TABULATIONS

Public-use tapes are not available for 1982 Census of Mineral Industries data. However, special tabulations of data collected may be obtained on computer tape or in tabular form. The data

will be in summary form and subject to the same rules prohibiting disclosure of confidential information (such as name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications. Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief, Industry Division, Bureau of the Census, Washington, D.C. 20233.

## ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

- Represents zero.
- (D) Withheld to avoid disclosing data for individual companies.
- (NA) Not available.
- (S) Withheld because estimate did not meet publication standards on the basis of either the response rate or a consistency review.
- (X) Not applicable.
- (Z) Less than half the unit shown.
- n.e.c. Not elsewhere classified.
- n.s.k. Not specified by kind.
- r Revised.
- SIC Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, 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 "l. tons."

# Users' Guide for Locating Statistics in This Report by Table Number

[For explanation of terms, see appendix]

Item	State historical	State by industry	State by industry group and type of operation	State summary	State by county and industry group	State by county and establishment size
<b>Establishments:</b>						
Total number . . . . .	1	2a,2b	3	4a	5	6
Employment size . . . . .				4a		6
<b>Employment and payroll:</b>						
Number of employees . . . . .	1	2a	3	4a	5	
Payroll . . . . .	1	2a		4a	5	
Production, development, and exploration—						
Workers . . . . .	1	2a		4a	5	
Hours . . . . .	1	2a,2b		4a	5	
Wages . . . . .	1	2a,2b		4a	5	
Supplemental labor costs . . . . .				4a		
<b>Value added, cost of supplies, shipments, and inventories:</b>						
Value added by mining . . . . .	1	2a	3	4a	5	
Cost of supplies . . . . .	1	2a,2b		4a	5	
Resales, cost and value . . . . .				4a		
Purchased fuels consumed . . . . .				4a		
Purchased electricity . . . . .				4a		
Cost of contract work . . . . .				4a		
Value of shipments and receipts . . . . .	1	2a		4a	5	
Inventories . . . . .				4b		
<b>New and used capital expenditures, excluding land and rights:</b>						
Total . . . . .	1	2a		4a	5	
Buildings and structures . . . . .				4a		
Machinery and equipment . . . . .				4a		
Mineral exploration and development . . . . .				4a		
Rental payments . . . . .				4a		
Expensed mineral exploration, development, land, and rights . . . . .				4a		

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# SUMMARY OF FINDINGS

The total value of shipments and receipts for the 216 establishments classified in mineral industries in Iowa was \$153 million in 1982, compared to \$126 million in 1977. Value added by mining amounted to \$104 million in 1982, and payroll in mining amounted to \$38 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons to prior years,

users should take into consideration the inflation that has occurred.

Mineral industries employment in Iowa was 2.1 thousand in 1982, a decrease of 28 percent from 1977. Nonmetallic minerals, except fuels led all other mineral industries in the State, accounting for 90 percent of the State's mineral industries employment.



**Table 1. Historical Statistics for the State: 1982 and Earlier Census Years**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
Mineral industries:											
1982 <sup>1</sup> .....	216	26	2.1	38.2	1.6	3.3	27.4	103.5	66.5	153.1	16.9
1977 <sup>1</sup> .....	252	44	2.9	38.6	2.1	4.2	26.5	87.6	52.8	125.9	14.5
1972 <sup>1</sup> .....	223	36	2.5	23.4	2.0	4.8	17.5	53.3	26.0	70.8	8.5
1967 <sup>1</sup> .....	240	42	2.8	18.2	2.4	5.7	14.2	43.6	24.8	61.4	7.0
1963 .....	295	32	2.7	13.5	2.3	5.3	10.5	33.2	17.2	44.9	5.5
1958 .....	293	40	2.9	12.5	2.5	5.5	9.8	32.7	18.8	45.1	6.4

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

<sup>1</sup>Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

**Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees <sup>2</sup> (1,000)	Value added by mining (million dollars)	
		E <sup>1</sup>	Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							Wages (million dollars)
	All mineral industries ----	E2	216	26	2.1	38.2	1.6	3.3	27.4	103.5	66.5	153.1	16.9	2.9	87.6
12	Bituminous coal and lignite mining .....	-	10	3	.1	2.5	.1	.3	2.0	9.8	10.0	19.1	.7	.1	5.0
121	Bituminous coal and lignite mining .....	-	10	3	.1	2.5	.1	.3	2.0	9.8	10.0	19.1	.7	.1	5.0
1211	Bituminous coal and lignite ..	-	10	3	.1	2.5	.1	.3	2.0	9.8	10.0	19.1	.7	AA	(D)
14	Nonmetallic minerals, except fuels .....	E1	181	23	1.9	34.4	1.5	2.9	24.5	85.1	52.4	121.7	15.9	2.7	80.3
142	Crushed and broken stone, including riprap .....	E1	105	21	1.4	27.8	1.1	2.2	19.5	69.7	44.3	99.7	14.4	1.8	62.1
1422	Crushed and broken limestone .....	E1	96	19	1.3	25.8	1.1	2.1	18.8	68.3	(D)	96.4	(D)	EE	(D)
1429	Crushed and broken stone, n.e.c. ....	E1	9	2	.1	2.0	(Z)	.1	.8	1.5	(D)	3.2	(D)	(NA)	(NA)
144	Sand and gravel .....	E1	69	2	.4	5.9	.3	.6	4.4	14.3	6.6	19.7	1.2	.8	15.8
1442	Construction sand and gravel .....	E2	67	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	CC	(D)

<sup>1</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>2</sup>General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982**

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures .....	16	.3	2.5	3.5	(X)
Crushed and broken stone, including riprap .....	7	.1	1.5	1.8	1 960.4
Crushed and broken limestone .....	6	(D)	(D)	(D)	(D)
Gypsum .....	4	.1	.9	1.6	913.3

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants		Undistributed <sup>1</sup>
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods			
	<b>ALL MINERAL INDUSTRIES</b>													
	Establishments.....number...	216	214	18	6	3	9	146	7	131	8	1	49	2
	Employees.....1,000...	2.1	(D)	.1	(Z)	(D)	(D)	1.7	.2	1.6	(Z)	(D)	.3	(D)
	Value added in mining.....mil. dol...	103.5	(D)	9.1	.4	(D)	(D)	90.1	8.5	79.0	2.6	(D)	3.9	(D)
10	<b>METAL MINING</b>													
	Establishments.....number...	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
108	<b>Metal mining services</b>													
	Establishments.....number...	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	<b>Miscellaneous metal ores</b>													
	Establishments.....number...	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000...	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining.....mil. dol...	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
12	<b>BITUMINOUS COAL AND LIGNITE MINING</b>													
	Establishments.....number...	10	10	7	6	1	-	3	-	3	-	-	-	-
	Employees.....1,000...	.1	.1	(D)	(Z)	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.....mil. dol...	9.8	9.8	(D)	.4	(D)	-	(D)	-	(D)	-	-	-	-
121	<b>Bituminous coal and lignite mining</b>													
	Establishments.....number...	10	10	7	6	1	-	3	-	3	-	-	-	-
	Employees.....1,000...	.1	.1	(D)	(Z)	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.....mil. dol...	9.8	9.8	(D)	.4	(D)	-	(D)	-	(D)	-	-	-	-
13	<b>OIL AND GAS EXTRACTION</b>													
	Establishments.....number...	23	23	9	-	-	9	-	-	-	-	-	14	-
	Employees.....1,000...	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	-
131	<b>Crude petroleum and natural gas</b>													
	Establishments.....number...	9	9	9	-	-	9	-	-	-	-	-	-	-
	Employees.....1,000...	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	-	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	-	-
138	<b>Oil and gas field services</b>													
	Establishments.....number...	14	14	-	-	-	-	-	-	-	-	-	14	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—  
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants		Undistrib <sup>1</sup>
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods			
<b>14</b>	<b>NONMETALLIC MINERALS, EXCEPT FUELS</b>													
	Establishments..... number..	181	179	2	-	2	-	143	7	128	8	1	33	2
	Employees .....1,000..	1.9	(D)	(D)	-	(D)	-	(D)	.2	(D)	(Z)	(D)	.2	(D)
	Value added in mining ..... mil. dol..	85.1	(D)	(D)	-	(D)	-	(D)	8.5	(D)	2.6	(D)	2.2	(D)
<b>141</b>	<b>Dimension stone</b>													
	Establishments..... number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees .....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining ..... mil. dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
<b>142</b>	<b>Crushed and broken stone, including riprap</b>													
	Establishments..... number..	105	104	-	-	-	-	95	6	89	-	1	8	1
	Employees .....1,000..	1.4	(D)	-	-	-	-	1.3	(D)	(D)	-	(D)	(D)	(D)
	Value added in mining ..... mil. dol..	69.7	(D)	-	-	-	-	69.4	(D)	(D)	-	(D)	(D)	(D)
<b>144</b>	<b>Sand and gravel</b>													
	Establishments..... number..	69	68	-	-	-	-	45	1	36	8	-	23	1
	Employees .....1,000..	.4	.4	-	-	-	-	(D)	(D)	.3	(Z)	-	(D)	-
	Value added in mining ..... mil. dol..	14.3	14.3	-	-	-	-	(D)	(D)	9.3	2.6	-	(D)	-
<b>145</b>	<b>Clay, ceramic, and refractory minerals</b>													
	Establishments..... number..	2	2	1	-	1	-	1	-	1	-	-	-	-
	Employees .....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining ..... mil. dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
<b>148</b>	<b>Nonmetallic minerals services</b>													
	Establishments..... number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees .....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining ..... mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>149</b>	<b>Miscellaneous nonmetallic minerals</b>													
	Establishments..... number..	2	2	-	-	-	-	2	-	2	-	-	-	-
	Employees .....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining ..... mil. dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

<sup>1</sup>Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

**Table 4a. Summary Statistics for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year ----- number...	216	Cost of supplies ----- mil. dol..	66.5
With 0 to 19 employees ----- do..	190	Supplies used, minerals received, and purchased machinery installed ----- do..	42.4
With 20 to 99 employees ----- do..	24	Resales ----- do..	6.0
With 100 employees or more ----- do..	2	Purchased fuels consumed ----- do..	10.4
All employees:		Purchased electric energy:	
Average for year ----- 1,000..	2.1	Quantity ----- mil. kWh..	72.3
Payroll for year ----- mil. dol..	38.2	Cost ----- mil. dol..	3.4
Production, development, and exploration workers:		Electric energy generated less sold ----- mil. kWh..	4.1
Average for year ----- 1,000..	1.6	Contract work ----- mil. dol..	4.4
March ----- do..	1.4	Cost of purchased communication services ----- do..	.2
May ----- do..	1.7	Value of shipments and receipts ----- do..	153.1
August ----- do..	1.7	Value of resales ----- do..	6.0
November ----- do..	1.6	Capital expenditures during year (except land and mineral rights) ----- do..	16.9
Hours ----- millions..	3.3	New capital expenditures during year ----- do..	13.5
January to March ----- do..	.6	Buildings and other structures, except land ----- do..	4
April to June ----- do..	.9	Machinery and equipment ----- do..	13.1
July to September ----- do..	.9	Used capital expenditures during year ----- do..	3.1
October to December ----- do..	.9	Buildings and other structures, except land ----- do..	(Z)
Wages ----- mil. dol..	27.4	Machinery and equipment ----- do..	3.0
Supplemental labor costs not included in payroll ----- do..	7.5	Mineral exploration and development <sup>1</sup> ----- do..	.3
Legally required expenditures, including Social Security contributions ----- do..	4.1	Rental payments during year ----- do..	2.2
Payments for voluntary programs ----- do..	3.4	Buildings and other structures, except land ----- do..	.3
Value added by mining ----- do..	103.5	Machinery and equipment ----- do..	1.9
		Expensed mineral exploration, development, land, and rights <sup>1 2</sup> ----- do..	3.3

<sup>1</sup>Excludes data for mining service industries and natural gas liquids industry where data were not collected.

<sup>2</sup>Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

**Table 4b. Inventories for the State: End of 1981 and 1982**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
Total Inventories <sup>1</sup> -----	22.5	20.4
Detail by method of valuation:		
Subject to LIFO costing <sup>2</sup> -----	(D)	(D)
LIFO reserve -----	(D)	(D)
LIFO value -----	(D)	(D)
Not subject to LIFO costing -----	13.2	10.6
Valuation method not reported <sup>3</sup> -----	(D)	(D)
Amount subject to LIFO reported without associated reserve and value <sup>4</sup> -----	-	-

<sup>1</sup>Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

<sup>2</sup>Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

<sup>3</sup>Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

<sup>4</sup>Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
	Iowa -----	E2	216	26	2.1	38.2	1.6	3.3	27.4	103.5	66.5	153.1	16.9	2.9	87.6
	Adair County -----	-	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Hardin County -----	-	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	-	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap -----	-	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>a</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
14	Iowa—Con. Johnson County	E3	3	-	(Z)	1.1	(Z)	.1	1.0	3.8	(D)	5.1	(D)	(NA)	(NA)
	Nonmetallic minerals, except fuels	E3	3	-	(Z)	1.1	(Z)	.1	1.0	3.8	(D)	5.1	(D)	(NA)	(NA)
14	Linn County	E3	11	4	.3	5.7	.2	.4	3.7	12.9	6.7	16.3	3.3	(NA)	(NA)
	Nonmetallic minerals, except fuels	E3	9	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap	E3	6	4	.3	5.4	.2	.4	3.4	11.9	6.2	15.0	3.2	(NA)	(NA)
	Monroe County	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Polk County	E8	15	1	.2	3.9	(Z)	.1	.9	8.4	(D)	11.9	(D)	.2	6.0
13	Oil and gas extraction	E9	5	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	E9	4	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Scott County	-	3	2	.1	1.7	.1	.1	1.4	6.6	(D)	8.7	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels	-	3	2	.1	1.7	.1	.1	1.4	6.6	(D)	8.7	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap	-	3	2	.1	1.7	.1	.1	1.4	6.6	(D)	8.7	(D)	(NA)	(NA)

<sup>1</sup>County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

<sup>2</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>3</sup>Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
0 to 4 employees	100	1	-	5	20	74	Benton County	2	-	-	-	-	2
5 to 9 employees	53	1	-	1	2	49	0 to 19 employees	2	-	-	-	-	2
10 to 19 employees	37	-	-	1	1	35	Black Hawk County	3	-	-	-	-	3
20 to 49 employees	21	-	-	2	-	19	0 to 19 employees	3	-	-	-	-	3
50 to 99 employees	3	-	-	1	-	2	Boone County	3	-	-	-	-	3
100 to 249 employees	2	-	-	-	-	2	0 to 19 employees	2	-	-	-	-	2
Adair County	4	-	-	-	2	2	20 to 99 employees	1	-	-	-	-	1
0 to 19 employees	3	-	-	-	2	1	Buchanan County	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	1	1	0 to 19 employees	2	-	-	-	-	2
Allamakee County	1	-	-	-	-	1	Buena Vista County	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1	0 to 19 employees	1	-	-	-	-	1
Appanoose County	5	-	-	1	-	4	Butler County	1	-	-	-	-	1
0 to 19 employees	4	-	-	1	-	3	0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1	0 to 19 employees	1	-	-	-	-	1
Audubon County	1	-	-	-	-	1	0 to 19 employees	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1	0 to 19 employees	1	-	-	-	-	1

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
Iowa—Con.							Iowa—Con.						
<b>Carroll County</b> -----	3	-	-	-	-	3	<b>Henry County</b> -----	2	-	-	-	-	2
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	2	-	-	-	-	2
20 to 99 employees.....	1	-	-	-	-	1	<b>Howard County</b> -----	1	-	-	-	-	1
<b>Cass County</b> -----	1	-	-	-	1	-	0 to 19 employees.....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	1	-	<b>Humboldt County</b> -----	4	-	-	-	-	4
<b>Cerro Gordo County</b> -----	3	-	-	-	1	2	0 to 19 employees.....	3	-	-	-	-	3
0 to 19 employees.....	3	-	-	-	1	2	20 to 99 employees.....	1	-	-	-	-	1
<b>Cherokee County</b> -----	1	-	-	-	-	1	<b>Jackson County</b> -----	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
<b>Chickasaw County</b> -----	3	-	-	-	-	3	<b>Jasper County</b> -----	3	-	-	-	-	3
0 to 19 employees.....	3	-	-	-	-	3	0 to 19 employees.....	3	-	-	-	-	3
<b>Clarke County</b> -----	1	-	-	-	-	1	<b>Jefferson County</b> -----	2	1	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	2	1	-	-	-	1
<b>Clay County</b> -----	5	-	-	-	2	3	<b>Johnson County</b> -----	3	-	-	-	-	3
0 to 19 employees.....	5	-	-	-	2	3	0 to 19 employees.....	3	-	-	-	-	3
<b>Clayton County</b> -----	2	-	-	-	-	2	<b>Jones County</b> -----	2	-	-	-	-	2
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	1	-	-	-	-	1
<b>Clinton County</b> -----	4	-	-	1	-	3	20 to 99 employees.....	1	-	-	-	-	1
0 to 19 employees.....	4	-	-	1	-	3	<b>Keokuk County</b> -----	5	-	-	-	-	5
<b>Crawford County</b> -----	1	-	-	-	1	-	0 to 19 employees.....	4	-	-	-	-	4
0 to 19 employees.....	1	-	-	-	1	-	20 to 99 employees.....	1	-	-	-	-	1
<b>Dallas County</b> -----	5	-	-	-	-	5	<b>Kossuth County</b> -----	1	-	-	-	1	-
0 to 19 employees.....	5	-	-	-	-	5	0 to 19 employees.....	1	-	-	-	1	-
<b>Decatur County</b> -----	2	-	-	-	-	2	<b>Lee County</b> -----	4	-	-	-	-	4
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	4	-	-	-	-	4
<b>Delaware County</b> -----	2	-	-	-	-	2	<b>Linn County</b> -----	11	-	-	-	2	9
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	7	-	-	-	2	5
20 to 99 employees.....	1	-	-	-	-	1	20 to 99 employees.....	3	-	-	-	-	3
<b>Des Moines County</b> -----	5	1	-	-	-	4	100 to 249 employees.....	1	-	-	-	-	1
0 to 19 employees.....	5	1	-	-	-	4	<b>Louisa County</b> -----	4	-	-	-	1	3
<b>Dickinson County</b> -----	1	-	-	-	-	1	0 to 19 employees.....	4	-	-	-	1	3
0 to 19 employees.....	1	-	-	-	-	1	<b>Lyon County</b> -----	2	-	-	1	-	1
<b>Dubuque County</b> -----	4	-	-	-	-	4	0 to 19 employees.....	2	-	-	1	-	1
0 to 19 employees.....	4	-	-	-	-	4	<b>Madison County</b> -----	5	-	-	-	-	5
<b>Emmet County</b> -----	1	-	-	-	1	-	0 to 19 employees.....	5	-	-	-	-	5
0 to 19 employees.....	1	-	-	-	1	-	<b>Mahaska County</b> -----	5	-	-	4	-	1
<b>Fayette County</b> -----	3	-	-	-	-	3	0 to 19 employees.....	4	-	-	3	-	1
0 to 19 employees.....	2	-	-	-	-	2	20 to 99 employees.....	1	-	-	1	-	-
20 to 99 employees.....	1	-	-	-	-	1	<b>Marion County</b> -----	4	-	-	1	-	3
<b>Floyd County</b> -----	2	-	-	-	1	1	0 to 19 employees.....	3	-	-	-	-	3
0 to 19 employees.....	2	-	-	-	1	1	20 to 99 employees.....	1	-	-	-	-	1
<b>Franklin County</b> -----	1	-	-	-	-	1	<b>Marshall County</b> -----	3	-	-	-	-	3
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	3	-	-	-	-	3
<b>Fremont County</b> -----	3	-	-	-	2	1	<b>Mills County</b> -----	2	-	-	-	-	2
0 to 19 employees.....	3	-	-	-	2	1	0 to 19 employees.....	2	-	-	-	-	2
<b>Greene County</b> -----	1	-	-	-	-	1	<b>Mitchell County</b> -----	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
20 to 99 employees.....	1	-	-	-	-	1	<b>Monroe County</b> -----	1	-	-	1	-	-
<b>Guthrie County</b> -----	1	-	-	-	-	1	20 to 99 employees.....	1	-	-	1	-	-
0 to 19 employees.....	1	-	-	-	-	1	<b>Montgomery County</b> -----	2	-	-	-	-	2
20 to 99 employees.....	1	-	-	-	-	1	0 to 19 employees.....	2	-	-	-	-	2
<b>Hancock County</b> -----	2	-	-	-	-	2	<b>Muscatine County</b> -----	1	-	-	-	-	1
0 to 19 employees.....	2	-	-	-	-	2	20 to 99 employees.....	1	-	-	-	-	1
<b>Hardin County</b> -----	5	-	-	-	-	5	<b>O'Brien County</b> -----	3	-	-	-	-	3
0 to 19 employees.....	4	-	-	-	-	4	0 to 19 employees.....	3	-	-	-	-	3
20 to 99 employees.....	1	-	-	-	-	1	<b>Osceola County</b> -----	1	-	-	-	-	1
<b>Harrison County</b> -----	2	-	-	-	-	2	0 to 19 employees.....	1	-	-	-	-	1
20 to 99 employees.....	2	-	-	-	-	2							

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
Iowa—Con.							Iowa—Con.						
Page County .....	2	-	-	-	-	2	Taylor County .....	1	-	-	-	-	1
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	1	-	-	-	-	1
Palo Alto County .....	3	-	-	-	-	3	Van Buren County .....	2	-	-	-	1	1
0 to 19 employees.....	3	-	-	-	-	3	0 to 19 employees.....	1	-	-	-	1	-
Polk County .....	15	-	-	1	5	9	20 to 99 employees .....	1	-	-	-	-	1
0 to 19 employees.....	14	-	-	1	5	8	Wapello County .....	2	-	-	-	-	2
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees.....	2	-	-	-	-	2
Pottawattamie County .....	1	-	-	-	1	-	Warren County .....	2	-	-	-	-	2
0 to 19 employees.....	1	-	-	-	1	-	0 to 19 employees.....	2	-	-	-	-	2
Poweshiek County .....	2	-	-	-	-	2	Washington County .....	1	-	-	-	-	1
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	1	-	-	-	-	1
Sac County .....	2	-	-	-	-	2	Webster County .....	3	-	-	-	-	3
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	3	-	-	-	-	3
Scott County .....	3	-	-	-	-	3	Winnebago County .....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
20 to 99 employees .....	2	-	-	-	-	2	Winneshiek County .....	4	-	-	-	-	4
Shelby County .....	3	-	-	-	1	2	0 to 19 employees.....	4	-	-	-	-	4
0 to 19 employees.....	3	-	-	-	1	2	Woodbury County .....	1	-	-	-	-	1
Sloux County.....	2	-	-	-	-	2	0 to 19 employees.....	1	-	-	-	-	1
0 to 19 employees.....	2	-	-	-	-	2	Worth County .....	3	-	-	-	-	3
Story County.....	2	-	-	-	-	2	0 to 19 employees.....	2	-	-	-	-	2
0 to 19 employees.....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	-	-	1
20 to 99 employees .....	1	-	-	-	-	1	Wright County .....	1	-	-	-	-	1
							0 to 19 employees.....	1	-	-	-	-	1





# Kansas

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# SUMMARY OF FINDINGS

The total value of shipments and receipts for the 4,451 establishments classified in mineral industries in Kansas amounted to \$6,345 million in 1982, or 3 percent of the Nation's total. This compares to \$2,729 million in 1977 when it also was 3 percent of the Nation's total. Value added by mining amounted to \$3,196 million in 1982, and payroll in mining amounted to \$461 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in

price levels. When making comparisons to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Kansas was 19.9 thousand in 1982, an increase of 63 percent over 1977. It accounted for 2 percent of the Nation's total. Oil and gas extraction led all other mineral industries in the State, accounting for 91 percent of the State's mineral industries employment.

**Table 1. Historical Statistics for the State: 1982 and Earlier Census Years**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
<b>Mineral industries:</b>											
1982 <sup>1</sup> -----	24 451	2222	19.9	461.2	14.4	30.2	295.2	3 195.7	3 567.5	6 344.7	418.5
1977 <sup>1</sup> -----	1 182	156	12.2	180.5	8.8	18.6	124.3	1 134.3	1 793.1	2 728.7	198.6
1972 <sup>1</sup> -----	950	130	8.9	74.8	6.8	14.0	52.7	466.0	309.9	725.1	50.8
1967 <sup>1</sup> -----	1 115	147	10.6	65.2	8.7	17.5	48.7	431.8	257.0	636.2	52.6
1963 -----	1 809	170	14.1	72.5	11.5	23.3	55.8	433.4	273.8	615.1	92.0
1958 -----	1 599	189	15.8	73.0	12.6	25.1	53.5	378.4	221.7	532.7	67.3
<b>Excluding oil and gas extraction industries:</b>											
1982 <sup>1</sup> -----	131	27	1.7	32.3	1.3	2.5	24.5	78.2	33.9	103.0	9.1
1977 <sup>1</sup> <sup>3</sup> -----	174	32	2.1	28.1	1.8	3.5	22.5	78.4	(D)	100.6	(D)
1972 <sup>1</sup> <sup>3</sup> -----	149	30	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1967 <sup>1</sup> <sup>3</sup> -----	171	25	1.8	10.9	1.6	3.3	9.1	31.0	10.3	38.2	3.1
1963 <sup>3</sup> -----	286	26	2.2	11.2	1.9	4.0	9.3	27.3	17.4	36.4	8.4
1958 <sup>3</sup> -----	237	34	2.1	10.1	1.8	3.7	7.9	25.4	9.8	32.7	2.5

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

<sup>1</sup>Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

<sup>2</sup>Not comparable to prior years. See Introduction for further explanation.

<sup>3</sup>Includes data for mining operations at manufacturing locations.

**Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982											1977		
		E <sup>1</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees <sup>2</sup> (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	<b>All mineral industries</b> ----	E1	4 451	222	19.9	461.2	14.4	30.2	295.2	3 195.7	3 567.5	6 344.7	418.5	12.2	1 134.3
12	<b>Bituminous coal and lignite mining</b> -----	E1	15	8	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	17.5
121	Bituminous coal and lignite mining -----	E1	15	8	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	17.5
1211	Bituminous coal and lignite -----	E1	13	8	.4	10.5	.3	.6	8.6	27.1	11.1	35.3	2.9	BB	(D)
13	<b>Oil and gas extraction</b> -----	E1	4 320	195	18.2	428.8	13.1	27.7	270.8	3 117.5	3 533.6	6 241.6	409.4	10.4	1 069.8
1311	Crude petroleum and natural gas -----	E2	2 269	71	7.7	207.7	4.4	8.7	90.0	2 115.8	702.4	2 527.9	290.3	5.3	818.7
1321	Natural gas liquids -----	-	22	9	.4	11.1	.4	.8	10.0	448.0	2 559.9	2 998.1	9.8	.5	100.1
138	Oil and gas field services -----	E2	2 029	115	10.1	210.0	8.3	18.3	170.7	553.7	271.3	715.6	109.4	4.5	151.0
1381	Drilling oil and gas wells -----	E2	769	55	4.4	89.4	3.9	7.9	75.4	230.2	128.3	306.1	52.4	2.0	71.6
1382	Oil and gas field exploration services -----	E3	218	5	.8	12.8	.5	1.0	9.0	34.3	11.6	40.7	5.2	.1	5.3
1389	Oil and gas field services, n.e.c. -----	E2	1 042	55	4.9	107.8	4.0	9.3	86.3	289.1	131.5	368.8	51.8	2.4	74.1
14	<b>Nonmetallic minerals, except fuels</b> -----	E2	111	19	1.3	21.4	1.0	1.8	15.6	49.9	22.4	66.2	6.0	1.4	45.6
142	Crushed and broken stone, including riprap -----	E1	41	12	.7	10.9	.5	1.0	8.2	27.7	9.9	34.7	3.0	.7	27.9
1422	Crushed and broken limestone -----	-	33	9	.5	8.3	.4	.8	6.5	22.2	7.9	27.7	2.4	.6	19.0
1429	Crushed and broken stone, n.e.c. -----	E3	8	3	.2	2.5	.1	.2	1.7	5.5	2.0	7.0	.5	AA	(D)
144	Sand and gravel -----	E3	59	3	.4	7.4	.3	.5	5.0	15.6	8.6	22.2	2.0	.5	14.0
1442	Construction sand and gravel -----	E3	59	3	.4	7.4	.3	.5	5.0	15.6	8.6	22.2	2.0	.5	14.0

<sup>1</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>2</sup>General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982**

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures .....	17	.2	2.3	2.2	(X)
Crushed and broken stone, including riprap .....	5	.1	1.1	.9	2 131.4
Crushed and broken limestone .....	5	.1	1.1	.9	2 131.4
Gypsum .....	2	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Mines only					Mines with preparation plants						
			Total	Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods	Separately operated preparation plants		Undistributed <sup>1</sup>
	<b>ALL MINERAL INDUSTRIES</b>													
	Establishments..... number..	4 451	4 428	2 254	5	9	2 240	69	5	60	4	22	2 083	23
	Employees.....1,000.....	19.9	19.8	6.2	(Z)	(Z)	6.2	1.3	.2	1.1	(Z)	.4	11.9	.1
	Value added in mining..... mil. dol. ....	3 195.7	3 193.0	2 118.6	2.9	2.3	2 113.4	65.6	5.7	58.0	1.9	448.0	560.8	2.7
10	<b>METAL MINING</b>													
	Establishments..... number..	5	5	2	2	-	-	-	-	-	-	-	3	-
	Employees.....1,000.....	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol. ....	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
108	<b>Metal mining services</b>													
	Establishments..... number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000.....	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol. ....	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	<b>Miscellaneous metal ores</b>													
	Establishments..... number..	3	3	2	2	-	-	-	-	-	-	-	1	-
	Employees.....1,000.....	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol. ....	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
12	<b>BITUMINOUS COAL AND LIGNITE MINING</b>													
	Establishments..... number..	15	13	3	3	-	-	5	-	5	-	-	5	2
	Employees.....1,000.....	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	(D)	(D)
	Value added in mining..... mil. dol. ....	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	(D)	(D)
121	<b>Bituminous coal and lignite mining</b>													
	Establishments..... number..	15	13	3	3	-	-	5	-	5	-	-	5	2
	Employees.....1,000.....	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	(D)	(D)
	Value added in mining..... mil. dol. ....	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	(D)	(D)

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—  
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Total	Mines only			Mines with preparation plants				Separately operated preparation plants	Undistributed <sup>1</sup>		
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines				Combination and other methods
<b>13</b>	<b>OIL AND GAS EXTRACTION</b>													
	Establishments.....number...	4 320	4 302	2 240	-	-	2 240	-	-	-	-	22	2 040	18
	Employees.....1,000...	18.2	18.2	6.2	-	-	6.2	-	-	-	-	.4	11.6	(Z)
	Value added in mining.....mil. dol...	3 117.5	3 115.1	2 113.4	-	-	2 113.4	-	-	-	-	448.0	553.7	2.4
<b>131</b>	<b>Crude petroleum and natural gas</b>													
	Establishments.....number...	2 269	2 251	2 240	-	-	2 240	-	-	-	-	-	11	18
	Employees.....1,000...	7.7	7.7	6.2	-	-	6.2	-	-	-	-	-	1.5	(Z)
	Value added in mining.....mil. dol...	2 115.8	2 113.4	2 113.4	-	-	2 113.4	-	-	-	-	-	-	2.4
<b>132</b>	<b>Natural gas liquids</b>													
	Establishments.....number...	22	22	-	-	-	-	-	-	-	-	22	-	-
	Employees.....1,000...	.4	.4	-	-	-	-	-	-	-	-	.4	-	-
	Value added in mining.....mil. dol...	448.0	448.0	-	-	-	-	-	-	-	-	448.0	-	-
<b>138</b>	<b>Oil and gas field services</b>													
	Establishments.....number...	2 029	2 029	-	-	-	-	-	-	-	-	-	2 029	-
	Employees.....1,000...	10.1	10.1	-	-	-	-	-	-	-	-	-	10.1	-
	Value added in mining.....mil. dol...	553.7	553.7	-	-	-	-	-	-	-	-	-	553.7	-
<b>14</b>	<b>NONMETALLIC MINERALS, EXCEPT FUELS</b>													
	Establishments.....number...	111	108	9	-	9	-	64	5	55	4	-	35	3
	Employees.....1,000...	1.3	(D)	(Z)	-	(Z)	-	(D)	.2	(D)	(Z)	-	(D)	(D)
	Value added in mining.....mil. dol...	49.9	(D)	2.3	-	2.3	-	(D)	5.7	(D)	1.9	-	(D)	(D)
<b>141</b>	<b>Dimension stone</b>													
	Establishments.....number...	2	2	2	-	2	-	-	-	-	-	-	-	-
	Employees.....1,000...	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
<b>142</b>	<b>Crushed and broken stone, including riprap</b>													
	Establishments.....number...	41	39	2	-	2	-	34	3	31	-	-	3	2
	Employees.....1,000...	7	(D)	(D)	-	(D)	-	.6	(D)	(D)	-	-	(Z)	(D)
	Value added in mining.....mil. dol...	27.7	(D)	(D)	-	(D)	-	27.1	(D)	(D)	-	-	-	(D)
<b>144</b>	<b>Sand and gravel</b>													
	Establishments.....number...	59	58	4	-	4	-	24	-	20	4	-	30	1
	Employees.....1,000...	.4	(D)	(D)	-	(D)	-	.2	-	.2	(Z)	-	(D)	(D)
	Value added in mining.....mil. dol...	15.6	(D)	(D)	-	(D)	-	8.0	-	6.1	1.9	-	(D)	(D)
<b>145</b>	<b>Clay, ceramic, and refractory minerals</b>													
	Establishments.....number...	3	3	1	-	1	-	2	-	2	-	-	-	-
	Employees.....1,000...	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
<b>147</b>	<b>Chemical and fertilizer mineral mining</b>													
	Establishments.....number...	2	2	-	-	-	-	2	2	-	-	-	-	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-

See footnotes at end of table.

**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—**  
**Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Non-producing establishments	
			Total	Mines only			Mines with preparation plants				Separately operated preparation plants	Undistributed <sup>1</sup>		
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines				Combination and other methods
<b>14</b>	<b>NONMETALLIC MINERALS, EXCEPT FUELS—Con.</b>													
<b>148</b>	<b>Nonmetallic minerals services</b>													
	Establishments..... number...	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>149</b>	<b>Miscellaneous nonmetallic minerals</b>													
	Establishments..... number...	2	2	-	-	-	-	2	-	2	-	-	-	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..... mil. dol...	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

<sup>1</sup>Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

**Table 4a. Summary Statistics for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year..... number...	4 451	Cost of supplies..... mil. dol...	3 567.5
With 0 to 19 employees..... do...	4 229	Supplies used, minerals received, and purchased machinery installed..... do...	3 084.8
With 20 to 99 employees..... do...	210	Resales..... do...	10.8
With 100 employees or more..... do...	12	Purchased fuels consumed..... do...	101.9
All employees:		Purchased electric energy:	
Average for year.....1,000...	19.9	Quantity..... mil. kWh...	1 198.1
Payroll for year..... mil. dol...	461.2	Cost..... mil. dol...	52.6
		Electric energy generated less sold..... mil. kWh...	32.6
		Contract work..... mil. dol...	317.4
Production, development, and exploration workers:		Cost of purchased communication services..... do...	3.2
Average for year.....1,000...	14.4	Value of shipments and receipts..... do...	6 344.7
March..... do...	14.8	Value of resales..... do...	12.3
May..... do...	14.6	Capital expenditures during year (except land and mineral rights)..... do...	418.5
August..... do...	14.3	New capital expenditures during year..... do...	201.5
November..... do...	13.9	Buildings and other structures, except land..... do...	20.2
Hours..... millions...	30.2	Machinery and equipment..... do...	181.2
January to March..... do...	7.6	Used capital expenditures during year..... do...	22.1
April to June..... do...	7.6	Buildings and other structures, except land..... do...	3.0
July to September..... do...	7.5	Machinery and equipment..... do...	19.1
October to December..... do...	7.5	Mineral exploration and development <sup>1</sup> ..... do...	194.9
Wages..... mil. dol...	295.2	Rental payments during year..... do...	22.4
Supplemental labor costs not included in payroll..... do...	73.1	Buildings and other structures, except land..... do...	8.2
Legally required expenditures, including Social Security contributions..... do...	36.3	Machinery and equipment..... do...	14.2
Payments for voluntary programs..... do...	36.8	Expensed mineral exploration, development, land, and rights <sup>1 2</sup> ..... do...	783.5
Value added by mining..... do...	3 195.7		

<sup>1</sup>Excludes data for mining service industries and natural gas liquids industry where data were not collected.

<sup>2</sup>Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

**Table 4b. Inventories for the State: End of 1981 and 1982**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
<b>Total Inventories<sup>1</sup></b> .....	<b>181.2</b>	<b>150.0</b>
Detail by method of valuation:		
Subject to LIFO costing <sup>2</sup> .....	(D)	(D)
LIFO reserve .....	(D)	(D)
LIFO value .....	8.1	6.1
Not subject to LIFO costing .....	67.9	54.1
Valuation method not reported <sup>3</sup> .....	83.3	87.7
Amount subject to LIFO reported without associated reserve and value <sup>4</sup> .....	(D)	(D)

<sup>1</sup>Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

<sup>2</sup>Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

<sup>3</sup>Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

<sup>4</sup>Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982										1977			
		Establishments during year	All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)		
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)							Hours (millions)	Wages (million dollars)
	<b>Kansas</b> .....	E1	4 451	222	19.9	461.2	14.4	30.2	295.2	3 195.7	3 567.5	8 344.7	418.5	12.2	1 134.3
	<b>Allen County</b> .....	E8	58	2	.3	4.1	.2	.4	3.3	27.7	(D)	37.9	(D)	.1	7.9
13	Oil and gas extraction .....	E8	57	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E8	25	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	4.9
138	Oil and gas field services .....	E7	32	-	.1	1.8	.1	.3	1.6	5.0	2.7	6.5	1.1	(NA)	(NA)
	<b>Anderson County</b> .....	E4	18	-	.1	.9	(Z)	.1	.9	5.8	2.3	6.9	1.3	(NA)	(NA)
13	Oil and gas extraction .....	E4	18	-	.1	.9	(Z)	.1	.9	5.8	2.3	6.9	1.3	(NA)	(NA)
131	Crude petroleum and natural gas .....	E2	8	-	(Z)	.6	(Z)	(Z)	.5	4.2	(D)	5.1	(D)	(NA)	(NA)
	<b>Barber County</b> .....	E2	122	8	.5	10.5	.4	.8	7.3	56.7	25.8	72.5	9.9	.4	24.7
13	Oil and gas extraction .....	E2	121	8	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E1	69	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	11.8
132	Natural gas liquids .....	-	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	E4	51	5	.3	5.9	.2	.6	4.6	13.9	6.6	18.1	2.3	(NA)	(NA)
	<b>Barton County</b> .....	E3	221	23	1.8	37.0	1.3	2.8	29.4	126.9	58.2	160.4	24.8	1.4	64.8
13	Oil and gas extraction .....	E3	218	22	1.6	36.1	1.3	2.8	28.8	124.5	(D)	157.0	(D)	1.4	64.1
131	Crude petroleum and natural gas .....	E2	99	8	.5	12.1	.4	.7	8.4	59.2	(D)	78.1	(D)	.7	40.3
138	Oil and gas field services .....	E4	119	14	1.1	24.0	.9	2.0	20.4	65.2	29.2	78.9	15.5	.7	23.8
	<b>Bourbon County</b> .....	E1	18	3	.2	4.0	.2	.3	3.7	11.9	5.2	16.5	.5	(NA)	(NA)
12	Bituminous coal and lignite mining .....	-	2	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	2	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Butler County</b> .....	E1	105	8	.8	11.8	.5	.9	8.4	86.9	30.2	109.2	8.0	.4	25.9
13	Oil and gas extraction .....	E2	103	7	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E2	57	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	16.2
138	Oil and gas field services .....	E1	46	5	.3	5.5	.2	.5	4.6	15.3	8.8	22.0	2.1	(NA)	(NA)
	<b>Chase County</b> .....	-	11	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	-	11	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Chautauqua County</b> .....	E6	46	2	.2	3.1	.1	.3	2.5	15.1	8.6	19.3	4.4	.1	4.0
13	Oil and gas extraction .....	E5	45	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E5	25	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Cherokee County</b> .....	E1	5	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Cheyenne County</b> .....	-	10	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	-	10	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	4	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
	<b>Kansas—Con.</b>														
	<b>Clark County</b> .....	-	62	-	.1	2.5	.1	.2	2.0	38.2	8.0	34.2	12.1	(Z)	4.9
13	Oil and gas extraction .....	-	62	-	.1	2.5	.1	.2	2.0	38.2	8.0	34.2	12.1	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	28	-	(Z)	.5	(Z)	(Z)	.4	33.8	5.3	27.7	11.4	(NA)	(NA)
138	Oil and gas field services .....	E1	34	-	.1	2.0	.1	.2	1.6	4.5	2.7	6.4	.7	(NA)	(NA)
	<b>Coffey County</b> .....	E4	15	-	.1	.8	(Z)	.1	.8	6.2	1.4	7.5	.2	(NA)	(NA)
13	Oil and gas extraction .....	E4	15	-	.1	.8	(Z)	.1	.6	6.2	1.4	7.5	.2	(NA)	(NA)
131	Crude petroleum and natural gas .....	E4	7	-	(Z)	.6	(Z)	.1	.4	5.8	1.2	6.9	.1	(NA)	(NA)
	<b>Comanche County</b> .....	-	57	-	.1	2.2	.1	.1	1.6	153.1	21.8	164.1	10.8	(NA)	(NA)
13	Oil and gas extraction .....	-	57	-	.1	2.2	.1	.1	1.6	153.1	21.8	164.1	10.8	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	28	-	(Z)	.7	(Z)	(Z)	.4	149.7	19.7	159.2	10.2	(NA)	(NA)
	<b>Cowley County</b> .....	E2	82	5	.4	8.2	.3	.7	6.3	36.6	17.6	51.0	3.2	.3	18.1
13	Oil and gas extraction .....	E2	78	5	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E3	48	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	E1	30	1	.1	2.9	.1	.3	2.4	7.9	3.7	10.5	1.1	.2	6.5
	<b>Crawford County</b> .....	E3	18	6	.3	7.9	.2	.5	5.6	19.7	6.4	23.0	3.1	.2	4.6
12	Bituminous coal and lignite mining .....	E4	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	E4	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	-	9	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	-	5	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Decatur County</b> .....	E2	37	2	.2	3.5	.1	.3	3.0	17.8	8.1	23.2	2.8	.1	6.0
13	Oil and gas extraction .....	E2	37	2	.2	3.5	.1	.3	3.0	17.8	8.1	23.2	2.8	.1	6.0
131	Crude petroleum and natural gas .....	E2	22	-	(Z)	.5	(Z)	(Z)	.4	9.8	4.0	12.3	1.5	(NA)	(NA)
138	Oil and gas field services .....	E1	15	2	.1	3.1	.1	.3	2.6	8.0	4.2	10.9	1.3	(NA)	(NA)
	<b>Edwards County</b> .....	-	61	-	.1	1.6	(Z)	.1	1.0	25.0	11.1	27.4	8.7	.1	5.8
13	Oil and gas extraction .....	-	61	-	.1	1.6	(Z)	.1	1.0	25.0	11.1	27.4	8.7	.1	5.8
131	Crude petroleum and natural gas .....	-	35	-	(Z)	.7	(Z)	(Z)	.3	22.6	10.2	24.4	8.4	(NA)	(NA)
	<b>Elk County</b> .....	E3	30	-	.1	1.0	.1	.1	.9	5.6	2.4	7.3	.6	(NA)	(NA)
	<b>Ellis County</b> .....	E1	163	12	.9	18.0	.7	1.6	13.3	125.4	48.3	153.1	20.6	.4	44.8
13	Oil and gas extraction .....	E1	162	12	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E1	85	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	38.5
138	Oil and gas field services .....	E2	77	10	.7	13.4	.6	1.3	10.5	34.3	16.3	44.7	5.9	(NA)	(NA)
	<b>Ellsworth County</b> .....	-	64	1	.1	2.1	.1	.2	1.6	13.3	4.2	16.3	1.3	(NA)	(NA)
13	Oil and gas extraction .....	-	63	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	40	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Finney County</b> .....	-	62	2	.2	3.1	.1	.2	2.1	58.2	43.1	97.2	4.0	.1	28.9
13	Oil and gas extraction .....	-	61	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	35	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
132	Natural gas liquids .....	-	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	-	23	1	(Z)	1.2	(Z)	.1	.9	3.9	1.8	5.4	.3	(NA)	(NA)
	<b>Ford County</b> .....	-	45	1	.1	1.7	.1	.1	1.3	18.9	13.7	28.5	4.1	(NA)	(NA)
13	Oil and gas extraction .....	-	42	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	18	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
132	Natural gas liquids .....	-	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	-	23	1	(Z)	1.2	(Z)	.1	.9	3.9	1.8	5.4	.3	(NA)	(NA)
	<b>Franklin County</b> .....	E3	27	3	.2	3.1	.1	.3	2.3	11.4	4.7	14.4	1.7	(NA)	(NA)
13	Oil and gas extraction .....	E5	24	1	.1	1.6	.1	.2	1.3	8.2	3.2	9.9	1.4	(NA)	(NA)
138	Oil and gas field services .....	E2	15	1	.1	1.2	.1	.2	1.1	4.5	(D)	5.2	(D)	(NA)	(NA)

See footnotes at end of table.



