

Accurate, complete, and timely statistics are critical tools for effective public policy and business management. The perplexing nature of the economic changes underway in today's economy have, however, increased the difficulty of providing precise measures of change and growth. This background paper evaluates problems confronted in answering some of the most basic economic questions.

Some of the difficulties are longstanding. For example, there has always been a need to get a more accurate estimate of the output of the construction industry. Some are old problems that have become much more important as the economy changes. Growth in service businesses makes it impossible to ignore defects in the way productivity in services is estimated. And economic change has created some entirely new problems—such as the emergence of complex international production networks, and the need to understand the way information is used as an input in the economy.

The statistical agencies must continue to reevaluate their methods in view of new needs of public and private data consumers. Although this background paper has focused on the shortcomings, a number of improvements have occurred. Some of the most important recent developments include: the newly revised Standard Industrial Classification, BEA's development of a computer deflator, BEA's Gross State Product series, BEA's revision of the Gross Product Originating series, the Bureau of the Census' Survey of Income and Program Participation, Census Bureau's Longitudinal Research Database, the BLS International Price Program, and the new BLS Multifactor Productivity series. These improvements indicate that the system can react to new policy-oriented needs, especially if the resources to do so are available.

These and the many other innovations underway are commendable, but to be effective they and other planned improvements need to be part of a coordinated program that sets priorities, develops a coordinated response, and evaluates how well the needs are being met. This function was given to the Office of Management and Budget. But for many years OMB has elected to take a very narrow view of that responsibility and has not fulfilled its larger mission in this area.

This paper makes no attempt to provide a comprehensive critique of national statistics nor does it attempt to offer comprehensive solutions. This important task needs to be undertaken on a regular basis by the Federal statistical agencies themselves acting under the guidance of OMB. We have identified a number of areas where a coordinated response is clearly needed. These include:

- *Develop better techniques for evaluating real (i.e., constant dollar) growth in areas where most growth involves changes in quality or capability.* This typically includes areas where technology is redefining the nature of the product in fundamental ways. Improvements would include expanded efforts in accounting for growth in manufacturing areas like computers, semiconductors, communication equipment, advanced machine tools, etc. It would also find a way to measure improvements in quality that occur as firms make more timely deliveries to suppliers or offer consumers a wider variety of products. Without accurate measures of changes in quality, policy makers have a distorted view of where real growth is occurring in the economy.
- *Improve techniques for evaluating real growth in services.* This means developing better methods for recognizing that the quality of education, health care, financial services, software development, and other services can change. Lacking such methods, real growth and productivity change for many services is underestimated, obscuring the innovations that are occurring in these sectors.
- *Strengthen methods used to show the way purchased services are used as an input in the economy, particularly by manufacturing.* By underestimating the real value of purchased services, the contribution of manufacturing operations may be overestimated and thereby mask problems in some industries and lead to a misunderstanding of the value of service industries.
- *Improve the methods used to track imported products through the U.S. economy.* Errors that may underestimate the value of the foreign inputs purchased by domestic businesses may overestimate the contribution of domestic firms, especially in the manufacturing sector. An

inability to trace imported products through the economy makes it difficult to estimate the vulnerabilities or the competitive strength of different industries.

- *Develop better methods to monitor the construction industry.* The health of this important business, particularly the nonresidential segment is difficult to track using current methods of measuring outputs, inputs, and productivity.
- *Improve methods of measuring investment in education and training as well as the quality of these services.* Since worker education and training has become a critical input to virtually every business it is important to measure its role as precisely as possible. Virtually nothing is known about corporate investment in training and only crude estimates exist of the practical knowledge of people in the work force.
- *Establish better methods for monitoring changes in the size and scope of firms and establishments.* Major changes are taking place in the size of individual establishments and in the number and kinds of products produced in an individual establishment. Likewise, major changes have occurred in the number, size, and type of establishments owned by a single firm. Policymakers concerned about trends in the sources of job generation, the effect of mergers and acquisitions, or the regional shifts of industry, need to understand the nature of such changes with greater precision.
- *Improve methods for measuring changes in the distribution of income.* It appears that income distribution in the United States has changed substantially in the recent past. A significant amount of change has occurred in households with very high and very low incomes. Neither group is well tracked by existing data series. Policy designed to affect such changes needs to be informed by better data--particularly data that shows changes in the income history of individual households. Welfare policy, tax policy, and a variety of Federal expenditure programs are strongly influenced by data in this area.
- *Develop methods for tracking the effect of new technologies.* This could involve more timely input/output series and a capital-flows table with an improved set of business categories. Such data is critical to tracing linkages between

industries and understanding the connection between management of technology and economic growth.

- *Improve methods for tracking standard national economic accounts and other measures of economic well-being in an integrated way.* The national system of accounts is designed primarily to provide support to Federal macroeconomic policy makers. They were not designed to provide a macroeconomic view of changes affecting particular industries or a complete perspective of changes in the welfare of Americans. But by necessity, the accounts serve as a crucial resource for informing policy decisions in areas ranging from energy policy to social welfare policy. Policy analysis in most areas requires combining this data with statistics in areas like environmental quality, resource depletion, income distribution, and health.

These links could be much more clearly understood given a more integrated way of reporting economic progress in the United States that uses both the national accounts and other measures of social change. Such reports could also provide a systematic view of the quality and completeness of information not easily reported in economic accounts.

Few of these problems have easy solutions. They all require a commitment to a long-term process and management committed to making the system work well as a whole. In some cases it will require additional investments in computational equipment—few of the statistical agencies have adequate computational facilities. It may also involve a concerted effort to ensure that enough young people are trained to take jobs in the statistical agencies and that the agencies are in a position to attract a continuing flow of new talent.

An adequate response to these challenges also requires coordinated approaches to budgeting and undoubtedly more money. The need for resources, however, cannot be established without a clearer view of the needs and priorities of the system taken as a whole. Such a perspective is not now available from any source. It is clear, however, that the price paid for public policy mistakes that stem from defects in national statistics can be many times higher than the entire national statistical budget.