80th Congress
2d Session } JOINT COMMITTEE PRINT

STATISTICAL GAPS

12.

REPORT

OF THE

JOINT COMMITTEE ON THE ECONOMIC REPORT

ON

CURRENT GAPS IN OUR STATISTICAL KNOWLEDGE

Printed for the use of the Joint Committee on the Economic Report

UNITED STATES
GOVERNMENT PRINTING OFFICE
79417 WASHINGTON : 1948

JOINT COMMITTEE ON THE ECONOMIC REPORT

(Created pursuant to sec. 5 (a) of Public Law 304, 79th Cong.)

ROBERT A. TAFT, Ohio, *Chairman*
JESSE P. WOLCOTT, Michigan, *Vice Chairman*

JOSEPH H. BALL, Minnesota	GEORGE H. BENDER, Ohio
RALPH E. FLANDERS, Vermont	ROBERT F. RICH, Pennsylvania
ARTHUR V. WATKINS, Utah	CHRISTIAN A. HERTER, Massachusetts
JOSEPH C. O'MAHONEY, Wyoming	EDWARD J. HART, New Jersey
FRANCIS J. MYERS, Pennsylvania	WRIGHT PATMAN, Texas
JOHN SPARKMAN, Alabama	WALTER B. HUBER, Ohio

CHARLES O. HARDY, *Staff Director*
FRED E. BERQUIST, *Assistant Staff Director*
JOHN W. LEHMAN, *Clerk*
WILLIAM H. MOORE, *Economist*

STATISTICAL GAPS

INTRODUCTION

The following report grows out of a request from some of the members of the Joint Committee on the Economic Report for a brief expression from the committee staff on some of the current gaps in our statistical knowledge. At the time these materials were presented to the committee it was suggested that estimates of costs for each project be obtained for inclusion in a document which might be prepared for public release. Members of the committee and its staff do not commit themselves, either individually or as a whole, to support of the complete program of the studies presented. They do feel that from the standpoint of statistical knowledge and the work of this committee each of the studies deserves the widest discussion and consideration.

No attempt has been made to evaluate the importance of one project as against another, or to exhaust the list of potential statistical tools. The items in this report simply indicate what additional data would contribute significantly to economic analysis.

After each study listed will be found a statement made by the Division of Statistical Standards of the Bureau of the Budget, relating to the cost estimate for that particular project. In submitting these estimates which the committee had requested, the Division of Statistical Standards made the following general comments:

"We have tried to make these estimates as realistic as possible and to base them on the most efficient and economical operating procedure possible. Nevertheless, we must emphasize that they are necessarily only rough indications of cost. Any new statistical collection must be integrated into existing programs to the greatest extent possible, and for some of these segments the costs would be contingent on whether other parts of the Federal statistical system are continued unchanged, curtailed, or expanded. Also, in some areas, particularly where information would have to be collected from business establishments, we do not now know what the most economical means of obtaining the data would be, and we have indicated the need for funds to develop an adequate program. The nature of this developmental work would be to ascertain how uniformly the information sought is kept by the firms which would be asked to supply it, and to devise a reporting program consistent with industry accounting practices so that the data might be obtained most efficiently and with the least possible burden.

"With regard to the magnitude of the sums involved three factors should be borne in mind. First, there are different orders of priority for the different parts of the program recommended, and all segments need not be undertaken simultaneously. Second, some of the increases outlined here would be offset by decreases in expenditures for existing items. And third, it is quite possible that some segments might appropriately be financed, in part at least, from funds now appropriated for related purposes."

SUMMARY OF AREAS IN WHICH MORE COMPLETE FEDERAL STATISTICS ARE NEEDED

(1) Periodic surveys of consumer purchasing power and demand, sufficient to show—

(*a*) the distribution of income and savings available for expenditures by geographic areas and among various consumer groups and income brackets, and

(*b*) current and prospective patterns of consumption and expenditures.

(2) Collection of information on wage earnings of employees in activities not covered by our social security system.

(3) Improvement of the information on returns to capital and management of unincorporated businesses.

(4) Collection of more information on employment and unemployment, adequate to reveal geographic differences in employment trends and unemployment rates, and to provide data on occupational and other characteristics of the unemployed.

