

# Despite real concerns, gauging work hours is not a problem in measuring productivity growth.

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HAVE you ever noticed that George Jetson has a much easier life than Fred Flintstone? To economists, the reason is obvious: thousands of years of productivity growth. Because productivity growth melts away problems of inflation, budget deficits, unemployment and stagnant income, there is great interest in knowing whether the upturn reported by the Bureau of Labor Statistics since the mid-1990's will persist. Thus the 1.2 percent decline in productivity last quarter, if it is more than a cyclical blip, is worrisome.

But can the numbers be trusted? New research from economists at the Bureau of Labor Statistics and the Bureau of Economic Affairs presented at the Federal Economic Statistics Advisory Committee meeting in Washington this month suggests that one potential problem with the statistics -- the measurement of hours worked -- is much less of a problem than previously believed.

Even small differences matter, so accuracy is crucial. Productivity grew at an annual rate of 2.7 percent from 1947 to 1975, then mysteriously slowed to 1.4 percent from 1975 to 1995, before rebounding to 2.8 percent after 1995. If productivity had grown at the higher rate all along, national income would be 30 percent greater today.

In principle, labor productivity is easy to measure: simply divide economic output by the number of hours used to produce it. There are only two problems: the numerator and the denominator.

Most attention has focused on the numerator. Economic output is notoriously hard to measure because the quality of goods changes constantly and because new goods are periodically introduced. How does one value the convenience of having an A.T.M. available 24 hours a day? In addition, the cost of undesired side effects of production, like pollution and work injuries, should be subtracted from output. Despite much research, output remains hard to measure. Many economists believe output growth has been understated in recent years, but that conclusion is mostly guesswork.

Others criticize the measurement of hours worked. Most notably, Stephen S. Roach, Morgan Stanley's chief economist, has argued that the Bureau of Labor Statistics undercounts the hours people work because employees increasingly perform work after hours on cell phones, beepers and home computers. "There has been a significant lengthening of work schedules in the last decade that has not been captured in the government's productivity measures," he wrote in 1997. If so, the official numbers would exaggerate productivity growth in the 1990's. Mr. Roach called this "the ugly little secret of the apparent productivity-led recovery."

A team of four researchers from the Bureau of Labor Statistics and the Bureau of Economic Affairs, led by Marilyn E. Manser, head of the Office of Productivity and Technology, has investigated Mr. Roach's hypothesis. It came up lacking.

They carefully compared the official hours series with one they constructed from surveys of employees. Employees, they reason, would not underreport their hours, even if their employers might. They concluded, "The official productivity estimates are biased trivially, if at all, by the absence of data on the actual hours of nonproduction and supervisory workers."

There are many reasons to be concerned about the official measure of work hours. This information comes mostly from the monthly survey of 400,000 establishments by the Bureau of Labor Statistics. Employers report the number of hours for which they paid production workers in manufacturing and nonsupervisory workers in other industries. Because it lacks the data, the B.L.S. assumes the hours of supervisors are the same as those of nonsupervisors outside manufacturing, and that hours move at the same rate for nonproduction and production workers in manufacturing.

Another adjustment is made to convert hours paid to hours worked -- subtracting paid vacations, for example. Work hours of proprietors and farm workers are derived from the Current Population Survey, the survey of 50,000 households used to estimate the unemployment rate.

Employers may not know, or care to know, how much their employees work off the clock. Moreover, supervisors' hours may have grown more quickly than those of nonsupervisors. Thus the researchers used employee reports of hours worked from the household survey to compute an alternative measure of productivity growth.

Work hours are indeed higher when reported by employees. But the gap must be growing over time to affect the productivity growth rate. It is not.

The two productivity growth series are strikingly similar: productivity grew 2.6 percent a year in the alternate series and 2.5 percent in the official one from 1995 to 1999. The rebound in the 1990's is even more striking in the alternate series.

The researchers also investigated another possibility. In the 1990's, employment grew more slowly according to the Current Population Survey than according to the establishment survey. Perhaps the Current Population Survey understates employment growth. To adjust, the researchers computed total hours worked as the product of worker-reported hours per job from the survey and total jobs from the establishment series. Yet even with this measure, annual productivity growth was a robust 2.2 percent a year from 1995 to 1999 -- a full percentage point faster than in 1979-95, matching the official data.

It is rare that macroeconomic statistics are so resilient to alternative formulations.

Mr. Roach said he found the results of the new study "counterintuitive" because he believes professional employees are increasingly working longer hours that are not recorded by either government survey. He pointed to Harris Poll data suggesting that workers typically work around 50 hours a week -- substantially more than the 41-hour week found in the Current Population Survey -- to bolster his argument that government statistics understate work hours. But the Harris Poll counts time spent keeping house, going to school and traveling to and from work as work time, which inflates the figures. Furthermore, the Harris Poll, just like the government data, finds no increase in work hours in the 1990's.

Usually it is not newsworthy when government statistics turn out to be accurate; it is like reporting the number of planes that land safely at La Guardia each week. But productivity growth is ground zero in the debate over the new economy, as well as the main determinant of future prosperity. It is just reading tea leaves to forecast from currently available data whether the takeoff in productivity growth in the 1990's has evaporated. Still, the latest research suggests the productivity tea leaves are worth reading.