Current Survey Statistics in the United States

Improved Statistics on Service Industries

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James M. Aanestad
Assistant Division Chief
for Current Services and Transportation Programs
Business Division
Bureau of the Census

The U.S. Census Bureau is the Nation's major data supplier. It is the factfinder for the Nation gathering data on the population, housing, business, agriculture, government finances, foreign trade, and many other subjects. The Bureau occupies a pre-eminent position as a collector and disseminator of statistical information. Our role is to provide domestic general-purpose statistics primarily to Federal, state, private industry, and individual data users.

The first part of this presentation described our plans for expanding the quinquennial censuses for the service sector, and this paper will cover the counterpart current survey program. The objective of the current program is to provide intercensal measures of key components of the service economy. Actually, the Census Bureau's expansion of service sector statistics in the early 1980's began with the current program. The U.S. Congress recognized both the declining number of service sector statistical programs and the growing need for new data in 1984. There was not adequate time to develop a complete count census, which takes 3 years to plan and 2 years to process and publish. Accordingly, current sample surveys were selected as the appropriate vehicle since they would be able to fill key data gaps in 12-15 months.

Today, more than ever, the U.S. economy is being shaped by service industries. The contribution of services has grown rapidly over the last 30 years and continues to increase in importance. The service sector in the United States accounts for about 75 percent of total employment, over 70 percent of the Gross National Product (GNP), and over 90 percent of new jobs. Services show a significant amount of change brought about through new technology and

deregulation events. We frequently find that services are changing faster than our ability to identify the new activity, classify it, and measure it.

Services are defined in several ways. A narrow definition of services covers only personal, business, and professional services. The broadest definition of services covers all industries except the goods-producing sector. We typically use the broad definition.

Services are a real part of our changing lives. Here are only a few of the new and changing services that are affecting how our society operates:

1. Communications
   - — cellular phones
   - — data networking
   - — telecommuting (working at home via telecommunications devices)

2. Transportation
   - — continued changes in air fare structure and routes
   - — changes in speed/cost of goods transport—air, trucks, and so forth.
   - — express mail services

   Transport analysts project that in the early 1990's, 50 percent of transport operations will be communications (currently estimated as 20 percent communications/80 percent movement of goods).

3. Financial Services

   — recent changes in banking services (expanded credit cards, fast check clearance, ATMs)—nonbanks providing banking services

   — growth in security and commodity dealers (volume and speed)

4. Recreation and Leisure

   — increased legalized gambling plus lotteries

   — health spas

   — video rentals

Services have always been with us...so...why are we concerned about services data now?

The data currently available are not sufficient to meet the important needs of public policy officials and private decision makers. This situation exists for three reasons:

— new technology that promotes growth, changes how services are delivered, and creates new service industries

— deregulation of major components of the service sector that also resulted in loss of statistical information

— organizational complexity of businesses providing services (incorporating new services with increased vertical integration)

The overall growth in the services sector over the last few decades has been so dramatic that the U.S. economy is now largely services oriented. For example, in 1970, services were approximately 65 percent of the GNP. In 1986, this percent had grown to over 70 percent. The goods-producing sector also has increased in absolute terms over the same period, but its relative contribution to the GNP has been declining. One perspective is to view the percent growth from 1950 to 1980 in the service sector in constant dollars. From $257 billion to $833 billion—a 225-percent increase. On the other hand, goods production rose from $251 billion in 1950 to $465 billion in 1980, representing only a 85-percent increase.

The existing data do not give us a clear picture of the importance of services to the U.S. economy.

There is a wealth of surveys and detailed data published for the smaller good-producing sector, compared with the limited data available for the dominant service sector. Also, data collection in the service area is complicated by diverse industries, dynamic changes, large numbers of small firms, and unique measurement problems. The range of industries varies from manual services to high-tech services with vastly different technical definitions for each subsector. The impact of over 6 million nonemployer firms where the owners are the employees presents a real data collection problem due to limited records being maintained. Measuring intangible services presents a number of problems in many industries where physical items are not available to count or to easily determine quality.