**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
	<b>Kansas—Con.</b>														
	<b>Gove County</b> -----	-	42	2	.1	2.2	.1	.2	1.8	20.9	9.2	17.9	12.2	(Z)	5.2
13	Oil and gas extraction -----	-	42	2	.1	2.2	.1	.2	1.8	20.9	9.2	17.9	12.2	(Z)	5.2
131	Crude petroleum and natural gas -----	-	21	-	(Z)	.4	(Z)	(Z)	.2	14.9	(D)	11.3	(D)	(Z)	5.0
138	Oil and gas field services -----	-	21	2	.1	1.8	.1	.2	1.7	6.0	(D)	6.7	(D)	(NA)	(NA)
	<b>Graham County</b> -----	E1	86	5	.2	5.0	.2	.4	4.0	35.0	13.8	43.0	5.5	.2	17.9
13	Oil and gas extraction -----	E1	86	5	.2	5.0	.2	.4	4.0	35.0	13.6	43.0	5.5	.2	17.9
131	Crude petroleum and natural gas -----	-	51	1	.1	1.5	.1	.1	1.2	25.6	9.4	31.2	3.8	.1	16.2
138	Oil and gas field services -----	E2	35	4	.2	3.5	.1	.3	2.8	9.3	4.2	11.8	1.7	(NA)	(NA)
	<b>Grant County</b> -----	E1	59	7	.4	10.0	.4	.7	8.2	164.8	315.9	472.1	8.5	.3	100.9
13	Oil and gas extraction -----	E1	59	7	.4	10.0	.4	.7	8.2	164.8	315.9	472.1	8.5	.3	100.9
131	Crude petroleum and natural gas -----	-	40	2	.2	5.3	.2	.3	3.8	121.1	(D)	154.3	(D)	.1	67.3
132	Natural gas liquids -----	-	4	4	.1	3.4	.1	.3	3.4	40.6	(D)	314.0	(D)	.1	30.7
	<b>Gray County</b> -----	-	18	-	(Z)	.3	(Z)	(Z)	.2	7.1	3.4	8.6	1.9	(NA)	(NA)
13	Oil and gas extraction -----	-	18	-	(Z)	.3	(Z)	(Z)	.2	7.1	3.4	8.6	1.9	(NA)	(NA)
131	Crude petroleum and natural gas -----	-	9	-	(Z)	.1	(Z)	(Z)	(Z)	6.8	(D)	8.1	(D)	(NA)	(NA)
	<b>Greeley County</b> -----	-	17	-	(Z)	.8	(Z)	(Z)	.5	8.2	2.8	9.9	1.2	(NA)	(NA)
13	Oil and gas extraction -----	-	17	-	(Z)	.6	(Z)	(Z)	.5	8.2	2.8	9.9	1.2	(NA)	(NA)
131	Crude petroleum and natural gas -----	-	9	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Greenwood County</b> -----	E5	63	1	.2	4.4	.2	.4	3.4	28.8	12.0	33.9	4.9	.2	10.7
13	Oil and gas extraction -----	E5	63	1	.2	4.4	.2	.4	3.4	26.8	12.0	33.9	4.9	.2	10.7
131	Crude petroleum and natural gas -----	-	33	-	.1	1.9	.1	.1	1.3	20.5	9.6	27.0	3.1	.1	8.0
138	Oil and gas field services -----	E3	30	1	.1	2.5	.1	.2	2.1	6.3	2.4	7.0	1.7	(NA)	(NA)
	<b>Hamilton County</b> -----	-	21	-	(Z)	.3	(Z)	(Z)	.2	10.7	1.5	11.4	.8	(Z)	7.1
13	Oil and gas extraction -----	-	21	-	(Z)	.3	(Z)	(Z)	.2	10.7	1.5	11.4	.8	(NA)	(NA)
131	Crude petroleum and natural gas -----	-	14	-	(Z)	.2	(Z)	(Z)	.2	10.5	1.3	11.1	.7	(NA)	(NA)
	<b>Harper County</b> -----	-	84	2	.2	3.8	.1	.3	2.9	48.3	(D)	74.4	(D)	.1	22.8
13	Oil and gas extraction -----	-	63	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	22.6
131	Crude petroleum and natural gas -----	E1	31	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
132	Natural gas liquids -----	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services -----	-	31	-	.1	2.0	.1	.2	1.6	5.2	2.4	7.2	.5	(NA)	(NA)
	<b>Harvey County</b> -----	E4	36	-	(Z)	.7	(Z)	.1	.6	7.9	4.3	11.7	.4	(NA)	(NA)
13	Oil and gas extraction -----	E4	35	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E4	22	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Haskell County</b> -----	-	38	-	.1	2.3	.1	.1	1.5	38.2	6.3	40.7	3.9	(Z)	19.0
13	Oil and gas extraction -----	-	37	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	-	20	-	(Z)	1.1	(Z)	.1	.7	34.4	4.6	35.9	3.1	(NA)	(NA)
	<b>Hodgeman County</b> -----	-	56	-	(Z)	.9	(Z)	.1	.7	16.8	5.6	20.4	2.0	(Z)	8.1
13	Oil and gas extraction -----	-	56	-	(Z)	.9	(Z)	.1	.7	16.8	5.6	20.4	2.0	(Z)	8.1
131	Crude petroleum and natural gas -----	-	33	-	(Z)	.3	(Z)	(Z)	.2	15.3	4.9	18.4	1.8	(Z)	7.3
	<b>Jefferson County</b> -----	E1	7	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E1	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Johnson County</b> -----	E8	39	3	.2	2.9	.1	.2	2.0	20.9	8.7	28.3	1.3	.1	13.6
13	Oil and gas extraction -----	E7	32	1	.1	1.3	.1	.1	1.0	18.1	(D)	25.0	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	-	18	-	(Z)	.7	(Z)	(Z)	.5	11.6	(D)	16.8	(D)	(Z)	6.2
138	Oil and gas field services -----	E2	14	1	(Z)	.6	(Z)	.1	.5	6.6	2.7	8.2	1.1	(NA)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
	<b>Kansas—Con.</b>														
	<b>Kearny County</b> -----	-	30	-	.1	1.9	.1	.1	1.3	44.2	27.3	68.3	3.3	.1	52.4
13	Oil and gas extraction -----	-	30	-	.1	1.9	.1	.1	1.3	44.2	27.3	68.3	3.3	.1	52.4
131	Crude petroleum and natural gas -----	-	20	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
132	Natural gas liquids -----	-	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Kingman County</b> -----	-	97	2	.2	4.5	.2	.3	3.8	59.9	79.2	132.1	7.1	.2	35.7
13	Oil and gas extraction -----	-	97	2	.2	4.5	.2	.3	3.8	59.9	79.2	132.1	7.1	.2	35.7
131	Crude petroleum and natural gas -----	-	56	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
132	Natural gas liquids -----	-	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services -----	-	40	-	.1	1.8	.1	.1	1.5	5.1	2.1	6.7	.4	(NA)	(NA)
	<b>Kiowa County</b> -----	-	57	-	.1	2.5	.1	.2	1.9	32.4	9.3	38.5	3.2	(Z)	10.6
13	Oil and gas extraction -----	-	57	-	.1	2.5	.1	.2	1.9	32.4	9.3	38.5	3.2	(Z)	10.6
131	Crude petroleum and natural gas -----	-	31	-	(Z)	1.2	(Z)	.1	.8	29.3	7.9	34.5	2.7	(Z)	9.8
	<b>Labette County</b> -----	E2	14	3	.1	2.8	.1	.2	2.3	7.6	2.1	8.9	.8	(NA)	(NA)
12	Bituminous coal and lignite mining -----	E1	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining -----	E1	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Lane County</b> -----	-	42	2	.1	2.8	.1	.3	2.4	27.8	13.4	33.7	7.5	.1	7.9
13	Oil and gas extraction -----	-	42	2	.1	2.8	.1	.3	2.4	27.8	13.4	33.7	7.5	.1	7.9
131	Crude petroleum and natural gas -----	-	22	-	(Z)	.5	(Z)	.3	.3	20.2	11.2	25.1	6.3	(Z)	7.1
138	Oil and gas field services -----	-	20	2	.1	2.4	.1	.2	2.1	7.6	2.3	8.6	1.3	(NA)	(NA)
	<b>Logan County</b> -----	-	28	3	.1	2.4	.1	.2	1.7	9.5	4.8	11.6	2.7	(NA)	(NA)
13	Oil and gas extraction -----	-	28	3	.1	2.4	.1	.2	1.7	9.5	4.8	11.6	2.7	(NA)	(NA)
138	Oil and gas field services -----	-	14	3	.1	2.2	.1	.2	1.6	5.6	2.1	6.9	.8	(NA)	(NA)
	<b>McPherson County</b> -----	-	79	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	10.9
13	Oil and gas extraction -----	-	78	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	10.9
131	Crude petroleum and natural gas -----	E6	41	-	.1	1.0	.1	.1	.6	20.7	9.9	28.0	2.6	.1	8.6
132	Natural gas liquids -----	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services -----	E1	36	2	.1	2.2	.1	.2	1.9	5.0	2.6	6.8	.8	(NA)	(NA)
	<b>Marion County</b> -----	E2	41	2	.1	2.5	.1	.2	1.8	9.4	5.7	13.7	1.5	(NA)	(NA)
13	Oil and gas extraction -----	E2	38	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E3	18	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Meade County</b> -----	-	60	-	.1	2.1	.1	.1	1.8	24.2	7.7	21.4	10.5	.1	19.4
13	Oil and gas extraction -----	-	60	-	.1	2.1	.1	.1	1.8	24.2	7.7	21.4	10.5	.1	19.4
131	Crude petroleum and natural gas -----	-	32	-	(Z)	.6	(Z)	.1	.6	19.8	4.9	15.1	9.6	(Z)	17.9
138	Oil and gas field services -----	E1	28	-	.1	1.5	(Z)	.1	1.2	4.4	2.8	6.2	.9	(NA)	(NA)
	<b>Miami County</b> -----	E9	34	2	.2	2.7	.1	.2	1.9	32.9	(D)	47.6	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E9	33	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E9	18	2	.1	2.1	.1	.2	1.4	31.2	14.5	45.4	.4	(NA)	(NA)
	<b>Montgomery County</b> -----	E7	70	4	.4	6.9	.4	.7	5.3	31.9	17.5	45.7	3.6	.5	5.6
13	Oil and gas extraction -----	E7	68	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	E8	31	1	.2	3.2	.2	.3	1.9	22.1	11.0	32.4	.7	.2	4.4
138	Oil and gas field services -----	E5	37	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Morris County</b> -----	-	19	-	(Z)	.5	(Z)	(Z)	.4	5.4	(D)	6.1	(D)	(NA)	(NA)
13	Oil and gas extraction -----	-	19	-	(Z)	.5	(Z)	(Z)	.4	5.4	(D)	6.1	(D)	(NA)	(NA)
131	Crude petroleum and natural gas -----	-	5	-	(Z)	.3	(Z)	(Z)	.3	5.0	(D)	5.4	(D)	(NA)	(NA)
	<b>Morton County</b> -----	-	58	2	.2	4.1	.2	.3	2.9	89.7	26.1	99.8	16.0	.1	42.0
13	Oil and gas extraction -----	-	58	2	.2	4.1	.2	.3	2.9	89.7	26.1	99.8	16.0	.1	42.0
131	Crude petroleum and natural gas -----	-	26	1	(Z)	1.3	(Z)	.1	1.1	82.5	20.5	88.1	14.9	(Z)	39.4
138	Oil and gas field services -----	E2	31	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	<b>Kansas—Con.</b>														
	<b>Neosho County</b> .....	E7	61	5	.6	14.6	.5	1.2	12.0	62.1	(D)	82.1	(D)	.1	9.7
13	Oil and gas extraction .....	E7	59	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	8.4
131	Crude petroleum and natural gas .....	E9	25	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	6.3
138	Oil and gas field services .....	E6	33	4	.5	12.4	.4	1.0	10.4	38.1	(D)	48.5	10.0	(NA)	(NA)
	<b>Ness County</b> .....	E2	102	3	.3	7.5	.2	.5	5.4	49.7	18.5	62.5	5.8	.1	18.2
13	Oil and gas extraction .....	E2	101	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	59	-	.1	1.4	.1	.1	1.0	37.3	12.1	45.7	3.6	(Z)	15.5
138	Oil and gas field services .....	E6	42	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Norton County</b> .....	E1	22	-	(Z)	.7	(Z)	.1	.5	5.3	2.2	6.8	.7	(NA)	(NA)
13	Oil and gas extraction .....	E1	22	-	(Z)	.7	(Z)	.1	.5	5.3	2.2	6.8	.7	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	14	-	(Z)	.1	(Z)	(Z)	.1	4.1	1.5	5.0	.6	(NA)	(NA)
	<b>Pawnee County</b> .....	-	70	1	.1	2.3	.1	.2	1.9	18.8	6.3	22.1	3.1	(Z)	4.9
13	Oil and gas extraction .....	-	68	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	36	-	(Z)	.5	(Z)	(Z)	.2	14.2	4.2	15.9	2.5	(Z)	4.0
138	Oil and gas field services .....	-	32	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Phillips County</b> .....	E1	27	2	.4	10.7	.1	.1	1.5	40.0	(D)	37.0	(D)	.2	16.1
13	Oil and gas extraction .....	E1	27	2	.4	10.7	.1	.1	1.5	40.0	(D)	37.0	(D)	.2	16.1
131	Crude petroleum and natural gas .....	E1	18	2	.4	10.5	.1	.1	1.3	39.4	(D)	36.1	(D)	.2	15.2
	<b>Pratt County</b> .....	E3	110	5	.4	10.2	.3	.7	7.4	58.3	22.9	71.9	9.3	.2	12.0
13	Oil and gas extraction .....	E3	109	5	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E4	55	2	.1	2.8	.1	.2	1.7	37.0	12.5	44.0	5.5	(Z)	7.4
138	Oil and gas field services .....	E3	54	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Rawlins County</b> .....	-	24	-	(Z)	1.0	(Z)	.1	.8	10.0	3.8	13.0	.9	(Z)	6.9
13	Oil and gas extraction .....	-	24	-	(Z)	1.0	(Z)	.1	.8	10.0	3.8	13.0	.9	(Z)	6.9
131	Crude petroleum and natural gas .....	-	17	-	(Z)	.7	(Z)	.1	.6	9.3	(D)	11.9	(D)	(Z)	5.6
	<b>Reno County</b> .....	-	74	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	-	70	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E1	38	-	(Z)	1.1	(Z)	.1	.8	15.5	6.4	19.2	2.7	(NA)	(NA)
132	Natural gas liquids .....	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Rice County</b> .....	-	96	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	11.6
13	Oil and gas extraction .....	-	94	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E1	48	-	.1	1.4	(Z)	.1	.9	23.0	8.0	27.1	3.8	.1	8.1
132	Natural gas liquids .....	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	E3	45	3	.3	6.2	.3	.6	5.3	13.6	6.8	17.9	2.6	(NA)	(NA)
	<b>Rooks County</b> .....	E1	114	8	.6	13.0	.4	1.0	9.7	73.9	29.4	93.9	9.4	.2	21.3
13	Oil and gas extraction .....	E1	114	8	.6	13.0	.4	1.0	9.7	73.9	29.4	93.9	9.4	.2	21.3
131	Crude petroleum and natural gas .....	-	64	2	.2	4.0	.1	.2	2.2	53.6	19.7	66.2	7.1	.1	17.9
138	Oil and gas field services .....	E2	50	6	.4	9.0	.3	.8	7.4	20.3	9.7	27.7	2.3	(NA)	(NA)
	<b>Rush County</b> .....	-	55	1	.1	1.6	.1	.2	1.2	14.0	3.4	16.4	1.0	.1	14.4
13	Oil and gas extraction .....	-	55	1	.1	1.6	.1	.2	1.2	14.0	3.4	16.4	1.0	.1	14.4
131	Crude petroleum and natural gas .....	-	29	-	(Z)	.3	(Z)	(Z)	.2	9.0	2.2	10.6	.6	.1	13.9
138	Oil and gas field services .....	-	26	1	.1	1.3	.1	.2	1.0	5.0	1.2	5.8	.4	(NA)	(NA)
	<b>Russell County</b> .....	E2	133	8	.6	14.6	.5	1.2	11.9	106.4	41.2	136.3	11.3	.6	44.4
13	Oil and gas extraction .....	E2	133	8	.6	14.6	.5	1.2	11.9	106.4	41.2	136.3	11.3	.6	44.4
131	Crude petroleum and natural gas .....	E1	71	2	.2	5.8	.2	.4	4.4	86.7	30.1	109.3	7.5	.3	37.1
138	Oil and gas field services .....	E3	62	6	.4	8.8	.3	.8	7.6	19.7	11.1	26.9	3.8	.3	7.3
	<b>Saline County</b> .....	E6	22	-	(Z)	.4	(Z)	(Z)	.3	5.4	2.6	7.7	.4	(NA)	(NA)
13	Oil and gas extraction .....	E6	22	-	(Z)	.4	(Z)	(Z)	.3	5.4	2.6	7.7	.4	(NA)	(NA)
131	Crude petroleum and natural gas .....	E7	9	-	(Z)	.1	(Z)	(Z)	.1	4.7	(D)	6.7	(D)	(NA)	(NA)

See footnotes at end of table.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	<b>Kansas—Con.</b>														
	<b>Scott County</b> .....	E9	24	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	E9	24	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
132	Natural gas liquids .....	E9	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Sedgwick County</b> .....	E6	278	37	3.6	110.9	1.6	3.3	33.6	218.3	216.8	421.4	13.6	1.8	60.9
13	Oil and gas extraction .....	E6	262	36	3.5	109.2	1.5	3.2	32.5	214.9	214.1	415.8	13.1	1.7	57.0
131	Crude petroleum and natural gas .....	E8	153	22	2.4	88.3	.8	1.6	16.6	161.8	(D)	233.0	(D)	1.3	42.9
132	Natural gas liquids .....	-	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	E8	108	14	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Seward County</b> .....	-	101	6	.6	16.5	.5	1.0	10.9	94.8	595.5	669.3	21.0	.4	53.1
13	Oil and gas extraction .....	-	101	6	.6	16.5	.5	1.0	10.9	94.8	595.5	669.3	21.0	.4	53.1
131	Crude petroleum and natural gas .....	E1	46	2	.2	5.8	.1	.2	2.6	50.8	11.6	48.4	14.0	(NA)	(NA)
132	Natural gas liquids .....	-	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	E3	51	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Shawnee County</b> .....	E9	16	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	3.9
	<b>Sheridan County</b> .....	-	30	-	(Z)	.5	(Z)	(Z)	.4	5.8	2.1	7.0	.8	(NA)	(NA)
13	Oil and gas extraction .....	-	30	-	(Z)	.5	(Z)	(Z)	.4	5.8	2.1	7.0	.8	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	19	-	(Z)	.2	(Z)	(Z)	.2	5.0	1.6	5.9	.7	(NA)	(NA)
	<b>Stafford County</b> .....	-	106	2	.2	5.6	.2	.4	4.1	48.1	17.0	57.7	7.4	.1	15.6
13	Oil and gas extraction .....	-	106	2	.2	5.6	.2	.4	4.1	48.1	17.0	57.7	7.4	.1	15.6
131	Crude petroleum and natural gas .....	-	55	1	.1	2.5	.1	.1	1.3	40.5	11.9	46.4	6.1	(Z)	14.2
138	Oil and gas field services .....	E1	51	1	.1	3.2	.1	.3	2.8	7.6	5.1	11.3	1.4	(NA)	(NA)
	<b>Stanton County</b> .....	-	14	-	(Z)	.6	(Z)	(Z)	.4	14.7	2.9	16.7	.8	(Z)	27.6
13	Oil and gas extraction .....	-	14	-	(Z)	.6	(Z)	(Z)	.4	14.7	2.9	16.7	.8	(Z)	27.6
131	Crude petroleum and natural gas .....	-	8	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	27.0
	<b>Stevens County</b> .....	-	40	2	.2	4.2	.1	.3	3.0	86.7	22.6	92.4	16.9	.1	63.5
13	Oil and gas extraction .....	-	40	2	.2	4.2	.1	.3	3.0	86.7	22.6	92.4	16.9	.1	63.5
131	Crude petroleum and natural gas .....	-	16	-	(Z)	1.0	(Z)	.1	.9	78.3	(D)	78.9	(D)	(Z)	61.1
138	Oil and gas field services .....	-	23	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Sumner County</b> .....	-	87	3	.3	5.9	.2	.4	4.1	58.5	18.8	73.3	4.1	.1	10.5
13	Oil and gas extraction .....	-	86	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	47	2	.1	3.6	.1	.2	2.1	52.7	16.0	65.4	3.4	(Z)	7.7
138	Oil and gas field services .....	-	39	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Thomas County</b> .....	-	17	-	(Z)	1.0	(Z)	.1	.7	4.8	3.6	6.8	1.5	(NA)	(NA)
13	Oil and gas extraction .....	-	17	-	(Z)	1.0	(Z)	.1	.7	4.8	3.6	6.8	1.5	(NA)	(NA)
	<b>Trego County</b> .....	-	67	2	.2	3.2	.2	.3	2.4	26.6	12.9	33.8	5.7	.1	3.8
13	Oil and gas extraction .....	-	67	2	.2	3.2	.2	.3	2.4	26.6	12.9	33.8	5.7	.1	3.8
131	Crude petroleum and natural gas .....	-	34	-	(Z)	.4	(Z)	.3	.3	16.0	7.5	20.9	2.6	(NA)	(NA)
138	Oil and gas field services .....	-	33	2	.2	2.8	.1	.3	2.1	10.6	5.4	12.9	3.1	(NA)	(NA)
	<b>Wilson County</b> .....	E5	32	-	.1	1.5	.1	.1	1.0	9.5	3.8	12.2	1.1	(NA)	(NA)
13	Oil and gas extraction .....	E5	31	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E5	15	-	.1	.9	(Z)	.1	.5	7.7	2.9	9.7	.8	(NA)	(NA)
	<b>Woodson County</b> .....	E6	45	1	.2	2.7	.1	.3	2.3	22.7	8.9	27.5	4.1	(NA)	(NA)
13	Oil and gas extraction .....	E6	45	1	.2	2.7	.1	.3	2.3	22.7	8.9	27.5	4.1	(NA)	(NA)
131	Crude petroleum and natural gas .....	E6	20	1	.1	1.5	.1	.1	1.3	18.8	6.8	22.6	3.1	(NA)	(NA)

<sup>1</sup>County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

<sup>2</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>3</sup>Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Kansas</b> .....	<b>4 451</b>	<b>5</b>	<b>-</b>	<b>15</b>	<b>4 320</b>	<b>111</b>	<b>Kansas—Con.</b>						
0 to 4 employees.....	3 550	4	-	2	3 499	45	<b>Doniphan County</b> .....	1	-	-	-	-	1
5 to 9 employees.....	411	-	-	2	389	20	0 to 19 employees.....	1	-	-	-	-	1
10 to 19 employees.....	258	1	-	3	237	27	<b>Douglas County</b> .....	10	-	-	-	8	2
20 to 49 employees.....	177	-	-	6	154	17	0 to 19 employees.....	10	-	-	-	8	2
50 to 99 employees.....	33	-	-	1	30	2	<b>Edwards County</b> .....	61	-	-	-	61	-
100 to 249 employees.....	10	-	-	1	9	-	0 to 19 employees.....	61	-	-	-	61	-
250 to 499 employees.....	1	-	-	-	1	-	<b>Elk County</b> .....	30	-	-	-	28	2
500 to 999 employees.....	1	-	-	-	1	-	0 to 19 employees.....	30	-	-	-	28	2
<b>Allen County</b> .....	<b>58</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>57</b>	<b>1</b>	<b>Ellis County</b> .....	<b>163</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>162</b>	<b>1</b>
0 to 19 employees.....	56	-	-	-	55	1	0 to 19 employees.....	151	-	-	-	150	1
20 to 99 employees.....	2	-	-	-	2	-	20 to 99 employees.....	12	-	-	-	12	-
<b>Anderson County</b> .....	<b>18</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18</b>	<b>-</b>	<b>Ellsworth County</b> .....	<b>64</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>63</b>	<b>1</b>
0 to 19 employees.....	18	-	-	-	18	-	0 to 19 employees.....	63	-	-	-	63	-
<b>Atchison County</b> .....	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4</b>	<b>1</b>	20 to 99 employees.....	1	-	-	-	-	1
0 to 19 employees.....	5	-	-	-	4	1	<b>Finney County</b> .....	<b>62</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>61</b>	<b>1</b>
<b>Barber County</b> .....	<b>122</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>121</b>	<b>1</b>	0 to 19 employees.....	60	-	-	-	60	-
0 to 19 employees.....	114	-	-	-	113	1	20 to 99 employees.....	2	-	-	-	1	1
20 to 99 employees.....	8	-	-	-	8	-	<b>Ford County</b> .....	<b>45</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>42</b>	<b>3</b>
<b>Barton County</b> .....	<b>221</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>218</b>	<b>2</b>	0 to 19 employees.....	44	-	-	-	41	3
0 to 19 employees.....	198	-	-	-	196	2	20 to 99 employees.....	1	-	-	-	1	-
20 to 99 employees.....	22	-	-	1	21	-	<b>Franklin County</b> .....	<b>27</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>24</b>	<b>3</b>
100 to 249 employees.....	1	-	-	-	1	-	0 to 19 employees.....	24	-	-	-	23	1
<b>Bourbon County</b> .....	<b>18</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>14</b>	<b>2</b>	20 to 99 employees.....	3	-	-	-	1	2
0 to 19 employees.....	15	-	-	-	14	1	<b>Geary County</b> .....	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>2</b>
20 to 99 employees.....	3	-	-	2	-	-	0 to 19 employees.....	5	-	-	-	3	2
<b>Brown County</b> .....	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>Gove County</b> .....	<b>42</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>42</b>	<b>-</b>
0 to 19 employees.....	1	-	-	-	1	-	0 to 19 employees.....	40	-	-	-	40	-
<b>Butler County</b> .....	<b>105</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>103</b>	<b>2</b>	20 to 99 employees.....	2	-	-	-	2	-
0 to 19 employees.....	97	-	-	-	96	1	<b>Graham County</b> .....	<b>86</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>86</b>	<b>-</b>
20 to 99 employees.....	8	-	-	-	7	1	0 to 19 employees.....	81	-	-	-	81	-
<b>Chase County</b> .....	<b>11</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>11</b>	<b>-</b>	20 to 99 employees.....	5	-	-	-	5	-
0 to 19 employees.....	10	-	-	-	10	-	<b>Grant County</b> .....	<b>59</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>59</b>	<b>-</b>
20 to 99 employees.....	1	-	-	-	1	-	0 to 19 employees.....	52	-	-	-	52	-
<b>Chautauqua County</b> .....	<b>46</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>45</b>	<b>1</b>	20 to 99 employees.....	7	-	-	-	7	-
0 to 19 employees.....	44	-	-	-	44	-	<b>Gray County</b> .....	<b>18</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18</b>	<b>-</b>
20 to 99 employees.....	2	-	-	-	1	1	0 to 19 employees.....	18	-	-	-	18	-
<b>Cherokee County</b> .....	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>4</b>	<b>Greeley County</b> .....	<b>17</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>17</b>	<b>-</b>
0 to 19 employees.....	5	-	-	-	1	4	0 to 19 employees.....	17	-	-	-	17	-
<b>Cheyenne County</b> .....	<b>10</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>10</b>	<b>-</b>	<b>Greenwood County</b> .....	<b>63</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>63</b>	<b>-</b>
0 to 19 employees.....	10	-	-	-	10	-	0 to 19 employees.....	62	-	-	-	62	-
<b>Clark County</b> .....	<b>62</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>62</b>	<b>-</b>	20 to 99 employees.....	1	-	-	-	1	-
0 to 19 employees.....	62	-	-	-	62	-	<b>Hamilton County</b> .....	<b>21</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>21</b>	<b>-</b>
<b>Clay County</b> .....	<b>4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4</b>	<b>-</b>	0 to 19 employees.....	21	-	-	-	21	-
0 to 19 employees.....	4	-	-	-	4	-	<b>Harper County</b> .....	<b>64</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>63</b>	<b>1</b>
<b>Cloud County</b> .....	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>1</b>	0 to 19 employees.....	62	-	-	-	61	1
0 to 19 employees.....	2	-	-	-	1	1	20 to 99 employees.....	2	-	-	-	2	-
<b>Coffey County</b> .....	<b>15</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>15</b>	<b>-</b>	<b>Harvey County</b> .....	<b>36</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>35</b>	<b>1</b>
0 to 19 employees.....	15	-	-	-	15	-	0 to 19 employees.....	36	-	-	-	35	1
<b>Comanche County</b> .....	<b>57</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>57</b>	<b>-</b>	<b>Haskell County</b> .....	<b>38</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>37</b>	<b>1</b>
0 to 19 employees.....	57	-	-	-	57	-	0 to 19 employees.....	38	-	-	-	37	1
<b>Cowley County</b> .....	<b>82</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>78</b>	<b>4</b>	<b>Hodgeman County</b> .....	<b>56</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>56</b>	<b>-</b>
0 to 19 employees.....	77	-	-	-	73	4	0 to 19 employees.....	56	-	-	-	56	-
20 to 99 employees.....	5	-	-	-	5	-	<b>Jackson County</b> .....	<b>6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6</b>	<b>-</b>
<b>Crawford County</b> .....	<b>16</b>	<b>1</b>	<b>-</b>	<b>5</b>	<b>9</b>	<b>1</b>	0 to 19 employees.....	6	-	-	-	6	-
0 to 19 employees.....	10	1	-	2	7	-	<b>Jefferson County</b> .....	<b>7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>4</b>
20 to 99 employees.....	5	-	-	2	2	1	0 to 19 employees.....	6	-	-	-	3	3
100 to 249 employees.....	1	-	-	1	-	-	20 to 99 employees.....	1	-	-	-	-	1
<b>Decatur County</b> .....	<b>37</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>37</b>	<b>-</b>	<b>Johnson County</b> .....	<b>39</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>32</b>	<b>5</b>
0 to 19 employees.....	35	-	-	-	35	-	0 to 19 employees.....	36	-	-	-	31	3
20 to 99 employees.....	2	-	-	-	2	-	20 to 99 employees.....	3	-	-	-	1	2
<b>Dickinson County</b> .....	<b>16</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>11</b>	<b>4</b>							
0 to 19 employees.....	16	1	-	-	11	4							

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Kansas—Con.</b>							<b>Kansas—Con.</b>						
<b>Kearny County</b> .....	30	-	-	-	30	-	<b>Osborne County</b> .....	18	-	-	-	18	-
0 to 19 employees .....	30	-	-	-	30	-	0 to 19 employees .....	17	-	-	-	17	-
20 to 99 employees .....	-	-	-	-	-	-	20 to 99 employees .....	1	-	-	-	1	-
<b>Kingman County</b> .....	97	-	-	-	97	-	<b>Pawnee County</b> .....	70	-	-	-	68	2
0 to 19 employees .....	95	-	-	-	95	-	0 to 19 employees .....	69	-	-	-	67	2
20 to 99 employees .....	2	-	-	-	2	-	20 to 99 employees .....	1	-	-	-	1	-
<b>Kiowa County</b> .....	57	-	-	-	57	-	<b>Phillips County</b> .....	27	-	-	-	27	-
0 to 19 employees .....	57	-	-	-	57	-	0 to 19 employees .....	25	-	-	-	25	-
<b>Labette County</b> .....	14	-	-	3	10	1	20 to 99 employees .....	1	-	-	-	1	-
0 to 19 employees .....	11	-	-	1	10	-	250 employees or more .....	1	-	-	-	1	-
20 to 99 employees .....	3	-	-	2	-	1	<b>Pottawatomie County</b> .....	1	-	-	-	1	-
<b>Lane County</b> .....	42	-	-	-	42	-	0 to 19 employees .....	1	-	-	-	1	-
0 to 19 employees .....	40	-	-	-	40	-	<b>Pratt County</b> .....	110	-	-	-	109	1
20 to 99 employees .....	2	-	-	-	2	-	0 to 19 employees .....	105	-	-	-	104	1
<b>Leavenworth County</b> .....	5	-	-	-	3	2	20 to 99 employees .....	5	-	-	-	5	-
0 to 19 employees .....	5	-	-	-	3	2	<b>Rawlins County</b> .....	24	-	-	-	24	-
<b>Lincoln County</b> .....	1	-	-	-	-	1	0 to 19 employees .....	24	-	-	-	24	-
20 to 99 employees .....	1	-	-	-	-	1	<b>Reno County</b> .....	74	-	-	-	70	4
<b>Linn County</b> .....	15	-	-	-	10	5	0 to 19 employees .....	72	-	-	-	69	3
0 to 19 employees .....	15	-	-	-	10	5	20 to 99 employees .....	2	-	-	-	1	1
<b>Logan County</b> .....	28	-	-	-	28	-	<b>Rice County</b> .....	96	-	-	-	94	2
0 to 19 employees .....	25	-	-	-	25	-	0 to 19 employees .....	92	-	-	-	90	2
20 to 99 employees .....	3	-	-	-	3	-	20 to 99 employees .....	3	-	-	-	3	-
<b>Lyon County</b> .....	13	-	-	-	13	-	100 to 249 employees .....	1	-	-	-	1	-
0 to 19 employees .....	13	-	-	-	13	-	<b>Riley County</b> .....	8	1	-	-	6	1
<b>McPherson County</b> .....	79	-	-	-	78	1	0 to 19 employees .....	8	1	-	-	6	1
0 to 19 employees .....	75	-	-	-	75	-	<b>Rooks County</b> .....	114	-	-	-	114	-
20 to 99 employees .....	4	-	-	-	3	1	0 to 19 employees .....	106	-	-	-	106	-
<b>Marion County</b> .....	41	-	-	-	38	3	20 to 99 employees .....	8	-	-	-	8	-
0 to 19 employees .....	39	-	-	-	36	3	<b>Rush County</b> .....	55	-	-	-	55	-
20 to 99 employees .....	2	-	-	-	2	-	0 to 19 employees .....	54	-	-	-	54	-
<b>Marshall County</b> .....	2	-	-	-	2	-	20 to 99 employees .....	1	-	-	-	1	-
0 to 19 employees .....	1	-	-	-	1	-	<b>Russell County</b> .....	133	-	-	-	133	-
20 to 99 employees .....	1	-	-	-	1	-	0 to 19 employees .....	125	-	-	-	125	-
<b>Meade County</b> .....	60	-	-	-	60	-	20 to 99 employees .....	8	-	-	-	8	-
0 to 19 employees .....	60	-	-	-	60	-	<b>Saline County</b> .....	22	-	-	-	22	-
<b>Miami County</b> .....	34	-	-	-	33	1	0 to 19 employees .....	22	-	-	-	22	-
0 to 19 employees .....	32	-	-	-	31	1	<b>Scott County</b> .....	24	-	-	-	24	-
20 to 99 employees .....	2	-	-	-	2	-	0 to 19 employees .....	24	-	-	-	24	-
<b>Montgomery County</b> .....	70	1	-	-	68	1	<b>Sedgwick County</b> .....	278	1	-	1	262	14
0 to 19 employees .....	66	1	-	-	64	1	0 to 19 employees .....	241	1	-	1	226	13
20 to 99 employees .....	3	-	-	-	3	-	20 to 99 employees .....	32	-	-	-	31	1
100 to 249 employees .....	1	-	-	-	1	-	100 to 249 employees .....	4	-	-	-	4	-
<b>Morris County</b> .....	19	-	-	-	19	-	250 employees or more .....	1	-	-	-	1	-
0 to 19 employees .....	19	-	-	-	19	-	<b>Seward County</b> .....	101	-	-	-	101	-
<b>Morton County</b> .....	58	-	-	-	58	-	0 to 19 employees .....	95	-	-	-	95	-
0 to 19 employees .....	56	-	-	-	56	-	20 to 99 employees .....	6	-	-	-	6	-
20 to 99 employees .....	2	-	-	-	2	-	<b>Shawnee County</b> .....	16	-	-	1	8	7
<b>Nemaha County</b> .....	7	-	-	-	7	-	0 to 19 employees .....	16	-	-	-	8	7
0 to 19 employees .....	7	-	-	-	7	-	<b>Sheridan County</b> .....	30	-	-	-	30	-
<b>Neosho County</b> .....	61	-	-	-	59	2	0 to 19 employees .....	30	-	-	-	30	-
0 to 19 employees .....	56	-	-	-	55	1	<b>Sherman County</b> .....	11	-	-	-	11	-
20 to 99 employees .....	3	-	-	-	2	1	0 to 19 employees .....	11	-	-	-	11	-
100 to 249 employees .....	2	-	-	-	2	-	<b>Smith County</b> .....	1	-	-	-	1	-
<b>Ness County</b> .....	102	-	-	-	101	1	0 to 19 employees .....	1	-	-	-	1	-
0 to 19 employees .....	99	-	-	-	99	-	<b>Stafford County</b> .....	106	-	-	-	106	-
20 to 99 employees .....	3	-	-	-	2	1	0 to 19 employees .....	104	-	-	-	104	-
<b>Norton County</b> .....	22	-	-	-	22	-	20 to 99 employees .....	2	-	-	-	2	-
0 to 19 employees .....	22	-	-	-	22	-	<b>Stanton County</b> .....	14	-	-	-	14	-
<b>Osage County</b> .....	1	-	-	-	1	-	0 to 19 employees .....	14	-	-	-	14	-
0 to 19 employees .....	1	-	-	-	1	-							

