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1 Federal Statistical Activities

We are concerned in this survey with the statistical activities that serve the operating needs of administrative and regulatory agencies of government and that supply Congress, the Executive Branch, and the public with information on economic and social conditions and processes. Policies and decisions on public issues and the varied enterprises of private citizens are based on the intelligence thus provided. Rapid growth of the demands upon this system of statistical reports and constant pressure for further expansion and more elaborate detail mark the recent history of these activities. In studying them we give attention to the effectiveness of the existing organization of statistical reports and analysis, the cost of administration, and the degree to which the needs of the nation are met, within limits appropriate to governmental activity.

The elements and operating characteristics of the system through which this information is collected and analyzed are set forth in some detail in Sections 2 and 3. In brief summary we here note its major features.

The Statistical Agencies

The statistical data, in the form of original reports, derived indexes and aggregates that make up this body of information come from a diverse group of agencies. Some originate in activities of administrative agencies such as the Bureau of Internal Revenue, the Federal Works Agency, and the Social Security Administration; these are used initially as instruments of management and indexes of performance. Some are the working tools of such regulatory bodies as the Interstate Commerce Commission, the Federal Trade Commission, the Securities and Exchange Commission, and the Federal Bureau

The recommendations in Section 5 of this report were published in January 1949 as Appendix D to the Report of the Commission on Organization of the Executive Branch of the Government. The Commission's own report on Statistical Activities accompanies that on Budgeting and Accounting, February 1949 (pp. 85-97).

of Investigation. Many of the statistical byproducts of the activities of administrative and regulatory agencies have high value for public purposes. Indeed, data of this type constitute a large proportion of the statistics utilized for general purposes by public agencies and private persons.

Other major components of the body of statistical information come from a small number of agencies having as primary functions the collection and analysis of statistics: the Bureaus of the Census, of Agricultural Economics, of Labor Statistics, and of Mines, the National Office of Vital Statistics, the Office of Education, and the Division of Public Health Methods in the Federal Security Agency. These bodies are the nucleus of the system from which we obtain statistics defining the structure and processes of our national life.

Agencies concerned solely or primarily with the analysis of data collected by other bodies constitute another element of the statistical intelligence system. These analytical agencies include the Council of Economic Advisers; the Offices of Business Economics, Domestic Commerce, and International Trade in the Department of Commerce; the Division of Research and Statistics of the Board of Governors of the Federal Reserve System; the Fiscal Division in the Bureau of the Budget; and the recently created National Security Resources Board, an organization of great potential importance in the analysis of statistics bearing on defense problems. To these we add a new and strategically placed instrument of Congress, the Joint Committee on the Economic Report.

Another type of statistical agency is represented by the Statistical Engineering Laboratory of the Bureau of Standards. This unit is pioneering in the application of standard procedures for control of the quality of industrial products and for the conduct of statistical tests in chemistry, physics, and engineering and, to some extent, in biological and social fields.

The final unit to be noted, the Division of Statistical Standards in the Bureau of the Budget, serves as a coordinating agency, authorizing all questionnaire forms, sponsoring inter-

agency committees, and performing other functions designed to unify the activities of this far flung system.

Scope and Character of Statistical Activities

The coverage of the national system of statistical reports is indicated by the partial list of statistical agencies given above. These reports range from comprehensive census surveys taken every ten or five years to monthly, weekly, and daily current figures. They cover population and vital statistics; the weather; the national income and its distribution; production, stocks, prices, and distributive movements of goods; statistics of agriculture, forestry, fisheries, mining, and manufacturing; imports and exports of goods and the foreign balance of payments; the labor force, employment, and unemployment; wages, interest, profits; statistics of money and banking; government finances; immigration; education; and various other aspects of national life.

Long range policies and day-to-day decisions on public and private issues are based on the information yielded by these surveys. Statistical records are used by Congress as a guide to legislation, by the Executive in determining fiscal and monetary policies, conservation measures, and programs of public works, agricultural support, education, housing, public health, and foreign aid, as well as for diverse operational purposes; by the Judiciary and administrative boards as an aid in making decisions; by farmers in planning production and marketing; by businessmen in planning investments, production, and sales programs; by labor and management in their industrial relations; by school authorities in anticipating demands upon educational facilities; by social scientists in studies of political organization and economic and social movements; by ordinary citizens in familiarizing themselves with the achievements and shortcomings of our economic and social systems. Over a wide range of activities, governmental and private, statistics are a major instrument in studying the results of past operations and estimating the probable

effects of contemplated operations. They are the foundations of an informed public opinion in a complex society.

