

Productivity of schools is most difficult to measure. The main measurement problems center around output. An automobile assembly plant turns out on a given day a given number of cars of virtually uniform characteristics. They are the plant's output. The output of education is much less tangible and much less standardized. Everyone will agree that education has changed since the turn of the century, and yet few will be able to say, in quantitative terms, how great the change has been. Whether it is because or in spite of the great difficulties of measuring educational output, relatively little work has been done in this area.

One of the most serious studies of productivity in government was undertaken by Solomon Fabricant in 1952. He concluded that a—

Review of some factors affecting the trend of government productivity—the use of improved technology and equipment, the spread of the merit system, the introduction of centralized purchasing, and various other advances in public administration—leaves the impression that labor savings have been made. Indeed, it is hard to think of any factor tending in the opposite direction except possibly the very increase in the scale of government operations. Nor does it appear that these savings of labor reflect merely increase in the volume of other resources—capital goods and other purchases—used per worker. Total productivity, output per combined unit of all resources, appears to have risen in government.¹²

An empirical effort to measure the productivity trend of Federal agencies was undertaken by Henry D. Lytton.¹³ Lytton estimated changes of the last 10 years for the Commodity Stabilization Service, Social Security Administration, Post Office Department, Veterans' Administration, and Internal Revenue Service. Most of the outputs of these agencies are readily quantified. Thus, for instance, a post office handles a given number of pieces of mail having a given volume and given other characteristics. The productivity advances of these agencies during the last 12 years averaged about 1½ percent a year. The range extended from 1¼ to 8 percent, compounded annually. The Commodity Stabilization Service showed the greatest productivity increase; i.e., of about 8 percent a year. Much of this change apparently was due to the introduction of electronic processing equipment.

The same general view was expressed by Richard Ruggles and Nancy D. Ruggles, in their paper to the Joint Economic Committee when they maintained that—

There is good reason to believe, however, that the productivity of Government workers has increased substantially in this period. For one thing, the introduction of data handling machines and computers speeds up the operation of many stages of Government work. Statistics in the Government now, in large part, are handled mechanically rather than by clerks. The mechanization which is so characteristic of current development in business is also occurring in Government.¹⁴

In 1955 Fortune magazine carried an article, "Productivity: The Great Age of 3 Percent." In this article it was stated that—

Government efficiency, because electronic tabulating and computing can take over the bulk of its clerical work, can and should rise enormously. * * * The productivity of schools and teachers, by contrast, cannot and properly should not increase very much.¹⁵

¹² Solomon Fabricant, "The Trend of Government Activity in the United States Since 1900" (New York: National Bureau of Economic Research, Inc., 1952), pp. 98-99.

¹³ Henry D. Lytton, "Estimating Recent Federal Agency Productivity Trends" (Washington, D.C., 1959), 46 pages.

¹⁴ Richard Ruggles and Nancy D. Ruggles, op. cit., p. 299.

¹⁵ Gilbert Burck and Sam Ford Parker, "Productivity: The Great Age of 3 Percent," Fortune, November 1955, pp. 249-250.