(5) Development of more complete and current information on financial trends in business, providing industry totals, data on business operations by size of business, and information on business concentration.

(6) Taking of an up-to-date census of wholesale and retail trade and services by means of which the current statistics on business and distribution may be improved and made more reliable.

(7) Development of adequate concepts for measuring productivity and the collection of data to supply information on the course of changes.

(8) Development of data on costs of construction and improvement of data on the volume of new housing and nonresidential construction.

(9) Improvement of inventory statistics by covering a larger and more reliable sample which would permit a break-down of inventories at the various stages in the industrial process.

(10) Collection of detailed information on the relationship of requirements for materials, capital equipment and energy to the volume of production, to permit evaluation of the industrial consequences of production programs.

(11) Collection of fuller information on business intentions with regard to capital expenditures and related data.

(12) Collection of more current and detailed information on expenditures of State and local governments, for use in preparing estimates for the Nation's economic budget.

(*1*) *Individual consumer income, expenditures and savings patterns*

The market for more than 70 percent of all goods and services produced depends on consumer purchases. There are many problems for which more comprehensive and more reliable data in these fields are now essential. During the coming years much attention will be focused on all factors that influence consumer income and expenditures. Present data do not permit a sufficiently reliable analysis of the effect of possible tax reductions on consumer demand and savings. Little is known about the effect of recent price inflation on the real purchasing power of various groups in the population, particularly those with relatively fixed incomes. More information is needed

about the ways in which various groups of individuals add to their savings, liquidate past savings, or incur consumer debt. The question of how consumer savings and business demand for capital can be made to meet is another crucial problem on which we have insufficient information.

In the past several years a number of very valuable small sample surveys relating to consumer income and expenditures have been made in connection with other studies, but these small samples cannot always be related to comprehensive basic statistics and previous larger surveys. There has not been a full-scale survey on a national basis since the 1936 Survey of Consumer Purchases, in which income schedules were obtained from 300,000 urban and rural households and data on expenditures and savings were collected from 60,000 of those families. There were small national surveys of spending and saving in 1942 (city and rural families), in 1945 (city families only) and in 1946 (farm families only), and a number of small local surveys in several years. The Federal Reserve System has also developed some over-all data on a small sample basis in connection with their liquid assets surveys, made in 1946 and 1947 and now in process of publication for 1948. In addition, data on consumer incomes were obtained from small national samples in 1945 and in each of the three following years.

A complete statistical program in the area of consumer income, expenditures, and savings would require:

(1) Analysis of available data from current and recent field surveys, income tax returns and other sources, to provide reliable and up-to-date estimates of income distribution and spending and savings patterns and to throw light on prospective changes in purchasing power and consumer demand; and

(2) An initial bench-mark survey of consumer income, spending, and savings, followed by smaller sample field surveys in succeeding years to supply data needed for maintaining the series on a current basis.

Budget comment.—It would be most economical to conduct such bench-mark surveys in the spring of 1950, so that the results might be tied in with data from the Seventeenth Decennial Census. If this arrangement were made, initiation of the program would cost about $3,000,000 for the first year, in which bench-mark data would be obtained, and $1,000,000 to $1,500,000 in other years. These rough estimates of cost are based on maximum utilization of existing staff and technical resources of a number of Federal agencies.

For the bench-mark year, about $400,000 would be required for the analytical work and $2,600,000 for field surveys—an income survey of 100,000 households, with savings data from a subsample of 25,000 and detailed expenditure data from 10,000 households. For other years the number of households to be covered might be reduced to one-third or one-half of these figures, with corresponding reductions in costs.

(2) *Information on employment and earnings of employees not covered by social-security system*

The basic source used in national income and employment estimates for current information on wages earned comes from the social-security records of employers reporting under the unemployment compensation, old-age and survivors insurance, and railroad retirement pro-

grams. The data from these records are satisfactory but they do not include the wage earnings of employees in activities not covered by the social-security system. It is estimated that noncovered employment—including public employees, agricultural workers, domestic servants, and employees of nonprofit institutions—accounts for 25 percent of all wages paid. For this large segment we now have only very limited information.