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Kansas—Con.</b>							<b>Kansas—Con.</b>						
<b>Stevens County</b> .....	40	-	-	-	40	-	<b>Wallace County</b> .....	9	-	-	-	9	-
0 to 19 employees.....	38	-	-	-	38	-	0 to 19 employees.....	8	-	-	-	8	-
20 to 99 employees .....	2	-	-	-	2	-	20 to 99 employees .....	1	-	-	-	1	-
<b>Sumner County</b> .....	87	-	-	-	86	1	<b>Washington County</b> .....	5	-	-	-	2	3
0 to 19 employees.....	84	-	-	-	83	1	0 to 19 employees.....	5	-	-	-	2	3
20 to 99 employees .....	3	-	-	-	3	-	<b>Wichita County</b> .....	10	-	-	-	10	-
<b>Thomas County</b> .....	17	-	-	-	17	-	0 to 19 employees.....	9	-	-	-	9	-
0 to 19 employees.....	17	-	-	-	17	-	20 to 99 employees .....	1	-	-	-	1	-
<b>Trego County</b> .....	67	-	-	-	67	-	<b>Wilson County</b> .....	32	-	-	-	31	1
0 to 19 employees.....	65	-	-	-	65	-	0 to 19 employees.....	32	-	-	-	31	1
20 to 99 employees .....	2	-	-	-	2	-	<b>Woodson County</b> .....	45	-	-	-	45	-
<b>Wabaunsee County</b> .....	10	-	-	-	10	-	0 to 19 employees.....	44	-	-	-	44	-
0 to 19 employees.....	10	-	-	-	10	-	20 to 99 employees .....	1	-	-	-	1	-
							<b>Wyandotte County</b> .....	7	-	-	-	2	5
							0 to 19 employees.....	6	-	-	-	2	4
							20 to 99 employees .....	1	-	-	-	-	1





# Minnesota

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# SUMMARY OF FINDINGS

The total value of shipments and receipts for the 170 establishments classified in mineral industries in Minnesota amounted to \$1,049 million in 1982, compared to \$928 million in 1977. Value added by mining amounted to \$599 million in 1982, and payroll in mining amounted to \$248 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons

to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Minnesota was 9.2 thousand in 1982, a decrease of 20 percent from 1977. Metal mining led all other mineral industries in the State, accounting for 84 percent of the State's mineral industries employment.

**Table 1. Historical Statistics for the State: 1982 and Earlier Census Years**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
Mineral industries:											
1982 <sup>1</sup> -----	170	35	9.2	247.9	5.9	10.1	154.1	598.8	503.8	1 049.3	53.3
1977 <sup>1</sup> -----	179	46	11.5	213.4	8.3	16.2	144.8	699.2	513.8	928.4	284.5
1972 <sup>1</sup> -----	191	44	11.7	128.9	9.2	17.9	92.4	498.2	250.7	712.8	36.1
1967 <sup>1</sup> -----	226	65	12.9	98.7	10.1	19.8	70.7	415.0	251.5	584.4	82.1
1963-----	334	67	13.2	91.0	9.9	18.9	59.5	367.7	159.6	502.1	25.2
1958-----	289	89	17.2	97.1	11.7	22.3	59.5	311.7	124.1	420.7	15.3

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

<sup>1</sup>Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

**Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees <sup>2</sup> (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
	All mineral industries ----	-	170	35	9.2	247.9	5.9	10.1	154.1	598.8	503.8	1 049.3	53.3	11.5	699.2
10	Metal mining-----	-	36	16	7.7	216.1	5.0	8.3	137.9	521.3	464.2	944.8	40.7	10.1	654.2
1011	Iron ores-----	-	21	15	7.6	213.4	4.9	8.1	135.9	515.8	461.8	937.6	39.9	FF	(D)
13	Oil and gas extraction-----	E8	35	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
1311	Crude petroleum and natural gas-----	E9	15	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services-----	E7	20	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels-----	E3	94	16	1.2	23.0	.8	1.5	14.0	57.2	30.1	77.0	10.3	1.2	40.1
142	Crushed and broken stone, including riprap-----	E2	25	7	.3	7.0	.3	.5	4.6	15.7	10.2	23.4	2.5	.4	11.3
1422	Crushed and broken limestone-----	E2	13	5	.2	5.1	.2	.3	3.0	9.7	6.0	14.6	1.1	.3	7.1
144	Sand and gravel-----	E3	59	7	.7	13.2	.4	.9	8.1	37.8	17.7	48.3	7.2	.7	26.0
1442	Construction sand and gravel-----	E4	56	6	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	CC	(D)

<sup>1</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>2</sup>General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982**

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures-----	8	.3	2.5	2.4	(X)
Dimension stone-----	3	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants		Undistributed <sup>1</sup>
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods			
	<b>ALL MINERAL INDUSTRIES</b>													
	Establishments.....number...	170	162	23	3	10	10	60	-	60	-	1	78	8
	Employees.....1,000...	9.2	(D)	.8	(D)	(D)	(D)	6.5	-	6.5	-	(D)	(D)	(D)
	Value added in mining.....mil. dol...	598.8	(D)	35.7	(D)	(D)	(D)	524.3	-	524.3	-	(D)	(D)	(D)
<b>10</b>	<b>METAL MINING</b>													
	Establishments.....number...	36	33	1	-	1	-	10	-	10	-	1	21	3
	Employees.....1,000...	7.7	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	.2	(D)
	Value added in mining.....mil. dol...	521.3	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	5.8	(D)
<b>101</b>	<b>Iron ores</b>													
	Establishments.....number...	21	19	1	-	1	-	10	-	10	-	1	7	2
	Employees.....1,000...	7.6	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	.1	(D)
	Value added in mining.....mil. dol...	515.8	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	(D)
<b>104</b>	<b>Gold and silver ores</b>													
	Establishments.....number...	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>108</b>	<b>Metal mining services</b>													
	Establishments.....number...	7	7	-	-	-	-	-	-	-	-	-	7	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>109</b>	<b>Miscellaneous metal ores</b>													
	Establishments.....number...	5	4	-	-	-	-	-	-	-	-	-	4	1
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
<b>12</b>	<b>BITUMINOUS COAL AND LIGNITE MINING</b>													
	Establishments.....number...	5	4	3	3	-	-	-	-	-	-	-	1	1
	Employees.....1,000...	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
<b>121</b>	<b>Bituminous coal and lignite mining</b>													
	Establishments.....number...	5	4	3	3	-	-	-	-	-	-	-	1	1
	Employees.....1,000...	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
<b>13</b>	<b>OIL AND GAS EXTRACTION</b>													
	Establishments.....number...	35	35	10	-	-	10	-	-	-	-	-	25	-
	Employees.....1,000...	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	-
<b>131</b>	<b>Crude petroleum and natural gas</b>													
	Establishments.....number...	15	15	10	-	-	10	-	-	-	-	-	5	-
	Employees.....1,000...	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	-

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—  
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants		Undistributed <sup>1</sup>
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods			
13	<b>OIL AND GAS EXTRACTION—Con.</b>													
138	<b>Oil and gas field services</b>													
	Establishments..... number..	20	20	-	-	-	-	-	-	-	-	-	20	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	<b>NONMETALLIC MINERALS, EXCEPT FUELS</b>													
	Establishments..... number..	94	90	9	-	9	-	50	-	50	-	-	31	4
	Employees.....1,000..	1.2	1.1	(D)	-	(D)	-	(D)	-	(D)	-	-	.4	(Z)
	Value added in mining..... mil. dol..	57.2	57.2	(D)	-	(D)	-	(D)	-	(D)	-	-	12.9	-
141	<b>Dimension stone</b>													
	Establishments..... number..	4	4	4	-	4	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..... mil. dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	<b>Crushed and broken stone, including riprap</b>													
	Establishments..... number..	25	25	-	-	-	-	25	-	25	-	-	-	-
	Employees.....1,000..	.3	.3	-	-	-	-	.3	-	.3	-	-	-	-
	Value added in mining..... mil. dol..	15.7	15.7	-	-	-	-	15.7	-	15.7	-	-	-	-
144	<b>Sand and gravel</b>													
	Establishments..... number..	59	55	3	-	3	-	24	-	24	-	-	28	4
	Employees.....1,000..	.7	.6	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	(Z)
	Value added in mining..... mil. dol..	37.8	37.8	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
145	<b>Clay, ceramic, and refractory minerals</b>													
	Establishments..... number..	2	2	2	-	2	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..... mil. dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
147	<b>Chemical and fertilizer mineral mining</b>													
	Establishments..... number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
148	<b>Nonmetallic minerals services</b>													
	Establishments..... number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	<b>Miscellaneous nonmetallic minerals</b>													
	Establishments..... number..	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..... mil. dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

<sup>1</sup>Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

**Table 4a. Summary Statistics for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year..... number.....	170	Cost of supplies..... mil. dol.....	503.8
With 0 to 19 employees..... do.....	135	Supplies used, minerals received, and purchased machinery installed..... do.....	246.2
With 20 to 99 employees..... do.....	25	Resales..... do.....	.5
With 100 employees or more..... do.....	10	Purchased fuels consumed..... do.....	81.6
All employees:		Purchased electric energy:	
Average for year..... 1,000.....	9.2	Quantity..... mil. kWh.....	2 538.1
Payroll for year..... mil. dol.....	247.9	Cost..... mil. dol.....	163.9
Production, development, and exploration workers:		Electric energy generated less sold..... mil. kWh.....	(D)
Average for year..... 1,000.....	5.9	Contract work..... mil. dol.....	11.6
March..... do.....	8.9	Cost of purchased communication services..... do.....	1.4
May..... do.....	7.7	Value of shipments and receipts..... do.....	1 049.3
August..... do.....	3.8	Value of resales..... do.....	.6
November..... do.....	3.3	Capital expenditures during year (except land and mineral rights)..... do.....	53.3
Hours..... millions.....	10.1	New capital expenditures during year..... do.....	50.3
January to March..... do.....	4.0	Buildings and other structures, except land..... do.....	16.4
April to June..... do.....	3.3	Machinery and equipment..... do.....	33.9
July to September..... do.....	1.3	Used capital expenditures during year..... do.....	1.7
October to December..... do.....	1.5	Buildings and other structures, except land..... do.....	.1
Wages..... mil. dol.....	154.1	Machinery and equipment..... do.....	1.6
Supplemental labor costs not included in payroll..... do.....	97.7	Mineral exploration and development <sup>1</sup> ..... do.....	1.2
Legally required expenditures, including Social Security contributions..... do.....	27.1	Rental payments during year..... do.....	5.6
Payments for voluntary programs..... do.....	70.6	Buildings and other structures, except land..... do.....	.1
Value added by mining..... do.....	598.8	Machinery and equipment..... do.....	5.6
		Expensed mineral exploration, development, land, and rights <sup>2</sup> ..... do.....	55.6

<sup>1</sup>Excludes data for mining service industries and natural gas liquids industry where data were not collected.

<sup>2</sup>Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

**Table 4b. Inventories for the State: End of 1981 and 1982**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
<b>Total inventories<sup>1</sup></b> .....	<b>203.0</b>	<b>229.4</b>
Detail by method of valuation:		
Subject to LIFO costing <sup>2</sup> .....	12.6	9.2
LIFO reserve.....	.6	.7
LIFO value.....	12.0	8.5
Not subject to LIFO costing.....	170.8	203.5
Valuation method not reported <sup>3</sup> .....	(D)	(D)
Amount subject to LIFO reported without associated reserve and value <sup>4</sup> .....	(D)	(D)

<sup>1</sup>Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

<sup>2</sup>Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

<sup>3</sup>Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

<sup>4</sup>Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
	Minnesota.....	-	170	35	9.2	247.9	5.9	10.1	154.1	598.8	503.8	1 049.3	53.3	11.5	699.2
	Clay County.....	-	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels.....	-	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel.....	-	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Dakota County.....	E8	8	1	.2	2.4	.1	.3	2.0	11.9	6.2	16.2	1.8	(NA)	(NA)
13	Oil and gas extraction.....	E9	2	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services.....	E9	2	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels.....	E7	5	1	.2	1.8	.1	.3	1.5	5.9	(D)	8.3	(D)	(NA)	(NA)
144	Sand and gravel.....	E9	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	<b>Minnesota—Con.</b>														
	Hennepin County .....	E9	34	5	.4	11.7	.2	.3	3.4	17.9	8.1	24.1	1.8	.3	14.4
14	Nonmetallic minerals, except fuels .....	E9	11	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	10.5
144	Sand and gravel .....	E9	9	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	9.0
	<b>Itasca County .....</b>	-	6	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.6	87.8
10	Metal mining .....	-	5	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.6	87.8
101	Iron ores .....	-	4	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Lake County .....</b>	-	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
10	Metal mining .....	-	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
101	Iron ores .....	-	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Le Sueur County .....</b>	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels .....	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel .....	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>St. Louis County .....</b>	-	28	10	6.0	165.4	3.9	6.7	106.1	468.0	340.8	770.4	38.4	7.6	511.8
10	Metal mining .....	-	22	10	5.9	164.8	3.9	6.7	105.7	466.4	(D)	768.3	(D)	7.6	510.7
101	Iron ores .....	-	16	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

<sup>1</sup>County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.  
<sup>2</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.  
<sup>3</sup>Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
0 to 4 employees .....	75	12	-	5	21	37	<b>Blue Earth County—Con.</b>						
5 to 9 employees .....	33	6	-	-	7	20	20 to 99 employees .....	1	-	-	-	-	1
10 to 19 employees .....	27	2	-	-	4	21	<b>Brown County .....</b>	2	-	-	-	-	2
20 to 49 employees .....	20	6	-	-	2	12	0 to 19 employees .....	2	-	-	-	-	2
50 to 99 employees .....	5	1	-	-	1	3	<b>Carlton County .....</b>	2	1	-	-	-	1
100 to 249 employees .....	1	-	-	-	-	1	0 to 19 employees .....	1	1	-	-	-	-
250 to 499 employees .....	3	3	-	-	-	-	20 to 99 employees .....	1	-	-	-	-	1
500 to 999 employees .....	3	3	-	-	-	-	<b>Chippewa County .....</b>	2	-	-	-	-	2
1,000 to 2,499 employees .....	3	3	-	-	-	-	0 to 19 employees .....	2	-	-	-	-	2
<b>Aitkin County .....</b>	1	-	-	-	1	-	<b>Chisago County .....</b>	2	-	-	-	1	1
0 to 19 employees .....	1	-	-	-	1	-	0 to 19 employees .....	2	-	-	-	1	1
<b>Anoka County .....</b>	2	-	-	-	1	1	<b>Clay County .....</b>	3	-	-	-	-	3
0 to 19 employees .....	2	-	-	-	1	1	0 to 19 employees .....	1	-	-	-	-	1
<b>Becker County .....</b>	1	-	-	-	-	1	20 to 99 employees .....	2	-	-	-	-	2
0 to 19 employees .....	1	-	-	-	-	1	<b>Cook County .....</b>	1	-	-	-	1	-
<b>Big Stone County .....</b>	2	-	-	-	-	2	0 to 19 employees .....	1	-	-	-	-	-
0 to 19 employees .....	1	-	-	-	-	1							
20 to 99 employees .....	1	-	-	-	-	1							
<b>Blue Earth County .....</b>	2	-	-	-	-	2							
0 to 19 employees .....	1	-	-	-	-	1							

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Minnesota—Con.</b>							<b>Minnesota—Con.</b>						
<b>Cottonwood County</b> .....	1	-	-	-	-	1	<b>Murray County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
<b>Crow Wing County</b> .....	2	-	-	-	-	2	<b>Nicollet County</b> .....	2	-	-	-	-	2
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	2	-	-	-	-	2
<b>Dakota County</b> .....	8	-	-	1	2	5	<b>Olmsted County</b> .....	3	-	-	-	-	3
0 to 19 employees.....	7	-	-	1	2	4	0 to 19 employees.....	2	-	-	-	-	2
100 to 249 employees .....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	-	-	1
<b>Dodge County</b> .....	1	-	-	-	-	1	<b>Otter Tail County</b> .....	2	-	-	-	-	2
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	2	-	-	-	-	2
<b>Douglas County</b> .....	1	-	-	-	1	-	<b>Pine County</b> .....	1	-	-	-	1	-
0 to 19 employees.....	1	-	-	-	1	-	0 to 19 employees.....	1	-	-	-	1	-
<b>Fillmore County</b> .....	1	-	-	-	-	1	<b>Pipestone County</b> .....	1	-	-	-	-	1
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
<b>Freeborn County</b> .....	2	-	-	-	-	2	<b>Polk County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	1	-	-	-	-	1
<b>Goodhue County</b> .....	4	-	-	-	2	2	<b>Ramsey County</b> .....	7	-	-	-	4	3
0 to 19 employees.....	3	-	-	-	2	1	0 to 19 employees.....	5	-	-	-	3	2
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	2	-	-	-	1	1
<b>Grant County</b> .....	1	-	-	-	1	-	<b>Renville County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	1	-	0 to 19 employees.....	1	-	-	-	-	1
<b>Hennepin County</b> .....	34	6	-	3	14	11	<b>Rice County</b> .....	1	-	-	-	1	-
0 to 19 employees.....	29	5	-	3	12	9	0 to 19 employees.....	1	-	-	-	1	-
20 to 99 employees .....	5	1	-	-	2	2	<b>Rock County</b> .....	1	-	-	-	-	1
<b>Houston County</b> .....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	<b>St. Louis County</b> .....	28	22	-	1	1	4
<b>Hubbard County</b> .....	1	-	-	-	-	1	0 to 19 employees.....	18	12	-	1	1	4
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	4	4	-	-	-	-
<b>Itasca County</b> .....	6	5	-	-	-	1	250 employees or more .....	6	6	-	-	-	-
0 to 19 employees.....	2	1	-	-	-	1	<b>Scott County</b> .....	4	-	-	-	-	4
20 to 99 employees .....	2	2	-	-	-	-	0 to 19 employees.....	4	-	-	-	-	4
250 employees or more .....	2	2	-	-	-	-	<b>Stearns County</b> .....	3	-	-	-	-	3
<b>Kanabec County</b> .....	1	-	-	-	1	-	0 to 19 employees.....	2	-	-	-	-	2
0 to 19 employees.....	1	-	-	-	1	-	20 to 99 employees .....	1	-	-	-	-	1
<b>Koochiching County</b> .....	1	1	-	-	-	-	<b>Steele County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	1	1	-	-	-	-	0 to 19 employees.....	1	-	-	-	-	1
<b>Lake County</b> .....	2	1	-	-	-	1	<b>Stevens County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
250 employees or more .....	1	1	-	-	-	-	<b>Swift County</b> .....	2	-	-	-	2	-
<b>Le Sueur County</b> .....	2	-	-	-	-	2	0 to 19 employees.....	2	-	-	-	2	-
0 to 19 employees.....	1	-	-	-	-	1	<b>Todd County</b> .....	2	-	-	-	-	2
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees.....	2	-	-	-	-	2
<b>Lyon County</b> .....	1	-	-	-	-	1	<b>Wabasha County</b> .....	2	-	-	-	-	2
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	2	-	-	-	-	2
<b>Meeker County</b> .....	1	-	-	-	-	1	<b>Washington County</b> .....	4	-	-	-	-	4
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	4	-	-	-	-	4
<b>Mille Lacs County</b> .....	1	-	-	-	-	1	<b>Watsonwan County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
<b>Morrison County</b> .....	3	-	-	-	-	3	<b>Winona County</b> .....	3	-	-	-	1	2
0 to 19 employees.....	3	-	-	-	-	3	0 to 19 employees.....	3	-	-	-	1	2
<b>Mower County</b> .....	1	-	-	-	-	1	<b>Yellow Medicine County</b> .....	2	-	-	-	-	2
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees.....	2	-	-	-	-	2



# Missouri

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# SUMMARY OF FINDINGS

The total value of shipments and receipts for the 394 establishments classified in mineral industries in Missouri amounted to \$604 million in 1982, compared to \$503 million in 1977. Value added by mining amounted to \$418 million in 1982, and payroll in mining amounted to \$198 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons

to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Missouri was 7.9 thousand in 1982, a decrease of 2 percent from 1977. It accounted for 1 percent of the Nation's total. Nonmetallic minerals, except fuels led all other mineral industries in the State, accounting for 35 percent of the State's mineral industries employment.

**Table 1. Historical Statistics for the State: 1982 and Earlier Census Years**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
<b>Mineral industries:</b>											
1982 <sup>1</sup> .....	394	65	7.9	198.0	5.2	10.3	119.8	418.2	266.3	604.4	80.2
1977 <sup>1</sup> .....	378	69	8.1	127.1	5.6	11.1	81.1	396.2	142.8	503.0	36.0
1972 <sup>1</sup> .....	360	79	8.9	87.2	5.8	11.8	54.7	217.9	86.2	266.8	37.3
1967 <sup>1</sup> .....	381	76	8.9	60.0	6.0	12.3	38.3	103.6	82.1	144.2	41.6
1963 .....	425	66	7.7	38.2	5.8	11.3	27.1	66.3	51.8	95.6	22.5
1958 .....	435	69	8.5	37.9	6.8	12.1	26.2	66.4	34.1	87.1	13.4
<b>Excluding oil and gas extraction industries:</b>											
1982 <sup>1</sup> .....	323	63	7.6	191.9	5.0	9.9	115.8	395.2	257.3	574.5	78.0
1977 .....											
1972 .....											
1967 .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1963 .....											
1958 .....											