Partially because of these conditions, measurement of service industries resulted in a low priority in the past. We now find ourselves reaching for data that do not exist. For example, years ago, computer software was primarily developed by computer manufacturers but now is developed and sold by manufacturers, software firms, user firms, and individuals—frequently as a secondary activity to the firm's principal activity where all activity is grouped together and classified. In general the initial solution requires expanded detail data collection to simply understand these changing conditions. Expanded subindustry data will aid in future SIC revisions also.

There is, however, another, more recent reason for the scarcity of services data. That is deregulation.

Deregulation brought about numerous changes in how firms operated or how they were organized. These changes have impacted the basic structure of selected service industries. In addition, there has been a serious loss of data that served both regulatory and economic purposes. These statistics were typically by-products of the regulatory process.

Statistics and deregulation represent a real paradox! The loss of data occurred at the very time MORE information was needed to understand the changing nature of these industries under deregulation. New companies were started in the trucking, telephone, airline, and bus industries. Some companies provided their own in-house communication systems. For many industries, the total volume of services provided to businesses and consumers did not change dramatically, but the way in which they were provided changed

consumers did not change dramatically, but the way in which they were provided changed significantly. Very few industries were adequately measured during these changes.

Complex Company Organization

While we know that changes are constantly occurring in the way firms do business, we do not have the necessary data to assess the impact of these changes. Some of the issues in question are: From a data users point of view, what do these changing numbers really mean?

- Contracting Out Versus Vertical Integration--Companies that previously staffed in-house service operations for legal, accounting, food service, trucking, and so forth now contract out these services to specialized firms in these fields. When contracted out, the activity appears in the statistics as an increase to the specific service industry. In fact, the same economic functions occurred as in the past, but the previously integrated industry now shows stable revenue with a decline in employment (with "increased labor productivity"), while the separately identified support service industries record increases. Vertical integration is the reverse condition and similarly results in less than clear statistical descriptions of selected industries.

- Employee Leasing--Employee leasing involves production or support staff having their employment status transferred from the original or using firm, to an external employee leasing firm. The employees continue to

perform the same function at the same location as before, except they are technically now employees of the leasing company not the company where they physically work. Employment and payroll data for employee-leasing firms have increased significantly, with employment and payroll for the original firm declining, again with no real change in leasor activity.

° Secondary Services--Secondary service activity at individual establishments is expanding, both as income-producing activities and as in-house (captive) support functions. Statistically, these secondary activities are lost as a proper component of their industry and grouped together with the primary activity of the establishment. We have a working paper on this topic. [A recent example in the U.S. economy involved automotive repair, published at about $19 billion for firms whose major activity is the auto repair industry. Actually, there is another $19 billion in auto repair receipts developed as "secondary service activity" by other types of business such as retail auto dealerships and gasoline service stations. The correct "activity" total approximates $38 billion.]

To fully understand such activities, we need better additional measures to separate out these significant shifts in the way business is being conducted. Federal agencies look to the Census Bureau to provide macro-economic measures and enough detail to provide data inputs for their own very detailed programs of prices, productivity, capacity, investments, and so forth. Private industry has similar data expectations and, naturally, they want detailed data quickly. Presently the limited measures we do provide such as total revenues,

employment, and payroll can hide or duplicate key activities and, therefore, give false measures of many industries.

How are these programs kept up-to-date?--Through Outreach, Consultation, and New Programs

Over the years, the Bureau has gained a wealth of experience and developed an extensive program for consulting with users of our statistics. This is done through a system of formal and informal contacts with both users and providers of data. They include: advisory committees, conferences, and workshops along with visits to representative companies and contacts with trade associations. These contacts ensure that respondent businesses can report the data without undue burden, and that we can collect meaningful data that are not duplicated elsewhere.

