

SEPTEMBER 1977  
Number 77-12



# statistical reporter



# statistical reporter

Prepared Monthly by the Statistical Policy Division

## CONTENTS

Page

- 549 GROSS NATIONAL PRODUCT DATA  
IMPROVEMENT PROJECT  
REPORT—SUMMARY CHAPTER
- 559 A FRAMEWORK FOR PLANNING U.S.  
FEDERAL STATISTICS, 1978-1989
- 559 Price Statistics
- 567 Transportation Statistics
- 591 CURRENT DEVELOPMENTS
- 591 Certificate of Distinguished Service  
Awarded to Members of GNP Data  
Improvement Committee
- 592 Timely Delivery of GNP Detail by  
NIPAGRAM
- 592 Manuel Plotkin Named Director of the  
Census Bureau
- 592 Revised Input-Output Data
- 593 Gross Migration by County: 1965 to  
1970
- 593 U.S. Population Projections: 1977 to  
2050
- 593 Nonsampling Error Research in  
Multiple Frame Estimates
- 594 Report on Expenditures for Health  
R&D
- 594 Recent Social Security Bulletin Reports
- 595 Supplemental Security Income Data
- 595 Veterans' Trend Data: 1951-1976
- 595 Business Income Tax Returns, 1974
- 595 New ASA Fellows—1977
- 596 Recent UN Statistical Office  
Publications
- 597 NEW REPORTING PLANS AND FORMS
- 599 PERSONNEL NOTES
- 600 SCHEDULE OF RELEASE DATES FOR  
PRINCIPAL FEDERAL ECONOMIC  
INDICATORS

**SUBSCRIPTIONS** (\$9.70 a year) should be sent to the Government Printing Office, Washington, D.C. 20402. Make checks payable to the Superintendent of Documents.

**SUGGESTIONS**, contributions, and inquiries may be addressed to: Statistical Reporter, Statistical Policy Division, Office of Management and Budget, Washington, D.C. 20503.



## EXECUTIVE OFFICE OF THE PRESIDENT

Office of  
Management and Budget

Bert Lance  
Director

Joseph W. Duncan  
Deputy Associate Director for  
Statistical Policy

Suzann K. Evinger  
Editor of Statistical Reporter

**STATISTICAL REPORTER** is prepared primarily for the interchange of information among Government employees engaged in statistical and research activities. Views expressed in contributed notes or articles do not necessarily reflect the policy or opinions of the Office of Management and Budget.

Sources and availability are shown for each publication and requests should be made to the source indicated. If "GPO" is shown, order from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

## STATISTICAL REPORTER EDITORIAL COMMITTEE

Robert W. Raynsford, *Chairman*  
Office of Management and Budget

Donald W. Barrowman  
Department of Agriculture

Harold Nisselson  
Department of Commerce  
Census Bureau

Henry Lowenstern  
Bureau of Labor Statistics

Denis F. Johnston  
Office of Management and Budget

Berdj Kenadjian  
Internal Revenue Service

Albert Mindlin  
D.C. Government

Wray Smith  
Department of  
Health, Education, and Welfare

Robert M. Fisher  
Federal Reserve Board

*This report by the Advisory Committee on Gross National Product Data Improvement has been officially received by the Statistical Policy Division. We have already been involved in implementing the recommendation made for 1977 and 1978, but much more needs to be done in terms of setting priorities for future improvements. This evaluation task will be undertaken by the newly established Office of Federal Statistical Policy and Standards in the U.S. Department of Commerce which assumes the statistical policy functions formerly assigned to the Office of Management and Budget.*

*The Committee officially expired on March 31, 1976. The staff under the general direction of Dr. Creamer was responsible for preparing the final report.*

*We offer special commendation to the members of the Advisory Committee who gave so freely of their time and knowledge to make this significant report possible. In recognition of their significant contribution to the Federal statistical system, the Committee members have been awarded the Certificate of Distinguished Service by the Statistical Policy Division, Office of Management and Budget.*

Joseph W. Duncan,  
Deputy Associate Director for  
Statistical Policy.

## *Gross National Product Data Improvement Project Report*

### *Summary Chapter*

The Advisory Committee on GNP Data Improvement was established by the Statistical Policy Division (SPD) of the Office of Management and Budget (OMB) in 1973 to evaluate the quality and timeliness of the underlying data used in preparing the national economic accounts, and to recommend specific improvements to the data. The most widely known measure of the national accounts is the gross national product (GNP). The Committee was composed of six nongovernmental experts in the economic accounts. This report presents their findings. The major recommendations are summarized in the last part of this chapter.

#### *Events Leading to the Formation of the Committee*

The study was sparked by the concern of economic policymakers in the early 1970's about successive revisions of provisional (preliminary) figures released on the quarterly movements of the GNP. Two revisions of substantial magnitude that occurred in a period of 6 months (July 1971 and January 1972) caused uncertainty with the measures of the state of the economy.

There have been other instances of revisions in the economic accounts that gave somewhat different pictures of the state of the economy, including one after the Committee started its work in 1974. Early information is of necessity based on smaller survey samples, incomplete company records of business activity, estimates to fill data gaps, errors in tabulations, etc. Although the tentativeness of the provisional estimates is known, policymakers on occasion have claimed they were misled by the early information: "If we knew then what we know now, different fiscal, monetary, incomes, etc. policies would have been prescribed for managing the economy."

The uneasiness caused by the revisions in 1971 and 1972 led the SPD to question the con-

---

*Note.*—The final report of the Advisory Committee on Gross National Product Data Improvement is in preparation and will not be issued until about the end of the year. The report will be a sales document available through the U.S. Government Printing Office. Its availability and ordering information will be announced in *Statistical Reporter*. Reprinted here is the chapter containing a summary of the Committee's recommendations.

tent, accuracy and timeliness of the underlying data used in constructing the economic accounts. These data come mainly from survey and administrative statistics provided by a wide range of Federal agencies—Bureau of the Census, Bureau of Labor Statistics, Federal Trade Commission, Internal Revenue Service, Department of Agriculture, etc. The data are often collected for purposes other than GNP measurement, and thus do not always conform to the ideal statistical concepts or timing of the GNP estimates.

The Bureau of Economic Analysis (BEA) of the Department of Commerce processes these data—including some of its own survey information—into the GNP estimates. The secondary sources are used because they are the best available data and least costly method of obtaining the necessary information.

Although BEA has in the past identified weaknesses in the GNP data base, SPD wanted an outside evaluation of which data problems were most pressing along with a feasible program of remedies. This was the reason the Committee was formed.

### *Approach and Scope of the Study*

In its work on the GNP Data Improvement Project (DIP), the project staff consulted BEA on identifying the major data gaps, and with the various data producing agencies on the technical feasibility and additional costs of dealing with the problem areas. Assessments of the major data gaps and feasible remedial measures initially made by the project staff were revised on the basis of the Committee's review. Drafts of the report were circulated to BEA and other agencies for comment, but the findings and recommendations reflect the independent research and assessments of the Committee.

The DIP study focused on data needs for the quarterly GNP estimates, the annual revisions made every July, the quinquennial benchmarks associated with the input-output tables, and the preparation of constant-dollar "real" GNP estimates that adjust the dollar values for price changes. The components on both the product and income sides of the accounts were covered in this evaluation: on the product side, consumer expenditures, private investment, government purchases, and net exports; on the income side, employee compensation, proprietors'

income, corporate profits, net interest, rental income, capital consumption allowances, and indirect business taxes.

Since the BEA estimating methodology is closely linked to data problems, an understanding of the basic measurement concepts and estimating techniques was necessary. The consequent review of the methodology led to recommendations concerning the preparation of the accounts as well as improvements for the underlying data.

Because the Federal Reserve Board's flow of funds accounts are integrated with the national economic accounts, the Committee included an assessment of the flow of funds data base in the DIP study. This appraisal of the flow of funds is far more summary than that for the economic accounts, and should be followed by a more comprehensive and intensive evaluation in a separate study.

Other aspects of the economic accounts—wealth estimates of capital stocks, personal income size distributions, and State and local area regional accounts—were not included in the DIP study on the pragmatic grounds of limiting the scope of the study to what the staff of four part-time persons could realistically handle.

This was the first outside review of the national economic accounts by an advisory committee in 20 years. The previous assessment was made in 1957 by the National Accounts Review Committee. It concentrated on the needs for a further conceptual development of the accounts, with a limited examination of the quality of the underlying data. By contrast, the DIP study is an intensive analysis of data needs for the existing concepts of the accounts, with limited attention to needs for supplementary analytic measures (and the associated data) of the accounts.

### *Multi-Year Implementation of the Committee's Recommendations*

The Committee has made over 150 specific recommendations. A broad order of magnitude of their total cost (in 1976 prices) spread over 6 years is roughly \$25 million.<sup>1</sup> This accounts for

---

<sup>1</sup> This total is based on very summary estimating techniques, including considerable reliance on rules of thumb. For some of the recommended improvements, no cost estimates were provided by the data producing agencies. Thus,

about 4% of the principal statistical programs of the Federal Government in FY 1976. The recommendations cover very complex issues (e.g., survey methodology, content and reporting) which often first require research and feasibility studies, as well as problems that can be dealt with by existing capabilities (e.g., instituting a revised quarterly GNP estimate 75 days after the reference quarter). Some improvements require additional funding while others do not.

The recommended improvements can only be implemented over a period of several years. The Committee has developed a schedule for implementing the recommendations in each of the 6 years of the 1978-83 period. This schedule was intended as a longrun framework for SPD in setting priorities in the annual budget cycle and in overseeing the ongoing statistical programs. (This responsibility will now belong to the newly created Office of Federal Statistical Policy and Standards within the Department of Commerce. Therefore, all recommendations in this report designated for implementation by the Statistical Policy Division of the Office of Management and Budget now refer to OFSPS.) Although work on the improvements would be started in the coming 6 years, in some cases it would continue in later years of the 1980's. In fact, one improvement is recommended for implementation in the 1987 economic censuses.

The Committee hopes this schedule of improvements will make a substantial contribution to the planning of a broad-based program to increase the reliability of the national economic accounts. It should be updated for each year's annual budget cycle in light of the accomplishments and research findings of the previous year, newly emerging problems, etc.

#### *Next Audit of the National Economic Accounts*

Consideration should be given to the need for a periodic outside assessment of the reliability and content of the national economic accounts. Because of their importance in economic policymaking, the next such review probably should take place within 10 years. That appraisal naturally would be shaped by the measurement and analytical issues of the late 1980's. It also could use as one point of departure the progress made over the decade on the recommendations of the DIP study.

#### *Other Issues in the Committee's Work*

As noted earlier, the Committee was formed in response to revisions in the accounts that disturbed economic policymakers. A Committee analysis of the revisions resulting from the quinquennial GNP benchmarks published in 1976 revealed different confidence levels, depending on the component detail at the time of the final benchmarking. The broadest aggregates in the quarterly and annual accounts (e.g., consumer expenditures, private investment) were reliable, although some of the smaller components of analytic importance were less firmly based, and many of the detailed elements were not reliable. This suggested that errors in the component detail tended to be offsetting at the higher level of aggregation.

Revisions, however, are only one indicator of data problems. For example, although revised data are considered more accurate than preliminary data, even the later information can have deficiencies of sample representativeness, reporting, item coverage and definitions, timeliness, etc. There also are series that are revised only in a very limited sense (more survey respondents are included or previous tabulating errors are corrected but no new data from the survey respondents are added.) In addition, for some series there are no preliminary data, in which case the early GNP estimates are based on historical relationships and other judgmental factors.

The Committee examined data weaknesses arising from all of these sources. That is, problems signaled by the appearance of revisions, those inherent in the data irrespective of the size or frequency of revisions, and those reflecting a lack of data were all scrutinized.

Because the study extended over 4 years, some of the recommendations that were discussed with the agencies in earlier stages of the Committee's work are now being implemented. Prominent among these are experimental work by the Census Bureau for improving some of its monthly economic surveys, concrete suggestions

---

when agencies prepare actual fiscal budgets for funding the improvements in coming years, the costs for individual programs (other than increases for inflation) could vary substantially either upward or downward. To allow for the likelihood of underestimation, the cost estimates provided to the Committee were raised by 50 percent to arrive at the figure cited in the text.

for planning for a substantially expanded industry and item coverage of the forthcoming 1977 economic censuses, and an agreement between BEA and the Department of Agriculture for a more flexible policy of revising the quarterly estimates of farm income during the year.

### *Major Recommendations*

In this summary, only major recommendations of the Committee are presented as drawn from the chapters of the report. A listing of all of the recommendations is given in Chapter 10, together with an indication of the Committee's order of priority for implementing them. The principal criteria used for setting priorities are:

- a. Size of the dollar transactions and effect on the level of the data item.
- b. Impact on the quarterly and annual movements—i.e., period-to-period changes in the dollar transactions of the data item.
- c. Feasibility of implementing the recommendation, including the technical difficulty and burden on survey respondents.

Generally, the most important projects are scheduled for the early part of the 1978-83 period, but modified as necessary to reflect the feasibility of implementing them. For example, those projects which are relatively easy to implement but which are not among the major problem areas are scheduled for the early part of the 6-year period.

The summary of major recommendations is organized under five categories. Recommendations concerning estimates of specific components are presented under the first four categories, distinguishing the various time frames and the constant-dollar estimates of the national economic accounts, namely:

1. Current quarterly GNP and monthly personal income estimates
2. Annual GNP revisions each July
3. Quinquennial GNP benchmarks
4. GNP in constant dollars.

The fifth category deals with general recommendations without reference to specific component estimates. Within each of these categories, the recommendations are grouped by the Federal agency responsible for the statistical program forming the core of the recommendation. The recommendations are not ac-

companied by explanation or rationale which is given in the subject chapters. This summary excludes programs for which significant work has begun, or those that are recommended for early implementation mainly because they are relatively easy to implement.

The nature of the data requirements changes with respect to timeliness, sample coverage, and item detail as the GNP estimates move from the current releases every quarter (15 and 45 days after the reference quarter) to the successive revisions in following years. The emphasis in the current quarterly estimates is on obtaining very timely monthly and quarterly information for broad aggregates. As the estimates are subsequently revised annually each July and then in the quinquennial benchmarking, the focus shifts to obtaining data from larger samples of reporting units and in more item detail. The Committee's recommendations for data improvement follow this same pattern.<sup>2</sup>

The Committee's official assignment was to focus on the statistical shortcomings of the GNP estimates. This should not be read as denigrating the general high quality of the estimates. The objective of the recommendations is to make good estimates still better at an acceptable cost. For example, the cost of the recommended improvements is only a small fraction of the \$1 billion cost of constructing an atomic submarine. Considering that the GNP accounts provide the dominant framework used by economic policymakers in making decisions that affect many billions of dollars of the Nation's output and the associated jobs, purchasing power, and allocation of resources to meet our social and defense needs, the benefits of implementing the recommendations should have a high payoff relative to their cost.

It is important to recognize the need to spend more money to develop more reliable measures of the GNP. Improvements resulting from more efficient management of statistical programs should be encouraged, but the potential from such gains in productivity cannot provide the

---

<sup>2</sup> This summary presents the current quarterly GNP estimates first because of the interest in these figures for economic policymaking. In the detailed discussion, the quinquennial and annual chapters appear first because the quarterly figures are extrapolations of the annual and quinquennial measures.

additional resources necessary for fundamental improvements.

#### 1. CURRENT QUARTERLY GNP AND MONTHLY PERSONAL INCOME ESTIMATES

##### *Personal consumption expenditures*

###### Goods:

For the monthly survey of retail sales, study the feasibility of collecting revised data on sales for the preceding month from the same group of reporting firms in 2 successive months. (Bureau of the Census)

###### Services:

For the monthly survey of selected services receipts, study the feasibility of collecting revised data on receipts for the preceding month from the same group of reporting firms in 2 successive months. (Bureau of the Census)

##### *Gross private domestic investment*

###### Structures:

1. For the monthly survey of private single-family residential construction, update every 5 years the coverage, valuation, and adjustment factors applied to building permit data and the construction progress patterns. (Bureau of the Census)
2. For the monthly survey of private non-residential building construction, update the coverage factors of the F.W. Dodge contract award series. (Bureau of the Census)

###### Producer's durable equipment:

1. For the monthly survey of manufacturers' shipments, institute the following:
  - a. Introduce a full probability sample covering firms of all size classes
  - b. Conduct a feasibility study for collecting revised data on shipments for the previous month
  - c. Collect shipments on the uniform basis for all defense-oriented industries. (Bureau of the Census)
2. For the quarterly survey of plant and equipment expenditures, conduct a comprehensive evaluation of the sampling procedures and statistical methodology, with particular emphasis on the feasibility

of improving the methodologies by the following:

- a. Developing a full probability sample
- b. Updating the sample for births and deaths of firms
- c. Redrawing the complete sample periodically
- d. Collecting revised actual expenditures for the previous quarter
- e. Introducing comprehensive and systematic validation procedures
- f. Implementing a benchmark revision at regular intervals. (Bureau of Economic Analysis)

###### Change in business inventories: Nonfarm

1. For the monthly survey of retailers' inventories, study the feasibility of using a screened sample of retail firms that report inventories from actual records. (Bureau of the Census)
2. For the monthly survey of manufacturers' inventories, introduce full probability sampling and study the feasibility of obtaining revised monthly inventory data as indicated above under producers' durable equipment for manufacturers' shipments; and collect inventory data on military hardware by stage of fabrication. (Bureau of the Census)

###### Change in business inventories: Farm

1. In the quarterly surveys of farm crop inventories, collect data on the ownership of crops stored in off-farm facilities. (Department of Agriculture)
2. Supplement the existing semiannual livestock survey with quarterly national inventory data for cattle and calves. (Department of Agriculture)

##### *Government purchases of goods and services*

###### Federal:

Speed up the tabulation of data on progress payments made to companies working on Federal Government contracts to provide these figures by 60 to 65 days after the reference quarter. (Department of Defense)

###### State and local:

The Committee endorses the FY 1978 Budget request to Congress for funds to

collect quarterly data on expenditures and nontax revenues of State and local governments. (Bureau of the Census)

#### *Net exports of goods and services*

##### Goods:

1. For the monthly survey of merchandise exports, study the quality of reporting on the Shippers' Export Declaration form, and based on the findings, modify the form and accompanying instructions; and establish a monitoring program to maintain and improve the coverage and quality of the reporting. (Bureau of the Census)
2. For the monthly survey of merchandise imports, tabulate monthly the value of transportation freight charges separately from insurance and other handling charges for merchandise imports by country of the operator of the transporting vessel. (Bureau of the Census)
3. Restore the joint project between the United States and Canada for reconciling quarterly bilateral merchandise trade export and import data. (Bureau of the Census)

##### Services:

Institute a research program to collect direct quarterly measures of international income transactions from portfolio and other nondirect foreign investments. (Department of the Treasury)

#### *Compensation of employees*

##### Wages and salaries:

For the monthly survey of establishment payrolls, conduct a broad-based research and development program for strengthening the wage and salary data, including feasibility studies for improving the methodologies in the following ways:

- a. Increasing response rates of the sampled firms
- b. Systematically introducing new firms starting up in business into the sample during the year
- c. Collecting total wage and salary payments for the calendar month or nearest pay periods corresponding to the entire month—including pay of

supervisory workers, retroactive pay, and irregular bonuses—on a revised monthly basis

- d. Periodically drawing a complete new sample of reporting establishments, and implementing a full probability sample
- e. Developing additional quality control methods for processing the reported data and for implementing the sample design
- f. Refining the collection of data on teachers' salaries from State and local governments to develop uniform national estimates of these salaries for the school year and the summer vacation months. (Bureau of Labor Statistics)

##### Wages and salaries and personal tax payments:

For tabulations of quarterly employer tax returns, speed up and provide better editing of selected wage and related tax data by 70 days after the reference quarter by using a probability sample of tax returns. (Internal Revenue Service)

##### Supplements to wages and salaries:

In the Quarterly Financial Report, collect separate data on employer contributions to private pension, health and welfare benefit plans. (Federal Trade Commission)

#### *Proprietors' income*

##### Nonfarm:

For the prospective quarterly survey of household incomes, explore the collection of data on nonfarm self-employment income to provide national totals by 65 days after the reference quarter. (Department of Health, Education, and Welfare)

##### Farm:

1. Speed up the collection of data on the movement of crops to market for soybeans, corn, wheat, cotton, and sorghum to a system of quarterly reports available 60 to 65 days after the reference quarter. (Department of Agriculture)
2. Collect quarterly data on interstate sales and purchases of stocker and feeder cattle to be tabulated 60 to 65 days after the reference quarter. (Department of Agriculture)



3. Institute a survey to collect quarterly data on farm production expenses for major cost items to be tabulated 60 to 65 days after the reference quarter. (Department of Agriculture)

## 2. ANNUAL GNP REVISIONS EACH JULY

### *Personal consumption expenditures*

#### Goods:

For the annual survey of retail sales, institute the following:

- a. Speed up the tabulations of data on sales to provide these figures by mid-May following the reference year.
- b. Collect broad product detail on the sales of new car dealers (new cars, used cars, and repair services) and department stores (e.g., apparel, furniture, appliances) to be available for use in the second July GNP estimates. (Bureau of the Census)

### *Gross private domestic investment*

#### Change in business inventories:

For the annual surveys of retailers' and wholesalers' inventories, tabulate yearend data by mid-May following the reference period in order that the data be available for the first July revision. (Bureau of the Census)

### *Government purchases of goods and services*

#### State and local:

For the annual survey of governmental finances, speed up the tabulations of data on State and local government fiscal transactions to provide these figures by the second July revision. (Bureau of the Census)

### *Net exports of goods and services*

1. Institute an annual program for reconciling U.S. merchandise export and import statistics on a bilateral basis with Mexico, our major trading partners in the Common Market countries, and Japan. (Bureau of the Census)
2. Institute a program for reconciling U.S. balance of payments statistics on a bilateral basis with comparable statistics of the same countries as in 1 above for international service and income transactions. (Bureau of the Economic Analysis)

### *Compensation of employees*

#### Wages and salaries:

For the unemployment insurance reporting system, speed up the collection of fourth quarter (October-December) data on wage payments obtained from the State governments to mid-May following the reference year. (Bureau of Labor Statistics)

#### Supplements to wages and salaries:

Tabulate the data collected under the Employee Retirement Income Security Act to provide national industry aggregates of income and expenditures for retirement, welfare, health, and thrift savings plans by mid-May for the plan year covering the previous July 1-June 30 period. (Internal Revenue Service and Department of Labor)

### *Corporate profits*

1. As a supplement to the Quarterly Financial Report, conduct an annual survey of audited corporate profits together with other selected items of the income statement and balance sheet for a representative sample of corporations in manufacturing, mining, wholesale trade and retail trade to be tabulated by mid-May following the reference year. (Federal Trade Commission)
2. Tabulate Schedule M accompanying corporate tax returns that reconciles taxable profits and balance sheets with stockholder reports. (Internal Revenue Service)

### *Farm income*

For corporations and partnerships associated with farm enterprises, specify and tabulate business expenses associated with farm business receipts comparable to that for Schedule F accompanying sole proprietor tax returns. (Internal Revenue Service)

### *Annual input-output tables and GNP by industry*

1. For the annual survey of manufactures, tabulate industry-product shipments data to distinguish between primary and secondary products produced in each industry. (Bureau of the Census)
2. Tabulate annual data on industry sales obtained from the industrial directory program. In addition, collect through a broad-based survey program of all

nonagricultural industries the following data items:

- a. Aggregate costs of goods and services purchased from other firms
- b. Supplements to wages and salaries
- c. Depreciation allowances
- d. Yearend inventories by method of valuation
- e. Capital expenditures separately for plant and equipment. (Bureau of the Census)

### 3. QUINQUENNIAL GNP BENCHMARKS

#### *Benchmark input-output tables*

Existing quinquennial economic censuses (Bureau of the Census):

1. Collect data in all economic censuses on purchased services in total and for major component items.
2. Refine the reporting in all economic censuses of wages and salaries to eliminate underreporting.
3. Collect in all economic censuses except governments, data on depreciation charges for firms of all size classes.
4. Collect in the census of construction industries data on purchases of major materials and supplies.
5. Tabulate in the commodity transportation survey the dollar value of shipments between shipping and receiving industries.
6. Collect in the census of retail trade data on gross margins and operating expenses by kind of business, comparable to those in the census of wholesale trade.
7. Conduct a feasibility study in the census of governments for collecting itemized data on purchased goods and services from a sample of State and local governments.
8. Collect in the censuses of manufactures, wholesale trade, and retail trade data on the commodity composition of inventories by turnover period.