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

<sup>1</sup>Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

**Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	E <sup>1</sup>	1982										1977		
			Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees <sup>2</sup> (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	<b>All mineral industries</b> .....	E1	394	65	7.9	198.0	5.2	10.3	119.8	418.2	266.3	604.4	80.2	8.1	396.2
10	<b>Metal mining</b> .....	-	24	13	2.6	72.5	1.6	3.2	44.6	169.4	110.7	239.1	41.0	3.4	245.3
1011	Iron ores .....	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE	(D)
1031	Lead and zinc ores .....	-	13	10	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE	(D)
12	<b>Bituminous coal and lignite mining</b> .....	-	34	13	2.2	70.7	1.2	2.4	34.4	118.9	77.3	175.3	21.0	1.6	46.5
121	Bituminous coal and lignite mining .....	-	34	13	2.2	70.7	1.2	2.4	34.4	118.9	77.3	175.3	21.0	1.6	46.5
1211	Bituminous coal and lignite .....	-	30	12	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE	(D)
13	<b>Oil and gas extraction</b> .....	E7	71	2	.3	6.2	.2	.4	4.0	23.1	8.9	29.9	2.2	.1	8.1
1311	Crude petroleum and natural gas .....	E8	36	1	.1	2.4	.1	.2	1.5	13.7	6.6	19.8	.5	(NA)	(NA)
138	Oil and gas field services .....	E4	35	1	.1	3.7	.1	.3	2.5	9.4	2.3	10.0	1.6	.1	2.2
14	<b>Nonmetallic minerals, except fuels</b> .....	E1	265	37	2.8	48.7	2.2	4.2	36.7	106.8	69.3	160.2	16.0	2.9	96.3
142	Crushed and broken stone, including riprap .....	E1	156	25	1.9	32.1	1.5	2.8	24.5	67.5	40.5	98.8	9.2	1.8	64.3
1422	Crushed and broken limestone .....	E2	150	25	1.8	31.5	1.5	2.7	24.0	66.4	40.0	97.5	8.9	1.8	61.1
144	Sand and gravel .....	E3	60	4	.4	7.4	.3	.6	5.7	17.5	10.4	24.2	3.8	.5	16.8
1442	Construction sand and gravel .....	E4	54	2	.3	5.2	.2	.4	4.1	11.4	(D)	14.9	(D)	BB	(D)
1446	Industrial sand .....	-	6	2	.1	2.2	.1	.2	1.6	6.1	(D)	9.3	(D)	(NA)	(NA)
145	Clay, ceramic, and refractory minerals .....	-	14	3	.2	4.0	.2	.3	2.6	10.4	10.2	19.5	1.0	.2	4.4
1455	Kaolin and ball clay .....	-	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer mineral mining .....	-	11	4	.2	3.2	.2	.3	2.4	6.8	6.3	12.0	1.1	.2	5.8
1472	Barite .....	-	10	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	5.8

<sup>1</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>2</sup>General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982**

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures .....	9	.5	4.4	6.6	(X)
Crushed and broken stone, including riprap .....	8	(D)	(D)	(D)	(D)
Crushed and broken limestone .....	8	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Total	Mines only			Mines with preparation plants				Separately operated preparation plants	Undistributed <sup>1</sup>		
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines				Combination and other methods
	<b>ALL MINERAL INDUSTRIES</b>													
	Establishments.....number..	394	376	72	13	26	33	191	14	168	9	1	112	18
	Employees.....1,000..	7.9	7.8	.6	.1	.3	.1	5.4	2.1	3.1	.2	(D)	(D)	.1
	Value added in mining.....mil. dol..	418.2	428.7	37.0	5.8	17.3	14.0	367.1	179.6	174.3	13.3	(D)	(D)	-10.5
<b>10</b>	<b>METAL MINING</b>													
	Establishments.....number..	24	20	1	1	-	-	8	8	-	-	-	11	4
	Employees.....1,000..	2.6	(D)	(D)	(D)	-	-	2.0	2.0	-	-	-	(D)	(D)
	Value added in mining.....mil. dol..	169.4	(D)	(D)	(D)	-	-	176.5	176.5	-	-	-	(D)	(D)
<b>101</b>	<b>Iron ores</b>													
	Establishments.....number..	1	1	-	-	-	-	1	1	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
<b>103</b>	<b>Lead and zinc ores</b>													
	Establishments.....number..	13	11	1	1	-	-	7	7	-	-	-	3	2
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	(D)	(D)
	Value added in mining.....mil. dol..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	(D)	(D)
<b>104</b>	<b>Gold and silver ores</b>													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining.....mil. dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
<b>108</b>	<b>Metal mining services</b>													
	Establishments.....number..	7	7	-	-	-	-	-	-	-	-	-	7	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>109</b>	<b>Miscellaneous metal ores</b>													
	Establishments.....number..	2	1	-	-	-	-	-	-	-	-	-	1	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(Z)
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(Z)

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—  
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Total	Mines only			Mines with preparation plants				Separately operated preparation plants	Undistributed <sup>1</sup>		
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines				Combination and other methods
<b>12</b>	<b>BITUMINOUS COAL AND LIGNITE MINING</b>													
	Establishments..... number..	34	30	13	12	1	-	7	-	7	-	-	10	4
	Employees.....1,000..	2.2	2.2	(D)	(D)	(D)	-	1.0	-	1.0	-	-	(D)	(Z)
	Value added in mining..... mil. dol..	118.9	119.0	(D)	(D)	(D)	-	97.8	-	97.8	-	-	(D)	(Z)
<b>121</b>	<b>Bituminous coal and lignite mining</b>													
	Establishments..... number..	34	30	13	12	1	-	7	-	7	-	-	10	4
	Employees.....1,000..	2.2	2.2	(D)	(D)	(D)	-	1.0	-	1.0	-	-	(D)	(Z)
	Value added in mining..... mil. dol..	118.9	119.0	(D)	(D)	(D)	-	97.8	-	97.8	-	-	(D)	(Z)
<b>13</b>	<b>OIL AND GAS EXTRACTION</b>													
	Establishments..... number..	71	66	29	-	-	29	-	-	-	-	-	37	5
	Employees.....1,000..	.3	.3	.1	-	-	.1	-	-	-	-	-	.2	(Z)
	Value added in mining..... mil. dol..	23.1	23.1	13.7	-	-	13.7	-	-	-	-	-	9.4	-
<b>131</b>	<b>Crude petroleum and natural gas</b>													
	Establishments..... number..	36	31	29	-	-	29	-	-	-	-	-	2	5
	Employees.....1,000..	.1	.1	.1	-	-	.1	-	-	-	-	-	(Z)	(Z)
	Value added in mining..... mil. dol..	13.7	13.7	13.7	-	-	13.7	-	-	-	-	-	-	-
<b>138</b>	<b>Oil and gas field services</b>													
	Establishments..... number..	35	35	-	-	-	-	-	-	-	-	-	35	-
	Employees.....1,000..	.1	.1	-	-	-	-	-	-	-	-	-	.1	-
	Value added in mining..... mil. dol..	9.4	9.4	-	-	-	-	-	-	-	-	-	9.4	-
<b>14</b>	<b>NONMETALLIC MINERALS, EXCEPT FUELS</b>													
	Establishments..... number..	265	260	29	-	25	4	176	6	161	9	1	54	5
	Employees.....1,000..	2.8	(D)	(D)	-	(D)	(Z)	2.3	.1	2.0	.2	(D)	.3	(D)
	Value added in mining..... mil. dol..	106.8	(D)	(D)	-	(D)	.3	92.8	3.0	76.5	13.3	(D)	8.1	(D)
<b>141</b>	<b>Dimension stone</b>													
	Establishments..... number..	4	4	4	-	4	-	-	-	-	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
	Value added in mining..... mil. dol..	.2	.2	.2	-	.2	-	-	-	-	-	-	-	-
<b>142</b>	<b>Crushed and broken stone, including riprap</b>													
	Establishments..... number..	156	154	4	-	3	1	143	5	136	2	-	7	2
	Employees.....1,000..	1.9	1.9	(D)	-	(D)	(Z)	(D)	(D)	1.6	(D)	-	.1	(Z)
	Value added in mining..... mil. dol..	67.5	67.5	(D)	-	(D)	(Z)	(D)	(D)	55.1	(D)	-	-	(Z)
<b>144</b>	<b>Sand and gravel</b>													
	Establishments..... number..	60	59	6	-	3	3	18	1	10	7	-	35	1
	Employees.....1,000..	.4	.4	(Z)	-	(Z)	(Z)	.2	(D)	.1	(D)	-	.1	(Z)
	Value added in mining..... mil. dol..	17.5	17.5	1.0	-	.8	.3	10.7	(D)	6.0	(D)	-	5.8	(Z)
<b>145</b>	<b>Clay, ceramic, and refractory minerals</b>													
	Establishments..... number..	14	14	10	-	10	-	3	-	3	-	-	1	-
	Employees.....1,000..	.2	.2	(D)	-	(D)	-	(D)	-	(D)	-	-	(Z)	-
	Value added in mining..... mil. dol..	10.4	10.4	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

See footnotes at end of table.

**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—**  
**Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed <sup>1</sup>		
			Total	Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines				Combination and other methods
<b>14</b>	<b>NONMETALLIC MINERALS, EXCEPT FUELS—Con.</b>													
<b>147</b>	<b>Chemical and fertilizer mineral mining</b>													
	Establishments.....number..	11	9	4	-	4	-	4	-	4	-	1	-	2
	Employees.....1,000..	.2	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	(D)
	Value added in mining.....mil. dol..	6.8	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	(D)
<b>148</b>	<b>Nonmetallic minerals services</b>													
	Establishments.....number..	11	11	-	-	-	-	-	-	-	-	-	11	-
	Employees.....1,000..	.1	.1	-	-	-	-	-	-	-	-	-	1	-
	Value added in mining.....mil. dol..	2.3	2.3	-	-	-	-	-	-	-	-	-	2.3	-
<b>149</b>	<b>Miscellaneous nonmetallic minerals</b>													
	Establishments.....number..	9	9	1	-	1	-	8	-	8	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.....mil. dol..	2.1	2.1	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

<sup>1</sup>Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

**Table 4a. Summary Statistics for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year.....number..	394	Cost of supplies.....mil. dol..	266.3
With 0 to 19 employees.....do..	329	Supplies used, minerals received, and purchased machinery installed.....do..	161.3
With 20 to 99 employees.....do..	50	Resales.....do..	(D)
With 100 employees or more.....do..	15	Purchased fuels consumed.....do..	28.5
All employees:		Purchased electric energy:	
Average for year.....1,000..	7.9	Quantity.....mil. kWh..	641.3
Payroll for year.....mil. dol..	198.0	Cost.....mil. dol..	25.2
Production, development, and exploration workers:		Electric energy generated less sold.....mil. kWh..	(D)
Average for year.....1,000..	5.2	Contract work.....mil. dol..	(D)
March.....do..	5.1	Cost of purchased communication services.....do..	.6
May.....do..	5.3	Value of shipments and receipts.....do..	604.4
August.....do..	5.3	Value of resales.....do..	(D)
November.....do..	5.2	Capital expenditures during year (except land and mineral rights).....do..	80.2
Hours.....millions..	10.3	New capital expenditures during year.....do..	57.6
January to March.....do..	2.5	Buildings and other structures, except land.....do..	14.9
April to June.....do..	2.6	Machinery and equipment.....do..	42.8
July to September.....do..	2.5	Used capital expenditures during year.....do..	12.5
October to December.....do..	2.6	Buildings and other structures, except land.....do..	.5
Wages.....mil. dol..	119.8	Machinery and equipment.....do..	11.9
Supplemental labor costs not included in payroll.....do..	43.6	Mineral exploration and development <sup>1</sup> .....do..	10.1
Legally required expenditures, including Social Security contributions.....do..	15.8	Rental payments during year.....do..	8.1
Payments for voluntary programs.....do..	27.9	Buildings and other structures, except land.....do..	.6
Value added by mining.....do..	418.2	Machinery and equipment.....do..	7.6
		Expensed mineral exploration, development, land, and rights <sup>1 2</sup> .....do..	9.7

<sup>1</sup>Excludes data for mining service industries and natural gas liquids industry where data were not collected.

<sup>2</sup>Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

**Table 4b. Inventories for the State: End of 1981 and 1982**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
<b>Total inventories<sup>1</sup></b> .....	<b>86.4</b>	<b>101.6</b>
Detail by method of valuation:		
Subject to LIFO costing <sup>2</sup> .....	16.6	20.3
LIFO reserve .....	2.9	2.7
LIFO value .....	13.7	17.6
Not subject to LIFO costing .....	53.8	64.6
Valuation method not reported <sup>3</sup> .....	(D)	(D)
Amount subject to LIFO reported without associated reserve and value <sup>4</sup> .....	(D)	(D)

<sup>1</sup>Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

<sup>2</sup>Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

<sup>3</sup>Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

<sup>4</sup>Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	Missouri .....	E1	394	65	7.9	198.0	5.2	10.3	119.8	418.2	266.3	604.4	80.2	8.1	396.2
	Bates County .....	-	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining .....	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Boone County .....	E1	6	2	.1	2.7	.1	.2	2.0	11.4	5.0	15.0	1.4	(NA)	(NA)
12	Bituminous coal and lignite mining .....	E1	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	E1	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Butler County .....	-	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Clay County .....	-	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels .....	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap .....	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Dent County .....	-	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
10	Metal mining .....	-	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
103	Lead and zinc ores .....	-	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Franklin County .....	-	10	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
10	Metal mining .....	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
101	Iron ores .....	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels .....	E2	9	1	.1	1.6	.1	.2	1.2	3.8	(D)	5.3	(D)	(NA)	(NA)
	Henry County .....	-	5	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining .....	-	4	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	4	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Iron County .....	-	8	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.1	61.0
10	Metal mining .....	-	7	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
103	Lead and zinc ores .....	-	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Jackson County .....	E2	28	3	.2	4.6	.2	.3	3.5	8.7	3.8	11.5	.9	.2	12.3
14	Nonmetallic minerals, except fuels .....	E2	14	3	.2	3.6	.1	.2	2.6	6.1	(D)	8.0	(D)	.2	8.0
142	Crushed and broken stone, including riprap .....	E2	12	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	7.5

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
12	Missouri—Con. Jasper County	E3	17	3	.3	6.6	.2	.5	4.3	15.4	7.7	21.8	1.3	(NA)	(NA)
121	Bituminous coal and lignite mining	E3	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels	E2	11	1	.1	2.8	.1	.2	1.5	2.9	(D)	5.3	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap	E2	9	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Jefferson County	E3	10	2	.1	1.6	.1	.2	1.3	3.3	2.3	5.3	.3	(NA)	(NA)
14	Nonmetallic minerals, except fuels	E2	9	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Randolph County	-	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	4.6
121	Bituminous coal and lignite mining	-	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Reynolds County	-	6	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
10	Metal mining	-	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
103	Lead and zinc ores	-	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	St. Genevieve County	-	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone, including riprap	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	St. Louis County	E5	37	6	.4	12.0	.2	.5	5.4	17.4	10.0	26.1	1.3	.3	12.1
131	Oil and gas extraction	E9	17	1	.1	2.1	.1	.1	1.0	9.2	4.1	13.1	.2	(NA)	(NA)
14	Crude petroleum and natural gas	E9	11	1	.1	1.3	(Z)	.1	.8	8.2	(D)	11.9	(D)	(NA)	(NA)
142	Nonmetallic minerals, except fuels	E1	15	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	10.6
144	Crushed and broken stone, including riprap	-	5	2	.1	2.9	.1	.2	2.5	3.4	(D)	7.1	(D)	(NA)	(NA)
144	Sand and gravel	E3	7	1	.1	2.3	.1	.1	1.7	4.4	1.5	5.5	.4	.2	7.0
14	Stoddard County	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
145	Clay, ceramic, and refractory minerals	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Washington County	-	13	5	.3	6.2	.2	.4	3.9	7.8	8.0	14.2	1.6	1.3	37.3
147	Nonmetallic minerals, except fuels	-	8	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
H	Chemical and fertilizer mineral mining	-	7	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	St. Louis (IC)	-	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining	-	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
W	Bituminous coal and lignite mining	-	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

Sup 1County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.  
 Li 2Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

Val 3Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.



**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Missouri</b> .....	<b>394</b>	<b>24</b>	-	<b>34</b>	<b>71</b>	<b>265</b>	<b>Missouri—Con.</b>						
0 to 4 employees .....	188	4	-	13	60	111	<b>Crawford County</b> .....	3	-	-	-	-	3
5 to 9 employees .....	77	5	-	4	5	63	0 to 19 employees .....	2	-	-	-	-	2
10 to 19 employees .....	64	2	-	4	4	54	20 to 99 employees .....	1	-	-	-	-	1
20 to 49 employees .....	31	2	-	1	1	27	<b>Dade County</b> .....	2	-	-	-	-	2
50 to 99 employees .....	19	3	-	5	1	10	0 to 19 employees .....	2	-	-	-	-	2
100 to 249 employees .....	8	3	-	5	-	-	<b>Dallas County</b> .....	1	-	-	-	-	1
250 to 499 employees .....	6	4	-	2	-	-	0 to 19 employees .....	1	-	-	-	-	1
500 to 999 employees .....	1	1	-	-	-	-	<b>Davless County</b> .....	2	-	-	-	-	2
<b>Adair County</b> .....	<b>4</b>	-	-	-	<b>3</b>	<b>1</b>	0 to 19 employees .....	2	-	-	-	-	2
0 to 19 employees .....	4	-	-	-	3	1	<b>Dent County</b> .....	3	2	-	-	-	1
<b>Atchison County</b> .....	<b>2</b>	-	-	-	<b>2</b>	-	0 to 19 employees .....	1	-	-	-	-	1
0 to 19 employees .....	2	-	-	-	2	-	20 to 99 employees .....	1	1	-	-	-	-
<b>Audrain County</b> .....	<b>2</b>	-	-	-	-	<b>2</b>	250 employees or more .....	1	1	-	-	-	-
0 to 19 employees .....	2	-	-	-	-	2	<b>Douglas County</b> .....	2	-	-	-	-	2
<b>Barton County</b> .....	<b>1</b>	-	-	-	-	<b>1</b>	0 to 19 employees .....	1	-	-	-	-	1
0 to 19 employees .....	1	-	-	-	-	1	20 to 99 employees .....	1	-	-	-	-	1
<b>Bates County</b> .....	<b>5</b>	-	-	<b>1</b>	-	<b>4</b>	<b>Franklin County</b> .....	<b>10</b>	<b>1</b>	-	-	-	<b>3</b>
0 to 19 employees .....	4	-	-	-	-	4	0 to 19 employees .....	8	-	-	-	-	8
100 to 249 employees .....	1	-	-	1	-	-	20 to 99 employees .....	1	-	-	-	-	1
<b>Benton County</b> .....	<b>3</b>	-	-	-	-	<b>3</b>	250 employees or more .....	1	1	-	-	-	-
0 to 19 employees .....	2	-	-	-	-	2	<b>Gasconade County</b> .....	<b>5</b>	-	-	-	-	<b>5</b>
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees .....	5	-	-	-	-	5
<b>Bollinger County</b> .....	<b>1</b>	-	-	-	<b>1</b>	-	<b>Gentry County</b> .....	<b>1</b>	-	-	-	-	<b>1</b>
0 to 19 employees .....	1	-	-	-	1	-	0 to 19 employees .....	1	-	-	-	-	1
<b>Boone County</b> .....	<b>6</b>	-	-	<b>2</b>	<b>1</b>	<b>3</b>	<b>Greene County</b> .....	<b>5</b>	-	-	<b>1</b>	-	<b>4</b>
0 to 19 employees .....	4	-	-	1	1	2	0 to 19 employees .....	3	-	-	1	-	2
20 to 99 employees .....	2	-	-	1	-	1	20 to 99 employees .....	2	-	-	-	-	2
<b>Buchanan County</b> .....	<b>2</b>	-	-	-	<b>1</b>	<b>1</b>	<b>Grundy County</b> .....	<b>3</b>	-	-	-	-	<b>3</b>
0 to 19 employees .....	2	-	-	-	1	1	0 to 19 employees .....	3	-	-	-	-	3
<b>Butler County</b> .....	<b>3</b>	-	-	-	<b>2</b>	<b>1</b>	<b>Harrison County</b> .....	<b>3</b>	-	-	-	-	<b>3</b>
0 to 19 employees .....	2	-	-	-	1	1	0 to 19 employees .....	3	-	-	-	-	3
20 to 99 employees .....	1	-	-	-	1	-	<b>Henry County</b> .....	<b>5</b>	-	-	<b>4</b>	-	<b>1</b>
<b>Caldwell County</b> .....	<b>1</b>	-	-	-	<b>1</b>	-	0 to 19 employees .....	2	-	-	1	-	1
0 to 19 employees .....	1	-	-	-	1	-	20 to 99 employees .....	1	-	-	1	-	-
<b>Callaway County</b> .....	<b>5</b>	-	-	-	-	<b>5</b>	100 to 249 employees .....	2	-	-	2	-	-
0 to 19 employees .....	5	-	-	-	-	5	<b>Hickory County</b> .....	<b>3</b>	-	-	-	-	<b>3</b>
<b>Camden County</b> .....	<b>1</b>	-	-	-	-	<b>1</b>	0 to 19 employees .....	3	-	-	-	-	3
0 to 19 employees .....	1	-	-	-	-	1	<b>Holt County</b> .....	<b>1</b>	-	-	-	-	<b>1</b>
<b>Cape Girardeau County</b> .....	<b>6</b>	-	-	-	<b>1</b>	<b>5</b>	20 to 99 employees .....	1	-	-	-	-	1
0 to 19 employees .....	4	-	-	-	1	3	<b>Howard County</b> .....	<b>3</b>	-	-	<b>1</b>	-	<b>2</b>
20 to 99 employees .....	2	-	-	-	-	2	0 to 19 employees .....	3	-	-	1	-	2
<b>Carroll County</b> .....	<b>3</b>	-	-	-	-	<b>3</b>	<b>Howell County</b> .....	<b>1</b>	-	-	-	-	<b>1</b>
0 to 19 employees .....	2	-	-	-	-	2	20 to 99 employees .....	1	-	-	-	-	1
20 to 99 employees .....	1	-	-	-	-	1	<b>Iron County</b> .....	<b>8</b>	<b>7</b>	-	-	<b>1</b>	-
<b>Cass County</b> .....	<b>7</b>	-	-	-	<b>5</b>	<b>2</b>	0 to 19 employees .....	4	3	-	-	1	-
0 to 19 employees .....	7	-	-	-	5	2	20 to 99 employees .....	1	1	-	-	-	-
<b>Christian County</b> .....	<b>2</b>	-	-	-	-	<b>2</b>	100 to 249 employees .....	1	1	-	-	-	-
0 to 19 employees .....	2	-	-	-	-	2	250 employees or more .....	2	2	-	-	-	-
<b>Clark County</b> .....	<b>2</b>	-	-	-	-	<b>2</b>	<b>Jackson County</b> .....	<b>28</b>	-	-	-	<b>14</b>	<b>14</b>
0 to 19 employees .....	1	-	-	-	-	1	0 to 19 employees .....	25	-	-	-	14	11
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	3	-	-	-	-	3
<b>Clay County</b> .....	<b>4</b>	-	-	-	<b>2</b>	<b>2</b>	<b>Jasper County</b> .....	<b>17</b>	<b>1</b>	-	<b>3</b>	<b>2</b>	<b>11</b>
0 to 19 employees .....	3	-	-	-	2	1	0 to 19 employees .....	14	1	-	1	2	10
20 to 99 employees .....	1	-	-	-	-	1	20 to 99 employees .....	3	-	-	2	-	1
<b>Clinton County</b> .....	<b>1</b>	-	-	-	-	<b>1</b>	<b>Jefferson County</b> .....	<b>10</b>	-	-	-	<b>1</b>	<b>9</b>
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees .....	8	-	-	-	1	7
<b>Cole County</b> .....	<b>8</b>	-	-	<b>1</b>	<b>1</b>	<b>6</b>	20 to 99 employees .....	2	-	-	-	-	2
0 to 19 employees .....	8	-	-	1	1	6	<b>Johnson County</b> .....	<b>1</b>	-	-	-	-	<b>1</b>
<b>Cooper County</b> .....	<b>4</b>	-	-	-	-	<b>4</b>	0 to 19 employees .....	1	-	-	-	-	1
0 to 19 employees .....	3	-	-	-	-	3	<b>Knox County</b> .....	<b>3</b>	-	-	-	-	<b>3</b>
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees .....	3	-	-	-	-	3

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
Missouri—Con.							Missouri—Con.						
Laclede County -----	2	-	-	-	1	1	Phelps County -----	4	-	-	-	-	4
0 to 19 employees.....	2	-	-	-	1	1	0 to 19 employees.....	4	-	-	-	-	4
Lafayette County -----	1	-	-	-	-	1	Pike County -----	7	-	-	-	-	7
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	7	-	-	-	-	7
Lawrence County -----	1	-	-	-	-	1	Platte County -----	3	-	-	-	2	1
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	3	-	-	-	2	1
Lewis County -----	1	-	-	-	-	1	Polk County -----	5	-	-	-	1	4
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	5	-	-	-	1	4
Lincoln County -----	4	-	-	-	-	4	Pulaski County -----	2	-	-	-	-	2
0 to 19 employees.....	3	-	-	-	-	3	0 to 19 employees.....	2	-	-	-	-	2
20 to 99 employees.....	1	-	-	-	-	1	Putnam County -----	2	-	-	1	-	1
Linn County -----	1	-	-	-	-	1	0 to 19 employees.....	2	-	-	1	-	1
0 to 19 employees.....	1	-	-	-	-	1	Ralls County -----	1	-	-	-	-	1
Livingston County -----	2	-	-	-	-	2	20 to 99 employees.....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	Randolph County -----	5	-	-	3	-	2
20 to 99 employees.....	1	-	-	-	-	1	0 to 19 employees.....	3	-	-	1	-	2
McDonald County -----	1	-	-	-	-	1	100 to 249 employees.....	1	-	-	1	-	-
0 to 19 employees.....	1	-	-	-	-	1	250 employees or more.....	1	-	-	1	-	-
Macon County -----	2	-	-	1	1	-	Ray County -----	2	-	-	-	-	2
0 to 19 employees.....	2	-	-	1	1	-	0 to 19 employees.....	2	-	-	-	-	2
Madison County -----	6	3	-	-	-	2	Reynolds County -----	6	4	-	1	-	1
0 to 19 employees.....	6	3	-	-	-	2	0 to 19 employees.....	3	1	-	1	-	1
Maries County -----	2	-	-	-	-	2	100 to 249 employees.....	2	2	-	-	-	-
0 to 19 employees.....	2	-	-	-	-	2	250 employees or more.....	1	1	-	-	-	-
Marion County -----	2	-	-	-	-	2	St. Charles County -----	8	-	-	-	1	7
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	7	-	-	-	1	6
Mercer County -----	2	-	-	-	-	2	20 to 99 employees.....	1	-	-	-	-	1
0 to 19 employees.....	2	-	-	-	-	2	Ste. Genevieve County -----	3	-	-	-	-	3
Miller County -----	3	-	-	-	-	3	0 to 19 employees.....	2	-	-	-	-	2
0 to 19 employees.....	3	-	-	-	-	3	20 to 99 employees.....	1	-	-	-	-	1
Moniteau County -----	2	-	-	-	-	2	St. Francois County -----	9	1	-	-	2	6
0 to 19 employees.....	2	-	-	-	-	2	0 to 19 employees.....	9	1	-	-	2	6
Monroe County -----	5	-	-	2	-	3	St. Louis County -----	37	3	-	2	17	15
0 to 19 employees.....	5	-	-	2	-	3	0 to 19 employees.....	31	1	-	2	16	12
Montgomery County -----	6	-	-	-	-	6	20 to 99 employees.....	6	2	-	-	1	3
0 to 19 employees.....	6	-	-	-	-	6	Saine County -----	2	-	-	-	-	2
Morgan County -----	2	-	-	-	-	2	0 to 19 employees.....	2	-	-	-	-	2
0 to 19 employees.....	2	-	-	-	-	2	Scotland County -----	1	-	-	-	-	1
Newton County -----	5	-	-	-	1	4	0 to 19 employees.....	1	-	-	-	-	1
0 to 19 employees.....	5	-	-	-	1	4	Scott County -----	1	-	-	-	-	1
Nodaway County -----	1	-	-	-	-	1	20 to 99 employees.....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	Shannon County -----	1	-	-	-	-	1
Oregon County -----	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	Shelby County -----	3	-	-	-	-	3
Osage County -----	1	-	-	-	-	1	0 to 19 employees.....	2	-	-	-	-	2
0 to 19 employees.....	1	-	-	-	-	1	20 to 99 employees.....	1	-	-	-	-	1
Ozark County -----	1	-	-	-	1	-	Stoddard County -----	3	-	-	-	-	3
0 to 19 employees.....	1	-	-	-	1	-	0 to 19 employees.....	2	-	-	-	-	2
Pemiscot County -----	2	-	-	-	1	1	20 to 99 employees.....	1	-	-	-	-	1
0 to 19 employees.....	2	-	-	-	1	1	Stone County -----	1	-	-	-	-	1
Perry County -----	2	-	-	-	-	2	0 to 19 employees.....	1	-	-	-	-	1
0 to 19 employees.....	2	-	-	-	-	2	Texas County -----	1	-	-	-	-	1
Pettis County -----	2	-	-	-	-	2	0 to 19 employees.....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	Vernon County -----	6	-	-	-	2	4
20 to 99 employees.....	1	-	-	-	-	1	0 to 19 employees.....	6	-	-	-	2	4

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries (SIC 10)	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries (SIC 10)	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Missouri—Con.</b>							<b>Missouri—Con.</b>						
<b>Warren County</b> .....	5	-	-	-	1	4	<b>Worth County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	5	-	-	-	1	4	0 to 19 employees.....	1	-	-	-	-	1
<b>Washington County</b> .....	13	2	-	2	1	8	<b>St. Louis (IC)</b> .....	9	-	-	9	-	-
0 to 19 employees.....	8	1	-	1	1	5	0 to 19 employees.....	6	-	-	6	-	-
20 to 99 employees .....	5	1	-	1	-	3	20 to 99 employees .....	1	-	-	1	-	-
							100 to 249 employees .....	1	-	-	1	-	-
							250 employees or more .....	1	-	-	1	-	-

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# SUMMARY OF FINDINGS

The total value of shipments and receipts for the 434 establishments classified in mineral industries in Nebraska amounted to \$335 million in 1982, compared to \$113 million in 1977. Value added by mining amounted to \$246 million in 1982, and payroll in mining amounted to \$47 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons

to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Nebraska was 2.3 thousand in 1982, an increase of 28 percent over 1977. Oil and gas extraction led all other mineral industries in the State, accounting for 65 percent of the State's mineral industries employment.