In 1984, the Congress of the United States instructed the Census Bureau (that has responsibility for general-purpose statistical measures), along with the Bureau of Economic Analysis (for GNP and input-output measures), and the Bureau of Labor Statistics (for price, wage, and productivity measures) to evaluate the loss of data due to the reduction of regulatory statistical programs. Also, for it's programs, the Bureau would determine the respondents ability to report the requested data, the number of hours of reporting burden, plus any potential duplication with other data sources. We were instructed to develop proposals to fill major data gaps.

First, let me describe what I mean by a "data gap" in the current program.

- no reliable National measurement exists for a key industry (four-digit SIC).

- a clear need for summary data and limited detail breakdowns.

The Census Bureau has well-established census and current programs covering the government sector as well as the distributive trade areas of wholesale and retail. Therefore, the Bureau focused on the following components of the broadly defined service sector as we developed new surveys or expanded existing programs:

- Personal, Business, and Professional Services—133 industries, 16.5% of GNP

- Transportation—50 industries, 3.4% of GNP

- Public Utilities—14 industries, 3.1% of GNP

- Communications—5 industries, 2.7% of GNP

- Finance, Insurance, and Real Estate (FIRE)—70 industries, 16.4% of GNP

The philosophy of our current program, at this time, is to cover fewer industries but collect indepth data to understand changing conditions (versus more industries with only a minimum number of data items). Our 5-year

census has a different objective: cover all industries, identify changes in company organization/ownership, collect minimum data for size measures, revise establishment-level classification, and publish data at state and substate levels.

Historically, the Census Bureau has had limited subject-matter expertise in industries regulated by other agencies, who collected statistical data as part of the regulatory function.

To quickly identify current data levels and needs in the previously regulated areas, we contracted for research with the National Academy of Science. Two reports were published. The first was "Statistics for Transportation, Communication, and Finance and Insurance: Data Availability and Needs." This publication documented and evaluated the regulatory data in existence, plus an overview of known user needs. The second report was "Statistics About Service Industries: Report of a Conference." This addressed a number of measurement problems that should be addressed through indepth research. The Census Bureau also:

— contracted with consultants and industry specialists to produce papers on: the services sector in 10-50 years; an analytical framework for input and output, changes in information technology, and the health care industry

— conducted in-house research on priority areas such as air transportation and temporary help supply

Other U.S. Federal agencies have developed service-related research covering their own program areas such as productivity and price indices.

Current surveys on a monthly, quarterly, and annual basis are designed to provide more up-to-date measures of trends and levels of business activity. The Census Bureau's current sample surveys vary in the level of detail data collected—monthly surveys include only limited key measures such as sales and inventory data, while annuals typically collect indepth data items. The objective of including detailed data items are to provide improved GNP measures and to provide other data users insight into subindustry conditions such as changing quality, price, or productivity measures. Almost always, additional data collection is required to quantitatively measure these special conditions. A brief description of our existing and proposed service surveys includes:

Service Annual Survey

The current survey program expansion began in 1984 with the Service Annual Survey program—we added 23 industries to the coverage. This new coverage included advertising, computer services, engineering, accounting, personnel supply, and more.

For the 1986 Service Annual Survey, we added six new industries (hospitals, noncommercial research labs, day care centers, vocational rehabilitation centers, residential care facilities, and boarding houses). For selected service industries that included profit and nonprofit organizations, we

provided a breakout of receipts and revenues by tax status (selected health, business, amusement, and social services). In addition, we published data for 20 four-digit industries that were previously published at less detailed levels.

Traditionally, the annual program has produced only estimates of total operating receipts. This single measure, while better than what existed, limited our understanding and amount of analysis possible for these industries. Therefore, in the 1987 Service Annual Survey, we expanded the number of data items collected for six industries: travel agencies, tour operators, employment agencies and temporary help services, nursing and personal care facilities, and outpatient care. We added a breakout of receipts, detailed expense data, and selected industry-specific questions. Annual data are published about 8 months after the end of the reference year.