New industry coverage for quinquennial economic censuses (Bureau of the Census):

1. Expand the coverage of services to include all for-profit and not-for-profit

activities.

2. Conduct a census of transportation industries.
3. Conduct a census of real estate industries.

Special studies of new construction:

In the studies of labor and materials requirements for new construction, increase the types of construction covered and conduct the studies on a recurring 5-year cycle. (Bureau of Labor Statistics)

### 4. GNP IN CONSTANT DOLLARS

#### *Gross private domestic investment*

Structures:

Develop price indexes for the construction of multi-family housing and nonresidential buildings comparable to those for single-family housing. (Bureau of the Census)

#### *Government purchases of goods and services*

1. Establish the existing developmental project for preparing quarterly measures of defense purchases in constant prices as part of the regular ongoing program. (Bureau of Economic Analysis)
2. Reconsider possible introduction of productivity measures for deflating Federal Government employee compensation. (Bureau of Economic Analysis)<sup>3</sup>

<sup>3</sup> Dissenting comment by Edward F. Denison:

I dissent from the recommendation which was not examined by the Committee as a group, that in deflating government purchases BEA should reconsider the use of productivity measures for Federal Government operations.

Government is now treated as a final consumer of the goods and services it buys. Insofar as possible, specification pricing is used to deflate government purchases—whether of goods, labor, or other services—just as it is to deflate other components of GNP. A conceptual alternative would treat government purchases as intermediate, and as a final product substitute some estimate of the value of the goods and services that flow from government to the rest of the economy. Unless it were simply valued by purchases such an estimate would require independent measures in constant prices of the quantity of national security provided, the quantity of education provided, and quantities of a host of smaller items many of which defy not only measurement but even definition.

No actual or prospective series for government productivity fits either of these concepts. Unless some preferable third concept into which they do fit can be stated, such series simply are not pertinent to national product meas-

*Net exports of goods and services*

1. Use partial Bureau of Labor Statistics' data on merchandise trade export and import prices before complete international price data become available. (Bureau of Economic Analysis)
2. Conduct basic research for developing more direct price measures to deflate the service and income components. (Bureau of Economic Analysis)

*General improvement in price data*

The Committee supports the planned multi-year program to provide better wholesale, industrial, and international price data. (Bureau of Labor Statistics and Bureau of Economic Analysis)

5. FLOW OF FUNDS

1. Collect quarterly data on cash and security holdings of State and local governments. (Bureau of the Census)
2. Provide quarterly measures of fixed capital outlays, stocks, and capital consumption charges by sector and by type of capital as part of the NIPA estimates. (Bureau of Economic Analysis)
3. Explore feasibility of tabulating the quarterly and annual reports filed by all registered large nonfinancial corporations to provide an integrated statement of income, balance sheets and sources of financing. (Securities and Exchange Commission)

6. GENERAL RECOMMENDATIONS

1. There is an overriding need for the preparation and publication of a handbook on the GNP accounts detailing concepts, sources of data, estimating methodology, and their limitations. An updating of the comparable effort of 1954 with a more complete coverage on the quarterly GNP estimates and deflation is long overdue. Although the BEA has been conscientious in describing major revisions and additions to accounts by articles in the *Survey of Current Business*, the practice does not fulfill its obligations to the many professional users of the GNP estimates who are now frustrated whenever they need to know the actual procedures. The provision of a

handbook should be given the highest priority. (Bureau of Economic Analysis)

2. Institute the preparation of a revised quarterly GNP estimate 75 days after the reference quarter. (Bureau of Economic Analysis)
3. Provide a more complete and timely statement of the major judgments used and their economic and/or statistical rationale associated with the preparation of the GNP estimate released 15 days after the reference quarter. (Bureau of Economic Analysis)
4. Extend the presently published monthly estimates of personal income to encompass the broad aggregates of the disposition of personal income—personal taxes, consumer expenditures, and personal saving.<sup>4</sup> (Bureau of Economic Analysis)
5. Provide quarterly GNP estimates for the proposed 75-day release (see 2 above) unadjusted for seasonal variation for as many of the product and income components as feasible. (Bureau of Economic Analysis)
6. Expand the application of the quinquennial input-output tables to directly cross-check more of the product and income components. (Bureau of Economic Analysis)
7. Incorporate the quinquennial benchmarks into the annual and quarterly GNP time series 1 year after the relevant input-output table has been completed. (Bureau of Economic Analysis)
8. Review the detailed components that are presently published to assess if they meet the reliability standards appropriate for

---

urement. A recommendation for a conceptual change is in any case outside the scope of the Committee's charge.

This note expresses no opinion as to the usefulness of BLS research in this area for other purposes.

<sup>4</sup> Dissenting comment by Edward F. Denison:

Annual estimates of personal saving in the most recent periods are subject to regrettably large errors and quarterly estimates to still larger ones. Monthly estimates would be much less reliable still, and probably too erratic to interpret unless they were arbitrarily smoothed. I am not convinced that a monthly series sufficiently accurate to contribute to economic analysis can be constructed.

*Advisory Committee on Gross National Product  
Data Improvement*

*MEMBERS*

Daniel Creamer, *Chairman*  
*Economist, The Conference Board*

Rosanne E. Cole  
*Economist, IBM Corporation*

Edward F. Denison  
*Economist, The Brookings Institution*

Alan Greenspan\*  
*President of Townsend-Greenspan and Company*

Raymond W. Goldsmith  
*National Bureau of Economic Research and Professor  
Emeritus at Yale University*

John W. Kendrick  
*Professor of Economics, George Washington University*

*STAFF*

LaVerne V. Collins  
*Statistical Policy Division, Office of Management and  
Budget*

Norman Frumkin  
*Bureau of Economic Analysis, Department of Commerce*

Louis Weiner (*retired*)  
*Federal Reserve Board*

\*Mr. Greenspan withdrew from the Committee in the summer of 1974 when he became Chairman of the President's Council of Economic Advisers.

publication and for the detailed components that are published provide an indication of the recent errors of estimation.

(Bureau of Economic Analysis)

9. Create a fiscal capacity in the Federal statistical system for carrying out quick surveys on short notice. This capacity is required whenever unexpected changes in the economic climate and in business behavior create the need for information that is not being collected. (Statistical Policy Division)
10. The problems of seasonal adjustment should be studied on a continuing basis, including the behavior of seasonals during different stages of the business cycle, in the major Federal statistical agencies. (Statistical Policy Division)
11. Continuing efforts should be made by the major Federal statistical agencies to prevent deterioration in the quality of existing data, such as has occurred in the samples used in some surveys. The improvements recommended in this report will not be nearly as valuable if the improved data are not maintained at a high quality.
12. Selected Federal statistical agencies should have continued access to Internal Revenue Service tax returns for statistical purposes as enumerated in the Tax Reform Act of 1976. This reduces the reporting burden of small enterprises, provides needed cross-checks, and enables the integration of establishment and company statistics.

# *A Framework for Planning U.S. Federal Statistics, 1978-1989*

*(Draft Chapters)*

## PRICE STATISTICS

*(Revision of chapter previously published in March 1977)*

### *Uses and Users*

The major price statistics programs of the U.S. Government are designed to provide comprehensive and detailed measures of price change at different levels of the U.S. economy. The data provided by these programs are used in analyzing and evaluating the Nation's economic health, in the formulation and evaluation of public policy, and in the implementation of public laws. Price statistics are also used or form the basis for the escalation of wages, incomes, and other costs and are used to deflate current costs and values to constant dollar terms. The data form the basis for analyses of change from time to time, and in some cases from place to place, item to item, or from industry to industry.

The Department of Labor's Bureau of Labor Statistics (BLS) programs, which are the sole subject of this chapter, produce monthly measures of price change for the consumer and industrial sectors of the economy and rank among the most important statistical series produced by the Federal Government. The Consumer Price Index (CPI) is the principal source of information on trends in prices paid by consumers. The CPI is used in the formulation and evaluation of economic policy; in wage negotiations and collective bargaining; and for escalation of wages, pensions and a variety of other transfer payments in both the public and private sectors. For example, retirement annuities of Federal civilian and military employees and of social security recipients, and compensation payments to the families of Federal employees who are disabled or killed while working are escalated by changes in the CPI. In addition, Federal support for

other programs, such as the school lunch program, the nutrition program for the elderly, and the Food Stamp program are also adjusted on the basis of CPI changes.<sup>1</sup> Moreover, the official poverty statistics are driven by changes in the Consumer Price Index (CPI).

The BLS industrial price program is the major source of information on price changes in primary markets of the economy: that is, price change at the first commercial transaction for products sold in large quantities in open markets, and additionally is used as a precursor of changes in the CPI. The most widely known measure produced by this program is the Wholesale Price Index (WPI) which provides detailed monthly data on price changes of products grouped by commodity type, stage of processing, and industry origin. Industry Sector Price Indexes are a second major output from the Industrial Price program; these data, which measure price change for products produced by industries within the Standard Industrial Classification framework, are used to estimate "real output" in the system of national accounts prepared by the U.S. Department of Commerce. Aside from overall use as a macroeconomic indicator of price trends and in the evaluation and formulation of economic policy, data produced

---

<sup>1</sup> Federal civilian and military pension adjustments on the basis of CPI changes are required by 5 U.S.C. 8240, 10 U.S.C. 1401, 22 U.S.C. 1121, and 50 U.S.C. 402. Social Security and Railroad Retirement payments escalation on the basis of CPI changes are required by 42 U.S.C. 415 and 45 U.S.C. 231. Other statutes mandating changes in Federal programs based on CPI include: 42 U.S.C. 3045, and 7 U.S.C. 2016. The WPI's use in establishing sugar price parity is required by 7 U.S.C. 1111.

#### EDITOR'S NOTE

In previous issues of *Statistical Reporter* there have been several discussions of the planning process associated with preparing *A Framework for Planning U.S. Federal Statistics, 1978-1989*. The text of the Framework is in the process of being prepared and reviewed by the Federal statistical agencies. A revised draft will be the subject of public review and comment during 1977. Since this material is presented here in preliminary form, it should not be viewed as representing decisions concerning policy matters.

Selected drafts of various sections of the Framework will appear in *Statistical Reporter* during the coming months. While preliminary in nature, these drafts will be published in order to facilitate wide review of the materials. Published in this issue are a revised chapter on Price Statistics and the chapter on Transportation Statistics. The following chapters have appeared in previous issues: Income Maintenance Statistics (August 1977); Organization and Operations of U.S. Federal Statistical Agencies, Housing and Community Development Statistics, Longitudinal Surveys, and Economic and Social Statistics in the Coming Decade (July 1977); Health Statistics Methodology (June 1977); Energy Statistics; Education Statistics; Income, Wealth, and Consumption; and Social Indicators and Social Accounts (May 1977); Labor Statistics, Production and Distribution Statistics, Statistics on the Environment and on Occupational Health and Safety, Civil Rights Data, Professional Staffing and Professional Staff Training, and Interagency Funding (April 1977); Price Statistics (March 1977); Criminal Justice Statistics (February 1977); Confidentiality of Statistical and Research Data (January 1977); User Access—Data Banks (December 1976); Federal-State Cooperative Systems of Data Collection (November 1976); Long-Term Economic Growth Models (October 1976). For a full outline of the overall Framework, see pages 207-209 of *Statistical Reporter* for May 1976.

For background statements on the planning process, see Joseph W. Duncan, "Developing Better Long-Range Plans for Federal Statistics," *Statistical Reporter*, October 1974; Robert W. Raynsford, "The Interagency Statistical Planning Effort, 1975," *Statistical Reporter*, September, 1975; and Paul O'Neil, "OMB's Role in Planning and Coordination of Federal Statistics," *Statistical Reporter*, May 1976.

Comments on these materials should be sent to the Statistical Policy Division, Office of Management and Budget, 726 Jackson Place, N.W. Washington, D.C. 20503.

by the industrial price program are widely used in escalation of long-term purchases and sales contracts and in market analysis in both the public and private sectors. Further, the WPI is used in establishing parity for sugar prices.

Data from the international price program are used in international negotiations, in analyzing the effect of import and export price changes on the U.S. economic situation, and in the assessment of the effects of U.S. Government policy decisions on balance of payments and trade.

The BLS price statistics program also includes periodic surveys and studies of consumer expenditures providing information on spending patterns, income, assets and liabilities of families grouped by different characteristics. Such data are used to determine and analyze variations in consumer spending habits and to form the basis of selection of items to be priced and weighting patterns required for periodic revisions of the Consumer Price Index. On an annual basis, the BLS price statistics program produces hypothetical family budgets for a four person city worker's family and for a retired couple at three levels of living—lower, intermediate, and higher. The program includes a comparison of the costs of these budgets in different areas of the country which provide an indication of differences in living costs among areas. Currently, 39 metropolitan and 4 nonmetropolitan areas are included in the program. Consumer expenditure and income data are used by a wide variety of public and private agencies and groups, and by individual firms in market research studies, program planning, development and evaluation, and in general, economic research. Important Federal Government uses include the use of these data: (1) by the Internal Revenue Service in updating the Optional State Sales Tax Tables; (2) by the Department of Health, Education, and Welfare in determining the poverty level and related analyses; and (3) by the Federal Energy Administration to study the impact of changes in energy costs on consumers. Family budget data are also used in both the public and private sectors to assess variations in area living costs for administration of government programs, by private individuals contemplating a change of residence, and for labor-management negotiations involving regional or local adjustments in wages and salaries. As an indication of costs to purchase goods and services at three hypothetical levels of living, the data for this program are also used in the administration and design of a variety of Federal as well as State and local income maintenance programs.

The CPI and WPI are specifically referenced in one or more Federal statutes. The WPI's legal basis dates back to 1891 when, according to the BLS *Handbook of Methods* (Bulletin 1711), a U.S. Senate resolution "authorized the Senate Committees on Finance to investigate the effects of the tariff laws upon the imports and exports, the growth, development, production, and prices of manufactured articles at home and abroad." The BLS Family Budget Program is referred to by statute (29 U.S.C. 882) which provides for the development of "methods to establish and maintain more comprehensive household budget data at different levels of living . . . in regions and localities, both urban and rural." Other programs, such as the BLS International Price Indexes (IPI) and Tuesday Spot Market Index programs were originated in response to the programmatic needs or specific requests of policymakers and analysts for the data. An example of such request is that which was made by the Department of the Treasury which resulted in the issuance, in January 1934, of a daily commodity price index—the precursor of the spot market price index.

The statistics on prices paid by consumers and those on wholesale prices including the industry sector prices and stage of processing indexes are regularly used by the Joint Economic Committee of the Congress and by the Labor, Education, and Public Works Committees of both the House and the Senate as well as other standing and special committees. Virtually every Federal executive branch agency uses these data in preparing forecasts of economic events, in their analysis of program impact and in the process of analyzing proposed legislation. In addition, the data from the BLS series are used by the Bureau of Economic Analysis in its work on the national accounts—specifically in deflating the accounts. (For more discussion of this point, see the forthcoming report of the Gross National Product Data Improvement project.) In addition, the Council on Wage and Price Stability uses all of the series, but particularly the detailed data on industry sector prices and the CPI in analyzing specific price movements and their anticipated effect on the economy.

The CPI is used by the public and the private sector in wage and salary negotiation, administration, and escalation. The WPI and CPI are used in commercial negotiations, and in formulating business strategy. Academics use the

data in their analysis of the functioning of the economy and the interrelationship of its components. State and local governments use the data in much the same way as does the private sector.

The BLS price statistics are the principal directly collected price data used for the purposes previously noted and are principal inputs to the construction of the implicit price deflators of the Gross National Product. The GNP deflator and other price measures are discussed in the chapters on construction statistics, agricultural statistics, national economic accounts, and financial statistics. It should be recognized that wages, salaries, and compensation are special forms of prices. These data, however, are discussed in the section on labor statistics. In addition, a new research and development project for preparing constant-dollar estimates of national defense purchases is now being conducted by the Bureau of Economic Analysis (BEA). This project, undertaken on a reimbursable basis for the Department of Defense (DOD), is based on a sample of DOD's records of purchases of goods and services and from data collected directly by BEA from DOD contractors. The data are expected to be used for a number of purposes including the construction of the GNP accounts.

### *Advisory Groups*

The Bureau of Labor Statistics advisory groups are discussed in the chapter on labor statistics. A special review of the Government's price statistics program was undertaken in 1961 by the National Bureau of Economic Research under contract with OMB (then the Bureau of the Budget). That review resulted in a report on "The Price Statistics of the Federal Government," known as the Stigler Committee report, (which was reproduced as part of U.S., Congress, Joint Economic Committee, *Government Price Statistics, Hearings* . . . January 24, 1961). The report described the programs as they existed and made a number of recommendations for change—some of which, such as expanding the CPI to cover the entire urban population and moving from import-export trade unit value indexes to specification pricing are only now being implemented. Some of the recommendations, such as the one to obtain WPI data from buyers not sellers so as to obtain actual transactions prices may have been overta-

ken by new technical approaches (subsequently discussed), while others are now under active consideration. Still other recommendations, such as the one to produce a broadly based index of transportation rates have been accepted in principle and work has progressed on their implementation but additional work is needed. More recently, a review of the WPI, with the cooperation of BLS, was arranged by the Council on Wage and Price Stability. This review, just completed by the National Bureau of Economic Research, coincided with a full-scale ongoing examination of the WPI concepts and procedures by BLS staff.

### *Data Issues*

The conceptual and methodological bases of the Bureau of Labor Statistics' price statistics series are described in the BLS *Handbook of Methods* (Bulletin 1711) and in *Major Programs: Bureau of Labor Statistics* (BLS Report 459). Major changes are being introduced into the CPI as an integral part of the revision program now nearing fruition. Therefore, the description of the CPI program published in BLS Bulletin 1517 and in BLS Report 459 describes the program now being revised and not the program as it will be after the revision is completed.

*Consumer Price Index (CPI).*—The CPI, which is compiled by the BLS, is now being revised. This revision, the first in almost 15 years, is scheduled for completion with the publication in 1978 of a revised index for urban wage earners and clerical workers (who account for about 40% of the noninstitutionalized urban civilian population) and a new index covering the entire noninstitutionalized urban civilian population in urban areas (about 80% of the population). Rural areas within SMSA's will also be included.

One of the major problems encountered by BLS in the course of the soon to be completed CPI Revision program has been the question of population coverage for the CPI. Historically, the index has been oriented toward the urban worker and the current CPI, in fact, covers only the city wage earner and clerical worker population. As a result of demographic and economic changes, and the growing importance of the CPI as a means of adjusting payments to individuals (such as retired persons) who are not included in the wage earner and clerical worker population, pressures to both broaden the

population base of the CPI and, in addition, produce indexes for specific components of the population have greatly increased. In view of the strong trade union interest in maintaining the existing Urban Wage Earner and Clerical Worker Index as an instrument which is "absolutely essential for effective, responsible, and rational collective bargaining,"<sup>2</sup> and the concomitant need for a more comprehensive index, the CPI Revision program will culminate in the production of two indexes—a revised index for Urban Wage Earners and Clerical Workers and a new CPI for All Urban Households. Both indexes will be calculated and published for a 3-year period at which time it is expected that a determination will be made as to whether one index is adequate or both should be continued. While this particular issue concerning CPI population coverage has been at least temporarily resolved, the broader issue concerning the need for a family of indexes has not yet been decided.

