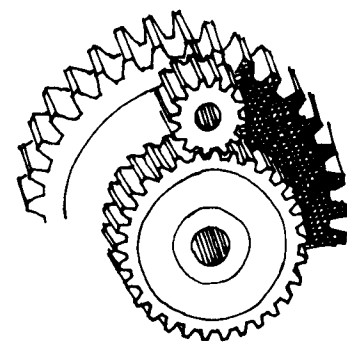


Productivity Reports



Measuring productivity in State and local government

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State and local governments, which employ about 13 million persons, are the largest single group of establishments for which productivity indexes are not routinely calculated. The Joint Economic Committee of the Congress, the National Academy of Sciences, the General Accounting Office, and others have suggested additional research into the possibility of measuring State and local government productivity, and in response the Bureau of Labor Statistics has conducted an initial examination into the feasibility of calculating selected productivity indexes. The results suggest that, while conceptual and data problems are difficult to resolve, it is feasible to calculate productivity indexes for many State and local government services.

The BLS study reviewed research, literature, and surveys, interviewed State and local officials, examined national data which would be useful in calculating productivity indexes, summarized the results of the investigation, and outlined a strategy for further work in the area. The study focused on ways that national labor productivity trends might be calculated on a routine basis, much as they are calculated for private-sector industry trends. The conclusions should also be useful for governments interested in calculating their own productivity.

Defining and measuring outputs

A number of researchers have discussed the confusion surrounding the basic concepts and procedures used to measure government productivity. The major problem is in the definition and measurement of outputs, which alternatively focus on operational activities, organization or direct outputs, or program consequences. Each of these three general types of measures is important. However, the most common, at least nationally, is the second type, the direct output or technical efficiency measure. It is this type of measure which is most often computed for the private sector and the

one with which this study was primarily concerned.

Selection of the proper measure of output requires a service-by-service and product-by-product approach. When a government provides a single service, as in the case of some of the special districts—solid waste disposal and drinking water are examples—the output can be simply a count of the units of service. However, most governments produce heterogeneous services, and it is often difficult to even identify the basic services. Furthermore, most services are composed of a number of different subservices or products which also are difficult to identify. In addition, each service may involve quality and other changes.

Data to calculate aggregate national, State, and local government output indexes are generally lacking. The Federal Government collects some data, particularly in those areas where it has shared responsibilities, such as unemployment insurance and drinking water. Some data are collected by national associations and public interest groups. But, more often than not, national statistics are simply unavailable on State and local government output. In many cases, individual governments do not collect such statistics.

Labor most useful measure of input

The most frequently used measure of input is labor. Constituting more than half of all State and local government operating expenditures, labor is important for public policy considerations, is easy to calculate compared with other factors of production, and is the most accessible of State and local government factor inputs.

The preferred labor measure is labor hours. However, no national statistics are available for labor hours of State and local governments; few governments even collect such data. A measure often used as a proxy for the number of hours is the number of full-time-equivalent employees, and many State, county, and municipal governments maintain such statistics. Most governments also have statistics on the number of employees, a measure widely used in the private sector.

However, none of the sources of national statistics is entirely satisfactory for computing individual service indexes. The primary data sources are not divided sufficiently to compute labor indexes for individual government services; others do not collect full-time-equivalent employee statistics, and some contain major errors. Construction of

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valid labor indexes, either aggregate or individual, requires detailed comparison and adjustment of data.

Seven State and local services were selected for detailed examination from the dozens provided by government. The more important government services, such as education, police, and firefighting, are not included because of conceptual or data problems.

For three services—electric power, State alcoholic beverage stores, and unemployment insurance—illustrative indexes were calculated. For two services—sanitation and drinking water—productivity was not calculated because national data are lacking. For the remaining two services—transit and the Employment Service—productivity indexes were not calculated because of unresolved conceptual and data issues; additional research is being conducted in these two areas.

These seven services illustrate the problems and opportunities that occur in computing State and local government productivity indexes. The problems are substantial and include both conceptual and data issues. However, the difficulties may not be any worse for calculating State and local government productivity than for calculating service industry productivity in the private sector.

Both sectors produce many of the same services. There are literally dozens of such services, ranging from electric power to alcoholic beverage sales, from hospitals to employment counseling. Not every government service has its

private sector counterpart, but most do.

Most of the past discussion on calculating government productivity has been entangled in questions of effectiveness, consequences, outcome, and impact. Productivity analysis in these areas has become entrapped in externalities. As long as the discussion is restricted to direct outputs, the solutions are at least as tractable as in the private sector.

This is not to say that productivity can be computed for every State and local government service. Thorny problems exist in calculating State and local government productivity, just as in the private sector. However, it should be possible to compute labor productivity for many State, county, and municipal services.

Development of these indexes must proceed service by service. After the development of individual service indexes, it should be possible to construct aggregate indexes for functional or service groupings, such as the social insurance programs, utilities, and transportation. By using the building block approach, individual indexes and groups of indexes might be combined into appropriate functions such as public works and public safety. Eventually, it may be possible to develop a national productivity index for State and local government, but this is probably many years away.

A comprehensive report, *Measuring Productivity in State and Local Government*, BLS Bulletin 2166, January 1984, is available from the Superintendent of Documents, Washington, 20402 for \$3.75. □