Budget comment.—Satisfactory monthly data on employment and earnings of Federal employees are provided by the United States Civil Service Commission. Information for total employment and earnings in State and local governments is available quarterly from the Government's Division of the Bureau of the Census. To provide the information needed for current estimates, by State, of income payments and employment would cost about $75,000 a year.

For agricultural labor, we now have annual data on employment and earnings from an enumerative sample survey conducted by the Bureau of Agricultural Economics. These annual data, however, do not reflect the wide seasonal fluctuations in this type of activity. To collect data on employment and earnings for agricultural labor on a quarterly basis would require an estimated increase in annual cost of $350,000.

Very little information is now available on employment and earnings for nonprofit institutions. Development of plans and efficient procedures for current reporting in this area would cost in the neighborhood of $50,000.

For domestic service, current data on employment and wages could probably be obtained most efficiently through the Census Bureau's Current Population Survey. Experimental work along these lines could be initiated at an additional cost of about $20,000.

(*3*) *Returns to capital and management of unincorporated businesses*

Data on the returns to capital and management of incorporated businesses used in the estimates of national income are fairly satisfactory. Sources of this information are tabulations of the income tax returns, published reports of most large corporations, and the quarterly financial reports for manufacturing corporations compiled by the Federal Trade Commission and the Securities and Exchange Commission.

Information on returns to capital and management for unincorporated business, however, is quite incomplete. Particularly needed is more adequate information of this type for retail and wholesale trade, services, and farmers. No single source of current data may be feasible, but it is urged that attention be directed toward obtaining satisfactory data by means of whatever programs, or combination of surveys, are most practicable and economical.

Budget comment.—It is estimated that no more than $100,000 would be needed for the exploratory work necessary to develop a practicable program in this field. Although a precise estimate of the cost of maintaining a current program is impossible until the exploratory work has been completed, it seems probable that the annual cost would not exceed $200,000.

(*4*) *Extension of employment and unemployment statistics*

Statistics on employment and unemployment are among the most important indicators of the economic situation. In this area, the Census Bureau's Current Population Survey is particularly valuable.

The chief weakness of this monthly enumerative survey is that it fails to show employment and unemployment on a geographical basis, and that the sample is too small to provide reliable data on occupational and other characteristics of the unemployed. Expansion of the national sample to provide in full the desirable amount of detail would be excessively costly, but a moderate expansion to provide employment and unemployment totals for three major regions, with greater detail on characteristics of the unemployed for the United States as a whole, is feasible.

The need for geographic detail can be met in part by annual surveys of individual metropolitan areas. During fiscal year 1947, the Bureau of the Census made such surveys for about 50 areas, and the budget submitted to the Congress for fiscal year 1948 provided for repeat surveys in these areas as part of a regular annual program. No provision was made for these surveys in fiscal year 1948 appropriations and the program was accordingly dropped.

Annual surveys of employment and unemployment for the major urban areas do not provide sufficiently current data in a period of rapid change. For this purpose primary emphasis must be placed on employment data reported by employers. State data of this sort are compiled by State employment security agencies and State labor departments in cooperation with the Bureau of Labor Statistics, which also compiles the corresponding national series, but area series are maintained by only a few State agencies.

Budget comment.—To expand the national sample of the Current Population Survey as outlined here would cost an estimated $300,000 annually.

Increased geographic detail could be obtained from annual surveys of 30 metropolitan areas at an estimated cost of $300,000.

To increase the employment statistics program based on employer reports to cover all of the more important metropolitan areas monthly would cost about $500,000 a year, most of which would be used for grants to State agencies for the actual operation of the program.

(*5*) *Financial trends of business*

Among the factors in economic development about which we need more complete and current information are the financial trends of business. Adequate business financial statistics would provide current data on industry totals, giving an effective summary measure of the current financial status of each industry; current data on operations of business by size of business, showing how small, medium-sized, and large business units are faring; and information on business concentration.

With regard to measures of business concentration, business financial statistics which reflect the consolidated operations and financial condition of a company and all other companies which it controls give a significant measure of industrial concentration in terms of business organization. Indexes of concentration may be derived from financial reports in any one of several ways. After the companies are classified by industry it is possible, for instance, to compute what percentage of the total plant value for the industry is represented by the total plant value of the largest five companies. The companies in a given industry may also be classified by asset-size groups, by sales (with proper safeguards in using such data), or in

other ways. The procedure requires consistent treatment from year to year.