Few of these uses are served by statistical reports in their original form. The meaningful organization of these reports, assessment of their quality, their interpretation with reference to past operations or to contemplated future operations, and the exposition of results for the benefit of users are necessary additional functions. These tasks, which we may lump under the term *analysis,* are in some cases performed by the collecting agencies, in some cases by specialized analytical agencies. Such processing and preparation for use are as important in the over-all working of the statistical intelligence system as is the original reporting function.

To the functions of reporting and analysis, which are the primary operations of our statistical agencies with respect to the provision of intelligence, we must add the conduct of technical tests (e.g., in the Bureau of Standards and in agricultural experiment work), the furnishing of counsel and guidance designed to improve the quality of statistical work, and the conduct of research on statistical techniques. These activities may be regarded as subsidiary to those that involve the direct collection and analysis of reports, but they are essential elements of an effective and vigorous system of statistical intelligence.

Personnel and Costs

In the fiscal year ended June 30, 1948, employees engaged in statistical work in Federal agencies, outside the military departments, numbered 10,385 or less than 1 percent of the 1,200,000 employees of all civilian agencies.[1] The estimated over-all cost of statistical activities in approximately 69 civilian agencies was about $42 million, a figure somewhat less than 1 percent of all nonmilitary expenditures. The statistical expenditures include all expenditures of 15 agencies engaged primarily in the collection, analysis, research, and coordina-

[1] See Table 3 and Appendix C. In addition, there were about 2,000 part-time employees, equivalent to nearly 800 full-time employees.

TABLE 1

Personnel Engaged in Statistical Work, Expenditures on Statistics, and Total Expenditures of Federal Agencies

	Year ended June 30			
	1934	*1939*	*1948*	*1949 (est.)*
FIVE PUBLIC PURPOSE COLLECTION AGENCIES[a]				
Personnel (number)[b]	3,786	4,680	7,108	—
Personnel (rel.)	100	124	188	—
Expenditures (thous. $)[c]	5,386	8,126	19,966	23,365
Expenditures (rel.)	100	151	371	434
TWENTY AGENCIES[d]				
Expenditures (thous. $)	6,346	11,438	26,397	30,025
Expenditures (rel.)	100	180	416	473
ALL FEDERAL AGENCIES				
Expenditures, total (rel.)	100	138	530	631
Expenditures, excl. defense & int. on debt (rel.)	100	131	351	459

[a] Bureaus of the Census, Labor Statistics, Agricultural Economics, and Mines and the National Office of Vital Statistics.

[b] Personnel includes full- and part-time statistical workers (for reconciliation of fiscal 1948 personnel data with Table 3 and App. C see App. C, note a).

[c] Expenditures on statistics do not include printing costs (for reconciliation of fiscal 1948 statistical expenditures with Table 4 and App. D see App. D, note c).

[d] Including the 5 public purpose collection agencies and 15 administrative, regulatory, or analytical agencies (see App. E). For the group of 15, only expenditures related to statistical and research work have been included (see text, note 2).

tion of statistics, and those costs of administrative and regulatory agencies, some 54 in number, that are associated with collecting or processing statistics.[2]

Employment and costs in statistical agencies have expanded in recent years (Table 1). Since 1934 statistical expenditures have increased relatively less than all Federal expenditures but somewhat more than the Federal expenditures that exclude national defense and interest on public debt. Relevant records are inevitably incomplete; organizational changes in the last two decades preclude an accurate over-all accounting. The increases summarized in Table 1 relate to a few essen-

[2] The reader should note that the statistical expenditures here enumerated do not include accounting or other housekeeping data or those collection costs (e.g., the costs of obtaining income tax returns) that are inseparable from regulatory or enforcement operations. See Table 4 and Appendix D.

tially statistical agencies and to a larger number of agencies making major contributions to the statistical program.