BLS has received numerous inquiries from various congressional committees, individual Members of Congress, and from other public and private groups about the possibility of producing indexes for the aged, the poor, and the rural population. Generally, these inquiries stem from concern that the national CPI may not adequately represent the price experience of a particular population subgroup, and that the price change experienced by, for example, retired individuals or the aged may vary from that which is experienced by the working-age population. This concern has resulted in the introduction of bills to produce consumer price indexes for particular groups such as the aged, retired individuals and the poor. However, these bills have not been seriously considered by the Congress. Whether actual price experience does vary significantly, and whether collecting these data would make a significant difference in the efficient and equitable allocation of Federal resources (particularly when balanced against the cost of collecting the data) are issues which require careful and thorough examination.

---

<sup>2</sup> Excerpt from statement of Leonard Woodcock, President, United Automobile, Aerospace, and Agricultural Implement Workers of America (UAW) before the Subcommittee on Priorities and Economy in Government of the Joint Economic Committee, April 5, 1974.



As in the case of consumer price indexes for specific population subgroups, local area consumer price indexes are not mandated by specific statutory requirements. However, for the revised Consumer Price Index program, price data will be collected in 85 separate pricing areas selected on the basis of the 1970 Census of Population. Of the 85 areas, 28 are self-representing and 57 are representative of the balance of the Nation's Standard Metropolitan Statistical Areas and the remainder of the urban population. As a product of the revised CPI program, monthly or quarterly indexes will be published for 28 urban areas as compared with the 23 local area indexes which are presently published. The 28 indexes to be published as part of the revised CPI program represent a small fraction of the total number of requests which BLS has received, and continues to receive, for demand for more geographic detail, the revised CPI program has been designed to provide, for the first time, regional indexes for cities of different population-size classes. While this will provide individual areas for which a CPI is not compiled with a measure which is broadly representative of their particular situation, the issue of specific local area indexes still remains. This specific issue is, of course, just one indication of a much broader issue concerning the extent to which national statistical programs should be designed to yield local area detail. Despite the efforts of numerous high-level commissions and study groups, no general solution to this difficult question has been developed.

The question of the inclusion of rural areas in the CPI's coverage—thus further expanding its scope to 100% of the population—is also related to the issue of population and area coverage. When rural America was more functionally separated from urban America, the rural population did not generally purchase many of the goods and services consumed in urban areas, and to the extent that they did, did so from markedly different types of purveyors. Times have changed and there is reason to believe that the purchasing and expenditure patterns of rural and urban America are now more alike than was formerly the case. It is noteworthy that the Department of Agriculture has recently concluded that changes in prices paid by farmers for nonproduction items, such as food, clothing, recreation etc. as determined through

Agriculture's prices paid by farmers survey program are similar to price changes as reported by BLS. Accordingly, the Department of Agriculture has recently dropped its collection of these data and is using the BLS CPI data as inputs into Agriculture's parity price program.<sup>3</sup>

Present public policy, as established by Federal statute, does not require price data for local areas or for specific components of the population. Moreover, the collection of such data is extremely costly. Further, there is no mechanism currently in place with which to gauge the extent to which different parts of the population have different purchasing patterns—if in fact there are important differences. Fortunately, a mechanism for doing so is now being developed. Moreover, that mechanism, a continuing consumers expenditure survey, is designed to include the rural population. In addition, as noted before, the cost of collecting data for a consumer price index is very expensive and there is a significant question as to how far the Federal Government should go in providing CPI's for local areas when the Federal Government does not need such data for Federal purposes. These issues and questions and their implications for public policy decisions are all interwoven and should be examined. Until these issues and questions can be examined in some detail—in both analytic and policy terms—the policy that suggests itself is that the CPI coverage should not be expanded beyond that covered by the program as it will exist when the current revision is completed in 1978 unless and until there then exists a specific public policy reason for doing so. With respect to data for component parts of the population, however, another factor needs to be considered. Present public policy, as expressed by statute, does not require data for population components. Moreover, most Federal uses of the data affect all population groups. Therefore, indexes for various population components should not now be created unless and until public policy, as expressed by statute, requires.

*Frequency of pricing.*—It has been argued that the frequency of pricing for the CPI should be

---

<sup>3</sup> Items used by farmers in the agricultural production process continue to be studied separately by the Department of Agriculture. These items might appropriately be included in the BLS's industrial sector pricing program and consideration should be given to this possibility.

expanded from that planned for the revised index (i.e., 52.8% of the value of the index items, based on the present weights which were derived from the 1960-61 Survey of Consumer Expenditures, will be priced monthly with virtually all the rest being priced bimonthly) to the maximum monthly pricing possible. The basis for this proposal is that increasing the number of monthly previous price estimates beyond that now planned (which is a significant improvement over the current procedure) will reduce or eliminate the average lag in the price index. The new procedure introduced in the revision program reduces the lag from almost three-fourths of a month to slightly more than one-third of a month. However, while data lags are always an important problem in making month-to-month comparisons, the issue appears to be one of price volatility and the weight associated with the lagged items with volatile price movements. If there is little or no month-to-month price movement, monthly price collection at any increment in program cost is too expensive. If there are infrequent but sharp monthly price changes the problem is how to identify those changes without instituting monthly pricing. To this end further study of the pricing is necessary. In such a study consideration should be given to arranging for some form of monitoring through publications and/or exception reporting (i.e., intermediate price change reports) in each important situation where prices would otherwise be collected on a bimonthly or less frequent basis. There may be severe problems in instituting and maintaining such a program within the operational constraints of the CPI. Nevertheless, if operationally and technically feasible, such an approach could produce up-to-date accurate quotations on items usually priced less often than monthly and at a considerable lower cost to the Federal Government than more regular monthly pricing.

*Consumer Expenditure Data.*—The revision of the CPI market basket weights and the updating of pricing outlets has traditionally been accomplished through massive periodic (10-15 years apart) consumer expenditure and point of purchase surveys. This procedure, given the rapid pace of innovation, accompanying changes in consumer preferences, and the availability of modern statistical procedures, should be discarded in favor of a continuing data collection program that would both: (1) allow for the

maintenance of a statistically reliable sample of pricing outlets (e.g., stores), and (2) the continuing analysis of the relative importance of different classes of goods and services and changes thereof to consumers. Such information which is of importance in its own right also would permit more timely revision of the CPI market basket and weights when much revision is necessary.<sup>4</sup> A continuing consumers' expenditure survey would also form the framework for an improved Family Budget Program.

The BLS is instituting a continuing point-of-purchase survey for which funding was provided in FY 1977. The President's budget for FY 1978 provided for a continuing consumers expenditure survey (CCES) program. In planning the CCES, the Bureau of Labor Statistics should take into account the need for analyses of the income and expenditure patterns of major population components (e.g., the elderly, the poor, population residing in urban areas and in rural areas, etc.). This design work should be coordinated with the Department of Health, Education, and Welfare which is now planning a different but somewhat related study program.

*Family Budgets.*—The Family Budget program provides data for three normative levels of living for a hypothetical family. It is used by many to form the basis for the evaluation of the adequacy of family income and in measuring place-to-place differences in living costs. In addition, the family budgets as published by BLS are used for many other purposes including wage negotiation. Nevertheless, the program as presently structured presents many conceptual and technical difficulties which give rise to serious questions as to the adequacy and suitability of the data for the purposes for which it is used. These deficiencies are thoroughly discussed in "Appendix 4: Bureau of Labor Statistics Family Budgets Program" to the HEW report, *The Measure of Poverty* (April 1976) and to some extent in the BLS *Handbook of Methods* (BLS Bulletin 1910) on pages 82-86. A somewhat different viewpoint is to be found in the BLS Bulletin series 1570-1 to 6. In addition, a diametrically opposing view of the family budget program, arguing that the present formulation is correct

---

<sup>4</sup> Change in the market basket and in weights should be introduced probably not more frequently than about every 5 years.

and simply requires updating, has also been expressed by some users of the data series.

While the legislative requirement suggests that the program cannot be discontinued without statutory authority, the program does require major modification. Alternative, and widely different conceptual approaches might be explored in this effort. These include, but are not limited to:

1. Restating the normative values which form the basis of much of the budget into current terms and then pricing and updating the cost of these values on the basis of a specification pricing program conducted in conjunction with the CPI. This approach would be comparable to the basic program formulation initiated in 1946 and updated in 1959 and in 1966. It suffers from all of the deficiencies noted in Appendix 4 to *The Measure of Poverty*, primarily that there are no objective criteria to guide BLS in determining what items must be purchased by a family in order to enjoy a stated living standard which in turn is also subjectively determined, except that the data base would be current and would be maintained on a current basis.
2. Basing the series on actual expenditure patterns at various income levels developed through the recently completed Consumers' Expenditure Survey (CES) and updating the results through data collected in the proposed continuing CES. This approach would eliminate all normative judgments. It would suffer, as does the current approach, in not appropriately providing for place-to-place comparisons of the cost of maintaining the "same" purchasing patterns. This is a necessary concomitant of developing budgets based on actual expenditures since the expenditure patterns in different areas reflect regional differences in clothing requirements and in food and recreation among other expenditure elements. Also, different purchasing patterns may result either because of preference or because some items freely available in one place may be either unavailable or available only at a high price in other areas. Thus, budgets for different places based on actual expenditure patterns in each place may not reflect the relative difference in cost of an

identical or comparable living standard in the various places.

It is recommended that an advisory committee be established to critically review the purpose, concept, and procedures of the Family Budget program, and to recommend appropriate changes. Such a committee should include qualified technicians from the business, labor, academic, and private social service communities. The scope of review should include the feasibility of and methodology for constructing series with which to make place-to-place comparisons of the cost of living.

*International Price Index Program.*—It is expected that data from this program will be used, among other purposes, to deflate the value of all exports and imports in the Gross National Product accounts as soon as sufficient information for that purpose is available. This data will provide for more accurate deflation than is possible using the unit value indexes previously employed for this purpose. Resources currently available to the program will provide for the coverage of about 40% of the value of all imports and 50% of the value of all U.S. exports of products. The program should be expanded to cover 100% of the value of imports and exports. The completion of this program, conducted by BLS, on the basis of a sample of transactions from export declarations and import records held by the U. S. Customs Service could permit the discontinuance of the unit value indexes compiled by Census. However, only a few countries have a pricing system for exports and imports other than unit values. Accordingly, the need for unit value indexes may continue after the international price program has been completed.

*Industrial Price Program.*—The Industrial Price program has three major elements: the wholesale price indexes (WPI), the stage of processing indexes, and the industry sector price indexes (ISPI). These series suffer from several conceptual, statistical, and operational inadequacies:

1. The WPI data are used as precursors of change in the CPI. This is without regard to the fact that the data are not designed to be so used. Some price indexes necessary to better understanding of the price mechanism are missing entirely: e.g., input materials indexes, final demand indexes,

- and industry-based stage of processing indexes;
- 2. The WPI is based on a hodgepodge of prices to different sectors—some of which are final demand sectors, and some of which are not. Further, the aggregation structure by total shipments in the WPI's leads to multiple counting of price changes;
- 3. Many major industry sectors are either unpriced or have poor coverage: ISPI's are available for only about one-fourth of the four-digit manufacturing and mining industries; WPI's are available for less than half of the total value of shipments in agriculture, manufacturing and mining; and almost nothing is priced in the service or construction sectors;
- 4. Prices collected are heterogeneous in nature—some are spot market prices, some contract prices, others are based on prices of delivered orders, list prices, nominal or trade journal prices;
- 5. Sampling is judgmental and many items are priced on the basis of about three quotes. Probability sampling (with expanded samples) would provide measures of reliability. Although not all bias can be removed, it is likely that probability sampling will reduce it.

Because of these limitations, gaps exist in our knowledge about both specific price movements and the total structure of price relationships. In addition, the current data may be misleading, but the degree of misrepresentation, if any, cannot be assessed.

To correct these deficiencies requires radical surgery. To this end, the Bureau of Labor Statistics has launched a comprehensive program to revise the Industrial Price program and its components and provide accurate measures of price change for the major sectors of the American economy. To achieve this objective, the revised program will provide a complete system of price measures consisting of the following major elements:

- 1. Output price indexes for all major industrial sectors;
- 2. Detailed commodity indexes and service indexes covering both primary and secondary production;

- 3. Stage-of-processing indexes which accurately reflect processing flows in the economy;
- 4. Input materials price indexes for all major industry sectors; and
- 5. Final demand price indexes of major industry sectors.

The indexes will be based on statistical sample of establishments within four-digit SIC's and within each establishment on a probability selection of commodities or services with each sample being stratified by size of firm and sales volume. The data obtained after initial selection should be specification priced and should permit the completion of the types of indexes noted earlier.

The procedure can be carried out by BLS on the basis of the establishment universe material currently in its possession. This revision, which is now being phased in, is expected to continue for many years. When the revision is completed the data are expected to be significantly more complete, accurate, and useful than the present data. Nevertheless, the availability of sales volume data, as would be available if the Industrial Directory<sup>5</sup> information were available to BLS would enhance the sample procedure by allowing for direct stratification of establishments on the basis of volume instead of on employment (as in the BLS universe material) as a proxy for volume. It is believed that this approach would produce statistically reliable data in considerably more detail which can be aggregated in more meaningful ways than is now the case. (This type of approach seems to be consonant with the recommendations contained in the recently completed 1977 study "Review and Evaluation of the Wholesale Price Index" conducted by Professor Richard Ruggles under the auspices of the National Bureau of Economic Research for the Council on Wage and Price Stability. The BLS approach to the revision of this program is comparable to virtually all of the other suggestions in the Ruggles report.) However, the extent to which the availability of the Industrial Directory would enhance the BLS effort is, in fact, not known, and furthermore there appears to be little question that the BLS approach will produce statistically reliable data in consid-

<sup>5</sup> See separate chapter.

erably more detail and aggregated in more meaningful ways than is now the case.

While the comprehensive revision being implemented will provide for a vast improvement in the quality of price data now available, there are some difficult data problems which would still remain. For example, price indexes do not now include "build-to-order" commodities such as commercial aircraft, ships, and some computers. The very nature of a build-to order commodity introduces severe technical questions of measurement and quality adjustment. Efforts toward developing a conceptual framework for the pricing of such commodities should continue.

#### *Tuesday Spot Market Price Index*

This index which shows changes in prices for 23 commodities is not based on direct transactions data, but rather on reports of prices as re-

ported through trade and government sources. Moreover, spot prices reflect only the price that a seller in a spot market is willing to accept at that moment, and does not reflect actual transactions. Spot prices moreover, do not generally reflect total transactions prices in the regular course of commercial events. The items priced, however, are considered to be highly price sensitive. Presently the Bureau of Economic Analysis uses data from this Index in developing preliminary estimates for the current month in several *Business Conditions Digest* series. However, the industrial price program when revised will provide reliable monthly data for all or many of the commodities included in the Tuesday spot market index. When those data are available the long-term value of this measure to the Federal Government and its relative importance in terms of all other statistical program priorities should be reassessed.

## TRANSPORTATION STATISTICS

"Transportation has substantially shaped the growth and development of the United States. . . . To sustain and enhance our economic vitality and growth, the productivity of our commerce and the quality of our leisure, we need a healthy and responsive transportation system. National transportation policy must serve these broad goals of our society by helping the development, financing and maintenance of a safe, efficient, accessible and diverse transportation system. Such a system should meet the needs of the American people—as passengers, consumers, employees, shippers and investors—in a way that is consistent with other national objectives. The values and priorities of our society are changing as the land on which we live is changing, and transportation must blend with other national goals in reaching lightened quality in the American way of life."<sup>1</sup>

Transportation involves a highly complex set of activities. Its main purpose is to transport people and commodities to and from specific points within urban areas, rural areas, or points outside the United States. In many cases there are alternative modes and combinations of modes by which these people or goods can be transported. A typical intercity passenger trip,

for example, may involve a private automobile from home to a publicly owned airport, a commercial aircraft for between-city travel, and a taxicab, bus, or rental car from the destination airport to the final destination. Note that this trip involves private, commercial, and public interests, each providing a specific service.

In its recent report on "National Transportation Trends and Choices," the Department of Transportation pointed out that future travel demand will be conditioned by income and residential patterns, activity patterns and spatial relations, and whether or not the users of the transportation infrastructure are or are not directly charged for that usage. Future service demands of freight shippers are conditioned by many of the same factors. Additional factors are: cost, the attributes of the commodity to be moved, the level of service provided by different carriers, and the special requirements of the receivers of the shipment. Public policy regarding transportation system development and future efforts required at the Federal, State, and local levels will, of course, be guided by these

<sup>1</sup> *A Statement of National Transportation Policy*, Secretary of Transportation, September 17, 1975, Washington, D.C.

factors as well as by measurements of the current and estimated future performance of the different modes in terms of economic efficiency, service, safety, pollution, and energy consumption. The availability of both quantitative and qualitative information will undoubtedly improve public and private transportation decisions.

### *Issues and Corresponding Data Requirements*

The desire to accomplish national goals and objectives and the complex relationships implied by a transportation network per se inevitably lead to various national problems and issues. The effective resolution of these issues at the Federal, State, and local levels requires reliable information.

In general, statistics are available which tell us much but not all we need to know about individual modal systems. However, there is a scarcity of information with which to make reasonable judgments about *intermodal* relationships and the potential for reduced cost, energy consumption, or pollution through intermodal transfers. We also need to know more about why individuals and businesses make the transportation choices that they do. Without such information it is difficult to design and implement public policies that would provide the proper level of transportation service to the greatest number of users with minimum financial cost, energy consumption, and environmental disruption.

There are some additional issues specific to each category that need to be emphasized. These are discussed in the following paragraphs.

*Mobility for the Disadvantaged.*—The segment of the Nation's population that most critically needs basic community services is the same segment that tends to have the least physical access to these services. The young, the elderly, the poor, the handicapped, and the chronically unemployed should be able to take full advantage of health care services, welfare services, educational opportunities, banking and legal services, as well as recreational and social activities; but their access to these opportunities is limited.

Lack of mobility for the disadvantaged is not confined to urban areas. Rural areas have a

proportionally, if not numerically larger, segment that is disadvantaged, and greater distances intensify the mobility problem. If sound policies are to be developed, an adequate information base relating to the needs of the disadvantaged and to the capacity of the system to serve them is essential.

*Financial Assistance, Subsidization, and Regulation.*—A major part of the Federal transportation budget is associated with the development, administration and evaluation of grant-in-aid programs to State and local governments. These programs cover construction of highways, construction and operation of public transportation systems, airport development, highway and marine safety, and railroad development. The major issues relating to these programs relate to the financial need of State and local governments, eligibility for and allocation of funds, and the evaluation of the program effectiveness in achieving Federal objectives.

The determination of when user charges should be applied, at what appropriate level and by whom is quite complex. In addition to assessing their impact on the competing carriers, community and environmental impacts must also be considered as is the case related to waterway user charges. Highway user charges involve consideration of the allocation of costs among the various user groups as well as the relative contributions of Federal, State and local governments.

With respect to regulation, it is clear that carriers, shippers and passengers frequently face a web of restrictive government regulations which stifle competition, discourage innovation and foster inefficiency. The major problems that must be addressed are the ability of the regulatory agencies to recognize changes in competitive positions, the inequities in subsidies and taxation of the various modes, uniform rules for the regulation of pricing, and the level and nature of the regulation required.

To be able to formulate sound policies regarding these complex issues, rather detailed financial and operating statistics are needed from State and local governments as well as from the private sector.

*Federal System Management.*—The Federal role in transportation is primarily one of national policy development, financial assistance and regulation. However, there are certain compo-

nents of the system which are under the direct control or operation of the Federal Government. In these areas, the Federal Government requires information by which to manage and plan these facilities. These operational responsibilities include the air traffic and air navigation systems, safety and environmental programs of the U.S. Coast Guard, operation of locks and waterways by the Corps of Engineers and the St. Lawrence Seaway Development Corporation, delivery of mail by the U.S. Postal Service, Alaskan Railroad, national capital airports (Dulles International and Washington National), national parkways, and the military movements of goods and personnel.

The Federal Government also has emergency responsibilities which include the preparation of emergency plans, programs and procedures. The objective is to provide an adequate state of readiness for transportation resources in the case of natural disasters, strikes and other emergency conditions.

*Safety and Security.*—The responsibility for transportation safety is shared among the various levels of government, industry, and the general public. The areas of Federal responsibilities include highway and vehicle design, air traffic control, aircraft and pilot certification, ship construction standards, vessel traffic and navigation service, port safety standards, recreational boating safety standards, and railroad, motor carrier, pipeline and hazardous material regulation. Federal programs relate to accident prevention, accident survival, emergency response and research data collection and evaluation.

Data are required on the magnitude and nature of the accident problem for each of the transportation modes and on the effects of the various regulatory actions and safety programs instituted to minimize such accidents. In addition to accident data, exposure data, or data on "accident risk" are also required in order to facilitate the analysis of accident rates among the various modes. Essentially accidents can be considered a cost (to society) of operating the various transportation modes and represents a major factor to be considered in terms of transportation planning. Motor vehicle accidents amount to tens of billions of dollars annually for motor vehicle accidents alone.

*International Transportation Policy.*—In an increasingly interdependent international economy, U.S. transportation provides vital links among the world's nations. Since the end of World War II, international trade and travel have grown very rapidly, and the United States has become increasingly dependent upon the foreign markets and foreign resources which international transportation makes accessible.

Currently, a broad range of issues and policy decisions confront the United States in the field of international transportation including:

- a. The organization and regulation of international air transportation;
- b. The structure of international shipping services;
- c. The safety and environmental consequences of international transportation operations, including the pollution controls and the noise and other standards required on international transport equipment entering the United States;
- d. The compatibility of equipment employed for international multimodal services, including the containerization of cargo;
- e. The development of appropriate international legal regimes on such questions as liability and claims procedures, and balancing the interests of carriers and shippers;
- f. Simplification and standardization of the documentation and processing required to serve both private sector and governmental needs;
- g. The flow of travelers and luggage across international borders subject to customs and other types of inspection processing;
- h. The viability and profitability of U.S. private flag carriers when much of their foreign competition is governmentally owned or subsidized; and
- i. The prospect for continued world preeminence of the U.S. aeronautical manufacturing industry in light of the challenge from subsidized European competitors.