The Federal Trade Commission has been interested in these problems for a number of years. Before the war it inaugurated a financial reports program and collected annual reports for 1939 and 1940. During the war years this program was discontinued because of the establishment of the OPA financial reporting program, including annual and quarterly reports.

In 1946 and 1947 an interagency committee developed a coordinated plan for the collection of quarterly and annual financial reports. The purpose of the plan was to provide information required by all Government agencies and the general public without duplication of collection, and through the use of sampling methods by means of which reports would be required from only a small fraction of all companies. The Securities and Exchange Commission was designated to collect the information from registered companies, and the Federal Trade Commission from unregistered companies. The initial sample was confined to manufacturing corporations, but the plan provided for expansion as rapidly as possible to include wholesale, retail, and service-trade corporations.

Upon termination of the financial reporting function in OPA in December 1946, sufficient funds were transferred to FTC to permit that agency to begin collection of the quarterly reports. At the same time, SEC was able, by modifying an existing quarterly report, to begin the quarterly collection from registered companies. Thus the coordinated quarterly reports program covering manufacturing corporations was launched in the first quarter of calendar year 1947.

Appropriation requests for fiscal 1948 and fiscal 1949 as submitted to the Congress included funds for the coordinated FTC-SEC financial reports program, including both the quarterly reports and the longer annual summaries. The final appropriation for both years was reduced to allow only for the existing quarterly reports programs and required postponement of the annual program.

Budget comment.—The amount required to complete the present program for manufacturing corporations by providing for the collection of the more detailed annual reports is estimated at $300,000. This would provide a firm foundation for the presentation of industry summaries of financial statements on a current basis. The amount required to extend the financial reporting program to a sample of retail, wholesale and mining corporations is estimated at an additional $300,000. This extension would permit total estimates for each of these three groups with the same degree of accuracy as for the manufacturing corporations.

(6) Periodic censuses of wholesale and retail trade and services

Good statistical procedure requires periodic checking of the current reports from businessmen on wholesale and retail trade and services with a complete census of these areas of business enterprise. A periodic census is also needed to provide much more detail than can be available through monthly or quarterly mail reporting.

In general, much better information has been available on agriculture, mining, and manufacturing than on wholesale, retail, and service trades, although for many purposes it is necessary to have adequate data on the total economy. One difficulty in obtaining information

on wholesale and retail trade and services is that they comprise roughly 2,000,000 units, widely scattered geographically, with widely varying accounting methods. It is therefore probably impracticable to obtain very complete information on a current basis, but this makes it more important that censuses of this large and important segment of economic activity be taken at not too infrequent intervals.

Budget comment.—The Congress has recently enacted legislation (Public Law 671) providing for integrated censuses of manufactures mining, transportation, and business. This act provides for a census of business to be taken early in 1949, covering 1948, and thereafter at 5-year intervals. The existence of comprehensive data from this census, the first since that covering 1939, will provide the bench marks needed to check data in a number of important series and make possible the development of more reliable current estimates. An appropriation request of 13.9 million dollars, covering the costs of censuses of business, transportation, and mineral industries to be taken early in 1949, was submitted to the Congress shortly before adjournment in June 1948. Time did not permit full consideration of the request, and only the funds for preparatory work for the census of business—1.8 million dollars—were appropriated. Consideration of the remainder of the request was deferred until the next session.

(7) *Development of more satisfactory measures of productivity*

An important part of the economic analysis which this committee must make involves an understanding and the evaluation of the productivity of the economy. Neither the historical nor the current information on this subject is adequate for this purpose.

The work needed in this field can be divided into three parts. First, the methods of measuring productivity must be developed beyond their present scope. The measurement of productivity encounters peculiar problems of production measures, labor input, and price deflators in almost every industry. Satisfactory solutions to these problems will have to be found before the productivity measures themselves are expanded. Second, to supply perspective, long-range historical studies should be made both of the changes which have taken place in productivity and of the causes of these changes. Third, measures of current productivity changes need further development.