The Role of Statistical Intelligence in a Modern State

In surveying and appraising the work of governmental statistical agencies full account must be taken of the needs of a modern state for accurate current intelligence—in the military sense of that term—concerning the processes of economic and social life. Under simple conditions of community life, where units of production are small and governmental activities limited, these requirements are modest. But as the division of labor in economic affairs becomes more complex, as economic and social systems come to involve diverse combinations of self-adjusting and consciously controlled operations, as governmental structure itself becomes more highly developed, the need for comprehensive current information for public official and private citizen alike is intensified. The routine operations entailed in the control of interstate commerce and the regulation of the banking system, public utilities, and the exchanges must be guided by knowledge of a wide range of facts. Legislation and the formulation of executive policy on the conservation of natural resources, the suppression of crime, the maintenance of public health and social security, the provision of housing and education, the settlement of industrial disputes must similarly be based upon accurate current information. If the competitive enterprise system is to function effectively, private decisions concerning investment, production, and distribution must proceed from a knowledge of conditions of supply and demand much broader than that available to individuals guided only by their own observations. In war, even more than in peace, the facts of manpower and its distribution, of natural resources and national wealth, of the capacity and quality of industrial equipment, must be available promptly and in detail if mobilization and use of resources are to be effective.

Recent statistical developments have been marked not merely by an increase in the number of reports and in the

extent of their use. A fundamental change in the uses to which statistics are put and in the manner of using statistics is in process. The character of the contribution made by statistics to the arts of government and of administration has been profoundly modified within the last quarter century. Enumeration for purposes of historical study persists, as a proper function of statistical agencies. The record of national life is contained in the measurements of changes in population, production, savings, and other historical series. But in great degree the emphasis in the work of the statistician has been shifted from this backward-looking process to current decisions and to proposed future operations and their consequences. Experiments are designed, samples are selected, statistics are analyzed with reference to decisions that must be made, controls that must be exercised, judgments that entail action. The tremendous forward movement in the arts of statistical analysis and inference that has occurred within the last two decades involves, essentially, the use of observations in making decisions, in choosing among alternative lines of action.

The recent development of the statistical services of government reflects this change in the function and contribution of statistics. Current reports on national income, the nation's economic budget, the production of goods, the level of wages, living costs and prices, consumer expenditures, savings, outlook estimates in agriculture, the construction of housing, the size of inventories, the profits of corporations enter into the thinking and the decisions of public officials and of private citizens as they did not twenty-five years ago. Today, prompt, accurate, comprehensive, and coordinated information on economic and social processes is an essential of government and of orderly activity in many private enterprises.

One further requirement is to be emphasized. It is not enough that facts should be assembled by some governmental agency. They must be brought to bear upon executive and legislative decisions; they must be available to citizens at large and aid in the formation of public opinion on major

economic and social issues if their full purpose is to be served. Economic illiteracy, failure on the part of the general public to understand how production is organized, wealth created, and distribution effected in our national economy, exposes us to special dangers under contemporary conditions. The organization of statistical information for use and its lucid presentation to laymen as well as to administrators are essential duties of those who collect and analyze statistics.

The provision of systematic, coordinated intelligence is today a necessary and accepted function of government. The problem immediately before us has to do with the means by which needed intelligence may be most economically and efficiently provided, within the appropriate limits of governmental activity. We are concerned with problems of organization, with administrative arrangements by which the elements of a necessarily complex intelligence system may be coordinated, and with the instruments by which priorities may be set, continuing appraisal maintained, and wasteful or duplicative practices detected and eliminated. In attempting to appraise existing statistical services, to determine their adequacy with reference to current national needs and the possible demands of emergency situations, we shall give attention to these and to a number of related matters. In the sections that follow we present findings relating to the organization of the existing system of statistical reports and analyses, to the statutes on which the various agencies operate, to costs, to some aspects of administration, to the effectiveness of the work done, the adequacy of the coverage and the quality of the product. In our recommendations we outline in some detail the basic features of a system of statistical intelligence adapted to present national needs, and suggest certain modifications of organization and practice that should conduce to economy and efficiency.