employment, sales and inventories, production of specific minerals, etc. A large number of statistical collections arose in connection with specific Federal programs, the statistics themselves being largely byproducts: activities and finances of regulated industries, internal revenue statistics, health and educational defects among selective service registrants, grants to scientific researchers, veterans' benefits, etc.

Two major influences have been at work to give improved quality and cohesiveness to this initially piecemeal collection of information about all aspects of the Nation and its people. One was primarily organizational and the other technical.

The Federal Reports Act of 1942, building upon such earlier programs as that of the Central Statistical Board of the National Recovery Administration, created a coordinating mechanism for the improvement and rationalization of the Federal statistical system. The Director of the Bureau of the Budget was given staff and responsibility for the development and introduction of standards for the collection, processing, and dissemination of data through much of the Government's activities. The standard industrial classification, the standard metropolitan statistical areas, the standard sample week for monthly surveys, and the standard base periods for economic time series are examples of this standards-setting function. The financial reporting program and the current population and labor force program are examples of the coordination of the work of several agencies to produce data useful for a variety of purposes. The Bureau of the Budget had become an instrument for promoting systematic cooperative efforts among the many Federal, State, and private collectors and processors of information.

The technical base for improved quality of information also has roots in the past. The development of improved techniques for acquiring information, analyzing it, preparing it for publications, and using it for economic, social, and political studies has been active for over a century. With the growth of applied social sciences and the progressive elaboration of the Government's statistical activities, the pace of research in technical methods was greatly accelerated. Trained statisticians brought improved techniques to many aspects of their work: sampling, the design of experiments, seasonal adjustment of time series, the construction of national and regional accounting models, the study of nonsampling errors in surveys and censuses, the development of quality control and other sequential methods, and the interpretation of data in complex situations. The consequences of these technical improvements have been far reaching.

During and directly after World War II, the design and construction of the first electronic computers foretold a potential for vast improvements in many aspects of statistical technology: the recording and editing of field survey data; the compiling, tabulating, and publication of data; the analysis of data and their use in problem solving. The Federal Government pioneered in exploiting these new capabilities. However, much more can be done, particularly in the design of better ways of organizing economic and social data, more thorough integration of information from the many separate statistical programs, and the reduced loss of information in utilizing data for analytical purposes and purveying it to various classes of customers.

The very general logical powers, the great storage capacity, the high speed of manipulation, and the low unit cost of modern ADP systems combine to promise great potential improvement in information resources and problem-solving capabilities. A number of Federal agencies have learned the advantages of mechanizing their routines. Indeed, the Bureau of the Census contracted for the development of the UNIVAC, the first commercial internally programed computer, and it acquired the first and fourth units produced. Many of the frequently cited Federal statistics are more promptly and more satisfactorily produced than would be possible without computers, whether the statistics arise from a primary function of the agency or as a byproduct.

Yet, the improvements were typically made within the context of a single agency—usually a single reporting system—and without the possibility of raising broad questions about the fundamental organization of the Federal statistical system as a potentially unified and cohesive collection of intelligence. Nor was there any practical way of applying the explosively growing power of computers to general questions of preventing loss of information once it had been brought into the system by one or another Federal agency. Finally, there has been no serious attempt to assess the consequences of the computer for improved access to Federal data or for meeting the need for providing information in the form, degree of summarization, format, and physical output desired by various classes of customers.

The present report is addressed to these questions.