Most productivity data are badly out of date by the time they become available. It is important that measures of changes in productivity be obtained currently, for in no other way is it possible to make reasonable short-run estimates of future changes in productivity. Estimates of the Nation's economic budget for the future must depend upon assumptions as to changes in productivity. Because of the extreme short-run fluctuations in productivity, the need for an adequate basis for short-run estimates is perhaps even greater than the need for an adequate basis for long-run estimates.

Budget comment.—To develop the program as outlined would require an additional expenditure of approximately $300,000 a year. Initially, a large proportion of this expenditure would be for research and development work, while maintaining currently available productivity measures. Later, as the research work indicates the most promising methods to follow, more of the funds could be channeled into the collection of data for a larger number of industries.

(8) Development of data on construction

There are important gaps in the existing statistics on both the cost and volume of construction. These gaps pertain to construction of new housing as well as to nonresidential construction generally.

(a) There are certain construction-cost indexes which are compiled and published privately, but they are generally recognized by both Government and private industry as being subject to such serious deficiencies that their usefulness is extremely limited. The Federal Home Loan Bank Board index of the cost of a typical house, which was discontinued in 1947, was subject to some of the same criticism. Price data based on current appraisal activities of existing agencies do not serve the needs of Government and private users for general economic analysis in this field, in part because they are necessarily conditioned by specific statutory provisions governing the valuation for loan purposes.

There is a need for a reliable general construction-cost index for the United States and indexes for the principal types of nonresidential construction and the predominant types of residential construction in a sufficient number of localities to indicate differences in cost levels and trends.

Budget comment.—A program to obtain adequate data for a monthly United States index and for quarterly locality indexes would cost roughly about $800,000 annually. Such a program could be initiated for a more limited number of types in fewer localities for perhaps half of this amount. The program would also provide certain information regarding construction patterns which would be required for the construction-volume series.

(b) Present series on the volume of construction are based on a combination of a number of sources of data for residential and different types of nonresidential construction. In order to establish comparability of data derived from various sources extensive adjustments are made. Substantial improvements are needed both in the factual information required for such adjustments and to fill certain gaps in the basic data for certain parts of the country and for certain types of construction.

A complete program for construction volume statistics would provide, for residential and types of nonresidential construction, information on (1) the physical and dollar volume of new work started and the value of work put in place, (2) the characteristics of new residential units, and (3) the cost of maintenance and repair work put in place for both residential and nonresidential, the number of residential units added by conversion, the cost of such units, and the number of units demolished.

A special committee representing executive departments of the Government and private users of construction data has been studying the data on the volume of construction for several months, and is formulating a comprehensive statement of the types, frequency, and geographic break-downs of data needed, and of the best methods for obtaining such data. When this committee completes its study its recommendations should be given careful consideration in the evaluation of current statistical gaps.

Budget comment.—Statistics on the volume of construction are necessarily costly to collect, because of the extremely large number of small, scattered, and transitory firms of which the industry is

composed. It is roughly estimated that a program which would provide all the information needed, on a sampling basis sufficient to give national totals with separate figures for about 180 metropolitan districts and each State, would cost about $5,000,000 annually, including data on residential and nonresidential construction. This amount would make it possible to collect and publish monthly data on physical and dollar volume of work started and on the value of work put in place for the United States as a whole (excluding farm construction which would be available only annually), and quarterly or annual data for metropolitan districts and States and for other characteristics. It would also provide annual data on maintenance and repair and on residential conversions and demolitions. A more limited program which would omit smaller metropolitan districts and break-downs by States and all data on characteristics of new residential units, could be initiated for about $3,000,000.

(*9*) *Improvement of inventory statistics*

One of the sensitive points in the working of the economic system is the inventory situation at various stages of our industrial process. Changes in inventories often have an important effect upon the business situation and also may be an important and sensitive indication of the degree of business confidence.

Although some inventory statistics are now collected, they do not present the integrated description necessary in view of the importance of the inventory situation in critical periods, such as the present time. A larger and more reliable sample of inventory figures is needed in order to provide important break-downs by industry and by various stages in the industrial process, such as manufacturing, wholesaling, and retailing. These statistics must be analyzed in relation to new orders. They must also be studied to determine the main factors responsible for changes. For example, when inventories are rising it is important to know how much of the increase represents price changes, how much speculative withholding, how much of it is normal restocking, and how much may be an involuntary increase due to the slowing up of sales.