In addition to expanding coverage and detail to our existing programs, we have improved coverage by developing new annual surveys. As a result of the National Academy of Sciences' study and other research, the trucking industry was identified as one of our first priorities.

Motor Freight Transportation and Warehousing Survey

This survey initially covered 1984 and 1985 and included about 25 data items on revenue, expenses, and inventories of trucks and trailers. These data partially filled the data gap left by reduced regulatory programs.

We expanded the survey the following year to meet the growing needs of data users. To better understand the complex, integrated operations, and fee policies that recently developed within the industry, we collected 50 data items on revenue sources, new types of expenses, and types of commodities hauled.

Throughout our research, data users expressed a strong interest in the communications industry. This industry includes a number of new and significantly growing areas, such as cellular telephones, including radio telephone services, radio and television broadcasters, cable television, and satellite communications. In 1982, deregulation eliminated the detailed cost and pricing statistics that served both regulatory and economic measurement needs.

Pending Annual Survey of Communication Services

The Census Bureau developed plans to produce basic financial data on the total communication industry, now estimated to be between 140 and 160 billion dollars a year. The Census Bureau's annual program was designed as a sample survey, which would be mandatory to assure quality data. The Bureau has continued discussions with the OMB on criteria for making surveys mandatory and we hope to have an agreement soon on our proposal to conduct this survey.

Pending Charter, Rural, and Intercity Bus Survey

The Bureau also developed an annual survey to cover charter, rural, and intercity bus activity, estimated to range between $5 and 8 billion in annual receipts. This survey would collect data on revenues, expenses, inventories, and ridership, which has been impacted by deregulation. Intercity and rural bus service is known to have decreased due to other more popular forms of transportation. Charter and tours have grown significantly as indicated by 1,500+ new firms in just 1 year. The initial proposal for this survey was denied by the OMB. However, we are addressing OMB's concerns about the survey, and hope to receive approval for conducting the survey next year.

Future Census Bureau Expansion Plans for Current Surveys

We plan to continue identifying data gaps, monitoring the changing needs of data users, and proposing improvements to expand the data base on domestic service industries. The following list of new surveys or expansions to existing sample survey programs represents our present priorities. The actual implementation will depend on budget authorizations, which are somewhat uncertain at this time.

Expand Service Annual Survey

For the survey year 1990, the Bureau proposes to increase the amount of detailed data items collected for key industries covered in our Service Annual Survey. The new data items will provide revenue breakdowns and expense data.

Industries under consideration include equipment rental and leasing; automobile rental and leasing; computer and data processing services management, consulting, and public relations; and offices of health practitioners, and amusement parks.

Transportation Services Survey

Regulatory reform has had a profound effect on the arrangement of freight transportation as traditional lines of delineation between arrangers of freight transportation and the shippers have become blurred. All public data collection on freight forwarding ceased in 1980.

We propose a sample survey covering all employer establishments from a universe of 34,000 establishments providing transportation services (SIC 47). Estimates of dollar volume size for services incidental to transportation range from $12 to 14 billion annually.

Expanded Corporate Financial Data—Although quarterly corporate profits data are essential to the calculation of the GNP and the Federal Reserve's flow of funds accounts, such data for corporations classified in business services industries have never been collected by any Federal agency. We propose to produce quarterly statements of income and retained earnings, balance sheets, and related financial and operating ratios.

Proposed Survey of Emerging and Growth Industries—Technological change and economic growth or decline frequently occur in industries coded as "not

elsewhere classified." Accordingly, the four-digit industry-level statistics for "catch all" and high-growth classifications often mask their true function and influence on our economy. This program of one-time surveys will give us a better understanding of subindustry changes between censuses and improve the accuracy of GNP measures. The results also will aid in the design of the 1992 census.

Proposed Annual Water Transportation Survey

Nearly 20 percent of all intercity goods transportation in the United States is by water, and passenger travel by water is one of the fastest-growing areas of the travel industry. The survey will provide basic financial data on expenses and revenues, which are estimated at $7 to 9 billion a year. At present, there are few data of this type available at the industry level. Existing data sources deal almost exclusively with the physical characteristics of the system, vessels, waterways, and port facilities of the industries; or on commodity movements.