Obviously, the information requirements for proper international policy analysis are tremendous; however, they fall into the same general categories as for domestic issues. A special

problem relating to international issues is the collection of comparable data on foreign-owned operations.

*Policy Planning, Program Development and Evaluation.*—Multimodal national transportation planning at the Federal level can provide a tentative view as to the future evolution of transportation, and identifies questions of what choices and changes should be made so that the actual evolution would be one which best serves the Nation. The most recent work emphasizes as both a physical and an economic overview—a statement of opportunities to improve transportation and forecasts of what can and should be avoided by timely action. The planning effort rests on:

- a base of economic and transportation information which has large gaps in critical areas particularly in the area of multimodal transportation
- forecasts of events that could influence transportation radically
- cause and effect relationships
- tentative judgments concerning the relative values placed on human life, time, esthetics, the environment, and so forth, that are always open to controversy and question.

The ability to respond more efficiently to existing and future transportation needs and to understand the indirect effects of our policy, planning, and program development actions requires an accurate understanding of the complex problems involved in the planning of the future of transportation. This requires the improvement of measures of performance and the information base to support cost-benefit methodology. Transportation system performance measures are required for assessing the effectiveness of alternative Federal program and policy options and evaluating the health and progress of the transportation system.

#### *Legislative Mandates for Collection of Information*

*Federal Level.*—Under the enabling legislation for the Department of Transportation, the Secretary is charged with the responsibility to:

“... promote and undertake development, collection, and dissemination of technological, statistical, economic, and other informa-

tion relevant to domestic and international transportation. . .” (P.L. 89-670, Sec. 4(a)).

This section does not address specifically the different needs of the Federal, State and local governments, the academic community or the general public; however, Section 4 of the High Speed Ground Transportation Act, 1965 (P.L. 89-220), authorized the Secretary of Commerce to:

“... collect and collate transportation data, statistics, and other information which he determines will contribute to the improvement of the national transportation system. In carrying out this activity, the Secretary shall utilize the data, statistics, and other information available from Federal agencies and other sources of the greatest practicable extent. The data, statistics, and other information collected under this section shall be made available to other Federal agencies and to the public insofar as practicable.”

This authority, which was subsequently transferred to the Secretary of Transportation, relates to national transportation statistics and other information which will contribute to the improvement of the national transportation system. The statutory expiration date of the High Speed Ground Transportation Act does not apply to this section.

Thus, the Secretary of Transportation has the responsibility, and it has been declared by Congress to be in the Nation's interest to collect and disseminate information that would lead to the improvement of the national transportation system. In addition, Congress has provided the Secretary with the authority to collect specific types of data under various legislative acts relating to individual modes.

The Department of Transportation is not the only agency charged with the responsibility to collect transportation statistics. Under Title 13, U.S.C., Section 131 (Census)

“The Secretary [of Commerce] shall take, compile, and publish census of manufactures, of mineral industries, and of other businesses, including the distributive trades, service establishments, and transportation (exclusive of means of transportation for which statistics are required by law to be filed with, and are compiled and published by, a designated regulatory body), in the year 1964, and then in the year 1968, and every fifth year



thereafter, and each such census shall relate to the year immediately preceding the taking thereof."

Under Title 49, U.S.C., Section 20(1), the Interstate Commerce Commission (ICC)

"... is authorized to require annual, periodical, or special reports from [transportation] carriers, lessors, and associates (as defined in this section), to prescribe the manner and form in which such reports shall be made, and to require from such carriers, lessors, and associations specific and full, true, and correct answers to all questions upon which the Commission may deem information to be necessary. . . ."

The carriers subject to regulation are specified in Section 1. Section 913 expands the Commission's authority to collect data from water carriers. Section 20(3) gives the Commission the authority to prescribe a uniform system of accounts by which to capture the information.

Under Title 49, U.S.C., Section 1377(a), the Civil Aeronautics Board

"... is empowered to require annual, monthly, periodical and special reports from any air carrier, to prescribe the manner and form in which reports shall be made, and to require from any air carrier answers to all questions upon which the Board may deem information to be necessary. . . ."

Title 29 U.S.C., Section 2 states that

"The Bureau of Labor Statistics, under the direction of the Secretary of Labor, shall collect, collate, and report at least once each year, or oftener if necessary, full and complete statistics of the conditions of labor and the products and *distribution of the products* of the same. . ." (italics added).

Further,

"The Bureau of Labor Statistics shall also collect, collate, report and publish at least once each month full and complete statistics of the volume of and changes in employment, as indicated by the number of persons employed, the total wages paid, and the total hours of employment . . . in the following industries and their principal branches: . . . (5) transportation, communication and other public utilities. . . ."

Several sections of Title 15 (relating to Commerce and Trade) give the Director of the Bureau of Foreign and Domestic Commerce the authority to collect transportation related statistics. In particular, Section 182 states that the Director

"... shall collect, digest, and arrange, for the use of Congress, the statistics of the manufactures of the United States, their localities, sources of raw material, markets, exchanges with the producing regions of the country, transportation of products, wages and such other conditions as are found to affect their prosperity."

The requirement to report these statistics to Congress is made in Section 183.

In addition to the ICC authority to collect statistics from water carriers (Title 49 U.S.C. Section 913) noted earlier, the Corps of Engineers (COE) is authorized to collect freight statistics under Title 49 U.S.C., Section 553 which states:

"In the collection of statistics relating to traffic, the Corps of Engineers is directed to adopt a uniform system of classification for freight, and upon rivers or inland waterways to collate ton-mileage statistics as far as practicable."

The ICC and COE authorities when combined with that of the Secretary of Commerce under Title 49 U.S.C., Section 142 provides general coverage of inland waterway statistics. The latter section states:

"... It shall . . . be the province and the duty of Secretary of Commerce to compile, publish and distribute from time to time, such useful statistics, data and information concerning transportation or inland waterways as he may deem to be of value to the commercial interest of the country. . . ."

Finally, the Secretary of the Department of Agriculture has the authority to collect transportation related statistics under numerous sections of Title 15 U.S.C. Specifically, Section 1622(k) authorizes the Secretary

"To collect, tabulate, and disseminate statistics on marketing agricultural products, including, but not restricted to statistics on market supplies, storage stocks, quantity, and condition of such products in various positions in marketing channel, utilization of such

products, and shipments and unloads thereof." (italics added)

Thus, when all agencies of the Federal Government are considered collectively, the Federal Government has the authority to collect a wide spectrum of statistics relating to transportation.

*Federal Requirements Related to State and Local Planning.*—Data are required for the purpose of assisting State and local governments in planning, administering, and evaluating their transportation programs which are financed under Federal-aid programs. Under various statutes, the Federal Government provides funds for State and local planning, research, and development activities and for compiling information needed for these purposes. It requires the adoption of a cooperative, comprehensive, and coordinated (3-C) planning process which is specified in the Federal regulations. The data collected under this process relate to the specific data needs of the various jurisdictions. And these needs may differ depending upon the mix of programs developed by the community.

The responsibility of the Federal Government in these programs is primarily one of assuring that the program decisions made by State and local governments are based on a sound planning process, accurate information, and an adequate consideration of alternatives. To gain this assurance, State and local governments are required to adopt a uniform (3-C) planning process. To satisfy the Federal requirements for this process, periodic information must be collected including: inventories of highways, highway and transit travel characteristics, transit financial and operating characteristics, etc. The actual process of collecting the data involves a cooperative effort of Federal, State, and local governments and Metropolitan Planning Organizations (MPO's). In some cases Federal agencies (e.g., Bureau of the Census) collect the data and disseminate it to State and local agencies. In other cases State agencies (e.g., State departments of transportation or highway departments) are the primary data collectors. Similarly, MPO's often conduct special surveys and coordinate statistical activities associated with their specific areas.

Although the information collected by State and local governments in the federally required planning process is primarily for local planning purposes, much of the information is also

needed for national planning, program development, and program evaluation. A National Urban Transportation Reporting System (UTRS) is proposed in a subsequent section which is designed for reporting to the Federal Government key data items developed under these programs. In addition, under Section 15(a) of the Urban Mass Transportation Act of 1964, a reporting system has been prescribed to accumulate uniform financial and operating information regarding public mass transportation to meet the planning needs of Federal, State, and local governments, individual public mass transportation systems, as well as the general public.

*Information Collection and Data Management Issues.*—A substantial amount of information about the transportation system and its effect on people and on businesses is required for Federal planning and program development purposes. Planning at the local, regional and the national levels cannot proceed without information about how people travel, from where to where, with what frequencies, how goods are shipped, through which routings, by which modes and how all of these factors impact on the development and utilization of land.

However, information is not a free good. In addition to the dollar costs associated with collecting and processing data, those who request it must always remember that in the process of answering surveys or regulatory inquiries, information suppliers are also incurring costs and perhaps giving up some of their privacy. As modal agencies and the various governmental and private entities at many levels seek more information on which to base decisions, the burden on information suppliers can become intolerable. Recent experience indicates there is a declining response rate to all statistical surveys, undoubtedly because both individuals and businesses are increasingly concerned about the volume of requests for information they receive and have elected to become more selective in their responses. Because there is a real need for information on which to base good policy and business decisions at all levels, information suppliers should be asked to provide only the least possible amount of information necessary to serve the purpose. Redundancy in information requests should be eliminated; otherwise a situation could develop whereby individuals and businesses decline to provide information to the

government for public policy formulation and implementation except under duress of law. Clearly, approaches must be found which minimize the collection of information and maximize the usefulness of that which is collected.

The Federal Government's transportation statistics program has historically focused on individual modes, i.e., highway, water, rail, pipeline, and air transport, primarily because the Federal objective has been to foster and/or regulate the particular mode. As a result, the transportation agencies primarily or exclusively focused their statistical efforts on their modal concern. Three major problems associated with this modal focus are:

- a. It is more difficult to examine intermodal issues and perform intermodal analyses. Intermodal analyses require statistical designs which emphasize comparability of statistical series among modes. Current series are not satisfactory in this respect, and there is little incentive for individual modal agencies to consider comparability.
- b. Although there have been attempts to improve the coordination of statistical programs among agencies concerned with the transportation system, there is still a fragmentation of effort with respect to statistical designs. Within the Department of Transportation, no operating administration has the specific requirement or the expertise to consider the design of the transportation statistics programs in their entirety. As a result, there are still redundancies, gaps, and inconsistencies in the information collected. This leads to unnecessary burdens on the information suppliers as well as less effective use of the information that is supplied.
- c. Many of the current and future transportation issues relate to highly localized geographical areas and are of multimodal concern. Again, this requires a multimodal viewpoint and statistical designs specific to the geographical area.

Alternatives are presented in the last section of this chapter which discusses various organizational options, including a transportation statistics center. This concept involves the combination of DOT's statistical organizations into a single statistical center.

### *Major Transportation Statistics Programs*

A tremendous amount of statistical data is reported to, or collected by, the DOT operating administrations and other Federal agencies. Some of the data are collected pursuant to statutory mandates placed on the respective organizations by Congress. Most of the data serve as the basis for policy formulation and decisionmaking within DOT and most of the data sets involved also fulfill a monitoring function. These specific-purpose data sets have also found increasing use in more general transportation planning and research studies. This section provides a brief description of some of the more pertinent data bases collected and maintained by Federal agencies.

#### MULTICATEGORY PROGRAMS

Multicategory programs are those which have comprehensive systems involving several of the program categories. Taken together, the four programs described below provide a comprehensive set of domestic transportation statistics which help to track the progress and performance of the Nation's transportation modes.

*Highway Statistics Program.*—The following data are submitted to the Federal Highway Administration primarily by State highway agencies:

**Highway Facilities:** Highway mileage by system, type of surface, geographic area, administration, etc.

**Highway Equipment:** Vehicle registration, drivers' licenses

**Highway Utilization:** Motor vehicle travel, truck operations, speeds

**Financial:** Highway finance (receipts and disbursements), construction costs and price trends, State taxation (fuels, licenses and fees)

**Safety:** Highway fatalities and injuries

**Energy Consumption:** Motor fuel consumption and use (highway and nonhighway).

The data are summarized in annual highway statistical publications which provide data and information used in planning and policy studies, congressional reports on legislative issues, and preparation of testimony both within an outside of government at all levels. This information is also used to:

- Develop cost and usage trends on highway construction contracts, materials, and equipment.
- Prepare, compile and analyze the estimate of cost of completing the National System of Interstate and Defense Highways as required by Title 23 U.S.C. 104(b) 5 and other related reports. Develop and implement procedures for reporting and measuring actual progress being made in the completion of the Interstate and other systems.
- Prepare special Interstate data and information for use by the Administrator and other officials at congressional hearings and conferences.
- Maintain statistical operating records and utilize these records in the preparation of required annual reports and in analytical studies.
- Prepare, compile, and analyze data on fatal accidents occurring on the Federal-aid Highway System and other highway systems.

*FARE Reporting System.*—Section 15(a) of the Urban Mass Transportation Act of 1964 required the Secretary of Transportation to develop, test, and prescribe a reporting system to accumulate public mass transportation financial and operating information by uniform categories and a uniform system of accounts and records. Requirements for these systems were published in Federal Register (vol. 42, No. 13, Wednesday, January 1977). Mandatory reporting will begin July, 1978.

Under the FARE system, transit system operators report on an annual basis the following categories of information:

- Financial
  - Revenues classified by source
  - Expenses classified by type of expense (e.g., labor, materials) and activity (e.g., vehicle operations, maintenance, general and administrative)
  - Assets, liabilities and capital
  - Facilities and equipment
  - Employment, earnings, and hours
  - Maintenance, performance, and fuel consumption

## Safety

- Service supplied and vehicle utilization
- Passenger utilization.

The uniform reporting system will enable the Federal Government to monitor the performance, efficiency, and level of service of transportation systems throughout the Nation, and to assess the effectiveness of UMTA programs and the progress made toward the achievement of Federal policy goals.

As required under Section 15(a), the reporting system is also designed "to assist in meeting the needs of individual public mass transportation systems, Federal, State, and local governments, and the public. . . ." It is anticipated that this single uniform system will be used by virtually all mass transit operators in reporting to all levels of government and to the public. This will considerably enhance the analytical usefulness of mass transit data at all user levels.

*Interstate Statistical Program.*—The ICC collects transportation information from all carriers of passengers and commodities subject to the Interstate Commerce Act (rail carriers, motor carriers, water carriers, pipelines, freight forwarders, and private owners of vehicles engaged in interstate commerce). The following categories of information are collected on a quarterly and/or annual basis.

- Financial (revenues, expenses, assets, liabilities, capital)
- Facilities and equipment
- Employment, earnings, hours, etc.
- Passenger movement
- Commodity movement
- Safety and security (freight loss, damage claims, theft, etc.).

As with the FARE reporting system, carriers are required to collect and report information according to a uniform system of accounts and records.

The information collected under the interstate statistical program is, of course, vital to the evaluation of the financial and operating performance of regulated interstate carriers. As will be discussed in a later section, similar information is needed for nonregulated carriers.

*Aviation Statistics Program.*—The combination of statistics collected by Federal Aviation Ad-

ministration and the Civil Aeronautics Board generally covers domestic and international aviation activities and is perhaps more comprehensive than the other multicategory programs. The FAA data cover aviation facilities and activities. The CAB data cover airline activities. In the case of FAA and CAB data, it is more convenient to provide detailed descriptions of the individual aviation statistics programs under the various program categories.

#### PERSON MOVEMENT

*The National Travel Survey.*—This survey yields regional passenger transportation patterns and their relationship to socioeconomic and geographic factors. The most recent survey was based on a mail survey of a multistage probability sample of approximately 24,000 households (for 1972). Data obtained for each trip included (1) origin and major destination of the trip, (2) month the trip ended, (3) type of transport used, (4) the major reason for the trip, (5) who in the household took the trip, and (6) trip duration.

*Nationwide Personal Transportation Study.*—The Nationwide Personal Transportation Survey is a home interview survey designed to obtain up-to-date information on national patterns of travel. Earlier surveys, limited primarily to automobile and truck travel, were conducted in a number of States between 1930–1940 and more recently between 1951–1959. In April, 1961, a national survey was conducted to estimate characteristics of travel and ownership and use of automobiles. In this national survey, family income data are available which could be related to travel patterns. Data for the Nationwide Personal Transportation Survey were collected in 1969–1970 by the Bureau of the Census for the Federal Highway Administration. This survey was merged in 1976 with 1977 National Travel Survey to accomplish a more sufficient person movement survey covering all domestic person trips.

*Journey-to-Work Supplement to the Annual Housing Survey.*—The Annual Housing Survey (AHS) is conducted by the Census Bureau for the Department of Housing and Urban Development in response to a need for frequent and up-to-date data on U.S. housing, considered a prime indicator of the Nation's economic health. Under DOT sponsorship, a supplement was added to the questionnaire to collect informa-

tion on the households' journey-to-work trips. The AHS consists of both a national sample of 76,000 households and an urban sample of Standard Metropolitan Statistical Areas (SMSA). The sample of 60 SMSA's is divided into panels of 20 SMSA's each, with one panel surveyed every 3 years on a rotating basis.

The pertinent socioeconomic data gathered in the survey includes household income, household size, age, race and sex of household head; type of structure and property value; availability of telephone; and availability of garage, etc. The journey-to-work supplement includes the following data: travel mode, car occupancy, destination, trip time and distance, change of mode and mode satisfaction.

*Rail Passenger Data.*—In fiscal year 1976 the Federal Railroad Administration, in cooperation with the National Railroad Passenger Corporation (AMTRAK), expanded the rail passenger data collection system in the Northeast Corridor to include all AMTRAK trains operating nationwide. This project which was jointly funded with AMTRAK provided a 100% rail passenger ridership count through the use of a combination of automated data collection systems implemented on the trains.

*Ten Percent Airline Passenger Ticket Sample.*—This is a recurrent origin-destination survey of airline passenger traffic on U.S. certificated route air carriers. The statistics are collected on the basis of a continuous 10-percent sample of airline passenger tickets. It is designed to obtain passenger travel patterns and volumes in terms of city of air origin, city of air destination, and passenger routing (carriers and connecting points). Data are collected and tabulated quarterly, with moving 12-month totals. Domestic data are published quarterly. Additional and more detailed domestic data and international/territorial data are available on microfilm and on computer tapes.

*International Airlines Passenger Data.*—The International Airlines Passenger Data project supports U.S. carrier passenger origin-destination data involving foreign flights by providing the only data that includes details on the foreign flag carriers.

Data on the entry/exit of citizens and non-citizens through U.S. ports and air-terminals are recorded on Immigration and Naturalization Service's Form I-92. The data includes carrier

and flight number, date, number of U.S. citizens and aliens, city and country names, transport class and type.

#### COMMODITY MOVEMENT

*The Commodity Transportation Survey.*—This survey collects information on the physical and geographic distribution of commodities shipped by the manufacturing sector of the national economy. The information is obtained by a sampling of bills-of-lading (or other shipping records) using a probability sample of manufacturing plants. "By-product" or special studies resulting from this survey include a study of the domestic movement of exports, a survey of small plant activity (including plants with 10 to 19 employees), and a special study of the printing and publishing industry.

The data collected include specific facts about the commodity: origin, destination, commodity code, weight, means of transport, and the production area of the surveyed plant.

*Nationwide Truck Commodity Flow Study.*—This survey was conducted in 1972 in each of the 50 States and was designed as a sample survey to measure the movement of specific commodities by truck (regulated, exempt, and private). This information together with other information, such as characteristics of vehicles and of weights of carried load, provides a basis for measuring the economic service provided by highways and for comparing commodity flow over highways vis a vis nonhighway modes. Such information is urgently needed for national planning and decisionmaking as to the relative needs of the various transportation modes to make possible an economical expenditure of the Nation's resources. The Truck Commodity Flow Study is based upon a sample of truck registration numbers for nonpublicly owned trucks in each of the 50 States, Puerto Rico, and the District of Columbia.

*The Census of Non-Regulated Bus Carriers and Motor Carriers of Property and Public Warehousing.*—This census was formerly part of the selected services economic censuses. It collects information on those establishments belonging to carriers or companies that are not regulated by the ICC.

*Rail Carload Waybill Sample.*—The input to this system is compiled from a 1% sample of audited revenue waybills submitted to the Federal Rail-

road Administration under the terms of the ICC Order 49 C.F.R., Sec. 1244. Data are used in traffic flow studies, commodity movement studies, ICC rate cases, revenue studies, safety analyses, and for input to the FRA Railroad Network Model. Principal data elements are: serial and waybill numbers, number of carloads, origin and destination railroad and stations, rate types, revenue, short line miles, AAR car type, tons. This sample is the principal source of rail traffic flow data.

*Waterborne Freight.*—Waterborne traffic movements are reported to the Corps of Engineers by all vessel operators of record for those movements of their vessels which were classified as domestic traffic, i.e., between United States ports, continental noncontiguous ports, and on the inland rivers, canals, and connecting channels of the United States, Puerto Rico, and the Virgin Islands (excluding the Panama Canal). The reports are generally submitted on the basis of a vessel movement completed in one direction and, for movements with cargo, the origin and destination of the water transportation of each individual commodity.

The domestic traffic includes all commercial movements between points in the United States, Puerto Rico, and the Virgin Islands. Traffic with the Panama Canal Zone is treated as foreign commerce. Cargo moved for the military agencies in commercial vessels is reported as ordinary commercial cargo; military cargo moved in Department of Defense vessels is omitted from these statistics.

Foreign trade data are furnished to the Corps of Engineers by the Bureau of the Census. The data are confined to movements by water, and are reconcilable with published reports of the Bureau of the Census. Shipments of domestic merchandise and reexports of foreign merchandise are termed exports. The imports include inbound merchandise for direct consumption and entries into custom bonded storage and manufacturing warehouses. Intransit merchandise, defined by the Bureau of the Census as merchandise coming into the United States from a foreign country and shipped to a foreign country without having been entered as an import, is treated as an import when unloaded from a vessel and as an export when loaded on a vessel. Export shipments for use of the United States Armed Forces abroad are excluded from the statistics as are import shipments on De-

partment of Defense owned and operated vessels. Foreign trade data of territories and possessions other than Puerto Rico and the Virgin Islands, which are under the jurisdiction of the Department of the Interior, were not furnished to the Corps of Engineers by the Bureau of the Census, and are excluded from the statistics of both agencies.