No programs have been developed which would provide comprehensive and accurate statistics on inventory accumulations and material flows. The National Security Resources Board has a committee studying this problem from the standpoint of wartime needs but much of this material would be equally useful for peacetime research.

Budget comment.—It is estimated that funds not to exceed $100,000 would be required in order to develop an adequate program in this area.

(*10*) *Data on materials requirements in relation to production*

Analysis of the relationships between the production of finished goods and the concomitant requirements for power, components and materials is necessary for appraisal of the impact of national defense, foreign aid and domestic economic programs on our industrial capacity, natural resources and manpower. The Bureau of Labor Statistics has made a systematic, comprehensive approach to this problem in its interindustry relations study. This work has led to the development of a set of techniques which permit rapid evaluation of the major industrial consequences of any given production program.

The basic data upon which this work has been based were drawn from the 1939 Census of Manufactures, heavily supplemented from other sources of varying reliability. More refined and more current data are needed, however, to permit the application of this approach to current economic policy problems. Some improvement will be possible by taking account of the results of the 1947 Census of Manufactures when these become available. It would be desirable to supplement these data by a special survey, covering both manufacturing and nonmanufacturing industries, designed to obtain detailed information on the relationship of materials, capital equipment, and energy requirements to the volume of production. The results would be of major value to the National Security Resources Board and the Munitions Board in balancing requirements against resources for industrial mobilization planning and to the Council of Economic Advisers in predicting trouble spots in the economy.

Budget comment.—Development of this analytical tool would be a one-time project which would cost approximately 1.5 million dollars over a 2-year period. Once developed, it could be used over a period of many years at small annual cost.

(11) Business intentions with regard to capital expenditures

The current rate of capital expenditures and the intentions of businessmen to invest in the coming year are important among the indicators of business confidence. Also, the level of output and employment depends to a very large extent on the rate of business investment. Business investment varies rapidly, and we know little as yet about the factors that determine it. Thus it is all the more necessary to gage the investment outlook by canvassing businessmen as to their intentions for the coming year.

At present the Department of Commerce and the Securities and Exchange Commission obtain limited information on anticipated capital expenditures. The information now available is based on a small sample that is not adequate to provide any break-down by industries nor to determine to what extent investment plans are contingent upon changes in prices, costs, etc. Additional experimentation is desirable to determine the most practicable methods of increasing the size of the sample and obtaining more detailed information, and of making the data available more promptly.

Budget comment.—The amount necessary to bring about these improvements is estimated at about $100,000 a year.

(12) State and local government expenditures

(a) Better data on expenditures by State and local governments are needed in preparing estimates for the Nation's economic budget. We now have complete data on aggregate government expenditures, for all levels of government, only once in 10 years. Existing annual reports on State and local revenues and indebtedness have been fairly complete, but annual data are needed on expenditures also, from carefully selected sample surveys, and it would be helpful to obtain interim reports from a still smaller sample on a quarterly basis, in order to detect trends in development. More detailed break-downs of the data on expenditures would permit an economic analysis of government expenditures as a whole.

In addition to information on past government revenues and expenditures it would be helpful to have projections into the ensuing budget

period. Such information has been compiled occasionally, but requires a more elaborate collection of budgetary data.

Budget comment.—Expansion of the present program on Government expenditures would cost approximately $50,000 a year for a minimum program of annual reports and an additional $75,000 for interim quarterly reports. Provision of the more detailed break-downs would require between $25,000 and $50,000, depending on the amount of detail needed.

It is estimated that information on State and local budget projections could be collected on a sample basis at an annual expenditure of approximately $50,000.

(b) Information on State and local government public works, supplementing the Budget Bureau's 6-year survey of Federal public works, would be very useful in terms of the objectives of the Employment Act. In the years 1944 through 1947 information of this kind was collected by the Federal Works Agency in connection with its program of advance public-works planning, but no information on this sector of our economy is now currently available.

Budget comment.—It is estimated that the cost of an annual survey of planned public works proposed by State and local government units would be approximately $100,000 a year. This survey would be based on a small and carefully selected sample, and would allow for the minimum number of break-downs by kinds of projects and various stages of preparation.

○