Enhanced Small Business Data

An important and inordinately large amount of service industries are comprised of small firms that are primarily sole proprietors and partnerships This proposed enhancement will provide annual estimates of the dollar volume of receipts for all sectors of the economy for the nonemployer universe. These data will provide the capability to track the rapid changes within the small

business community. The Bureau will assemble the data (receipts, principal business activity code, and so forth) from existing administrative records.

For survey year 1991, we will revise our existing sample of firms used on our annual surveys. This is done every 5 years. The 1991 revision will reflect the conversion to the new U.S. industrial coding system developed in the 1987 SIC Revision. This SIC revision created some new service categories while merging others together. By SIC division: (1) personal, business, professional services had a net gain of 19 industries (44 new categories, replacing 25 old SICs); (2) wholesale/retail had a net decrease of eight SICs; and (3) transportation/FIRE had a net decrease of 25 SICs.

Improved Measurement of Services Purchased by Industry

Only limited data on purchased services have been collected every 5 years in the economic censuses. We estimate that our census data on value added in manufacturing is overstated by 30 percent or more as a result of not collecting information on costs of purchased services. This proposed 1992 improvement will provide for annual collection of data on purchased services by manufacturers.

Improvement of Small Company Financial Data

The wholesale and retail sectors are heavily populated by small firms that are essential to accurate GNP estimates. This proposed enhancement would add

small wholesale, retail, and mining firms to our quarterly financial program, including broader asset size coverage in calendar year 1992.
In future years, the Bureau proposes to conduct a limited survey on domestic company-level service exports. Broad measures of total company-level receipts would measure the level and annual trend of significant export activities. Also, we visualize reinstating the monthly service survey for 10 to 12 important four-digit industries along with 6 to 8 broad measures at the two- or three-digit SIC level. This two-part data collection proposal is designed to meet limited priority data needs of both micro- and macro-data users.

For the early nineties and beyond, the direction of our current survey programs will depend in part on the results of research currently underway, and changing availability of both government and private sector data sources. Current program projects under consideration include new surveys in the FIRE industries and possibly transportation. Also, we hope to organize research on such topics as contracting out, changing measurement issues, domestic services relationship to exports, and so forth.

Government Agency Coordination

With the decentralized data collection system that exists in the United States, there continues to be a real need to compare and coordinate changing data needs. Accordingly, the Census Bureau chairs the Interagency Working Group on Domestic Service Statistics that meets quarterly with 15 to 18 data user and producer agencies. We discuss common issues affecting service statistics, including:

— new data collection and proposed future surveys to avoid duplication of effort
— measurement problems
— common interests in budget status and research issues

Conclusion

In conclusion, it is evident that the U.S. government and private data users need significantly more data than are currently produced on the changing and growing service sector of the U.S. economy. The significant changes that have occurred in the past few years in service industries promises to continue due to the dynamics of demographic changes, technological innovation, and the internationalization of our economy.

No doubt, we will all demand more services in the future; both personal and business services. The U.S. population is aging and more health care will be needed. Spending patterns already are changing with increased leisure activities. These two papers have only touched on what technical innovations have done in the past and more are expected in the future. National economics are, or are becoming international economics with heightened interest in import and export measures! Many U.S. agencies that study international transactions in service industries have minimal data on service exports. They also request improved domestic measures to compare domestic versus international service activity. The national and international conditions are changing rapidly, and this requires annual measures through sample surveys.

We recognize that change is inevitable and we want to take an active part in correctly measuring these changes.

We are very interested in cooperating with international groups such as this, as we have many common issues where we might learn together. Our staff is interested in combining efforts, including research to clarify measurement and data collection problems. In this way, we will ensure the highest priority data needs are met through efficient and productive programs.

Thank you for your interest, and Mr. Marcus and I welcome comments and discussion on our expansion programs.