*Domestic and International Transportation of U.S. Foreign Trade.*—The survey, traces the movement of vessel and air imports and exports throughout the U.S. domestic transportation system. The information includes the types of commodities shipped, destinations within the U.S. of imports and the origin of exports, mode of transport, international and domestic shipping costs, volume, weight, value, and the use of containerization. Information on commodities transhipped to and from other countries by truck and rail via Canada and Mexico is also collected. Agricultural commodities (notably grains) are not included.

The importance of collection and publishing of this information has increased in recent years because of more intensive use of containerization and shipper demands for information on door-to-door movements with through-bills of lading. The survey is expected to provide valuable information to shippers, port officials, carriers, and government agencies on the impact of our export-import trade on the domestic transportation system. It will also enable data users to improve their measurement, analysis and forecasting of trade patterns, impacts on port tributary areas, modal distribution, and general market characteristic. The survey includes general cargo and also commodities shipped primarily as bulk, with the exception of crude oil and grains which may be the subject of future studies.

*St. Lawrence Seaway Statistics.*—The St. Lawrence Seaway Development Corporation reports statistics on shipping in the St. Lawrence Seaway. Annual traffic statistics cover the movement of vessels and cargo through the International (Montreal to Lake Ontario) and Welland Canal sections of the system. Data reported include commodity detail in net tons, vessel transits, size of vessel, type and registry, cargo and vessel registered tonnage and origin/destination detail of commodities on the basis of U.S. Canada and Overseas divisions. In addition,

the Corporation publishes U.S. Great Lakes ports statistics for overseas and Canadian waterborne commerce derived from Bureau of Census data.

#### FINANCIAL ASPECTS

*Census of Government Statistics.*—The quinquennial census of state and local governments obtains financial and employment statistics on various government activities. These activities include highway construction, public transit, airport, water transportation and terminal facilities. Financial statistics include: revenues by source (operating revenues, taxes, intergovernmental transfers), expenditures, capital outlays, indebtedness and investment assets. The information is particularly useful in analyzing the level of commitment of State and local governments to transportation functions and in tracing the financial transfers between Federal, State and local governments.

*Air Carrier Operating and Financial Statistics.*—U.S. air carriers report monthly and quarterly data to the Civil Aeronautics Board on form 41. This form includes operating statistics, revenue, expense and balance sheet data.

#### PHYSICAL AND OPERATING CHARACTERISTICS

*Truck Inventory and Use Survey.*—This survey accumulates data concerning the Nation's trucking resources, such as the number of trucks (total and classified by physical characteristics), occupational use of trucks, measures of intensity of vehicle utilization, and geographic distribution of vehicles. The survey is based on a stratified probability sample of about 120,000 trucks selected from about 15 million registrations.

*Grade-Crossing Inventory System.*—This nationwide project for numbering and inventorying highway railway grade-crossings was completed in late fiscal year 1976. The data will be used to isolate apparent accident-contributing characteristics and to determine cost/benefit ratios for alternative upgrades. The data base exceeds 430,000 records and contains all pertinent information for each grade-crossing.

*Air Carrier Traffic and Capacity Statistics.*—Form ER.586 reported to the Civil Aeronautics Board by domestic and international carriers provides for detailed traffic and capacity statistics collected by the route carriers and reflects

the movements of traffic and aircraft by individual flight stages.

*Aviation Facilities Information.*—Information contained in this category covers data such as identification, performance, ownership, and facility configuration, as well as construction cost estimates and physical status of facility installation projects. All data are derived from internal elements of the Federal Aviation Administration (FAA), either regional offices or FAA Headquarters. FAA management reviews this information in planning and evaluating facilities owned and/or maintained by the FAA to support the National Airspace System. The data are available to government agencies on computer tape as Line Performance Reports, Facility and Service Outage Reports, and Frequency and Facility Master Files.

*Aircraft Information.*—This information category includes data on aircraft ownership; aircraft and operators inspection and surveillance; type and airworthiness certifications; mechanical reliability, malfunction, and defect reports; and types and categories of aircraft operations. The data are derived, externally, from aircraft owners, manufacturers, operators, etc., and internally, from FAA Flight Standards Inspectors. The FAA uses the data in its planning, forecasting, and safety analysis programs. The data also support the management and operation of the U.S. Civil Aircraft Fleet.

*Aviation Activity Information.*—Aviation activity information is grouped into three major areas: air traffic activity, aircraft, and enplaned passengers. Air traffic activity includes airport and tower operations, activity at FAA air route traffic centers, and flight services provided by FAA flight service stations. Aircraft data include statistics on aircraft registration, usage, distribution, manufacture, and type. Enplaned passenger data reflect passengers enplaned at U.S. airports by various categories of air carriers and operators. Air traffic activity data are collected internally from the various FAA air traffic facilities. Aircraft data and enplaned passenger data are both derived from external sources, the former from aircraft owners, the latter from air carrier operators, the Civil Aeronautics Board, the aviation community, and special studies. Aviation activity information is used for forecasting, planning, budgeting, and staffing; support for agency programs; and for statistical publications.

*FAA Aircraft Management Information.*—This information concerns all FAA-owned, loaned, lease-purchase, and exclusive use lease aircraft in the FAA fleet, and includes inventory data, management cost accounting information, information on airspace and procedures, and information on aircraft inspection, maintenance, fuel consumption, utilization, and availability. This information is provided by users of FAA fleet aircraft. The data furnish comparative statistics in key areas of the Flight Standards Aircraft Program to assist in attaining the most effective utilization of resources. Analysis of performance data assists in developing policy that assures the continued availability of manpower and resources necessary for the accomplishment of programs in the field.

*Aviation Forecast Information.*—The FAA publishes, annually, the following documents containing forecast data:

- *Aviation Forecasts* includes forecasts over a 12-year period for air carrier enplaned passengers, revenue passenger miles, cargo ton miles and tons enplaned, number of aircraft, hours and miles flown; and total air carrier, general aviation and military activity at FAA-operated air traffic control facilities.
- *IFR Aircraft Handled* covers forecasts of aircraft handled (departures and overs) under Instrument Flight Rules over a 12-year period for each of the 25 air route traffic control centers.
- *Terminal Area Forecast* contains forecasts over a 12-year period for air carrier and air taxi enplanements; air carrier, air taxi, and general aviation aircraft operations; itinerant, local, total, and instrument aircraft operations; and instrument approaches at 872 airports throughout the United States.
- *Military Air Traffic Forecast* includes forecasts of military aviation activity over a 12-year period of FAA towers, air route traffic control centers and flight service stations.

In addition to these regularly published series, the FAA also produces special forecast studies. The data in this category are derived, internally, from *FAA Facility Reports of Activity* and *FAA Airmen and Aircraft Registry* and externally, from CAB airline reports, special surveys, and economic forecasting services. After careful and intensive research and analysis, the data are developed into official FAA forecasts. The fore-



casts are used within the FAA in planning, policymaking, programming, and budgeting activities. The published forecasts are used not only by the aviation industry and the military for planning aircraft and avionics development and production, airport development, and so forth, but also to advise the public of current and expected trends. A related program is the Alternative Aviation Futures Program. The Futures program, as an aid to intermediate and long-term policy development within the FAA, develops forecasts to the year 2000 using five scenarios which cover 26 indicators of aviation activity. In developing these forecasts, the FAA draws upon a wide range of sources, including other Federal and nongovernment experts in aviation and related fields, special studies, periodicals, research reports, and technology forecasts.

*Merchant Vessel Statistics.*—This program provides the Merchant Vessel Documentation Division with the capability to update, maintain and publish the Merchant Vessel Register. The principal data elements contained in the system are official register number, vessel name, vessel description data and owner data.

*Standardized Aids to Navigation Data System.*—This system was developed to monitor the status of all Coast Guard aid to navigation. Specific inputs include geographic positioning information, a record of resource hours spent maintaining aids, and a history of equipment performance. Principal data elements of this system include: on-station inventories of specified equipment, and a list of services to be performed for specific aids to navigation. Major benefits include reports generated from the data base for management purposes and the overall standardization of aids to navigation terminology and equipment.

*Nationwide Boating Survey.*—This is a triennial survey designed to collect statistics on recreational boats, boaters and boating activities for use in expanding and clarifying existing information, enabling trend data to be developed, and thus providing measures of effectiveness for the boating safety program. The first survey was conducted in early 1974. The second is currently underway.

*Merchant Seamen Information.*—This program involves updating of files on Active Seaman, Seaman Reference and Wanted Seaman. The principal

data elements contained in this system are: surname, identification number and official vessel number of each merchant seaman on active voyages; vessel data on merchant ships on active voyages; names of merchant seaman wanted by the U.S. Coast Guard or other law enforcement agencies; and supporting personnel data on wanted seaman.

#### SAFETY AND SECURITY

*Fatal Accident Reporting System.*—This system (FARS) provides statistical data on all fatal motor vehicle accidents annually in the United States. Data are collected by federally sponsored analysts in every State who assemble information from five existing sources: individual police accident reports, driver license files, motor vehicle registration, highway department files, and the vital records files. FARS, a fully automated data system provides national data on three levels concerning fatal motor vehicle accidents: (1) factors concerning the occurrence of the accident; (2) factors concerning the vehicles involved in the accident; and (3) factors concerning all persons involved in the accident. FARS has been operational for over a year and is providing improved support to the safety program development and evaluation mission of the National Highway Traffic Administration (NHTSA). Periodic statistical reports are being developed by NHTSA from the FARS which is also serving as a source to answer ad hoc retrievals or support analytic studies in the highway and motor vehicle safety field.

*National Accident Reporting System.*—The National Accident Reporting System (NARS), currently being developed by the National Center for Statistics and Analysis in NHTSA, complements the Fatal Accident Reporting System by providing national statistical data on *non-fatal* motor vehicle accidents. With the addition of NARS, NHTSA will be able to determine the magnitude and characteristics of motor vehicle accidents of all severities, i.e., fatal, non-fatal injury, and property damage.

The design of NARS, including the sample design is scheduled to be completed in fiscal year 1977 with a pilot test of the system to be conducted in fiscal year 1978. The data collection mechanism for NARS is expected to be similar to the one used in the FARS, namely, federally sponsored analysts located in the various States who assemble data from existing

sources within the States. NARS will differ from FARS in that it will be based on a probability sample of accidents as opposed to the census approach used in FARS.

*National Accident Sampling System.*—The National Accident Sampling System (NASS), currently under development by the National Center for Statistics and Analysis in NHTSA, will provide data on motor vehicle accidents at a greater level of detail than either the Fatal Accident or National Accident Reporting Systems. The NASS will be based on a probability sample design of the Nation's motor vehicle accidents and will obtain data via a network of full-time, federally sponsored accident investigation field teams. Two data subsystems will be embodied in the NASS: (1) A Continuous Sampling Subsystem (CSS) will provide a baseline of accident statistics with emphasis on quantitative estimates of injury severity, crash severity, accident cost, and accident pre-crash or casual factors; (2) a Special Studies Subsystem (SSS) will provide the capability to collect additional data in support of one-time studies of special highway safety and motor vehicle topics.

The design of NASS is scheduled to be completed in fiscal year 1978 with implementation of the system to follow thereafter.

*National Exposure Data System.*—The National Center for Statistics and Analysis of the NHTSA has design efforts underway to provide a system for collecting national exposure data on motor vehicle accidents. Exposure data are defined as data which characterize the accident risk factor for all motor vehicles and highway users. The specific data element to be collected is vehicle miles of travel classified by various characteristics of the road users, vehicles, and the environment.

Exposure data are needed to complement the accident data on motor vehicles. Taken together, these data can be used to derive and analyze accident rates in support of the development and evaluation of safety standards and regulations. Full consideration is being given here to the potential for other existing surveys, such as the transportation surveys conducted by the Bureau of the Census, to supply the exposure needs of the NHTSA.

*National Electronic Injury Surveillance System.*—The National Electronic Injury Surveil-

lance System (NEISS) provides the Consumer Product Safety Commission with data on consumer injuries related to or caused by consumer products under its regulatory cognizance. The NEISS is being evaluated by the National Center for Statistics and Analysis (NHTSA/DOT) as to its potential for providing detailed injury data. (A pilot test is planned in fiscal year 1978.)

*National Driver Registration Program.*—This program provides for a central directory of drivers whose privilege to drive has been denied or withdrawn so that licensing jurisdictions will have a source of information to determine if an application for a driving permit has been or is currently prohibited from driving elsewhere. This will decrease the opportunity for ineligible license applicants to obtain a drivers license by switching their State of residency.

*Motor Carrier Accident Reports.*—All interstate commercial motor carriers subject to the Federal Motor Carrier Safety Regulations report highway accidents in which they are involved in accordance with the requirements of 49 C.F.R. 394. The data from the accident reports are used: (1) to create information to refine, update or develop new regulations, and (2) to develop programs that promise the best results in terms of eliminating the hazards to safe highway transportation.

*Highway Traffic and Accident Reporting.*—Each State provides a report showing numbers of fatal and injury accidents, the number of fatalities and the number of persons injured summarized by highway system. Travel (VMT) and mileage are also included and computed rates are shown in Table TA-1 submitted to the Federal Highway Administration annually by the States.

*Railroad Accident Incident Reporting System.*—The Office of the Associate Administrator for Safety of the Federal Railroad Administration (FRA) has the responsibility for receiving, processing and reporting railroad accident/incident statistics. These include the occupational illness of employees, damage to railroad equipment and structures, and injury to persons (arising from the operation of a railroad). The purpose of the program is to carry out the intent of Congress as expressed in the Federal Railroad Safety Act of 1970 and the Accident reports Act, as amended. Principal data elements are: casualty information, damage costs, location of

accident, and train speed, weather, and grade crossing information.

*Railroad FRA Safety Inspections.*—These data are collected to compile general statistics on railroad safety inspection.

*Track Inspection System.*—This system allows the FRA to maintain and retrieve information pertaining to Track Inspection Reports filed by the FRA and State inspectors.

*Railroad Locomotive Inspection.*—These data are collected to maintain records on results of field locomotive inspections. Sources of the data are locomotive inspection records. The reports generated from the data include inspection compliance, locomotive inventory, and FRA inspections.

*Aviation Accident, Incident, Violation Information.*—The data in this information category describe the circumstances, causes, mechanical failures and/or malfunctions, injuries, and other conditions of accidents, incidents, or violations of Federal Aviation Regulations. The data are collected from various sources including witnesses, passengers, air and ground crew members, and FAA inspectors. The information is used primarily for analysis of violations of Federal Aviation Regulations. It is also used to identify and monitor airmen involved in accidents.

*Airmen (Nonmedical) Information.*—This category provides management and operational data on the approximately 1.5 million airmen certified by the FAA. The data, which include accident involvement, violations, and written and practical examination results, are primarily obtained as a result of the airmen certification process from the individual's certificate application. The data support aviation safety analyses.

*Aeromedical Research Information.*—This information encompasses major aeromedical research activity data in the following areas: aeromedical factors in systems and operations; aircrew and passenger protection; personnel; performance and efficiency; aeromedical factors in flight management; and public acceptance of aircraft operations. The data are derived through Civil Aeromedical Institute research and FAA Headquarters studies. The results of these analyses are disseminated for use by interested parties in the aviation and aviation medicine communities.

*Search and Rescue Information.*—This system produces statistics relating to incidents in which a Coast Guard response was involved. The data include: (1) the number of lives saved or lost annually and (2) the value of property assisted or lost annually. The system also generates the total force level of Coast Guard by type of resource (boats, cutters, aircraft, station, etc.). A complementary system provides search and rescue data developed by the Coast Guard Auxiliary.

*Motorboat Accident Statistics.*—This system develops annual statistical summaries on recreational and/or numbered boat accidents, as required by the Federal Boat Safety Act of 1971. The principal data elements contained in this system are case number, date, state, county, cause, fatalities, injuries, operator age, type vessels and time.

*Hazardous Materials Incident Reporting System.*—Regulations established in Section 1971 and contained in Section 9171.16, title 49, C.F.R., require carriers to submit a detailed hazardous materials incident report (DOT Form 5800.1) to Office of Hazardous Materials Operations (OHMO) upon the occurrence of an unintentional release of hazardous materials in transportation, including loading, unloading, and temporary storage. The system contains information on each reported incident and consists of data elements, such as date of incident, location, shipper, carrier, commodity involved, types of containers, estimated dollar damage, amount released, and other detailed information concerning the packaging and the nature of the incident. This information is entered into an automated data processing system. The major uses of the system are to highlight problem areas, to identify container integrity problems, to pinpoint areas requiring corrective action, and to provide a statistical compilation of accidents and incidents involving hazardous materials. The system's outputs are primarily for internal use within OHMO. However, many requests are received from the industry, state and local government agencies, as well as research organization, and other members of general public.

*Pipeline Carrier Accident Report System.*—This system, maintained by the Office of Pipeline Safety (OPSO), reports any failure in a liquid pipeline system where there is a release of

commodity transported resulting in any of the following consequences: explosion or fire not intentionally set by carrier; loss of 50 or more barrels of liquid; escape to the atmosphere of more than 5 barrels a day of liquefied petroleum gas or other liquefied gas; death of any person; bodily harm to any person; and property damage of at least \$1,000 to other than the carrier's facilities. This information is provided by pipeline carriers and augmented by reports of DOT investigators. The pipeline reporting system contains such information as name and address of carrier; date, time and location of accident, part of carrier system involved and physical location; origin of liquid or vapor release; cause of accident; fatalities and injuries of the carrier's employees and other persons; property damage—items and dollar value; and commodity being transported—estimated loss in barrels; year of installation of facility; whether there was fire or explosion.

*Pipeline Leak and Test Failure Reporting System.*—This system provides casual-related and safety-related information to identify trends and problem areas in support of rule-making action and safety program development, and to furnish Congress with accident and casualty data in accordance with Section 14 of the Natural Gas Pipeline Safety Act of 1968. This information is provided by operators of distribution and/or transmission/gathering systems.

The system contains the following information: nationwide identification of companies; sizes, materials, and ages of gas systems; causes and number of leaks repaired; gas systems on coated or bare pipe; gas systems cathodically protected; fatalities and injuries; operator property damage estimates; value of property damage to others (settled); fires and explosions; leak surveys; and cathodic inspections.

Specific incident data show detailed information; when and where occurred; cause, pipe specifications, when installed, materials that failed; fatalities and injuries; estimated operator damage; environment of incident; estimated pressure at time of incident; maximum allowable operating pressure; time until escape of gas stopped; method of leak or failure detection, such as rupture, ignition, explosion; type of repair; and other utilities contributed or repaired. Information is also provided concerning fail-

ures due to corrosion, outside forces, construction defects, and material failure.

*5(a) Certification and 5(b) Agreement Data.*—State participation in the Federal Gas Pipeline Safety Program is achieved by filing a 5(a) certification or by entering into a Section 5(b) agreement with the Secretary of Transportation. The collection of data on these two documents is specifically required by the Natural Gas Pipeline Safety Act of 1968. The data is the minimum necessary to determine whether a State is eligible to qualify for the certificate of agreement. Fifty-three State jurisdictions, principally State public service commissions, provide the data to DOT.

The following information is required annually for certification:

- (1) State jurisdiction over intrastate gas facilities.
- (2) Pipeline accidents occurring in preceding calendar year.
- (3) Summary of state inspections and compliance action in preceding calendar year.
- (4) Record maintenance report.
- (5) State personnel involved in gas pipeline safety.

Information includes the State's attestation that it has adopted and is enforcing Federal safety standards, states jurisdiction, name and address of operators jurisdictional to state agencies, gas pipeline accident/incident information, State enforcement and surveillance activity.

The data are used to prepare (1) DOT's annual report to Congress concerning pipeline safety, (2) DOT's budget submission, and (3) OPSO management reports (i.e., table, charts, graphic displays).

The system is not automated; therefore query capability is on a direct information retrieval basis. There are no known plans to publish the data collected. The information is unclassified, for internal use, and available to the public.

*Pipeline Safety Grant-in-Aid Program.*—This information system is necessary to determine if application for grant-in-aid should be approved, if any restrictions should be placed upon the grantee, and magnitude of the grant. Approximately 47 State jurisdictions (principally public service commissions) provide financial and program information to DOT.

Program information is submitted to DOT annually with the State's application for grant-in-aid. This program information requires a narrative description of all ongoing and planned pipeline safety activities in the State during the ensuing calendar year.

Program information includes on-site inspections, hiring of safety personnel, accident investigations and reports, adoption of safety regulations, training of staff personnel, lowering of number of gas incidents in State, monitoring of gas operations, review of inspection and maintenance plans, maintenance of records, State statutes, procurement of safety equipment.

Financial information includes estimated, actual, and variances of gas pipeline safety expenses categorized by cost codes.

Financial information represents subsidiary or supporting documentation for an accounting system maintained in the Office of the Assistant Secretary for Administration. There is no routine reporting of the information collected in this system. The information collected is unclassified, for internal use, and is available to the public.

#### PLANNING AND PROGRAM DEVELOPMENT

*National Transportation Needs Studies.*—These surveys are conducted on 2 to 4-year intervals to collect information on the plans and programs of State and local governments with respect to their transportation capital improvement program and operation and maintenance of public sector facilities and services related to transportation. The 1972 study collected information on transportation investment needs and capital improvement programs under three alternative Federal funding assumptions over a 20-year period. The 1974 study focused on improvement plans to the year 1990 and a funding program to 1980 under a specified Federal funding assistance program.

In addition to the planning information, the 1972 and 1974 studies collected substantial amounts of inventory and performance data in the following data categories: physical facilities, physical capacity, utilization of facilities by vehicles, passenger utilization, safety performance (fatalities, injuries), land use, air pollution, and financial information (annual capital and operating costs, revenues). The modes for which the information was collected included:

urban highways; rural highways; urban public transportation; airports; marine terminals, waterways, and harbors; parking facilities; intercity bus, railway, and trucking terminals, and other transportation systems.