**Table 1. Historical Statistics for the State: 1982 and Earlier Census Years**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
<b>Mineral industries:</b>											
1982 <sup>1</sup> -----	2434	224	2.3	46.5	1.6	3.3	31.4	246.0	133.5	334.5	45.0
1977 <sup>1</sup> -----	243	26	1.8	25.4	1.2	2.6	16.4	72.8	57.8	112.5	18.2
1972 <sup>1</sup> -----	226	20	1.5	13.1	1.1	2.6	9.7	39.8	18.6	53.0	5.4
1967 <sup>1</sup> -----	254	24	1.6	9.9	1.4	2.8	7.9	43.1	19.8	55.6	7.2
1963 -----	370	21	2.1	11.2	1.7	3.8	8.6	69.3	29.2	87.8	10.7
1958 -----	305	27	2.1	9.2	1.7	3.4	7.2	64.0	31.4	81.2	14.3
<b>Excluding oil and gas extraction industries:</b>											
1982 <sup>1</sup> -----	99	10	.9	13.0	.6	1.1	9.1	35.0	36.1	65.8	5.3
1977 <sup>1</sup> <sup>3</sup> -----	119	18	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1972 <sup>1</sup> <sup>3</sup> -----	128	15	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1967 <sup>1</sup> <sup>3</sup> -----	153	15	1.0	6.0	.9	1.8	4.7	13.4	7.0	18.7	1.6
1963 <sup>3</sup> -----	200	11	1.3	6.1	1.1	2.4	4.9	12.9	7.7	18.6	1.9
1958 <sup>3</sup> -----	160	14	1.1	4.6	.9	2.0	3.9	11.2	5.2	14.6	1.8

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

<sup>1</sup>Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

<sup>2</sup>Not comparable to prior years. See Introduction for further explanation.

<sup>3</sup>Includes data for mining operations at manufacturing locations.

**Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982										1977			
		E1	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees <sup>2</sup> (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	<b>All mineral industries</b> ----	E3	434	24	2.3	46.5	1.6	3.3	31.4	246.0	133.5	334.5	45.0	1.8	72.8
13	<b>Oil and gas extraction</b> -----	E3	335	14	1.5	33.5	1.0	2.2	22.3	211.0	97.4	268.7	39.7	.7	44.1
1311	Crude petroleum and natural gas -----	E4	165	3	.4	9.5	.2	.5	4.8	151.7	65.7	190.8	26.6	.3	28.2
1321	Natural gas liquids -----	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services -----	E2	167	10	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	14.4
1381	Drilling oil and gas wells -----	E2	51	7	.5	12.0	.4	.9	10.3	33.9	19.8	45.9	7.8	.2	9.9
1389	Oil and gas field services, n.e.c. -----	E2	83	3	.3	7.5	.3	.7	5.8	21.1	7.9	24.3	4.6	.1	3.9
14	<b>Nonmetallic minerals, except fuels</b> -----	E1	96	10	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE	(D)
142	Crushed and broken stone, including riprap -----	E1	14	5	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
1422	Crushed and broken limestone -----	-	10	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
144	Sand and gravel -----	E3	78	3	.5	7.1	.3	.6	4.9	15.3	9.1	21.3	3.1	.8	19.0
1442	Construction sand and gravel -----	E3	73	3	.4	6.9	.3	.5	4.8	14.8	8.6	20.4	3.0	.8	19.0
145	Clay, ceramic, and refractory minerals -----	-	1	1	AA	(D)	-	-	-	-	-	-	-	(NA)	(NA)
1452	Bentonite -----	-	1	1	AA	(D)	-	-	-	-	-	-	-	(NA)	(NA)

<sup>1</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>2</sup>General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982**

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures .....	6	.1	1.2	1.1	(X)
Crushed and broken stone, including riprap .....	3	(D)	(D)	(D)	(D)
Crushed and broken limestone .....	2	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Total	Mines only			Mines with preparation plants				Separately operated preparation plants	Undistributed <sup>1</sup>		
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines				Combination and other methods
	<b>ALL MINERAL INDUSTRIES</b>													
	Establishments.....number..	434	424	160	-	5	155	46	1	40	5	2	216	10
	Employees.....1,000..	2.3	2.3	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.3	(Z)
	Value added in mining.....mil. dol..	246.0	247.3	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	64.0	-1.2
10	<b>METAL MINING</b>													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	(D)	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
108	<b>Metal mining services</b>													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	(D)	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
12	<b>BITUMINOUS COAL AND LIGNITE MINING</b>													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	(D)	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
121	<b>Bituminous coal and lignite mining</b>													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	(D)	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
13	<b>OIL AND GAS EXTRACTION</b>													
	Establishments.....number..	335	326	155	-	-	155	-	-	-	-	2	169	9
	Employees.....1,000..	1.5	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(D)
	Value added in mining.....mil. dol..	211.0	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(D)
131	<b>Crude petroleum and natural gas</b>													
	Establishments.....number..	165	156	155	-	-	155	-	-	-	-	-	(D)	9
	Employees.....1,000..	.4	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining.....mil. dol..	151.7	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
132	<b>Natural gas liquids</b>													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	2	(D)	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	(D)	-

See footnotes at end of table.



Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—  
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Total	Mines only			Mines with preparation plants				Separately operated preparation plants	Undistributed <sup>1</sup>		
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines				Combination and other methods
<b>13</b>	<b>OIL AND GAS EXTRACTION—Con.</b>													
<b>138</b>	<b>Oil and gas field services</b>													
	Establishments.....number..	167	167	-	-	-	-	-	-	-	-	-	167	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>14</b>	<b>NONMETALLIC MINERALS, EXCEPT FUELS</b>													
	Establishments.....number..	96	95	5	-	5	-	46	1	40	5	-	44	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	(D)	(D)	-	(D)	(D)
	Value added in mining.....mil. dol..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	(D)	(D)	-	(D)	(D)
<b>142</b>	<b>Crushed and broken stone, including riprap</b>													
	Establishments.....number..	14	14	-	-	-	-	14	-	14	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
<b>144</b>	<b>Sand and gravel</b>													
	Establishments.....number..	78	78	5	-	5	-	31	-	26	5	-	42	-
	Employees.....1,000..	.5	.5	(D)	-	(D)	-	(D)	-	.2	(D)	-	.1	-
	Value added in mining.....mil. dol..	15.3	15.3	(D)	-	(D)	-	(D)	-	7.5	(D)	-	4.5	-
<b>145</b>	<b>Clay, ceramic, and refractory minerals</b>													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>147</b>	<b>Chemical and fertilizer mineral mining</b>													
	Establishments.....number..	1	1	-	-	-	-	1	1	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
<b>148</b>	<b>Nonmetallic minerals services</b>													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>149</b>	<b>Miscellaneous nonmetallic minerals</b>													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining.....mil. dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)

<sup>1</sup>Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

**Table 4a. Summary Statistics for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year ----- number	434	Cost of supplies ----- mil. dol.	133.5
With 0 to 19 employees ----- do	410	Supplies used, minerals received, and purchased machinery installed ----- do	83.9
With 20 to 99 employees ----- do	22	Resales ----- do	.9
With 100 employees or more ----- do	2	Purchased fuels consumed ----- do	8.5
All employees:		Purchased electric energy:	
Average for year ----- 1,000	2.3	Quantity ----- mil. kWh	144.0
Payroll for year ----- mil. dol.	46.5	Cost ----- mil. dol.	6.1
		Electric energy generated less sold ----- mil. kWh	1.5
		Contract work ----- mil. dol.	34.2
Production, development, and exploration workers:		Cost of purchased communication services ----- do	.3
Average for year ----- 1,000	1.6	Value of shipments and receipts ----- do	334.5
March ----- do	1.6	Value of resales ----- do	.9
April to June ----- do	1.6		
May ----- do	1.6	Capital expenditures during year (except land and mineral rights) ----- do	45.0
August ----- do	1.6	New capital expenditures during year ----- do	25.2
November ----- do	1.5	Buildings and other structures, except land ----- do	1.4
Hours ----- millions	3.3	Machinery and equipment ----- do	23.9
January to March ----- do	.8		
April to June ----- do	.8	Used capital expenditures during year ----- do	3.6
July to September ----- do	.9	Buildings and other structures, except land ----- do	(Z)
October to December ----- do	.8	Machinery and equipment ----- do	3.6
Wages ----- mil. dol.	31.4	Mineral exploration and development <sup>1</sup> ----- do	16.2
Supplemental labor costs not included in payroll ----- do	7.6	Rental payments during year ----- do	2.5
Legally required expenditures, including Social Security contributions ----- do	4.2	Buildings and other structures, except land ----- do	.5
Payments for voluntary programs ----- do	3.4	Machinery and equipment ----- do	2.0
Value added by mining ----- do	246.0	Expensed mineral exploration, development, land, and rights <sup>2</sup> ----- do	13.2

<sup>1</sup>Excludes data for mining service industries and natural gas liquids industry where data were not collected.

<sup>2</sup>Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

**Table 4b. Inventories for the State: End of 1981 and 1982**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
<b>Total Inventories<sup>1</sup></b> -----	<b>16.5</b>	<b>16.3</b>
Detail by method of valuation:		
Subject to LIFO costing <sup>2</sup> -----	.5	.5
LIFO reserve -----	(Z)	(Z)
LIFO value -----	.5	.4
Not subject to LIFO costing -----	6.8	6.2
Valuation method not reported <sup>3</sup> -----	9.2	9.6
Amount subject to LIFO reported without associated reserve and value <sup>4</sup> -----	(Z)	(Z)

<sup>1</sup>Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

<sup>2</sup>Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

<sup>3</sup>Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

<sup>4</sup>Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982									1977				
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
	<b>Nebraska</b> -----	E3	434	24	2.3	46.5	1.6	3.3	31.4	246.0	133.5	334.5	45.0	1.8	72.8
	<b>Banner County</b> -----	-	26	-	(Z)	1.3	(Z)	.1	1.0	10.7	4.4	13.7	1.4	(Z)	7.7
13	Oil and gas extraction -----	-	26	-	(Z)	1.3	(Z)	.1	1.0	10.7	4.4	13.7	1.4	(Z)	7.7
131	Crude petroleum and natural gas -----	-	15	-	(Z)	.3	(Z)	(Z)	.2	7.7	(D)	9.5	(D)	(Z)	8.6
	<b>Cass County</b> -----	-	9	4	.2	3.2	.2	.3	2.9	14.2	26.2	38.0	2.3	.1	6.1
14	Nonmetallic minerals, except fuels -----	-	9	4	.2	3.2	.2	.3	2.9	14.2	26.2	38.0	2.3	.1	6.1
142	Crushed and broken stone, including riprap -----	-	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer mineral mining -----	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
	<b>Nebraska—Con.</b>														
	<b>Cheyenne County</b> .....	E2	42	-	.2	4.4	.1	.3	3.0	24.8	15.1	32.1	7.8	.1	7.7
13	Oil and gas extraction .....	E2	42	-	.2	4.4	.1	.3	3.0	24.8	15.1	32.1	7.8	.1	7.7
131	Crude petroleum and natural gas .....	E2	23	-	.1	1.7	(Z)	.1	.8	18.5	9.0	21.6	5.9	(Z)	5.2
138	Oil and gas field services .....	-	18	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Cuming County</b> .....	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Douglas County</b> .....	E4	19	4	.3	6.8	.1	.1	1.2	5.0	(D)	7.5	(D)	.3	4.4
14	Nonmetallic minerals, except fuels.....	E3	11	2	.1	2.3	.1	.1	1.2	3.8	(D)	5.8	(D)	(NA)	(NA)
	<b>Dundy County</b> .....	-	11	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	-	10	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	3	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Gage County</b> .....	E9	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	E9	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E9	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Hitchcock County</b> .....	-	19	2	.1	2.6	.1	.2	2.2	17.1	8.0	22.2	2.9	.1	3.2
13	Oil and gas extraction .....	-	17	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	7	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	-	10	2	.1	2.6	.1	.2	2.2	9.3	4.6	12.5	1.4	(NA)	(NA)
	<b>Kimball County</b> .....	E4	65	6	.4	10.0	.3	.7	8.0	37.4	20.9	51.8	6.5	.2	11.5
13	Oil and gas extraction .....	E4	65	6	.4	10.0	.3	.7	8.0	37.4	20.9	51.8	6.5	.2	11.5
131	Crude petroleum and natural gas .....	E4	29	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	5.2
138	Oil and gas field services .....	E4	35	6	.3	7.9	.3	.6	6.6	20.0	10.5	25.6	4.9	(NA)	(NA)
	<b>Red Willow County</b> .....	E5	59	2	.3	4.9	.2	.5	4.0	73.9	31.2	89.6	15.5	.1	6.9
13	Oil and gas extraction .....	E5	57	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E5	35	1	.1	2.0	.1	.1	1.6	66.5	28.3	80.8	13.9	(Z)	5.6
138	Oil and gas field services .....	E5	22	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Scotts Bluff County</b> .....	E4	21	1	.1	1.7	(Z)	.1	.5	4.9	(D)	5.6	(D)	(NA)	(NA)
13	Oil and gas extraction .....	E5	19	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

<sup>1</sup>County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

<sup>2</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>3</sup>Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Nebraska</b> .....	<b>434</b>	<b>1</b>	<b>-</b>	<b>2</b>	<b>335</b>	<b>96</b>	<b>Nebraska—Con.</b>						
0 to 4 employees.....	320	-	-	2	267	51	<b>Gage County</b> .....	3	-	-	-	1	2
5 to 9 employees.....	49	1	-	-	27	21	0 to 19 employees.....	2	-	-	-	1	1
10 to 19 employees.....	41	-	-	-	27	14	20 to 99 employees.....	1	-	-	-	-	1
20 to 49 employees.....	19	-	-	-	10	9	<b>Garden County</b> .....	8	-	-	-	8	-
50 to 99 employees.....	3	-	-	-	3	-	0 to 19 employees.....	8	-	-	-	8	-
100 to 249 employees.....	2	-	-	-	1	1	<b>Garfield County</b> .....	2	-	-	-	-	2
<b>Adams County</b> .....	<b>3</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>-</b>	0 to 19 employees.....	2	-	-	-	-	2
0 to 19 employees.....	3	1	-	1	1	-	<b>Hall County</b> .....	3	-	-	-	-	3
<b>Banner County</b> .....	<b>26</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>26</b>	<b>-</b>	0 to 19 employees.....	3	-	-	-	-	3
0 to 19 employees.....	26	-	-	-	26	-	<b>Harian County</b> .....	2	-	-	-	1	1
<b>Boone County</b> .....	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>1</b>	0 to 19 employees.....	2	-	-	-	1	1
0 to 19 employees.....	2	-	-	-	1	1	<b>Hayes County</b> .....	2	-	-	-	2	-
<b>Boyd County</b> .....	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	0 to 19 employees.....	2	-	-	-	2	-
0 to 19 employees.....	1	-	-	-	-	1	<b>Hitchcock County</b> .....	19	-	-	-	17	2
<b>Brown County</b> .....	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	0 to 19 employees.....	17	-	-	-	15	2
0 to 19 employees.....	1	-	-	-	1	-	20 to 99 employees.....	2	-	-	-	2	-
<b>Buffalo County</b> .....	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>4</b>	<b>Holt County</b> .....	2	-	-	-	-	2
0 to 19 employees.....	5	-	-	-	1	4	0 to 19 employees.....	2	-	-	-	-	2
<b>Butler County</b> .....	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>3</b>	<b>Howard County</b> .....	2	-	-	-	1	1
0 to 19 employees.....	5	-	-	-	2	3	0 to 19 employees.....	2	-	-	-	1	1
<b>Cass County</b> .....	<b>9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9</b>	<b>Jefferson County</b> .....	4	-	-	-	1	3
0 to 19 employees.....	5	-	-	-	-	5	0 to 19 employees.....	4	-	-	-	1	3
20 to 99 employees.....	4	-	-	-	-	4	<b>Johnson County</b> .....	1	-	-	-	1	-
<b>Cedar County</b> .....	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	0 to 19 employees.....	1	-	-	-	1	-
0 to 19 employees.....	2	-	-	-	-	2	<b>Kearney County</b> .....	1	-	-	-	1	-
<b>Chase County</b> .....	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	0 to 19 employees.....	1	-	-	-	1	-
0 to 19 employees.....	1	-	-	-	1	-	<b>Keith County</b> .....	4	-	-	-	3	1
<b>Cherry County</b> .....	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>1</b>	0 to 19 employees.....	4	-	-	-	3	1
0 to 19 employees.....	3	-	-	-	2	1	<b>Kimball County</b> .....	65	-	-	-	65	-
<b>Cheyenne County</b> .....	<b>42</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>42</b>	<b>-</b>	0 to 19 employees.....	59	-	-	-	59	-
0 to 19 employees.....	42	-	-	-	42	-	20 to 99 employees.....	6	-	-	-	6	-
<b>Colfax County</b> .....	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>Knox County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
<b>Cuming County</b> .....	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>Lancaster County</b> .....	5	-	-	-	4	1
0 to 19 employees.....	1	-	-	-	1	1	0 to 19 employees.....	5	-	-	-	4	1
20 to 99 employees.....	1	-	-	-	1	-	<b>Lincoln County</b> .....	10	-	-	-	8	2
<b>Custer County</b> .....	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	0 to 19 employees.....	10	-	-	-	8	2
0 to 19 employees.....	1	-	-	-	-	1	<b>Merrick County</b> .....	1	-	-	-	1	-
<b>Dawes County</b> .....	<b>7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6</b>	<b>1</b>	0 to 19 employees.....	1	-	-	-	1	-
0 to 19 employees.....	7	-	-	-	6	1	<b>Morrill County</b> .....	16	-	-	-	15	1
<b>Dawson County</b> .....	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>	0 to 19 employees.....	16	-	-	-	15	1
0 to 19 employees.....	3	-	-	-	-	3	<b>Nance County</b> .....	1	-	-	-	-	1
<b>Deuel County</b> .....	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	0 to 19 employees.....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	1	-	<b>Nemaha County</b> .....	1	-	-	-	1	-
<b>Dodge County</b> .....	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>2</b>	0 to 19 employees.....	1	-	-	-	1	-
0 to 19 employees.....	3	-	-	-	1	2	<b>Nuckolls County</b> .....	2	-	-	-	-	2
<b>Douglas County</b> .....	<b>19</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>8</b>	<b>11</b>	0 to 19 employees.....	2	-	-	-	-	2
0 to 19 employees.....	15	-	-	-	6	9	<b>Otoe County</b> .....	2	-	-	-	1	1
20 to 99 employees.....	3	-	-	-	1	2	0 to 19 employees.....	1	-	-	-	1	-
100 to 249 employees.....	1	-	-	-	1	-	20 to 99 employees.....	1	-	-	-	-	1
<b>Dundy County</b> .....	<b>11</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>10</b>	<b>1</b>	<b>Pawnee County</b> .....	2	-	-	-	1	1
0 to 19 employees.....	11	-	-	-	10	1	0 to 19 employees.....	2	-	-	-	1	1
<b>Franklin County</b> .....	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>Perkins County</b> .....	4	-	-	-	4	-
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	4	-	-	-	4	-
<b>Frontier County</b> .....	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>Pierce County</b> .....	2	-	-	-	-	2
0 to 19 employees.....	3	-	-	-	3	-	0 to 19 employees.....	2	-	-	-	-	2
<b>Furnas County</b> .....	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	0 to 19 employees.....	2	-	-	-	-	2
0 to 19 employees.....	2	-	-	-	-	2							

Table 6. **Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>Nebraska—Con.</b>							<b>Nebraska—Con.</b>						
<b>Platte County</b> .....	7	-	-	-	2	5	<b>Sheridan County</b> .....	2	-	-	-	1	1
0 to 19 employees.....	6	-	-	-	1	5	0 to 19 employees.....	2	-	-	-	1	1
20 to 99 employees .....	1	-	-	-	1	-	<b>Sherman County</b> .....	1	-	-	-	1	-
<b>Polk County</b> .....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	1	-
0 to 19 employees.....	1	-	-	-	-	1	<b>Sioux County</b> .....	7	-	-	1	6	-
<b>Red Willow County</b> .....	59	-	-	-	57	2	0 to 19 employees.....	7	-	-	1	6	-
0 to 19 employees.....	57	-	-	-	55	2	<b>Stanton County</b> .....	1	-	-	-	-	1
20 to 99 employees .....	2	-	-	-	2	-	0 to 19 employees.....	1	-	-	-	-	1
<b>Richardson County</b> .....	1	-	-	-	1	-	<b>Thayer County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	1	-	0 to 19 employees.....	1	-	-	-	-	1
<b>Rock County</b> .....	1	-	-	-	1	-	<b>Thomas County</b> .....	2	-	-	-	1	1
0 to 19 employees.....	1	-	-	-	1	-	0 to 19 employees.....	2	-	-	-	1	1
<b>Saline County</b> .....	1	-	-	-	-	1	<b>Valley County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
<b>Sarpy County</b> .....	2	-	-	-	1	1	<b>Washington County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	2	-	-	-	1	1	20 to 99 employees .....	1	-	-	-	-	1
<b>Saunders County</b> .....	3	-	-	-	1	2	<b>Wayne County</b> .....	1	-	-	-	1	-
0 to 19 employees.....	3	-	-	-	1	2	0 to 19 employees.....	1	-	-	-	1	-
<b>Scotts Bluff County</b> .....	21	-	-	-	19	2	<b>Webster County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	20	-	-	-	19	1	0 to 19 employees.....	1	-	-	-	-	1
100 to 249 employees .....	1	-	-	-	-	1	<b>York County</b> .....	1	-	-	-	-	1
							0 to 19 employees.....	1	-	-	-	-	1

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# North Dakota

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-- Not applicable.

# SUMMARY OF FINDINGS

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The total value of shipments and receipts for the 1,037 establishments classified in mineral industries in North Dakota amounted to \$2,229 million in 1982, compared to \$350 million in 1977. Value added by mining amounted to \$1,999 million in 1982, and payroll in mining amounted to \$226 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making

comparisons to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in North Dakota was 8.5 thousand in 1982, an increase of 240 percent over 1977. Oil and gas extraction led all other mineral industries in the State, accounting for 82 percent of the State's mineral industries employment.



**Table 1. Historical Statistics for the State: 1982 and Earlier Census Years**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
<b>Mineral industries:</b>											
1982 <sup>1</sup>	21 037	2103	8.5	226.1	6.6	14.4	171.8	1 999.1	1 330.7	2 229.0	1 100.7
1977 <sup>1</sup>	230	32	2.5	43.4	2.0	4.3	33.6	324.6	189.0	349.8	163.8
1972 <sup>1</sup>	149	22	1.5	14.7	1.1	2.4	11.2	83.8	38.7	105.4	17.1
1967 <sup>1</sup>	166	24	1.9	12.6	1.6	3.3	10.1	76.9	45.5	102.8	19.6
1963	187	23	1.7	9.8	1.4	2.8	7.6	73.7	37.2	93.1	17.8
1958	167	25	2.0	10.7	1.6	3.5	8.0	40.3	51.2	65.6	25.9
<b>Excluding oil and gas extraction industries:</b>											
1982 <sup>1</sup>	49	14	1.5	46.4	1.1	2.2	33.6	146.4	75.5	180.6	41.3
1977 <sup>1</sup> <sup>3</sup>	53	11	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1972 <sup>1</sup> <sup>3</sup>	48	9	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1967 <sup>1</sup> <sup>3</sup>	64	8	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1963 <sup>3</sup>	95	9	.6	3.1	.6	1.1	2.6	8.8	8.4	10.0	5.3
1958 <sup>3</sup>	82	7	.6	2.3	.5	.9	2.1	6.4	3.2	7.9	1.7

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

<sup>1</sup>Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

<sup>2</sup>Not comparable to prior years. See Introduction for further explanation.

<sup>3</sup>Includes data for mining operations at manufacturing locations.

**Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982											1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees <sup>2</sup> (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
	<b>All mineral industries</b> ----	-	1 037	103	8.5	226.1	6.6	14.4	171.8	1 999.1	1 330.7	2 229.0	1 100.7	2.5	324.6
12	<b>Bituminous coal and lignite mining</b> ----	-	16	11	1.2	39.7	.8	1.8	28.8	133.5	66.5	160.5	39.5	.7	47.3
121	Bituminous coal and lignite mining ----	-	16	11	1.2	39.7	.8	1.8	28.8	133.5	66.5	160.5	39.5	.7	47.3
1211	Bituminous coal and lignite ----	-	14	11	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	CC	(D)
13	<b>Oil and gas extraction</b> ----	-	988	89	7.0	179.7	5.5	12.2	139.2	1 852.7	1 255.1	2 048.4	1 059.4	1.7	271.6
1311	Crude petroleum and natural gas ----	-	374	12	1.3	40.8	.8	1.8	23.2	1 386.2	979.0	1 469.2	896.0	.4	204.5
1321	Natural gas liquids ----	-	8	4	.2	6.7	.2	.5	6.6	133.7	(D)	169.5	(D)	(NA)	(NA)
138	Oil and gas field services ----	E1	606	73	5.5	132.1	4.5	9.9	108.3	332.8	(D)	409.7	(D)	EE	(D)
1381	Drilling oil and gas wells ----	-	133	24	1.8	53.4	1.6	3.5	46.1	126.5	81.9	163.9	44.5	.7	32.0
1382	Oil and gas field exploration services ----	E1	129	9	.6	12.4	.5	1.1	10.2	34.5	(D)	38.7	(D)	(NA)	(NA)
1389	Oil and gas field services, n.e.c. ----	E2	344	40	3.0	66.3	2.3	5.3	52.0	171.7	73.4	207.2	38.0	BB	(D)
14	<b>Nonmetallic minerals, except fuels</b> ----	E5	31	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	5.3
144	Sand and gravel ----	E8	25	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	4.0
1442	Construction sand and gravel ----	E8	25	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	4.0

<sup>1</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>2</sup>General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982**

[Not applicable]

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed <sup>1</sup>		
			Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods				
	<b>ALL MINERAL INDUSTRIES</b>													
	Establishments.....number..	1 037	1 008	347	-	3	344	16	-	15	1	8	637	29
	Employees.....1,000..	8.5	8.4	1.3	-	(D)	(D)	1.0	-	(D)	(D)	.2	5.9	.2
	Value added in mining.....mil. dol..	1 999.1	1 996.7	1 409.2	-	(D)	(D)	98.0	-	(D)	(D)	133.7	355.7	2.4
10	<b>METAL MINING</b>													
	Establishments.....number..	2	1	-	-	-	-	-	-	-	-	-	1	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
108	<b>Metal mining services</b>													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	<b>Miscellaneous metal ores</b>													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	-	-	-	-	-	-	-	-	-	-	-	-	-
	Value added in mining.....mil. dol..	-	-	-	-	-	-	-	-	-	-	-	-	-
12	<b>BITUMINOUS COAL AND LIGNITE MINING</b>													
	Establishments.....number..	16	15	2	-	2	-	8	-	8	-	-	5	1
	Employees.....1,000..	1.2	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	(D)
	Value added in mining.....mil. dol..	133.5	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	(D)
121	<b>Bituminous coal and lignite mining</b>													
	Establishments.....number..	16	15	2	-	2	-	8	-	8	-	-	5	1
	Employees.....1,000..	1.2	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	(D)
	Value added in mining.....mil. dol..	133.5	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	(D)
13	<b>OIL AND GAS EXTRACTION</b>													
	Establishments.....number..	988	963	344	-	-	344	1	-	-	1	8	610	25
	Employees.....1,000..	7.0	(D)	(D)	-	-	(D)	(D)	-	-	(D)	.2	(D)	(D)
	Value added in mining.....mil. dol..	1 852.7	(D)	(D)	-	-	(D)	(D)	-	-	(D)	133.7	(D)	(D)
131	<b>Crude petroleum and natural gas</b>													
	Establishments.....number..	374	349	344	-	-	344	1	-	-	1	-	4	25
	Employees.....1,000..	1.3	(D)	(D)	-	-	(D)	(D)	-	-	(D)	-	(D)	(D)
	Value added in mining.....mil. dol..	1 386.2	(D)	(D)	-	-	(D)	(D)	-	-	(D)	-	(D)	(D)
132	<b>Natural gas liquids</b>													
	Establishments.....number..	8	8	-	-	-	-	-	-	-	-	8	-	-
	Employees.....1,000..	.2	.2	-	-	-	-	-	-	-	-	.2	-	-
	Value added in mining.....mil. dol..	133.7	133.7	-	-	-	-	-	-	-	-	133.7	-	-
138	<b>Oil and gas field services</b>													
	Establishments.....number..	606	606	-	-	-	-	-	-	-	-	-	606	-
	Employees.....1,000..	5.5	5.5	-	-	-	-	-	-	-	-	-	5.5	-
	Value added in mining.....mil. dol..	332.8	332.8	-	-	-	-	-	-	-	-	-	332.8	-

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—

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[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed <sup>1</sup>		
			Total	Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines				Combination and other methods
14	<b>NONMETALLIC MINERALS, EXCEPT FUELS</b>													
	Establishments..... number...	31	29	1	--	1	--	7	--	7	--	--	21	2
	Employees..... 1,000.....	(D)	(D)	(D)	--	(D)	--	(D)	--	(D)	--	--	(D)	(Z)
	Value added in mining..... mil. dol....	(D)	(D)	(D)	--	(D)	--	(D)	--	(D)	--	--	(D)	--
142	<b>Crushed and broken stone, including riprap</b>													
	Establishments..... number...	2	2	--	--	--	--	2	--	2	--	--	--	--
	Employees..... 1,000.....	(D)	(D)	--	--	--	--	(D)	--	(D)	--	--	--	--
	Value added in mining..... mil. dol....	(D)	(D)	--	--	--	--	(D)	--	(D)	--	--	--	--
144	<b>Sand and gravel</b>													
	Establishments..... number...	25	23	--	--	--	--	4	--	4	--	--	19	2
	Employees..... 1,000.....	(D)	(D)	--	--	--	--	(D)	--	(D)	--	--	(D)	(Z)
	Value added in mining..... mil. dol....	(D)	(D)	--	--	--	--	(D)	--	(D)	--	--	(D)	(Z)
145	<b>Clay, ceramic, and refractory minerals</b>													
	Establishments..... number...	1	1	1	--	1	--	--	--	--	--	--	--	--
	Employees..... 1,000.....	(D)	(D)	(D)	--	(D)	--	--	--	--	--	--	--	--
	Value added in mining..... mil. dol....	(D)	(D)	(D)	--	(D)	--	--	--	--	--	--	--	--
148	<b>Nonmetallic minerals services</b>													
	Establishments..... number...	2	2	--	--	--	--	--	--	--	--	--	2	--
	Employees..... 1,000.....	(D)	(D)	--	--	--	--	--	--	--	--	--	(D)	--
	Value added in mining..... mil. dol....	(D)	(D)	--	--	--	--	--	--	--	--	--	(D)	--
149	<b>Miscellaneous nonmetallic minerals</b>													
	Establishments..... number...	1	1	--	--	--	--	1	--	1	--	--	--	--
	Employees..... 1,000.....	(D)	(D)	--	--	--	--	(D)	--	(D)	--	--	--	--
	Value added in mining..... mil. dol....	(D)	(D)	--	--	--	--	(D)	--	(D)	--	--	--	--

<sup>1</sup>Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

**Table 4a. Summary Statistics for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year ----- number .....	1 037	Cost of supplies ----- mil. dol. ....	1 330.7
With 0 to 19 employees ----- do. ....	934	Supplies used, minerals received, and purchased machinery installed ----- do. ....	751.1
With 20 to 99 employees ----- do. ....	91	Resales ----- do. ....	(D)
With 100 employees or more ----- do. ....	12	Purchased fuels consumed ----- do. ....	42.3
All employees:		Purchased electric energy:	
Average for year ----- 1,000 .....	8.5	Quantity ----- mil. kWh .....	398.0
Payroll for year ----- mil. dol. ....	226.1	Cost ----- mil. dol. ....	19.0
		Electric energy generated less sold ----- mil. kWh .....	60.1
		Contract work ----- mil. dol. ....	(D)
Production, development, and exploration workers:		Cost of purchased communication services ----- do. ....	2.1
Average for year ----- 1,000 .....	6.6	Value of shipments and receipts ----- do. ....	2 229.0
March ----- do. ....	7.0	Value of resales ----- do. ....	(D)
May ----- do. ....	6.7	Capital expenditures during year (except land and mineral rights) ----- do. ....	1 100.7
August ----- do. ....	6.5	New capital expenditures during year ----- do. ....	686.2
November ----- do. ....	6.2	Buildings and other structures, except land ----- do. ....	(D)
Hours ----- millions .....	14.4	Machinery and equipment ----- do. ....	(D)
January to March ----- do. ....	3.8	Used capital expenditures during year ----- do. ....	5.0
April to June ----- do. ....	3.6	Buildings and other structures, except land ----- do. ....	(D)
July to September ----- do. ....	3.5	Machinery and equipment ----- do. ....	(D)
October to December ----- do. ....	3.4	Mineral exploration and development <sup>1</sup> ----- do. ....	409.5
Wages ----- mil. dol. ....	171.8	Rental payments during year ----- do. ....	26.7
Supplemental labor costs not included in payroll ----- do. ....	45.4	Buildings and other structures, except land ----- do. ....	7.0
Legally required expenditures, including Social Security contributions ----- do. ....	22.1	Machinery and equipment ----- do. ....	19.7
Payments for voluntary programs ----- do. ....	23.3	Expensed mineral exploration, development, land, and rights <sup>1 2</sup> ----- do. ....	165.0
Value added by mining ----- do. ....	1 999.1		

<sup>1</sup>Excludes data for mining service industries and natural gas liquids industry where data were not collected.

<sup>2</sup>Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

**Table 4b. Inventories for the State: End of 1981 and 1982**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
<b>Total Inventories<sup>1</sup></b> -----	<b>139.6</b>	<b>139.7</b>
Detail by method of valuation:		
Subject to LIFO costing <sup>2</sup> -----	3.6	5.6
LIFO reserve -----	.8	.8
LIFO value -----	2.8	4.7
Not subject to LIFO costing -----	114.1	110.7
Valuation method not reported <sup>3</sup> -----	21.9	23.4
Amount subject to LIFO reported without associated reserve and value <sup>4</sup> -----	(Z)	(Z)

<sup>1</sup>Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

<sup>2</sup>Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

<sup>3</sup>Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

<sup>4</sup>Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
	<b>North Dakota</b> -----	-	1 037	103	8.5	226.1	6.6	14.4	171.8	1 999.1	1 330.7	2 229.0	1 100.7	2.5	324.6
	<b>Billings County</b> -----	-	70	11	.8	24.5	.6	1.3	16.4	582.8	211.9	654.3	140.4	(Z)	23.4
13	Oil and gas extraction -----	-	70	11	.8	24.5	.6	1.3	16.4	582.8	211.9	654.3	140.4	(Z)	23.4
131	Crude petroleum and natural gas -----	-	33	1	.2	6.5	.1	.1	1.4	539.1	184.2	600.1	123.2	(Z)	22.3
138	Oil and gas field services -----	-	37	10	.6	18.0	.5	1.1	15.0	43.7	27.7	54.2	17.2	(NA)	(NA)
	<b>Bottineau County</b> -----	E1	43	1	.1	3.3	.1	.2	2.1	48.9	9.6	53.4	5.0	(Z)	11.2
13	Oil and gas extraction -----	E1	43	1	.1	3.3	.1	.2	2.1	48.9	9.6	53.4	5.0	(Z)	11.2
131	Crude petroleum and natural gas -----	-	25	-	.1	1.5	(Z)	.1	.7	44.0	8.0	48.2	3.8	(Z)	11.2
138	Oil and gas field services -----	E5	18	1	.1	1.8	.1	.1	1.5	4.9	1.6	5.2	1.2	(NA)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	<b>North Dakota—Con.</b>														
	<b>Bowman County</b> .....	-	52	1	.2	3.3	.1	.3	2.6	41.7	(D)	46.0	(D)	.2	30.9
13	Oil and gas extraction .....	-	50	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	24	-	(Z)	.9	(Z)	(Z)	.7	32.8	7.6	34.0	6.4	(Z)	15.2
14	Nonmetallic minerals, except fuels .....	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
149	Miscellaneous nonmetallic minerals .....	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Burke County</b> .....	E1	36	3	.2	4.6	.1	.3	4.1	46.4	31.2	56.7	20.9	.1	8.2
13	Oil and gas extraction .....	E1	36	3	.2	4.6	.1	.3	4.1	46.4	31.2	56.7	20.9	(NA)	(NA)
131	Crude petroleum and natural gas .....	E1	13	-	(Z)	.8	(Z)	(Z)	.6	37.2	(D)	43.2	(D)	(NA)	(NA)
138	Oil and gas field services .....	E1	22	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Burleigh County</b> .....	E1	17	4	.3	9.9	.2	.4	6.2	39.5	(D)	87.7	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining .....	-	3	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	3	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	E2	13	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	E8	7	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
132	Natural gas liquids .....	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Divide County</b> .....	-	51	3	.2	4.9	.2	.4	4.3	31.6	(D)	27.0	(D)	(NA)	(NA)
13	Oil and gas extraction .....	-	50	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	19	-	(Z)	.4	(Z)	(Z)	.2	19.3	(D)	11.8	(D)	(NA)	(NA)
138	Oil and gas field services .....	-	31	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Dunn County</b> .....	-	61	4	.3	9.1	.3	.6	7.9	170.0	82.0	197.8	54.3	(Z)	26.4
13	Oil and gas extraction .....	-	61	4	.3	9.1	.3	.6	7.9	170.0	82.0	197.8	54.3	(Z)	26.4
131	Crude petroleum and natural gas .....	-	23	1	.1	2.1	.1	.1	1.8	142.7	53.8	147.5	48.9	(NA)	(NA)
132	Natural gas liquids .....	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	-	36	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Golden Valley County</b> .....	-	37	1	.1	3.1	.1	.2	2.3	25.4	6.6	20.5	13.7	(NA)	(NA)
13	Oil and gas extraction .....	-	36	1	.1	3.1	.1	.2	2.3	25.4	8.8	20.5	13.7	(NA)	(NA)
131	Crude petroleum and natural gas .....	-	16	-	(Z)	.1	(Z)	(Z)	.1	16.9	6.6	12.0	11.5	(NA)	(NA)
138	Oil and gas field services .....	-	20	1	.1	3.0	.1	.2	2.3	8.5	2.2	8.5	2.3	(NA)	(NA)
	<b>McKenzie County</b> .....	-	128	19	1.2	31.5	1.0	2.2	25.6	349.1	167.8	344.9	192.1	.5	60.7
13	Oil and gas extraction .....	-	128	19	1.2	31.5	1.0	2.2	25.8	349.1	187.8	344.9	192.1	.5	60.7
131	Crude petroleum and natural gas .....	-	52	2	.1	4.1	.1	.2	2.4	282.1	146.8	255.7	173.3	.1	45.1
132	Natural gas liquids .....	-	2	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	E1	74	17	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>McLean County</b> .....	-	10	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining .....	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining .....	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction .....	-	9	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	-	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Mercer County</b> .....	-	10	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	23.0
12	Bituminous coal and lignite mining .....	-	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	22.9
121	Bituminous coal and lignite mining .....	-	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	22.9
	<b>Mountrail County</b> .....	E4	35	1	.1	2.9	.1	.2	2.4	16.8	12.2	17.0	11.9	(NA)	(NA)
13	Oil and gas extraction .....	E4	35	1	.1	2.9	.1	.2	2.4	16.8	12.2	17.0	11.9	(NA)	(NA)
131	Crude petroleum and natural gas .....	E5	14	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services .....	E3	21	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982											1977		
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
12	North Dakota—Con. Oliver County.....	-	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining.....	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Renville County.....	-	32	1	.1	3.5	.1	.2	2.3	23.7	9.7	30.5	3.0	.1	12.9
131	Oil and gas extraction.....	-	32	1	.1	3.5	.1	.2	2.3	23.7	9.7	30.5	3.0	.1	12.9
131	Crude petroleum and natural gas.....	-	22	1	.1	2.2	(Z)	.1	1.2	20.4	(D)	26.7	(D)	.1	12.4
12	Sheridan County.....	-	6	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining.....	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining.....	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Slope County.....	-	13	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining.....	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining.....	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Stark County.....	E2	107	13	1.0	24.0	.8	1.8	18.6	83.3	46.7	102.7	27.3	.1	22.3
13	Oil and gas extraction.....	E2	101	13	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas.....	E2	21	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services.....	E2	80	12	.9	20.6	.7	1.7	16.4	49.7	21.5	56.1	15.1	(NA)	(NA)
13	Ward County.....	E3	44	2	.2	4.6	.1	.3	3.4	12.2	5.7	16.4	1.5	(NA)	(NA)
13	Oil and gas extraction.....	E4	37	-	.1	1.5	(Z)	.1	1.1	8.9	3.1	10.7	1.3	(NA)	(NA)
131	Crude petroleum and natural gas.....	E4	12	-	(Z)	.3	(Z)	(Z)	.2	5.5	(D)	6.7	(D)	(NA)	(NA)
13	Williams County.....	E2	205	29	2.2	48.9	1.7	3.8	38.7	390.6	148.6	405.5	133.7	.6	73.1
13	Oil and gas extraction.....	E2	204	29	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas.....	E3	57	5	.5	12.1	.3	.8	8.3	198.3	66.9	218.8	46.4	.2	37.7
132	Natural gas liquids.....	-	2	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services.....	E3	145	22	1.6	33.5	1.3	2.6	27.2	84.3	38.6	105.0	17.9	(NA)	(NA)

<sup>1</sup>County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

<sup>2</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>3</sup>Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
North Dakota.....	1 037	2	-	16	988	31	North Dakota—Con.						
0 to 4 employees.....	710	2	-	2	690	16	100 to 249 employees.....	11	-	-	4	7	-
5 to 9 employees.....	128	-	-	1	123	4	250 to 499 employees.....	1	-	-	1	-	-
10 to 19 employees.....	96	-	-	2	86	8	Adams County.....	4	-	-	-	4	-
20 to 49 employees.....	65	-	-	4	60	1	0 to 19 employees.....	4	-	-	-	4	-
50 to 99 employees.....	26	-	-	2	22	2							

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>North Dakota—Con.</b>							<b>North Dakota—Con.</b>						
<b>Billings County</b> .....	70	-	-	-	70	-	<b>Mercer County—Con.</b>						
0 to 19 employees.....	59	-	-	-	59	-	20 to 99 employees .....	1	-	-	1	-	-
20 to 99 employees .....	9	-	-	-	9	-	100 to 249 employees .....	2	-	-	1	1	-
100 to 249 employees .....	2	-	-	-	2	-	<b>Morton County</b> .....	12	-	-	-	9	3
<b>Bottineau County</b> .....	43	-	-	-	43	-	0 to 19 employees.....	12	-	-	-	9	3
0 to 19 employees.....	42	-	-	-	42	-	<b>Mountrail County</b> .....	35	-	-	-	35	-
20 to 99 employees .....	1	-	-	-	1	-	0 to 19 employees.....	34	-	-	-	34	-
<b>Bowman County</b> .....	52	-	-	1	50	1	20 to 99 employees .....	1	-	-	-	1	-
0 to 19 employees.....	51	-	-	1	50	-	<b>Nelson County</b> .....	1	-	-	-	1	-
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	1	-
<b>Burke County</b> .....	36	-	-	-	36	-	<b>Oliver County</b> .....	5	-	-	2	2	1
0 to 19 employees.....	33	-	-	-	33	-	0 to 19 employees.....	4	-	-	1	2	1
20 to 99 employees .....	3	-	-	-	3	-	100 to 249 employees .....	1	-	-	1	-	-
<b>Burlingame County</b> .....	17	1	-	3	13	-	<b>Pierce County</b> .....	1	-	-	-	1	-
0 to 19 employees.....	13	1	-	-	12	-	0 to 19 employees.....	1	-	-	-	1	-
20 to 99 employees .....	3	-	-	2	1	-	<b>Ramsey County</b> .....	1	-	-	-	1	-
100 to 249 employees .....	1	-	-	1	-	-	0 to 19 employees.....	1	-	-	-	1	-
<b>Cass County</b> .....	3	-	-	-	2	1	<b>Ransom County</b> .....	1	-	-	-	-	1
0 to 19 employees.....	3	-	-	-	2	1	0 to 19 employees.....	1	-	-	-	-	1
<b>Dickey County</b> .....	1	-	-	-	1	-	<b>Renville County</b> .....	32	-	-	-	32	-
0 to 19 employees.....	1	-	-	-	1	-	0 to 19 employees.....	31	-	-	-	31	-
<b>Divide County</b> .....	51	-	-	1	50	-	20 to 99 employees .....	1	-	-	-	1	-
0 to 19 employees.....	48	-	-	-	48	-	<b>Richland County</b> .....	3	-	-	-	3	-
20 to 99 employees .....	3	-	-	1	2	-	0 to 19 employees.....	2	-	-	-	2	-
<b>Dunn County</b> .....	61	-	-	-	61	-	20 to 99 employees .....	1	-	-	-	1	-
0 to 19 employees.....	57	-	-	-	57	-	<b>Rolette County</b> .....	6	-	-	-	6	-
20 to 99 employees .....	4	-	-	-	4	-	0 to 19 employees.....	6	-	-	-	6	-
<b>Eddy County</b> .....	2	-	-	-	2	-	<b>Sheridan County</b> .....	6	-	-	1	5	-
0 to 19 employees.....	2	-	-	-	2	-	0 to 19 employees.....	5	-	-	-	5	-
<b>Emmons County</b> .....	1	-	-	-	1	-	100 to 249 employees .....	1	-	-	1	-	-
0 to 19 employees.....	1	-	-	-	1	-	<b>Sloux County</b> .....	2	-	-	-	2	-
<b>Golden Valley County</b> .....	37	1	-	-	36	-	0 to 19 employees.....	2	-	-	-	2	-
0 to 19 employees.....	36	1	-	-	35	-	<b>Slope County</b> .....	13	-	-	1	12	-
20 to 99 employees .....	1	-	-	-	1	-	0 to 19 employees.....	12	-	-	-	12	-
<b>Grand Forks County</b> .....	3	-	-	-	-	3	20 to 99 employees .....	1	-	-	1	-	-
0 to 19 employees.....	2	-	-	-	-	2	<b>Stark County</b> .....	107	-	-	1	101	5
20 to 99 employees .....	1	-	-	-	-	1	0 to 19 employees.....	94	-	-	1	88	5
<b>Grant County</b> .....	3	-	-	-	3	-	20 to 99 employees .....	12	-	-	-	12	-
0 to 19 employees.....	3	-	-	-	3	-	100 to 249 employees .....	1	-	-	-	1	-
<b>Griggs County</b> .....	2	-	-	-	2	-	<b>Steele County</b> .....	2	-	-	-	2	-
0 to 19 employees.....	2	-	-	-	2	-	0 to 19 employees.....	2	-	-	-	2	-
<b>Hettinger County</b> .....	4	-	-	-	4	-	<b>Stutaman County</b> .....	3	-	-	-	1	2
0 to 19 employees.....	4	-	-	-	4	-	0 to 19 employees.....	3	-	-	-	1	2
<b>Kidder County</b> .....	2	-	-	-	2	-	<b>Towner County</b> .....	2	-	-	-	1	1
0 to 19 employees.....	2	-	-	-	2	-	0 to 19 employees.....	2	-	-	-	1	1
<b>McHenry County</b> .....	6	-	-	-	5	1	<b>Traill County</b> .....	3	-	-	-	-	3
0 to 19 employees.....	6	-	-	-	5	1	0 to 19 employees.....	3	-	-	-	-	3
<b>McKenzie County</b> .....	128	-	-	-	128	-	<b>Wahala County</b> .....	3	-	-	-	2	1
0 to 19 employees.....	109	-	-	-	109	-	0 to 19 employees.....	3	-	-	-	2	1
20 to 99 employees .....	17	-	-	-	17	-	<b>Ward County</b> .....	44	-	-	2	37	5
100 to 249 employees .....	2	-	-	-	2	-	0 to 19 employees.....	42	-	-	1	37	4
<b>McLean County</b> .....	10	-	-	1	9	-	20 to 99 employees .....	2	-	-	1	-	1
0 to 19 employees.....	8	-	-	-	8	-	<b>Wells County</b> .....	4	-	-	-	1	3
20 to 99 employees .....	1	-	-	-	1	-	0 to 19 employees.....	4	-	-	-	1	3
250 employees or more .....	1	-	-	1	-	-	<b>Williams County</b> .....	205	-	-	1	204	-
<b>Mercer County</b> .....	10	-	-	2	8	-	0 to 19 employees.....	176	-	-	1	175	-
0 to 19 employees.....	7	-	-	-	7	-	20 to 99 employees .....	28	-	-	-	28	-
							100 to 249 employees .....	1	-	-	-	1	-

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# South Dakota

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The total value of shipments and receipts for the 143 establishments classified in mineral industries in South Dakota amounted to \$173 million in 1982, compared to \$100 million in 1977. Value added by mining amounted to \$116 million in 1982, and payroll in mining amounted to \$50 million. All dollar figures shown are in current dollars for the years specified and have not

been adjusted for changes in price levels. When making comparisons to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in South Dakota was 2.3 thousand in 1982, a decrease of 4 percent from 1977. Metal mining led all other mineral industries in the State.

**Table 1. Historical Statistics for the State: 1982 and Earlier Census Years**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
<b>Mineral industries:</b>											
1982 <sup>1</sup> .....	2143	29	2.3	49.7	1.7	3.1	35.4	115.9	85.0	172.7	28.2
1977 <sup>1</sup> .....	68	9	2.4	34.6	2.1	3.9	27.0	68.0	55.7	99.6	24.1
1972 <sup>1</sup> .....	68	9	1.8	18.5	1.5	3.4	14.6	32.4	18.5	46.2	4.8
1967 <sup>1</sup> .....	81	7	2.2	13.9	1.9	4.4	11.3	23.6	10.9	32.8	1.6
1963 .....	131	14	2.6	13.7	2.2	4.9	11.7	25.6	15.3	37.9	3.0
1958 .....	133	13	2.6	12.6	2.2	4.6	10.7	25.1	12.3	34.9	2.5
<b>Excluding oil and gas extraction industries:</b>											
1982 <sup>1</sup> .....	46	5	1.9	42.3	1.5	2.6	30.1	69.2	61.2	114.3	16.1
1977 .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1972 .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1967 .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1963 .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958 .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

<sup>1</sup>Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

<sup>2</sup>Not comparable to prior years. See Introduction for further explanation.

**Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees <sup>2</sup> (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>2</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
	<b>All mineral industries</b> .....	-	143	9	2.3	49.7	1.7	3.1	35.4	115.9	85.0	172.7	28.2	2.4	68.0
10	<b>Metal mining</b> .....	-	10	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE	(D)
104	Gold and silver ores .....	-	4	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE	(D)
1041	Gold ores .....	-	4	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE	(D)
13	<b>Oil and gas extraction</b> .....	-	97	4	.3	7.4	.2	.6	5.3	46.7	23.8	58.4	12.1	(NA)	(NA)
138	Oil and gas field services .....	-	59	2	.3	5.6	.2	.4	4.2	14.6	4.7	16.1	3.1	(NA)	(NA)
1389	Oil and gas field services, n.e.c. ....	-	32	2	.2	3.4	.1	.3	2.6	9.1	2.0	9.6	1.5	(NA)	(NA)
14	<b>Nonmetallic minerals, except fuels</b> .....	E1	35	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	22.3
1411	Dimension stone .....	E9	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
145	Clay, ceramic, and refractory minerals .....	-	5	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	BB	(D)
1452	Bentonite .....	-	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)

<sup>1</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>2</sup>General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982**

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures .....	3	(D)	(D)	(D)	(X)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

**Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments	
			Total	Mines only			Mines with preparation plants				Separately operated preparation plants	Undistributed <sup>1</sup>		
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines				Combination and other methods
	<b>ALL MINERAL INDUSTRIES</b>													
	Establishments..... number..	143	134	36	1	5	30	24	1	23	-	-	74	9
	Employees.....1,000..	2.3	2.3	.2	(D)	(D)	(D)	1.7	(D)	(D)	-	-	.3	(Z)
	Value added in mining..... mil. dol..	115.9	116.0	37.9	(D)	(D)	(D)	61.4	(D)	(D)	-	-	16.7	-1
<b>10</b>	<b>METAL MINING</b>													
	Establishments..... number..	10	9	2	1	1	-	1	1	-	-	-	6	1
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	-	-	-	(D)	(D)
	Value added in mining..... mil. dol..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	-	-	-	(D)	(D)
<b>101</b>	<b>Iron ores</b>													
	Establishments..... number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..... mil. dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
<b>104</b>	<b>Gold and silver ores</b>													
	Establishments..... number..	4	3	-	-	-	-	1	1	-	-	-	2	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	(D)	(D)
	Value added in mining..... mil. dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	(D)	(D)
<b>108</b>	<b>Metal mining services</b>													
	Establishments..... number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>109</b>	<b>Miscellaneous metal ores</b>													
	Establishments..... number..	3	3	1	1	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
<b>12</b>	<b>BITUMINOUS COAL AND LIGNITE MINING</b>													
	Establishments..... number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>121</b>	<b>Bituminous coal and lignite mining</b>													
	Establishments..... number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..... mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
<b>13</b>	<b>OIL AND GAS EXTRACTION</b>													
	Establishments..... number..	97	89	30	-	-	30	-	-	-	-	-	59	8
	Employees.....1,000..	.3	(D)	(D)	-	-	(D)	-	-	-	-	-	.3	(D)
	Value added in mining..... mil. dol..	46.7	(D)	(D)	-	-	(D)	-	-	-	-	-	14.6	(D)
<b>131</b>	<b>Crude petroleum and natural gas</b>													
	Establishments..... number..	38	30	30	-	-	30	-	-	-	-	-	-	8
	Employees.....1,000..	.1	(D)	(D)	-	-	(D)	-	-	-	-	-	-	(D)
	Value added in mining..... mil. dol..	32.1	(D)	(D)	-	-	(D)	-	-	-	-	-	-	(D)

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—  
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments										Nonproducing establishments		
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants		Undistributed <sup>1</sup>	
				Total	Underground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open pit mines	Combination and other methods				
13	<b>OIL AND GAS EXTRACTION—Con.</b>														
138	<b>Oil and gas field services</b>														
	Establishments.....number...	59	59	-	-	-	-	-	-	-	-	-	-	59	-
	Employees.....1,000...	.3	.3	-	-	-	-	-	-	-	-	-	-	.3	-
	Value added in mining.....mil. dol...	14.6	14.6	-	-	-	-	-	-	-	-	-	-	14.6	-
14	<b>NONMETALLIC MINERALS, EXCEPT FUELS</b>														
	Establishments.....number...	35	35	4	-	4	-	23	-	23	-	-	-	8	-
	Employees.....1,000...	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	(D)	-
141	<b>Dimension stone</b>														
	Establishments.....number...	3	3	3	-	3	-	-	-	-	-	-	-	-	-
	Employees.....1,000...	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining.....mil. dol...	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-	-
142	<b>Crushed and broken stone, including riprap</b>														
	Establishments.....number...	6	6	-	-	-	-	6	-	6	-	-	-	-	-
	Employees.....1,000...	.1	.1	-	-	-	-	.1	-	.1	-	-	-	-	-
	Value added in mining.....mil. dol...	3.6	3.6	-	-	-	-	3.6	-	3.6	-	-	-	-	-
144	<b>Sand and gravel</b>														
	Establishments.....number...	18	18	-	-	-	-	12	-	12	-	-	-	6	-
	Employees.....1,000...	.1	.1	-	-	-	-	(D)	-	(D)	-	-	-	(D)	-
	Value added in mining.....mil. dol...	1.6	1.6	-	-	-	-	(D)	-	(D)	-	-	-	(D)	-
145	<b>Clay, ceramic, and refractory minerals</b>														
	Establishments.....number...	5	5	1	-	1	-	3	-	3	-	-	-	1	-
	Employees.....1,000...	(D)	(D)	(Z)	-	(Z)	-	(D)	-	(D)	-	-	-	(Z)	-
	Value added in mining.....mil. dol...	(D)	(D)	(Z)	-	(Z)	-	(D)	-	(D)	-	-	-	(Z)	-
148	<b>Nonmetallic minerals services</b>														
	Establishments.....number...	1	1	-	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	-	-	-	-	-	-	(D)	-
149	<b>Miscellaneous nonmetallic minerals</b>														
	Establishments.....number...	2	2	-	-	-	-	2	-	2	-	-	-	-	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-	-
	Value added in mining.....mil. dol...	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-	-

<sup>1</sup>Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

**Table 4a. Summary Statistics for the State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year ----- number..	143	Cost of supplies ----- mil. dol..	85.0
With 0 to 19 employees ----- do..	134	Supplies used, minerals received, and purchased machinery installed ----- do..	50.7
With 20 to 99 employees ----- do..	7	Resales ----- do..	.6
With 100 employees or more ----- do..	2	Purchased fuels consumed ----- do..	5.1
All employees:		Purchased electric energy:	
Average for year ----- 1,000..	2.3	Quantity ----- mil. kWh..	255.7
Payroll for year ----- mil. dol..	49.7	Cost ----- mil. dol..	10.6
Production, development, and exploration workers:		Electric energy generated less sold ----- mil. kWh..	(D)
Average for year ----- 1,000..	1.7	Contract work ----- mil. dol..	18.0
March ----- do..	2.1	Cost of purchased communication services ----- do..	.1
May ----- do..	2.1	Value of shipments and receipts ----- do..	172.7
August ----- do..	.8	Value of resales ----- do..	.6
November ----- do..	2.0	Capital expenditures during year (except land and mineral rights) ----- do..	28.2
Hours ----- millions..	3.1	New capital expenditures during year ----- do..	23.6
January to March ----- do..	1.0	Buildings and other structures, except land ----- do..	9.0
April to June ----- do..	.8	Machinery and equipment ----- do..	14.6
July to September ----- do..	.4	Used capital expenditures during year ----- do..	.5
October to December ----- do..	.9	Buildings and other structures, except land ----- do..	.1
Wages ----- mil. dol..	35.4	Machinery and equipment ----- do..	.4
Supplemental labor costs not included in payroll ----- do..	18.8	Mineral exploration and development <sup>1</sup> ----- do..	4.1
Legally required expenditures, including Social Security contributions ----- do..	4.5	Rental payments during year ----- do..	.8
Payments for voluntary programs ----- do..	12.3	Buildings and other structures, except land ----- do..	.1
Value added by mining ----- do..	115.9	Machinery and equipment ----- do..	.7
		Expensed mineral exploration, development, land, and rights <sup>2</sup> ----- do..	8.1

<sup>1</sup>Excludes data for mining service industries and natural gas liquids industry where data were not collected.  
<sup>2</sup>Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

**Table 4b. Inventories for the State: End of 1981 and 1982**

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
<b>Total Inventories<sup>1</sup></b> -----	<b>41.4</b>	<b>46.4</b>
Detail by method of valuation:		
Subject to LIFO costing <sup>2</sup> -----	18.5	24.5
LIFO reserve -----	11.3	17.2
LIFO value -----	7.1	7.3
Not subject to LIFO costing -----	19.3	17.8
Valuation method not reported <sup>3</sup> -----	3.7	4.1
Amount subject to LIFO reported without associated reserve and value <sup>4</sup> -----	-	-

<sup>1</sup>Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.  
<sup>2</sup>Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.  
<sup>3</sup>Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.  
<sup>4</sup>Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
	South Dakota -----	-	143	9	2.3	49.7	1.7	3.1	35.4	115.9	85.0	172.7	28.2	2.4	68.0
	Butte County -----	-	6	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	-	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
145	Clay, ceramic, and refractory minerals -----	-	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Grant County -----	E9	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels -----	E9	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
141	Dimension stone -----	E9	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

**Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group <sup>1</sup>	1982										1977			
		E <sup>2</sup>	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
			Total (number)	With 20 employees or more (number)	Number <sup>3</sup> (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
	<b>South Dakota—Con.</b>														
	Harding County	-	35	2	.1	3.5	.1	.2	2.5	33.9	20.2	44.6	9.4	(Z)	7.3
13	Oil and gas extraction	-	35	2	.1	3.5	.1	.2	2.5	33.9	20.2	44.6	9.4	(NA)	(NA)
131	Crude petroleum and natural gas	-	12	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services	-	23	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	<b>Lawrence County</b>														
	Metal mining	-	8	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
10	Metal mining	-	5	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
104	Gold and silver ores	-	2	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

<sup>1</sup>County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

<sup>2</sup>Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

<sup>3</sup>Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
0 to 4 employees	105	4	-	-	86	15	Dewey County	1	-	-	-	1	-
5 to 9 employees	19	5	-	1	5	8	0 to 19 employees	1	-	-	-	1	-
10 to 19 employees	10	-	-	-	2	8	Edmunds County	1	-	-	-	1	-
20 to 49 employees	4	-	-	-	3	1	0 to 19 employees	1	-	-	-	1	-
50 to 99 employees	3	-	-	-	1	2	Fall River County	11	1	-	-	8	2
100 to 249 employees	1	-	-	-	-	1	0 to 19 employees	11	1	-	-	8	2
1,000 to 2,499 employees	1	1	-	-	-	-	Faulk County	1	-	-	-	1	-
<b>Aurora County</b>	13	-	-	1	12	-	0 to 19 employees	1	-	-	-	1	-
0 to 19 employees	13	-	-	1	12	-	Grant County	3	-	-	-	-	3
<b>Brookings County</b>	2	-	-	-	-	2	0 to 19 employees	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2	Gregory County	2	-	-	-	-	2
<b>Brule County</b>	1	-	-	-	1	-	0 to 19 employees	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	1	-	20 to 99 employees	1	-	-	-	-	1
<b>Buffalo County</b>	1	-	-	-	1	-	<b>Haakon County</b>	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-	0 to 19 employees	1	-	-	-	1	-
<b>Butte County</b>	6	-	-	-	3	3	Hand County	3	-	-	-	2	1
0 to 19 employees	4	-	-	-	3	1	0 to 19 employees	3	-	-	-	2	1
20 to 99 employees	1	-	-	-	-	1	Hanson County	2	-	-	-	1	1
100 to 249 employees	1	-	-	-	-	1	0 to 19 employees	2	-	-	-	1	1
<b>Charles Mix County</b>	1	-	-	-	1	-	<b>Harding County</b>	35	-	-	-	35	-
0 to 19 employees	1	-	-	-	1	-	0 to 19 employees	33	-	-	-	33	-
<b>Clark County</b>	2	-	-	-	1	1	20 to 99 employees	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	1	1	<b>Hughes County</b>	1	-	-	-	1	-
<b>Codington County</b>	3	-	-	-	-	3	0 to 19 employees	1	-	-	-	1	-
0 to 19 employees	3	-	-	-	-	3	Hyde County	1	-	-	-	1	-
<b>Custer County</b>	4	2	-	-	1	1	0 to 19 employees	1	-	-	-	1	-
0 to 19 employees	4	2	-	-	1	1							
<b>Davison County</b>	2	-	-	-	1	1							
0 to 19 employees	2	-	-	-	1	1							

**Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
<b>South Dakota—Con.</b>							<b>South Dakota—Con.</b>						
<b>Lake County</b> .....	1	-	-	-	-	1	<b>Perkins County</b> .....	5	-	-	-	4	1
0 to 19 employees.....	1	-	-	-	-	1	0 to 19 employees.....	4	-	-	-	3	1
<b>Lawrence County</b> .....	8	5	-	-	2	1	20 to 99 employees .....	1	-	-	-	1	-
0 to 19 employees.....	7	4	-	-	2	1	<b>Potter County</b> .....	1	-	-	-	1	-
250 employees or more.....	1	1	-	-	-	-	0 to 19 employees.....	1	-	-	-	1	-
<b>Lyman County</b> .....	1	-	-	-	1	-	<b>Roberts County</b> .....	1	-	-	-	1	-
0 to 19 employees.....	1	-	-	-	1	-	0 to 19 employees.....	1	-	-	-	1	-
<b>McPherson County</b> .....	1	-	-	-	1	-	<b>Stanley County</b> .....	1	-	-	-	1	-
0 to 19 employees.....	1	-	-	-	1	-	0 to 19 employees.....	1	-	-	-	1	-
<b>Meade County</b> .....	2	-	-	-	2	-	<b>Sully County</b> .....	2	-	-	-	1	1
0 to 19 employees.....	2	-	-	-	2	-	0 to 19 employees.....	2	-	-	-	1	1
<b>Mellette County</b> .....	2	-	-	-	2	-	<b>Todd County</b> .....	1	-	-	-	1	-
0 to 19 employees.....	2	-	-	-	2	-	20 to 99 employees .....	1	-	-	-	1	-
<b>Minnehaha County</b> .....	4	1	-	-	-	3	<b>Tripp County</b> .....	1	-	-	-	1	-
0 to 19 employees.....	3	1	-	-	-	2	0 to 19 employees.....	1	-	-	-	1	-
20 to 99 employees .....	1	-	-	-	-	1	<b>Union County</b> .....	1	-	-	-	-	1
<b>Moody County</b> .....	1	-	-	-	-	1	0 to 19 employees.....	1	-	-	-	-	1
0 to 19 employees.....	1	-	-	-	-	1	<b>Walworth County</b> .....	1	-	-	-	-	1
<b>Pennington County</b> .....	11	1	-	-	5	5	0 to 19 employees.....	1	-	-	-	-	1
0 to 19 employees.....	11	1	-	-	5	5	<b>Yankton County</b> .....	1	-	-	-	-	1
							0 to 19 employees.....	1	-	-	-	-	1



# APPENDIX A.

## Explanation of Terms

**Employment and related items**—The report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year and for other employees as of the payroll period which included the 12th of March.

**All employees**—This item includes all full-time and part-time employees on the payrolls of mining establishments for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees working for miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also 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, but proprietors and partners of unincorporated firms are excluded.

**Production, development, and exploration workers**—This category includes employees (up through the working supervisor level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and guard services, auxiliary production for use at establishments (such as power plant), record keeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and supervisors who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and persons engaged by them and paid out of the total amount received by these miners. In addition, other employees at the establishment but not on its payroll are included if paid directly through its own employees, such as superintendents and supervisors. The payments received by these types of employees are included as part of the establishments payroll. Supervisory employees above the working supervisor level are excluded from this category.

**All other employees**—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working supervisor level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical and routine office functions, executive, purchasing, financing, legal,

personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

**Separately operated auxiliary establishments employees**—This item includes employment at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment during the payroll period which included March 12. Establishments were classified on the basis of the industry or principal industry served. Employees at an office located at or near the mining establishment are usually included in the mine report.

**All employees, average for year**—The 1982 census report form requested employment figures for production, development, and exploration workers for four selected pay periods (mid-March, May, August, and November). For all other employees, only a mid-March figure was requested. The annual average is an average of the four monthly figures for production, development, and exploration workers plus the March figure for all other employees. This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods closely approximates, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods.

**Payroll**—This term includes all forms of compensation such as salaries, wages, commissions, payments received on a ton, car, or yard basis, dismissal pay, 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, and payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages. As in the case of employment and establishment figures, the annual payrolls of separate auxiliary establishments of multiestablishment companies are included in the totals for individual industries and for States. Respondents were told that in reporting they could follow the definition of payroll used for calculating the Federal withholding tax.

**Production, development, and exploration worker hours**—This item represents all hours that production, development, and exploration workers worked, both on active days during which there was production or development work and on inactive days when only security guards, inspectors, repairpersons, and other maintenance persons were on duty. It includes all hours worked or paid for at the mining operations, except hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Included are actual overtime hours, not straight-time equivalent hours. Hours of working proprietors or partners are excluded.

**Supplemental Labor Costs**—This item represents employer's cost for fringe benefits not included in payrolls.

**Legally required expenditures, including social security contributions**—This cost includes employer contributions for all programs required under Federal and State legislation, such as Federal Old Age and Survivors' Insurance, unemployment compensation, and worker's compensation. Also included are legally required State temporary disability payments.

**Payments for voluntary programs**—Included in this cost are payments resulting from union negotiated contracts and all employer payments of insurance premiums on hospital and medical plans, life insurance premiums, and premiums on supplementary accident and sickness insurance. For programs supported by joint employer-employee contributions, only the employer payments are included. Also included are payments or allocations on all pension plans regardless of methods of administration, supplemental unemployment compensation plans, welfare plans, stock purchase plans in which the employer payment is not subject to withholding tax, and deferred profit sharing plans.

**Value added by mining**—This measure of mining activity is derived by subtracting the cost of supplies used, minerals received for preparation, purchased machinery installed, purchased fuel, purchased electricity, and contract work from the sum of the value of shipments (mining products plus receipts for services rendered) and total capital expenditures. This statistic avoids the duplication in value of shipments and receipts which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure of value added not only in mineral production but also in the development of mineral properties. For these reasons, it is considered to be the best value measure for comparing the relative economic importance of mining among industries and geographic areas.

**Cost of supplies used, purchased machinery installed, etc.**—Besides supplies used and purchased machinery installed, this cost includes fuels and electric energy used and contract work done by others for each establishment. It includes charges to both the current and capital accounts. It also includes the cost of items used during 1982 whether they were purchased, withdrawn from inventories, or received from other establishments of the company. For selected supplies and fuels and for electric energy, both quantity and cost data were requested. The cost data refer to direct charges actually paid or payable (after discounts) for items used during the year.

Freight charges and other direct charges incurred by the establishment in acquiring the item are included. Companies whose records did not show actual amounts used were asked to approximate use by adding purchases (or receipts) during the year to opening inventory and subtracting closing inventory. Separate figures were requested for: (1) selected supplies used, minerals received for preparation, and purchased machinery installed; (2) electric energy purchased; (3) purchased fuels used for heat, power, or the generation of electricity; (4) contract work done by others; and (5) products bought and resold in the same condition. Supplies and equipment used in mine development, plant expansion, and capitalized repairs, which are chargeable to fixed assets accounts, are included in this item, as are supplies furnished without charge to contractors for use at the mining operation and supplies sold to employees for use at the establishment. Excluded are such costs as advertising, insurance, telephone, and research and consulting services of other establishments; or such overhead costs as depreciation charges, rent, interest, and royalties.

**Value of shipments and receipts**—The amounts shown as value of shipments and receipts for each industry are the net selling values, f.o.b. mine or plant after discounts and allowances, excluding freight charges. "Shipments" include all products physically shipped from the establishment during 1982, including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1982. For products transferred to other establishments of the same company or prepared on a custom basis, companies were requested to report the estimated value, not merely the cost of producing the items. 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.

For all establishments classified in an industry, value of shipments and receipts includes: (1) the value of all "primary" products of the industry, (2) the value of "secondary" products which are primary to other industries, (3) the receipts for contract work done for others, except custom milling, and (4) the value of products purchased and resold without further processing. Receipts for custom milling are not included to avoid duplication with the value of custom milled ores included in an industry's primary and secondary products.

Some duplication exists in industry and industry group totals because of the inclusion of materials transferred from one establishment to another for mineral preparation or resale.

**Capital expenditures**—This item covers expenditures made during the year for development and exploration of mineral properties, for new construction, and for purchased machinery chargeable to fixed assets accounts of the mineral establishment. They are the type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1982 were to be determined as "additions completed during the year plus construction in progress at the end of the year minus construction in progress at the beginning of the year." Reported capital expenditures were to include work done on contract, as well as by the mine forces.

Expenditures for machinery and equipment were to include those made for replacement purposes, as well as those for additions to capacity. Excluded from these expenditures were costs of maintenance and repairs charged as current operating expense and expenditures for land and mineral rights.

Whenever applicable, separate figures were provided for expenditures for development and exploration of mineral property, construction of preparation plants and other construction, new machinery and equipment, used plant, and used equipment acquired from others.

**Rental payments**—This item consists of rental payments made to other companies for use of such depreciable assets as buildings, other structures, machinery, and equipment. It does not include payments made to the parent company or another subsidiary of the parent company for the use of buildings and equipment owned by the parent company or its subsidiary. The value of such company-owned assets is included in the gross value of depreciable assets.

**Current account expenditures**—This item includes all expenses for mineral properties, exploration, and development charged to current accounts. This includes all supplies, machinery, equipment, parts, fuels, power, etc., used for development or exploration and charged to current operating expenses. Also included are royalty payments, acquisition costs for mineral land and rights which were not capitalized, and the cost of maintenance and repairs associated with exploration or development activity and charged to current accounts.

**Inventories**—This item includes inventories of mined or quarried products, and supplies, parts, fuels, etc., at the beginning and end of the year. Beginning in the 1982 Census of Mineral Industries, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method. The inventory figures for 1982, therefore, will not be comparable to prior census data because of the change in reporting instructions.

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# APPENDIX B.

## Geographic Divisions and States

### NEW ENGLAND STATES

Connecticut  
Maine  
Massachusetts  
New Hampshire  
Rhode Island  
Vermont  
North and Mid-Atlantic Offshore

### MIDDLE ATLANTIC STATES

New Jersey  
New York  
Pennsylvania

### EAST NORTH CENTRAL STATES

Illinois  
Indiana  
Michigan  
Ohio  
Wisconsin

### WEST NORTH CENTRAL STATES

Iowa  
Kansas  
Minnesota  
Missouri  
Nebraska  
North Dakota  
South Dakota

### SOUTH ATLANTIC STATES

Delaware  
District of Columbia  
Florida  
Georgia  
Maryland

### SOUTH ATLANTIC STATES— Con.

North Carolina  
South Carolina  
Virginia  
West Virginia  
South Atlantic Offshore

### EAST SOUTH CENTRAL STATES

Alabama  
Kentucky  
Mississippi  
Tennessee

### WEST SOUTH CENTRAL STATES

Arkansas  
Louisiana  
Oklahoma  
Texas  
Northern Gulf of Mexico Offshore

### MOUNTAIN STATES

Arizona  
Colorado  
Idaho  
Montana  
Nevada  
New Mexico  
Utah  
Wyoming

### PACIFIC STATES

Alaska  
California  
Hawaii  
Oregon  
Washington  
Pacific Offshore

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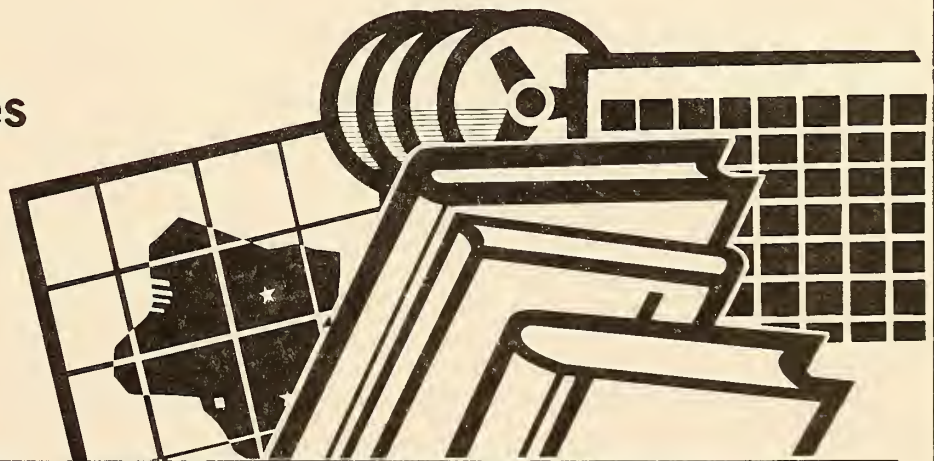
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### Preliminary Reports

Preliminary data from the 1982 census have been issued in 12 industry and 2 summary reports covering all of the 42 mineral industries. These reports are superseded by more detailed final reports.

### Final Reports

Final detailed statistics are issued in separate paperbound reports.

#### Industry series—12 reports (MIC82-I-10A to -14E)

Each of the 12 reports provides information for an industry or a group of related industries (e.g., clay, ceramic, and refractory minerals). Final figures for the United States are shown for each of 42 mineral industries on quantity and value of products shipped and supplies used; inventories; quantity and cost of fuels and electric energy purchased, quantity of fuel stocks, and the quantities of fuels produced and consumed; capital expenditures; assets; rents; employment; depreciation, amortization and depletion; payrolls; hours worked; cost of purchased machinery; value added by mining; mineral development and exploration costs; number of establishments; and number of companies. Comparative statistics for earlier years are included. Industry statistics are shown by State, type of operation, and size of establishment.

#### Geographic area series—9 reports (MIC82-A-1 to -9)

A separate report for each of the nine geographic divisions presents statistics for individual States for two- and three-digit industry groups by type of operation and by county. Also, data are shown for value of shipments, value added by mining, employment, payroll, hours worked, capital expenditures, cost of supplies, etc., purchased machinery

installed, and number of mining establishments, with comparative 1977 data on employment and value added by mining.

#### Subject series—7 reports (MIC82-S-1 to -7)

Each of the 7 reports contains detailed statistics for an individual subject, such as water use in mineral industries; gross value of depreciable assets, capital expenditures, retirements, depreciation and rental payments; size of establishments; type of operation; fuels and electric energy consumed; type of organization; and a general National-level summary.

### Final Report Volume

Final paperbound reports are subsequently assembled and reissued in one clothbound volume.

### Microfiche

All published data are also available on microfiche.

### Availability of Public Use Computer Tapes

Public-use computer tapes for the census of mineral industries are not included as part of the economic census publication program. Special tabulations can be made available on computer tape on a contract, cost-reimbursable basis. Contact Industry Division, Bureau of the Census, Washington, D.C. 20233 for more information.

## OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, construction industries, manufactures, enterprise statistics, minority-owned businesses, women-owned businesses, and transportation also are issued as part of the 1982 Economic Censuses. A separate series of reports covers the censuses of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Northern Mariana Islands. All published reports and microfiche are sold by the Superintendent of Documents, U.S. Government Printing Office. Appropriate announcements and order forms describing these products are available free of charge from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

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