*National Highway Needs.*—The objectives of the reporting process are to:

- (1) Inform the Congress of the extent, condition, and performance of the existing highway network and future highway needs.
- (2) Develop policy on the direction of the Federal highway program and assess the impacts of different highway investment programs.

The reports describe the miles of highways by functional classification; physical condition of roadways; highway performance characteristics; highway finance data; current and forecasted travel by highway system and area; and the cost and location of current and future needed highway improvements.

*Federal Airports Program.*—The information collected under this program covers airport inventory, planning, operations, and programming. This information includes:

- (1) airport location, physical characteristics, services, and activity;
- (2) planning data and environmental impact statements for support of certain airport planning and development and design and construction standards;
- (3) records on airport grant projects and compliance status;
- (4) surplus property transfer deeds and information;
- (5) relocation assistance guidance;
- (6) airport certification standards, guidance, compliance, and violations; and
- (7) information on rescue equipment and airport safety matters.

Both internal and external sources are used to derive this information. Basic data on airport physical characteristics are collected by FAA personnel. National Airport System Plan data are derived by FAA field offices, in large measure from airport management, planning agencies, and various other non-FAA aviation sources. Planning grant and development grant

data are obtained from sponsors and supplemented by FAA inspections, audits, correspondence, and so forth. Airport certification data are submitted by applicant airports and verified and supplemented by FAA visits. Illustrative uses of this information include providing support for Federal involvement in the identification and planning of a National System of Airports; providing grant-in aid support for airport master planning and development; and providing support for analysis and policymaking in the area of airport ground safety.

*National Aviation System Plans.*—The data in this information category are planning requirements, program funding plans, and intermodal transportation planning. The National Aviation System Plan serves aviation users, aviation manufacturers, and FAA personnel who are developing and maintaining the System. Information is derived from the aviation community through the annual Aviation Review Conference and other consultative sessions. *The National Aviation System Ten-Year Plan* is published annually as a guide to those responsible for formulating future program plans and budget submissions.

#### *Recommended Program Modifications and Additions*

Transportation is a component of the economy that is subject to fairly rapid changes over the years in terms of new services provided through advancing technology and changes in consumer, industry, and government demands. It is an area substantially affected by public policy, programs and regulations originating at the Federal, State and local levels of government. Safety, convenience, transportation cost and taxpayers' burden are directly related to these policies, programs and regulations. The decision to construct the interstate system, for example, affects not only highway users but railroads, urban development, industrial location and many others. The advent of the jet aircraft further stimulated an already dynamic and growing industry. The growth in automobile use affected the demand for mass transit services, as well as the service provided and urban land use patterns. Containership development substantially improved maritime freight service as well as impacting port economies. Significant changes in basic economic relationships such as these generate major national issues, which are

translated into new policy initiatives, legislation, programs or regulations.

If the Federal responsibilities and challenges associated with these changing conditions are to be met effectively, a continuous monitoring of the transportation system, the demands for transportation services, and the performance of the system is required. Moreover, the information systems designed to provide this continuous flow of information must be flexible enough to provide the necessary data to meet these changing conditions and emerging issues.

The transportation statistics information systems must also be adaptable to the developments in analytical methodology and technology. For example, advances in statistical analysis such as the disaggregated modeling techniques (e.g., Logit and Probit models) have affected the type of data required as well as the quantity. Generally, these techniques require an increase in the depth of information required from individual respondents which adds to the individual respondent's burden. However, the methods require much smaller samples of observations which decreases the total burden on the community. These techniques allow certain types of analyses which have the potential of providing new knowledge and understanding of casual factors.

The changes in analytical methodology also affect the resources required for data collection as well as the respondent burden. For example, computer assisted interview techniques may permit interviews to be conducted more quickly and accurately. Similarly, Loran C may assist geocoding in rural areas and facilitate more accurate callback procedures.

The recommended statistical program modifications and additions presented below are designed to fill the data gaps created by the aforementioned changing conditions and to strengthen methodological techniques in collecting, analyzing, and reporting the information.

*National Urban Transportation Reporting System (UMTA/FHWA).*—The National Urban Transportation Reporting System (UTRS) is designed to collect periodically certain key data elements which describe the characteristics and performance of urban transportation systems. The information is to be used for Federal level policy and budget decisions, program monitoring, and

program evaluation. The major data elements are:

**Highway Data:** road miles, lane miles, vehicle miles of travel, passenger occupancy, traffic volume, and congestion

**Public Transit Data:** access to transit, trip characteristics (purpose, time, distance), rider characteristics, transit operating characteristics (vehicle miles, vehicles in use, etc.)

**Demographic Data:** population, dwelling units, employment, passenger vehicle registrations, land area

**Measures of System Performance:** highway and public transit travel time contours from specified major activity centers.

Several features of the design of the UTRS should be pointed out. First, the analysis of a number of urban transportation issues, particularly energy and environmental issues, depend upon reliable estimates of changes in vehicle miles of travel, vehicle occupancy, and the general effectiveness of urban transportation systems. Although a number of studies of these variables have been made in the past, currently there is no program that periodically collects this information on a uniform basis from urban areas where the major urban transportation problems exist. The UTRS is designed to fill this important data gap.

Second, many of the data elements in the system are collected regularly by Metropolitan Planning Organizations (MPO's) or other local planning agencies. However, current local data collection procedures are not uniform among localities, and this seriously impairs comparative and aggregative analyses needed at the Federal level. By adopting UTRS specifications in their normal data collection programs, the local agencies will automatically generate the needed uniformity.

Third, the UTRS is designed to complement the FARE Reporting System for reporting public transportation information. However, the FARE Reporting System requirements apply only to recipients of UMTA Section 5 funds; therefore, in some areas the basic operational information needed for analyses at the Federal level would not be available for those operations that do not receive Section 5 funds. The UTRS, therefore, fills an important data gap with re-

spect to transit operations. In addition, the UTRS collects accessibility, trip, and rider characteristics information which is not supplied by the FARE Reporting System. This additional information is usually collected by operators and/or urban planning agencies, but, again, there is a need for uniform procedures.

*National Travel Survey (OST, FHWA, UMTA, NHTSA, Census).*—The National Travel Survey (NTS) is part of the quinquennial census of transportation. For the 1977 survey, the NTS has been expanded to include information on short trips that had previously been collected in the Nationwide Personal Transportation Survey (NPTS) sponsored by the FHWA and NHTSA. The NTS was also expanded to obtain more information on long trips over 75 miles than had been collected in the 1972 NTS, and the survey procedure was changed from a mail questionnaire to a home interview. Preparation for the 1982 NTS should include research into the feasibility of simulating intercity travel using disaggregate demand modeling techniques. If successful, this could allow a substantial reduction in the sample size required for the 1982 NTS, as well as an increase in the transportation related information to be collected. The NPTS expansion of the NTS should be continued as an integral component of the quinquennial census.

*CAB Ten-Percent Sample Data Program (CAB).*—This program should be expanded to include fare or ticket prices of the sample tickets. The carriers have historically objected to the inclusion of such data in the data base because that information is unaudited at the time of processing and subject to further change. However, the value of the missing data to the Department of Transportation far exceeds the difficulties presented by the error in the data. Supplemental data on the aggregate error rates occurring in the data should be useful in compensating for the errors that may be caused by including prices in the original sample.

*Expansion of the Commodity Transportation Survey (Census).*—If technically possible, this survey conducted by the Bureau of the Census as part of the economic census program needs to be expanded to cover additional goods shipped, e.g., shipments of farm products (other than fruits and vegetables), and additional shippers such as agricultural assemblers.

The 1977 Commodity Transportation Survey will provide for a significant expansion over prior efforts, but more coverage is still needed.

Other recent research has suggested that freight flow data might be more effectively and efficiently collected if the sample population were the receivers of shipments rather than the shippers. This approach would potentially yield better data with which to calibrate disaggregative models. This modeling technique, if current research efforts prove successful, would substantially improve analytic capabilities for forecasting freight movement by mode. It could also reduce the amount of data collection (sample size) needed for analytic purposes. Additional research is needed to further determine the scope of this type of survey in terms of the length of haul (i.e., intercity versus urban or local goods movement).

The important fact that should not be overlooked is that data on commodity flows represent an important aspect of interindustry economic analysis, particularly input-output analysis. The commodity transportation survey is especially useful for development of missing inputs for commodity sectors and some service sectors in addition to the transportation sectors. The necessary adjunct to the CTS would be Standard Industrial Classification definition of the receiver as well as the shipper. This would be possible to achieve in the 1977 Census of Transportation if the receiving plant is identified by name and address and then matched with the computer files of the Census Standard Statistical Establishment List. However, there is a fairly sizeable cost associated with this matching and the preparation of the associated tables.

Moreover, these data could be very useful for multiregional input-output studies, and regional analysis generally, if they indicated State to State flows instead of flows between production areas. Some States are not included in the Census production areas, even though the sample has doubled to about 50 areas for 1977. The regional flows give estimates of regional exports and imports (excluding foreign trade flows). Actually, some of the data in the present commodity transportation survey give information which can help on exports to foreign countries as well.

One aspect of many regional studies is the development of specialized transportation coeffi-

cients such as gravity flow coefficients. These coefficients can help in deciding the extent to which commodities should move from region to region on a cost effective basis. The costs of the commodity and the transportation necessary to move it to a receiving area are evaluated in terms of the cost of commodity produced in the receiving area. This is not completely foolproof, because there are differences in products of even 4-digit SIC industries; also, there are quality differences, temporary inventory and output shortages, and loyalties to given suppliers. To some extent all of these tend to obviate the accuracy of gravity-type models in terms of the real business world, but the coefficients are developed to suggest targets and efficient approaches to commodity flows that could be incorporated in economic models with a regional dimension.

*National Truck Commodity Flow Study (OST, FHWA).*—This survey was conducted by the Office of the Secretary of Transportation and the Federal Highway Administration in 1972, and represents the only comprehensive study of commodity movements via the truck mode. Improvements need to be made in the identification of commodity classifications and land use and/or interconnecting modes, and the origin-destination of shipments. Two alternative collection methodologies need to be explored: (1) with the Bureau of the Census in conjunction with the Truck Inventory and Use Study, and (2) with the FHWA thru the State Highway and transportation agencies.

This survey should be conducted on a periodic frequency of at least 5 years and yield data at a regional level. It should be noted that if the Commodity Transportation Survey is expanded to cover all shipments (through appropriate samples) then the data on shipment by mode should be an automatic by-product obviating the need for a separate truck commodity flow study.

*Survey of Non-ICC Regulated Motor Bus Carriers (Census).*—This survey is supplemental to data collected by the Interstate Commerce Commission on regulated carriers. Some progress has been made, but more is needed to make the results of these two efforts more compatible.

*Commodity Movement in Rural Areas.*—Most agricultural transportation performed in rural areas and from rural areas to many primary markets is exempt from economic regulation;



therefore, information on volume, rates, origins or destinations is not available on a systematic basis. There is a need to fill this data gap to insure its consideration when formulating national policy.

*Rail Carload Waybill Sample (ICC).*—Changes are needed in the Interstate Commerce Commission's one-percent waybill sample to provide for sampling on a commodity and origin-destination basis and to provide for the submission and processing of machine readable input. Also, the content of the sample should be expanded to include additional information such as date of delivery.

*Air Freight Data (CAB).*—Historically, the programs of the Civil Aeronautics Board have been directed toward collecting detailed market data, costs and operational information only with respect to passenger service. No such information is presently available concerning the character and geographic markets of air freight movements. Data recurrently collected with respect to freight have been limited to the most basic ton-mile and revenue indicators of volumes in "combination" and "all cargo" services, respectively. This situation has posed difficulties for the Board in connection with its rate-making functions, inasmuch as the domestic and international air freight rate structures are highly differentiated, embracing a wide variety of rates for different commodities, shipment sizes, types of service, markets, and directional applications. There is a need, therefore, to expand the freight information developed by the CAB programs.

*Census of Government Data on State and Local Transportation Finance (Census).*—The Governments Division of the Bureau of the Census conducts a quinquennial census of State and local government finance and employment and supplements this information with an annual sample survey. The data set already contains very rich information about State and local government revenues, expenditures and debt for transportation purposes, and especially on the intergovernmental transfers between Federal, State and local governments. However, some major gaps exist in the data set, especially with respect to general-purpose governments, which limit the usefulness of the data to the Department of Transportation and other users. This data set should be expanded to obtain more detailed and comprehensive financial (and possi-

bly employment) information on highways, mass transit, airports and marine terminal facilities. The definitions of the items should also be made consistent with other data sets collected in the Highway Statistics Program, FARE system and other data systems. Although some redundancy exists, the Census data on State and local governments serves as a consistent and comprehensive benchmark for other more detailed and specialized data sets.

*Truck Inventory and Use Study (Census).*—This survey, which is part of the quinquennial census of transportation, should be expanded to include other vehicles in addition to registered trucks and trailers. Specifically, the survey population should include buses (including school buses) and truck and bus vehicles owned and/or operated by Federal, State and local government which are not registered.

*National Highway Performance Monitoring (FHWA).*—Many of the key statistics now collected for highways, such as vehicle miles of travel, system description, congestion, etc., are generated by state highway agencies and other units of government. However, the statistical methodology varies from State to State, and are noncomparable between States. Some key data items are not collected because of the burden imposed by the current data collection procedures.

This program would rationalize the existing data collection of highway statistics and develop a system of national sampling to be implemented by State highway agencies. Procedures would also be included for supplementing the system for individual States that have requirements for data at the State and substate level. Frequency of data collection would vary depending on the nature and use of the statistics. The work under the National Highway Performance System would be coordinated with that required under the Urban Transportation Reporting System.

*Aviation Accident, Incident, Violation Information (FAA).*—Although some accident, incident, violation data are automated, much of the data collected and maintained by FAA Flight Standards related to flight safety are kept manually, resulting in nonidentification of some potential problem areas. This project would be designed to integrate these sources. This would facilitate the assessment of the safety impact of the certifica-

tion, surveillance, and investigation/enforcement programs. Computerized data identifying the type of aircraft, pilot qualifications, type of flying, and location of the accident are presently maintained by the Federal Aviation Administration for safety analysis and evaluation of air agencies, airmen, aircraft, etc. Interchanging of data among the areas would make the existing system more responsive to the information requirements of the accident prevention programs.

*Aircraft Statistical Information.*—Much aircraft information is collected as part of the annual aircraft registration process. Since statistical sampling techniques can be used to collect the data, thereby reducing the public reporting burden and the agency's cost in handling large volumes of data, the Federal Aviation Administration has designed a project to develop sampling techniques, the procedures, and the system needed to assemble and analyze the results.

*Airmen Information.*—The goal of a comprehensive airmen information system has not been achieved by the present certification and recordkeeping process. The Federal Aviation Administration has a project designed to make recordkeeping more efficient and effective. As a result of this project, airmen information supplied would be more valuable for use in planning, safety analysis, and other statistical purposes.

*Aviation Activity Information.*—Aviation activity information is obtained both internally, from the FAA air traffic facilities, and externally, from aircraft owners and operators, the aviation community, and special studies. Two separate projects are underway to address problems encountered in each of these data areas. For internally generated information, ways are being considered to update collection procedures by eliminating the collection of data no longer needed, by reducing manual workload required for data entry and error correction, and by eliminating duplicate data collection and processing in the FAA regions and at FAA Headquarters. For externally generated data, a project is underway to edit and store non-FAA aviation activity data and to provide the processes and controls necessary to consolidate it with data collected internally. The data will be made relatable to records in the airport data base and consistent with the Air Traffic Activity System, thus permitting merged data analyses.

*Aviation Forecast Information.*—A study of FAA aviation forecasting activity identified a need for forecasts of air carrier activities by trip purposes and commodity classification, measurements of cost of different types of activity, temporal peaking at major airports, general aviation activity by aircraft type, and general aviation activity by State. To meet these needs, the study recommended operational changes (e.g., automated generation of forecasts, and revision of forecasting models as new data become available) and methodological changes (e.g., more use of causal models to forecast cargo, trunk and local air carrier, and commuter and air taxi activities; use of State level forecasts in national and terminal areas forecasts; and development, separately, of major hub forecasts).

*FAA Aircraft Management Information.*—The new FAA jet fleet of flight inspection aircraft requires additional aircraft management information not required of the former non-jet operation. A project is underway to augment an information system that will provide more efficient aircraft maintenance scheduling; more efficient scheduling of flight operations; more timely labor, cost, and other management information; and information to support a responsive aircraft reliability analysis program.

*FAA Facilities Information.*—There are many data systems, required by FAA management, which furnish much needed information on facilities within the National Airspace System. A project is underway to eliminate redundant data and improve the relevance of this information for decisionmaking. This project will provide an interface with accounting, logistics, and aircraft program management information systems.

*Federal Airports Program.*—The Federal Airports Program includes information on the physical characteristics of airports, on the National Airport System Plan (NASP), on grants for airport planning and development, and on airport ground safety and security. Various projects are underway to address data problems in each of these program areas. To provide physical characteristics information, many different manual and mechanized data processing systems are presently in use. A project is underway to integrate the various systems to reduce recordkeeping tasks, eliminate duplication, and reduce the degree of manual involvement. A related problem in the characteristics area

specifically concerns the National Flight Data Center's airport information system. Because of its present computer hardware and software configuration, this system cannot be readily interfaced with other data systems; a project is underway to correct this situation. In the NASP program area, amendments to the Airport and Airway Development Act of 1970, together with deficiencies in the current computer support system, have prompted support system redesign efforts. Amendments to the same act have also affected the airport grant system. This has produced a number of short-term projects designed to conform the existing system to the provisions of the amended act, and to improve editing, validation, and timeliness of grant support data. In the area of airport security, much information is kept in manual files that do not facilitate systematic analysis or dissemination. A project is underway to develop an automated system.

*Hazardous Materials Accident, Incident, Violation Information (OST).*—The Office of Hazardous Materials Operations (OHMO) is currently reviewing its incident reporting system with a view toward receiving better information. No provision has been made for attempting to determine commodity flow information since OHMO does not have the capability of gathering such information at the present time. The coding difficulties encountered earlier have been resolved, however, and the OHMO is now in a position to go ahead with a contract to the Bureau of Census to obtain commodity flow information. No other data collection programs are contemplated in this area. Primary emphasis is being placed on evaluation and modification of existing programs.

Planning has been initiated with respect to the Department's responsibilities for providing data and assistance to law-enforcement and firefighting personnel in dealing with transportation emergencies involving hazardous materials. This program is still in the early stages of development.

*National Transportation Needs Studies (OST).*—Two comprehensive surveys have been conducted to date by the Department of Transportation on State and Local government transportation plans and programs, i.e., the 1972 and 1974 National Transportation Needs Studies (NTNS). More recent programs, particularly the FARE Reporting System and the National Urban Transportation Reporting System have

been (or are being) established, and these cover much of the historical and current data on system physical state, demand and performance which were reported in NTNS surveys. However, two elements of the NTNS—the projected capital improvement and funding requirements (including operations) of the public-sector—have not been included in these more recent programs.

Information regarding the State and local government multimodal 5–10 year transportation programs and 10–20 year plans is an important input to the development of new major legislation affecting transportation assistance programs to State and local governments. Also needed is comprehensive information on major policy issues related to Federal transportation programs that must be resolved by State and local government officials. The modified national transportation needs studies would be conducted approximately every 2 or 4 years to coincide with the development of major legislation affecting Federal transportation assistance programs.

*State and Local Transportation Planning Data (FHWA).*—Although large amounts of Federal planning grant funds are provided to State and local governments to be used for, among other purposes, data collection, these instrumentalities use non-uniform definitions and survey procedures in collecting essentially comparable data. If the data collected for State and local planning purposes were made consistent on a national level, it could potentially obviate the need for certain data which is now collected separately by the Federal Government. Therefore, the Federal Department of Transportation should undertake to establish a cooperative Federal-State program through which survey standards and procedures would be developed for use by States and local governments. The data resulting, would be more uniform than is now the case and therefore might also fill unmet needs which are prohibitively expensive for the Federal Government to undertake alone.

### *Statistical Organization*

It has been suggested by Members of Congress, industry, and the executive agencies that the gathering of transportation statistics could be greatly improved. In response to the widely distributed activities described above, many of

these suggestions focused on organizational changes, and/or reassignment of statistical program responsibilities. The current decentralized nature of the Federal transportation statistics program is attributable to the fact that much of the data collection is interwoven into the administration and conduct of the various promotional and regulatory program responsibilities of the many Federal agencies. Therefore, any proposal toward the improvement of the gathering of transportation statistics has to take into account the total impact on the efficiency and effectiveness of each Federal transportation program. On the other hand, the existing system does not and appears incapable of exploring transportation-wide issues—particularly those involving questions of modal shares. Moreover, the current system is expensive, creates both gaps and overlaps and makes it very difficult to analyze the statistical data list as collected. In addition, given declining response rates to voluntary surveys of all types it is imperative that new approaches toward minimizing collection and maximizing the utility of the available data be found.

A significant movement toward achieving the goal—a step that would by itself improve the governments ability to combine data from many sources and to analyze intermodal relationships—would be the combining of the Department of Transportation's statistical organizations into a single statistical center.

Serious consideration should be given to the establishment of a Department of Transportation statistical center. Such consideration should start with an evaluation of the data needs of the Department and its operating units, the interrelationship between the data needs of the various units, and the relative efficiencies of collecting data through a center or through individual operating units. Were such a center established it could be responsible for the collection of all statistical data for DOT. It should be responsible for all ongoing DOT statistical survey operations and could also be the service agency through which all DOT elements would obtain statistical data. It should not, however, be responsible for the collection of administrative data but should get such data from the collectors subject to the strictest rules of confidentiality and disclosure.

The center would be in an ideal position to combine data from various sources in response

to specific inquiries. This ability could reduce the need for new survey research. The center, if it had an analytic unit associated with it could perform intermodal analysis that cannot be done by a modal agency. If this approach, or some modification of it were adopted, the modes would continue to specify their research priorities and would continue to analyze the data from their modal perspective. However, the centralization of the collection effort and the building of comprehensive data bases would provide for economies of scale, strengthened statistical support for the Department and all its modes, and provide for intermodal analytic capability. Of course, the DOT statistics center would be expected to fully utilize the expertise in survey design and collection methodology that already exists, for example, in the Bureau of the Census by contracting with them for the conduct of household surveys and for other work where the Census has existing capability rather than developing duplicate capability.

The creation of the center outlined above could be a significant step towards improving the Federal Government's statistical capability in the transportation field. If such a center were created, some subsequent consideration should be given to:

- (1) Provide for the transfer of administrative data collected by other agencies, such as the ICC, CAB, FPC, CAB among others, to the DOT statistics center for statistical purposes only and with the assurance that data so transferred would not be released in identifiable form to any person or organization.
- (2) Transfer of the responsibility for conducting the census of transportation from the Bureau of Census to the Department of Transportation. The census of transportation historically has not been conducted as a census, but as a statistical sample of travelers, shippers and truck owners. The DOT could undertake to conduct these surveys with its own resources or in conjunction with the Bureau of the Census. The principal advantage of such a transfer would be the control over the statistical content of the survey by the agency with the primary interest and responsibility for providing leadership in the development of transportation statistics. An alternative and possibly first and only step to this ap-

proach would be to provide for the transfer of microdata from Census to the DOT statistical center if that center had an appropriate confidentiality law. This may be the only viable approach given that many of the data elements needed to calibrate the census of transportation data are only available at the Bureau of the Census.

(3) After the Center has been established and is operating satisfactorily, consideration should be given to assigning it the responsibility for the collection of all non-regulatory transportation statistics required by any executive branch agency to the center.

## CURRENT DEVELOPMENTS

### **CERTIFICATE OF DISTINGUISHED SERVICE AWARDED TO MEMBERS OF GNP DATA IMPROVEMENT COMMITTEE**

In recognition of their significant contribution to the Federal Statistical System, the Certificate of Distinguished Service has been awarded to the members of the Advisory Committee on Gross National Product Data Improvement by the Statistical Policy Division, Office of Management and Budget. The members of this Committee included Daniel Creamer, Rosanne E. Cole, Edward F. Denison, Alan Greenspan, Raymond W. Goldsmith, and John W. Kendrick.

The Advisory Committee on Gross National Product Data Improvement was established by the Statistical Policy Division in 1973 to assist the Office of Management and Budget in carrying out its responsibilities under the Budget and Accounting Procedures Act of 1950 (Public Law 81-784, Section 103). The Committee's objectives were to evaluate the quality and timeliness of the underlying data used in preparing the national economic accounts and to recommend specific improvements to the data. The objectives and scope of activity of the Committee as provided in the charter was as follows:

"a. The Committee will conduct an intensive investigation into the sources of data presently utilized by the GNP staff of the Bureau of Economic Analysis, Department of Commerce, to determine which data sources are most in need of improvement in accuracy and timeliness. This investigation will be directed and assisted by the Staff Director and Chairman of the

Committee who, along with staff personnel, will identify issues for the Committee to consider.

"b. The Committee will consult with and draw on the expertise of statisticians in Federal agencies which gather and tabulate the data referred to below.

"c. The scope of the Committee's consideration will cover the data base for the output side of GNP and its components (e.g., personal consumption expenditures, fixed investment, business inventories, and government purchases of goods and services), and for the income side (e.g., compensation of employees, corporate profits), and of the need for balancing the product and income totals. The various price deflators used in determining real GNP may be encompassed in this review. The data used for first and subsequent revised estimates, as well as for benchmark revisions, will be reviewed. The magnitude and reasons for recent revisions in the estimates will be considered with a view toward developing a more effective revisions policy.

"d. Assisted by a staff which will compile background information, reports, and evaluations of basic data sources presently used and of alternative sources, the Committee will recommend a list of improvements needed in the basic data input to the GNP estimates. Improvements recommended by the Committee in its report will be ordered as to priority and coordinated as to timing over the ensuing five fiscal years, taking into account the scheduled costs of the programs during those years.

"e. Recommendations concerning improvements in the quinquennial benchmark program

and in the area of prices as they affect the GNP estimates will be developed.

A report presenting their findings and recommendations has been received by the Statistical Policy Division and is in the process of being prepared for printing. (JOSEPH W. DUNCAN, STATISTICAL POLICY DIVISION, OFFICE OF MANAGEMENT AND BUDGET, telephone (202) 395-3730.)

#### **TIMELY DELIVERY OF GNP DETAIL BY NIPAGRAM**

Users of GNP data will be able to get the detail presented in the National Income and Product Tables in the *Survey of Current Business* within 24 hours of official release through a new service developed by the Bureau of Economic Analysis and sold through the National Technical Information Service, both agencies of the U.S. Department of Commerce.

The service will begin with the release of the preliminary gross national product data on October 19. Subscribers to the service will receive on October 20 a Mailgram that contains preliminary data for the third quarter of 1977 on the 650 series shown in the 27 National Income and Product Tables in the *Survey of Current Business*.

The service is called NIPAGRAM (National Income and Product Account Data by Mailgram) and it consists of a 4-page monthly Mailgram and a Key. The Key is provided to subscribers so that they can identify the figures in the Mailgram with the proper table titles and items.

Subscribers will receive 12 Mailgrams a year. Because of the amount of data released every July, data will be sent to subscribers by airmail covering revised estimates for the preceding 3 years and for the first two quarters of the current year. Every April an extra Mailgram will be transmitted that contains revised corporate profit estimates for the fourth quarter of the previous year.

Annual subscription to NIPAGRAM costs \$120 for the contiguous United States and Hawaii, and \$145 for Alaska and Canada. Orders for NIPAGRAM should be addressed to the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161. Those who have a deposit account with

NTIS or wish to use American Express can place orders by telephone. The number is (703) 557-4650. (AGO AMBRE, BUREAU OF ECONOMIC ANALYSIS, DEPARTMENT OF COMMERCE; telephone (202) 523-0777.)

#### **MANUEL PLOTKIN NAMED DIRECTOR OF THE CENSUS BUREAU**

Manuel D. Plotkin, was sworn in as the new Director of the Bureau of the Census on May 17, 1977.

As an executive with Sears, Roebuck and Company since 1953, Mr. Plotkin served as the large retailer's corporate researcher and planner, chief economist and market research manager. He is nationally known in his profession for his development and administration of research and planning programs to facilitate management decisions.

Mr. Plotkin's previous work experience includes 2 years as price economist in the Chicago Regional Office of the U.S. Bureau of Labor Statistics and a year as survey coordinator in the Bureau's Washington, D.C. office. He taught courses in quantitative methods and managerial economics at Northwestern University for 8 years and served as an instructor of economics and statistics at Indiana University and Wilson Junior College in Chicago.

Mr. Plotkin served as a member of the Census Bureau Advisory Committee of the American Marketing Association for the past 5 years, including one term as Chairman.

He has contributed numerous papers to publications and conferences of professional associations on the uses and limitations of Census data, new perspectives for economic forecasting, business research for more effective marketing and store location research and strategies.

Mr. Plotkin holds a bachelor's degree from the Northwestern University School of Business and a master's degree in statistics for the University of Chicago Graduate School of Business.

#### **REVISED INPUT-OUTPUT DATA**

The Bureau of Economic Analysis has revised its 1967 input-output (I-O) tables to reflect the statistical, definitional, and classificational changes that were incorporated into the benchmark revision of the National Income and

Product Accounts (NIPA's) published in the January 1976 *Survey of Current Business*. BEA Staff Paper No. 29, *Revised Input-Output Tables for the United States: 1967*, describes these benchmark changes as they apply to the I-O tables and presents new tables at the summary (85-industry) level for interindustry transactions, direct requirements coefficients, total requirements coefficients, and for the industrial composition of personal consumption expenditures (PCE). The revised tables are also available on magnetic tape for the 85-industry, 367-industry, and 484-industry levels of classification.

Single copies of *Revised Input-Output Tables for the United States: 1967*, BEA Staff Paper No. 29 (June 1977) are available from the Interindustry Economic Division (BE-51), Bureau of Economic Analysis, U.S. Department of Commerce, Washington, D.C. 20230. (ALBERT J. WALDERHAUG, BUREAU OF ECONOMIC ANALYSIS, DEPARTMENT OF COMMERCE, telephone (202) 523-0685.)

#### **GROSS MIGRATION BY COUNTY: 1965 to 1970**

The Bureau of the Census has recently published the 1965 to 1970 gross migration data for each county in the United States by selected characteristics. These data were tabulated from the 15% sample of the 1970 Census of Population and have been adjusted for cases in which residence in 1965 was not reported.

The characteristics shown for the migrants include sex, race (White, Black), age in 1970 (under 15, 15 to 19, 20 to 24, 25 to 29, 30 to 44, 45 to 64, and 65 and over), and "not in military or college in 1965 or 1970." The total number of allocated immigrants and outmigrants for each county is also shown.

In addition to the published report, a computer tape with these data is also available.

Copies of the report, "Gross Migration by County: 1965 to 1970," *Current Population Reports*, Series P-25, No. 701 (165 pp, \$3.15) may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 or from Department of Commerce district offices. Additional information about the computer tape may be obtained from Customer Services, Data Users Services Division, U.S. Bureau of the Census. (SIGNE I. WETROGAN, BUREAU OF THE CENSUS, DEPARTMENT OF COMMERCE, telephone (301) 763-5300.)

#### **U.S. POPULATION PROJECTIONS: 1977 to 2050**

The Bureau of the Census has recently published revised national projections of the population by age, race, and sex and the components of population change (births, deaths, and migration) in a report entitled, "Projections of the Population of the United States: 1977 to 2050." The detailed report includes three alternative projections of the population by single years of age, sex, and race for each year 1977 to 2000 and projections by 5-year age groups, sex, and race for selected dates to the year 2050.

These projections supersede those previously published in report No. 601. They have been updated to a July 1, 1976 base population and incorporate the recent declines in death rates in the middle and older ages and recent research on mortality projections. The ultimate levels of completed cohort fertility are identical to the earlier report No. 601: Series I-2.7 lifetime births per woman, Series II-2.1, and Series III-1.7. In the short term, the assumptions about fertility have been lowered to reflect the recent annual trends. The assumed level of immigration is 400,000 persons per year.

Copies of the report, "Projections of the Population of the United States: 1977 to 2050," *Current Population Reports*, Series P-25, No. 704 (87 pp, \$1.95) may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 or from Department of Commerce district offices. (SIGNE I. WETROGAN, BUREAU OF THE CENSUS, DEPARTMENT OF COMMERCE, telephone (301) 763-5300.)

#### **NONSAMPLING ERROR RESEARCH IN MULTIPLE FRAME ESTIMATES**

The Statistical Reporting Service (SRS) in the United States Department of Agriculture recently released a publication entitled *Associating a Reporting Unit with a List Frame Sampling Unit in Multiple Frame Sampling, Ohio and Wisconsin*. This study was undertaken to identify any nonsampling errors in the application of SRS list frame survey concepts for multiple frame estimates.

Multiple frame sampling methodology involves the joint use of two or more sampling frames. In SRS, two frames are used—a list frame and an area frame. The sampling unit from the list frame is a name. The reporting

unit is all land operated under the name selected. In contrast, the sampling unit from the area frame is a segment of land. Within the segment boundaries each unit of land under one operation is a reporting unit. The distinction between the sampling unit and the reporting unit for each frame is an intricate part of multiple frame sampling since it is necessary to determine the overlap between the sampling frames. To compute the multiple frame estimate, reporting units from the area frame which could also have been obtained from the sampling units on the list frame must be known. Current multiple frame procedure requires list sample respondents to report all livestock or any land operated in partnership with others and on any land operated as an individual. Therefore, one sampling unit may be associated with two reporting units.

The report gives the list frame assumptions necessary for the multiple frame surveys and identifies the nonsampling error each time one of these assumptions is violated. An indication of the magnitude of these errors is also presented. Most problems clearly occur when there is not a one to one correspondence between sampling unit and reporting unit, for example, partnership operations. Associating all livestock regardless of ownership with the reporting unit, land operated, was also a source of some nonsampling error.

This report is available from the Sampling Studies Section, Statistical Reporting Service, USDA, Room 4818 South Building, Washington, D.C. 20250, telephone (202) 447-9248. (GEORGE HILL, STATISTICAL REPORTING SERVICE, USDA, telephone (202) 447-2129.)

#### REPORT ON EXPENDITURES FOR HEALTH R&D

The National Institutes of Health (NIH) has recently published a report, "Dollars for Health Research and Development, 1968-1975." Summary information on national health R&D support is presented for the period 1960-1975. Data are shown in terms of funding and performing sectors, in current and constant dollars, and in the context of the Gross National Product, health expenditures, and total R&D. Other analyses are also presented.

Referenced only as needed for analytical purposes in this report, but available upon request from the Division of Resources Analysis, Office

of Program Planning and Evaluation, NIH, are funding and performing sector estimates back to 1947.

Copies of the report "Dollars for Health Research and Development, 1968-1975," *Resources for Health R&D*, Report No. 23, June 1977, DHEW Publication No. (NIH) 77-1185 (63 pp.; \$3.00 for microfiche, \$4.50 paper cover) may be purchased from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161. (LEONORE WAGNER, NATIONAL INSTITUTES OF HEALTH, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE (301) 496-9291.)

#### RECENT SOCIAL SECURITY BULLETIN REPORTS

The Office of Research and Statistics in the Social Security Administration has announced the availability of the following reports which are briefly highlighted below.

*Medicare Patients: Geographic Difference in Hospital Discharge Rates and Multiple Stays (Social Security Bulletin, June 1977).*—This article reports that marked regional variations are found in hospitalization rates for medicare patients, as measured by discharges per 1,000 enrollees. The pattern in the upward trend in these rates is the focus here. The data indicate that reductions in length of stay are offset by the rising number of admissions. An examination of multiple stays—a major factor in the number of discharges—shows that States with high rates of discharges have high percentages of patients with multiple stays. In these States the percentage of multiple stays is high, no matter what the diagnosis; in other States, the rate is low for all diagnoses. These findings suggest that options exist for providing care for the same or similar conditions and that geographic patterns appear in the use of those options.

*Private Health Insurance in 1975: Coverage, Enrollment, and Financial Experience (Social Security Bulletin, June 1977).*—This article reports that in 1975, four-fifths of the population under age 65 was covered for hospital and surgical care, and nearly that proportion for physicians' in hospital visits, X-ray and laboratory examinations, and prescribed out-of-hospital drugs. The \$33.6 billion in premiums paid by consumers resulted in the return of \$28.9 billion in benefits, which covered 44% of personal health care expenditures. Major-medical insurance,

*Statistical Reporter*



held by an estimated 43% of the population, helped to overcome some of the deficiencies of private insurance and provided protection against catastrophic expenses. Premiums and subscription income rose faster than benefits. The overall underwriting gain was due largely to a \$952.4 million gain in group business by insurance companies.

Reprints of the above articles are available without charge from the Publications Staff, Office of Research and Statistics, Social Security Administration, Room 1120, 1875 Connecticut Ave., N.W., Washington, D.C. 20009, telephone (202) 672-5209. The *Social Security Bulletin* is available by subscription, at \$14 per year, through the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (ROBERT E. ROBINSON, SOCIAL SECURITY ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, telephone (202) 673-5576.)

#### **SUPPLEMENTAL SECURITY INCOME DATA**

The Office of Research and Statistics of the Social Security Administration has recently released *Program and Demographic Characteristics of Supplemental Security Beneficiaries, December 1975*. This report presents national and State data on characteristics of beneficiaries receiving Federal supplemental security income payments and federally administered State supplementation payments.

Single copies of *Program and Demographic Characteristics of Supplemental Security Beneficiaries, December 1975* (HEW Publication No. (SSA) 77-11977) are available from the Publications Staff, Office of Research and Statistics, Social Security Administration, Room 1120, Universal North Building, 1875 Connecticut Avenue, N.W., Washington, D.C. 20009, telephone (202) 673-5209. (ROBERT E. ROBINSON, SOCIAL SECURITY ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, telephone (202) 673-5576.)

#### **VETERANS' TREND DATA: 1951-1976**

The Veterans Administration has recently released a new statistical publication entitled *Trend Data 1951-1976 and Transition Quarter*. This publication contains historical trend data in such areas as veteran population, VA expenditures and VA employment. It also contains

statistical information on the major programs administered by the Veterans Administration, including compensation and pension, insurance, vocational rehabilitation, loan guaranty and health care.

Single copies of *Trend Data* are available from Reports and Statistics Service (042B2), Office of the Controller, Veterans Administration, Washington, D.C. 20420. (ROBERT W. SCHULTZ, VETERANS ADMINISTRATION, telephone (202) 389-3677.)

#### **BUSINESS INCOME TAX RETURNS, 1974**

The Internal Revenue Service has recently released the complete report, *Statistics of Income—1974, Business Income Tax Returns* with accounting periods ended July 1974 through June 1975. The report presents financial data from the returns of a sample of sole proprietorships and partnerships. Data are classified by industry and size of business receipts. State data for both sole proprietorships and partnerships are shown.

Special topics in the 1974 report include sole proprietors classified by size of adjusted gross income and selected income and expense items for farm proprietorships.

Copies of the 232-page report may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, for \$4.00, Stock No. 048-004-01387-8. (E. JOHN DiPAOLO, INTERNAL REVENUE SERVICE, DEPARTMENT OF THE TREASURY, telephone (202) 376-0151.)

#### **NEW ASA FELLOWS—1977**

The following Federal Government statisticians were among the 22 named as "Fellows of the American Statistical Association" in a ceremony on August 16, 1977 at the Association's annual meeting held this year in Chicago, Illinois:

Fred Frishman, Chief, Mathematical Statistics Branch, Statistics Division, Internal Revenue Service; for important sampling contributions in compliance and audit programs in the Internal Revenue Service, for outstanding administration of the Statistics Program in the Army Research Office, and for significant application of statistical theory in the Army and Navy development programs.

David W. Gaylor, Chief of Biometry, National Center for Toxicological Research; for leadership in developing good channels of research applied to decisionmaking, especially in environmental health; for implementing procedures in experimentation leading to Federal and State regulatory actions; for contributions to the organization and administration of biostatistical research; and for research on variance components.

Charles D. Jones, Chief, Statistical Methods Division, U.S. Bureau of the Census; for development of innovative techniques for population measurement, and for the adaptation of mathematical and statistical theory to the improvement of survey techniques.

Dorothy P. Rice, Director, National Center for Health Statistics; for important contribution to the establishment of a medicare data system, and for leadership in the measurement and analysis of health care expenditures and the economic cost of illness.

Daniel G. Seigel, Director, Epidemiology and Biometry Research Program, National Institute of Child Health and Human Development; for significant contributions to statistical methodology in epidemiological research, and for outstanding consultative and teaching activities with medical scientists from developing countries.

Meyer Zitter, Chief, Population Division, U.S. Bureau of the Census; for leadership in population research, and for contributions to the methodology for development of population estimates and projections.

#### RECENT UN STATISTICAL OFFICE PUBLICATIONS

Recent publications of the Statistical Office of the United Nations include *World Energy Supplies, 1971-1975* and *Statistical Yearbook, 1976*.

Copies may be purchased from the Sales Section, United Nations, New York, New York 10017. Government agencies should request the discount to which they are entitled as it is not automatically given. In ordering, please use the sales numbers and prices which are shown as part of each description below.

*World Energy Supplies, 1971-1975* (English only. Statistical Papers, Series J, No. 20; xxx + 231 pp.; UN Sales No. E. 77.XVII.4; \$14.00) is the twentieth study in an internationally com-

parable series on energy, summarizing world energy trends. It presents preliminary data on the production of primary fossil fuels (hard coal, lignite and brown coal, peat for fuel, crude petroleum, natural gas liquids and natural gas) for 1976, as well as a new table on the production and trade of fuelwood and charcoal. It updates and enlarges upon the statistical series shown in previous volumes on a consistent and internally comparable time series, which is drawn from a computer-processed data file. The study covers the principal elements of production, import, export, bunkers, stock change and apparent consumption of solid fuels, petroleum and its secondary energy and nonenergy refined products, gases (both natural and manufactured) and electricity (differentiated by thermal, hydro, geothermal and nuclear) for 202 countries and areas. Separate data on end-of-year capacity figures for industrial and public electric generating plants and crude petroleum refineries, as well as production of enriched uranium, are also shown. In addition, four tables in matrix form present international trade flows in hard coal, crude petroleum, natural gas and electricity between principal exporting and importing countries and regions.

*Statistical Yearbook, 1976* (Bilingual (English/French); Statistical Papers, Series S, No. 4; xix + 909 pp.; UN Sales No. E/F.77.XVII.1.; clothbound, \$45.00; paperbound, \$35.00) is the twenty-eighth issue of a comprehensive collection of international statistics for approximately 235 countries and territories. The first 17 tables comprise the world summary, leaving the detailed subject-country information in the subsequent 199 tables which present statistical series on economic and social subjects such as: population; manpower; production of commodities in agriculture, forestry, fishing, mining and manufacturing; construction; energy; internal and external trade; transport and tourist travel; postal, telegraph and telephone services; consumption; balance of payments; wages and prices; national accounts; finance; budget accounts and public debts; development assistance; health; housing; education; science and technology and culture. The yearbook contains information received up to the end of 1976. The majority of the tables cover 1966-1975. It also includes annexes showing country nomenclature, conversion coefficients and factors, as well as alphabetical country index.

## NEW REPORTING PLANS AND FORMS

The following listing gives brief descriptions of a selected group of new reporting plans and forms approved between July 2 and August 1, 1977 by the Office of Management and Budget under the provisions of the Federal Reports Act. The description refers to surveys and data collection programs which are just being started or are soon to be started so results are not yet available.

### Department of Agriculture

#### Economic Research Service

*Survey of Farm Production and Marketing Contractual Arrangements* (singletime).—The Economic Research Service in cooperation with the Agriculture Division, Bureau of the Census, is sampling about 5,500 farmers to learn more about contractual arrangements used in farming. This survey will include information on payment arrangements, how prices and payments are determined, types of inputs and services furnished by contractors, identification of typical sequences of entering and executing a contractual arrangement, and reasons and methods for terminating contractual arrangements. Other items include contract terms that pertain to production and marketing decision-making and how variations from contract norms in the quantity and quality of production are accommodated. The survey will collect information on the contracts used for eight agricultural commodities. These are fed cattle, feeder cattle, slaughter hogs, feeder pigs, broilers, chicken eggs, potatoes, and tomatoes for processing. (For further information: DONN REIMUND, ECONOMIC RESEARCH SERVICE, DEPARTMENT OF AGRICULTURE, telephone (202) 447-6860.)

*Country Elevator Survey—11 County Area* (singletime).—The Resource Conservation and Development Program was designed to encourage economic development in rural areas. The purpose of this study, which is authorized by Public Law 87-703, is to determine the feasibility of developing a grain port facility on the

Mississippi River near Savanna, Illinois. The questionnaire is being mailed to potential users in an 11-county area surrounding the port site. Information is being collected on current patterns of grain movement out of the area, including methods and cost of transportation and interest of grain elevator operators in a port facility. (For further information: WILLIAM HENEBERRY, ECONOMIC RESEARCH SERVICE, DEPARTMENT OF AGRICULTURE, telephone (202) 447-8353.)

#### Forest Service

*Wildfire Prevention Research Needs Survey* (singletime).—The survey is part of an interorganizational plan to coordinate and accelerate wildfire prevention research. Information will be gathered from wildfire prevention specialists to determine what they are doing in the way of fire prevention, what are their data needs and how are they using presently available research information in their fire prevention work. (For further information: JAMES MURPHY, FOREST SERVICE, DEPARTMENT OF AGRICULTURE, telephone (415) 486-3445.)

### Department of Health, Education, and Welfare

#### National Institute on Drug Abuse

*Drug Abuse Treatment Goals and Objectives Evaluation* (singletime).—This study is designed to assess the perceived drug treatment goals and objectives of administrators, counselors and addicts in several types of treatment situations. The investigation will focus on goals and objectives of methadone treatment, but will also involve drug free sites and therapeutic communities. The study is designed to determine the range of goals and objectives which exist and to utilize the information derived from the study in the evaluation of existing treatment efforts. (For further information: GERALD DUBIN, NATIONAL INSTITUTE ON DRUG ABUSE, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, telephone (301) 443-4060.)

## OTHER REPORTING PLANS AND FORMS

Shown below, by agency, is a list of new reports approved between July 2 and August 1 excluding those described above. Requests for copies of these reports should be addressed to the public reports clearance officer of the sponsoring agency. A list of agency clearance officers may be obtained by writing to Marsha Traynham, Statistical Policy Division, Office of Management and Budget, Washington, D.C. 20503.

During July approximately 97 forms reached their expiration dates and are no longer approved for use.

### DEPARTMENT OF AGRICULTURE

- Questionnaire on "Hydrologic Data for Experimental Agricultural Watersheds in the United States" Publication
- Survey of Operators or Large Commercial Family Farms
- Civil Rights Compliance Review (Service Institution)

### DEPARTMENT OF COMMERCE

- Reconciliation Questionnaire for Household Roster Check 1977 Census of Oakland, California
- Housing Energy Conservation
- Minority Business Enterprise Utilization Report
- Survey of Fish Processors in New England
- Shellfish Cost Production Survey
- Alaskan Commercial Fisheries Entry Commission
- Spiny Lobster Logbook (in English and Spanish)

### DEPARTMENT OF DEFENSE

- Armed Forces Health Professions Scholarship Programs

### DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

- Survey of Programs and Enrollments in Postsecondary Schools
- A Study of the Use of Education and Training Funds in the Private Sector
- A Study of Library Cooperatives, Networks, and Demonstration Projects
- Field Test of the Parent Education Television Pilot Programs
- National Direct Report of Defaulted Loans Student Loan Program
- Application for Grants for Guidance and Counseling Programs, P.L. 94-482, Sec. 342 (B)(1)
- National Immunization Survey-Current Population Survey Supplement
- Health Status of Grain Handlers
- Survey of Neurological Disease
- Survey of Disabled Children Receiving Supplemental Security Insurance Benefits
- Student's Statement Regarding Continuance of School Attendance
- Quarterly Contact Tally Form, Estimate of Quarterly Wages (Quarterly Contact Study)

- Title XX, Cash Payments Provision Telephone Questionnaire
- Income Survey Development Program—Site Research Forms
- National Study of the Incidence and Severity of Child Abuse and Neglect—Pretest
- Professional Nurse Traineeship Program
- Application for Schools of Medicine-Special Requirements and Assurances Under the Health Professions
- Capitations Grant Program
- National Sample Survey of Registered Nurses

### DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

- Record of Employee Interview

### DEPARTMENT OF THE INTERIOR

- Redwood Visitor Survey
- Project Survey Questionnaire

### DEPARTMENT OF JUSTICE

- Survey of Federal and State Prison Populations and Capacities

### DEPARTMENT OF LABOR

- 790 Program Review
- Special Mail Survey of Sponsors of Work Incentive Programs
- Impact Assessment Questionnaire
- Apple Harvest Plan
- A Pilot Evaluation of the Impact of U.S. Employment Service

### DEPARTMENT OF TRANSPORTATION

- Island Transportation Study Questionnaire

### ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

- Uniform Contractor Reporting Guide

### ENVIRONMENTAL PROTECTION AGENCY

- Rural Water Survey Questionnaire
- State Water Supply Program Recordkeeping and Reporting

### EXECUTIVE OFFICE OF THE PRESIDENT

- Circular No. A-95 Survey: Governors/Legislators

### FEDERAL RESERVE BOARD

- National Survey of Consumer Credit

### GENERAL SERVICES ADMINISTRATION

- Product Improvement Idea Collection Form

### NATIONAL SCIENCE FOUNDATION

- Visiting Women Scientists Program Application Form
- Survey of Experience and Attitudes and Profiles of Research Scientists

### ACTION

- Action Volunteer Application (Short Form)

#### SMALL BUSINESS ADMINISTRATION

Score Client Questionnaire  
Prebusiness Workshop Evaluation

#### TENNESSEE VALLEY AUTHORITY

Home Insulation Program

#### U.S. INTERNATIONAL TRADE COMMISSION

Color Television Receivers and Subassemblies (Producers' Survey)  
Producers' and Importers' Questionnaire—Bolts, Nuts, and Large Screws of Iron or Steel  
Questionnaire to Determine the U.S. Sales of Beef and Veal by Form

#### U.S. CIVIL SERVICE COMMISSION

State Salary Survey  
Application of Candidate Form for Internship in Personnel Management

#### VETERANS ADMINISTRATION

Evaluation of Veterans' Canteen Service  
Evaluation of the Chaplain Service (Patients)

#### WATER RESOURCES COUNCIL

Request for Assistance Under Title III of the Water Resources Planning Act, P.L. 89-80

## PERSONNEL NOTES

#### DEPARTMENT OF COMMERCE

*Bureau of Economic Analysis:* JOHN E. CREMEANS has been appointed Associate Director for National Analysis and Projections. He will also serve as Acting Chief Statistician until further notice.

#### DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

*National Center for Health Statistics:* MICHAEL A. W. HATTWICK is now Director, Division of Health Examination Statistics and Chief Medical Adviser to NCHS. He was formerly Chief, Respiratory and Special Pathogens Branch, Viral Diseases Division, Bureau of Epidemiology,

Center for Disease Control, Atlanta, Georgia. JAMES T. BAIRD, JR. is now Associate Director for International Statistics. Formerly he was special assistant to the Director, Office of International Statistics.

#### BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

*Division of Research and Statistics:* WOLFHARD RAMM, formerly an Associate Professor at the University of California at San Diego, has joined the Board's staff as an Economist in the Government Finance Section. TIM S. CAMPBELL, Assistant Professor of Finance at the University of Utah, has joined the Board's staff for one year as a Visiting Professor in the Banking Section.

# SCHEDULE OF RELEASE DATES FOR PRINCIPAL FEDERAL ECONOMIC INDICATORS

*October 1977*

Release dates scheduled by agencies responsible for the principal economic indicators of the Federal Government are given below. *These are target dates that will be met in the majority of cases. Occasionally agencies may be able to release data a day or so earlier or may be forced by unavoidable compilation problems to release a report one or more days later.*

month covering release dates for the following month. The indicators are identified by the title of the releases in which they are included; the source agency; the release identification number where applicable; and the *Business Conditions Digest* series numbers for all BCD series included, shown in parentheses. Release date information for additional series can be found in publications of the sponsoring agencies.

A similar schedule will be shown here each

(Any inquiries about these series should be directed to the issuing agency.)

<i>Date</i>	<i>Subject</i>	<i>Data for</i>
October 3	Construction Expenditures (Press release), Census, C-30 (69).....	August
3	Manufacturers' Shipments, Inventories, and Orders, Census, M3-1 (65) .....	August
4	Open Market Money Rates and Bond Prices, Federal Reserve Board (FRB), G.13 .....	September
5	Manufacturers' Export Sales and Orders, Census, M4-A .....	August
5	Consumer Credit, FRB, G.19 (66, 113).....	August
5	Condition Report of Large Commercial Banks, FRB, H.4.2 (72, 112) .....	Week Ending September 28
6	Money Stock Measures, FRB, H.6 (85, 102, 107, 108) .....	Week Ending September 28
6	Factors Affecting Bank Reserves and Condition Statement of Federal Reserve Banks, FRB, H.4.1 (93, 94) .....	Week Ending October 5
6	Wholesale Price Index (Press release), Bureau of Labor Statistics (BLS) (330-334) .....	September

<i>Date</i>	<i>Subject</i>	<i>Data for</i>
October 7	The Employment Situation (Press release), BLS (1, 21, 37, 40-44, 91, 340, 442, 444-448, 451-453) .....	September
11	Advance Monthly Retail Sales (Press Release), Census (54) .....	September
12	Monthly Wholesale Trade (Press release), Census, BW .....	August
12	Condition Report of Large Commercial Banks, FRB, H.4.2. (72, 112) .....	Week Ending October 5
13	Money Stock Measures, FRB, H.6(85, 102, 107, 108) .....	October 5
13	Factors Affecting Bank Reserves and Condition Statement of Federal Reserve Banks, FRB, H.4.1 (93, 94) .....	Week Ending October 12
17	Manufacturing and Trade: Inventories and Sales, Bureau of Economic Analysis (BEA), (31, 56, 71) .....	August
17	Industrial Production and Related Data, FRB, G.12.3 (47, 73-76) .....	September
17	Food Assistance Programs Results (Agriculture) ....	August
17	Yields on FHA Insured New Home 30-Year Mortgages, HUD (118) .....	October 1
18	Personal Income, BEA (223) .....	September
19	Housing Starts (Press release), Census, C-20 (28, 19) .....	September
19	Gross National Product (Preliminary), BEA (200, 205, 210) .....	3 Q '77
19	Output, Capacity, and Capacity Utilization, FRB, G.3 (82, 84) .....	September
19	Condition Report of Large Commerical Banks, FRB, H.4.2(72, 112) .....	Week Ending October 12
20	Money Stock Measures, FRB, H.6 (85, 102, 107, 108) .....	Week Ending October 12
20	Factors Affecting Bank Reserves and Condition Statement of Federal Reserve Banks, FRB, H.4.1 (93, 94) .....	Week Ending October 19

<i>Date</i>	<i>Subject</i>	<i>Data for</i>
October 21	Consumer Price Index (Press Release), BLS (320-322) .....	September
21	Real Earnings (Press release), BLS (341) .....	September
25	Advance Report on Durable Goods, Manufacturers' Shipments and Orders (Press release), Census M3-1 (6, 24, 25, 96, 548) .....	September
26	Condition Report of Large Commerical Banks, FRB, H.4.2 (72, 112) .....	Week Ending October 19
27	Money Stock Measures, FRB, H.6 (85, 102, 107, 108) .....	Week Ending October 19
27	Factors Affecting Bank Reserves and Condition Statement of Federal Reserve Banks, FRB, H.4.1 (93, 94) .....	Week Ending October 26
27	Export and Import Merchandise Trade, Census, FT-900 (602, 612) .....	September
27	Productivity and Costs in Private, Nonfarm Business, and Manufacturing Sectors (Press release), BLS .....	3 Q '77
27	Average Yields of Long-Term Bonds, Treasury Bulletin (115, 116) .....	August
28	Housing Vacancies (Press Release), Census, H-111 .....	3 Q '77
28	Major Collective Bargaining Settlements (Press release), BLS (348, 349) .....	3 Q '77
28	Labor Turnover in Manufacturing (Press release), BLS (2, 3, 4) .....	September
28	Composite Indexes of Leading, Coincident, and Lagging Indicators (Press release), BEA .....	August-September
28	Merchandise Trade Balance, Balance of Payments Basis, BEA (536, 537) .....	3 Q '77
31	Work Stoppages (Press release), BLS .....	September
31	Defense Indicators, BEA .....	September
31	Agricultural Prices, Agriculture .....	Mid-October



# Good News

for those who make their living by numbers~

*Prices slashed on magazines published by the Bureau of Economic Analysis that provide basic economic data.*

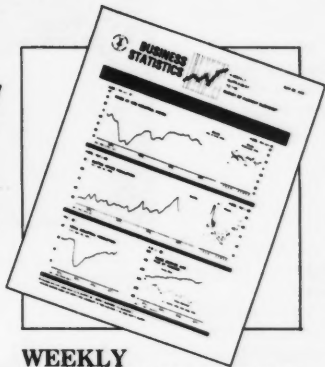
A must for GNP data users.



## **SURVEY OF CURRENT BUSINESS.**

The journal of record and research of the Bureau of Economic Analysis. Price reduced 61%. New price \$19.00 for 12 issues a year.

A must for business cycle analysts.



## **WEEKLY BUSINESS STATISTICS.**

A weekly updating service for data that appear in the statistical (blue) pages of the *Survey of Current Business*. Price \$15.00 a year. Published weekly.



## **BUSINESS CONDITIONS DIGEST.**

*The Wall Street Journal* said it was "the single most useful government publication, in the opinion of many analysts." (March 21, 1977) Price reduced 28%. New price \$40.00 for 12 issues a year.

Order from the Superintendent of Documents,  
Government Printing Office, Washington, D.C. 20402.

### ENTER MY SUBSCRIPTION TO

Amount

#### **Survey of Current Business.**

Annual subscription: \$19.00 domestic; \$23.75 foreign. ....

#### **Weekly Business Statistics.**

Annual subscription: \$15.00 domestic; \$18.75 foreign. ....

#### **Business Conditions Digest.**

Annual subscription: \$40.00 domestic; \$50.00 foreign. ....

Total

Remittance Enclosed  
**(Make checks payable to Superintendent of Documents)**

Charge to my Deposit Account No.

**MAIL ORDER FORM TO:**  
Superintendent of Documents  
Government Printing Office  
Washington, D.C. 20402

NAME - FIRST, LAST

COMPANY NAME OR ADDITIONAL ADDRESS LINE

STREET ADDRESS

CITY

STATE

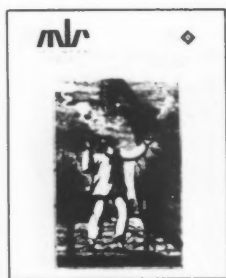
ZIP CODE

PLEASE PRINT OR TYPE

(or) COUNTRY

# Periodicals from BLS

The Bureau of Labor Statistics of the U.S. Department of Labor is one of the Nation's principal economic fact-finding agencies. BLS publishes seven periodicals for sale to the public.



**Monthly Labor Review**  
The oldest and most authoritative Government research journal in economics and social sciences. Book reviews, developments in industrial relations, labor cases.

**\$16 a year.**



**CPI Detailed Report**  
The most comprehensive report on monthly consumer price indexes and rates of change. Includes data on commodity and service groups for 23 cities.

**\$9 a year.**



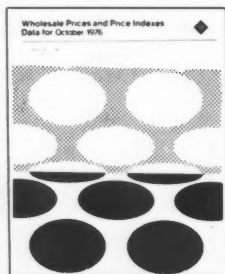
**Current Wage Developments**  
Reports on specific wage and benefit changes from collective bargaining agreements. Includes detailed statistics on employee compensation.

**\$12 a year.**



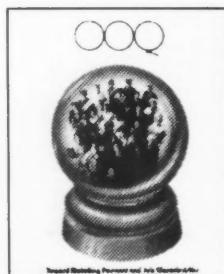
**Employment and Earnings**  
A report on labor force, employment, and earnings. Current statistics for the Nation as a whole, individual States, and more than 200 areas.

**\$18 a year.**



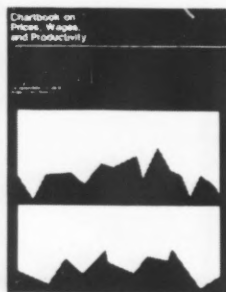
**Wholesale Prices and Price Indexes**  
Wholesale price movements including those of industrial commodities and farm products, processed foods, and feeds. Greater detail than available elsewhere. Tables and charts.

**\$16 a year.**



**Occupational Outlook Quarterly**  
Helps pinpoint tomorrow's jobs and their requirements in easy-to-read form. Brings Occupational Outlook Handbook up-to-date, gives pay, background needed.

**\$4 four issues.**



**Chartbook on Prices, Wages, and Productivity**  
Trends in key economic indicators and comparisons shown in both tabular and graphic form month-to-month and within historic context.

**\$11 a year.**

To subscribe to the **Monthly Labor Review**, write to the **Monthly Labor Review**, Box 353, La Plata, Md. 20646.

To subscribe to other BLS periodicals, write to the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402. For subscriptions to foreign countries, add 25 percent to all prices.

Make all checks payable to the Superintendent of Documents.

## AGENCY REPRESENTATIVES FOR DISTRIBUTION AND NEWS ITEMS

		Telephone			Telephone
<b>Agriculture:</b>	Donald W. Barrowman Statistical Reporting Service	447-6201	<b>Labor</b>	Henry Lowenstern	523-1327
<b>Commerce:</b>	John Wearmouth (distribution only) Office of Publications	377-4233	<b>BLS:</b>	Constance McEwen (news items)	523-1660
<b>Census:</b>	Alternate: Tim Coss Harold Nisselson Larry Hartke (news items)	377-4233 763-2562 763-7454	<b>ETA:</b>	Howard Rosen, Office of Manpower Research	376-7335
<b>BEA:</b>	Ago Ambre Ann Winkler (personnel notes)	523-0777 523-0890	<b>Transportation:</b>	Bernard Rein Robert Yerger, Office of Research and Development	376-7356 376-6456
<b>Defense:</b>	Rose Glubin, OSD Comptroller	OX 7-0476	<b>FHA:</b>	Doris Groff Velona Thomas Hyland, Public Affairs (news items)	426-4138 426-0662
<b>HEW:</b>	Wray Smith, Office of Sec	472-3113	<b>FAA:</b>	Patricia Beardsley	462-3323
<b>PHS:</b>	Gooloo Wunderlich, OAS for Health Louise Kirby, NCHS (news items) Evelyn W. Gordon, Food and Drug	443-2660 436-8500 443-4190	<b>Treasury:</b>	Ed Hartman, Printing Procure- ment (distribution only) John Garmat (news items) Robert Wilson (news items)	566-5381 566-2825 376-0211
<b>NCES:</b>	O. Jean Brandes	472-5026	<b>IRS:</b>	Pamela H. Kacser	961-7686
<b>SSA:</b>	John J. Carroll, Asst Comsnr for Research & Statistics (news items) Robert Robinson, ORS (distribution)	673-5602 673-5576	<b>FEA:</b>	Robert M. Fisher, R & S	452-2871
<b>HUD:</b>	Robert E. Ryan	755-5190	<b>Fed Reserve:</b>	Robert M. Fisher, R & S	452-2871
<b>IASI:</b>	Susana Moncayo	381-8285	<b>NASA:</b>	W.A. Greene	755-8439
<b>Interior:</b>	William L. Kendig (distribution) Office of Management Consulting Arthur Berger, Bureau of Mines (news items)	343-2195 634-4770	<b>NSF:</b>	Charles E. Falk, Div. of Science Resources Studies Mary M. Boyden	634-4634 634-4622
<b>Labor:</b>	Joan Hall (distribution only) Office of the Secretary	961-2001	<b>U.S. Civil Serv. Comm.</b>	Philip Schneider	632-6808
			<b>USPS:</b>	James R. Duffett, Special Stat. Projects Division	245-4182
			<b>VA:</b>	Howard J. Sharon, Director of Reports and Statistics Service	DU9-2423

### SUBSCRIPTION ORDER FORM

ENTER MY SUBSCRIPTION TO STATISTICAL REPORTER (SRE) @ \$9.70. Add \$3.30 for foreign mailing. No additional postage is required for mailing within the United States, its possessions, Canada, Mexico, and all Central and South American Countries except Argentina, Brazil, British Honduras, French Guiana, Guyana, and Surinam. For shipment to all other foreign countries include additional postage as quoted for each periodical or subscription service.

Send Subscription to:

NAME—FIRST, LAST		
COMPANY NAME OR ADDITIONAL ADDRESS LINE		
STREET ADDRESS		
CITY	STATE	ZIP CODE

PLEASE PRINT OR TYPE

- Remittance Enclosed (Make checks payable to Superintendent of Documents)
- Charge to my Deposit Account No. \_\_\_\_\_

MAIL ORDER FORM TO:  
Superintendent of Documents  
Government Printing Office  
Washington, D.C. 20402

EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF MANAGEMENT AND BUDGET  
WASHINGTON, D.C. 20503

OFFICIAL BUSINESS  
Penalty for Private Use, \$300



POSTAGE AND FEES PAID  
OFFICE OF MANAGEMENT AND BUDGET

**1st** CLASS POSTAGE

SRE SERIA300SDISSOUE006R 1  
SERIALS DEPT  
XEROX/UNIV MICROFILMS  
300 N ZEEB RD  
ANN ARBOR MI 48106

EXECUTIVE OFFICE OF THE PRESIDENT · OFFICE OF MANAGEMENT AND BUDGET  
STATISTICAL POLICY DIVISION

