The productivity growth rate of American workers -- measuring how much more they produce in an hour on the job -- rose at an annual rate of only six-tenths of a percent in the second quarter, the Labor Department reported yesterday. The announcement was greeted with hoots of criticism from a growing number of economists and business people who insist that the official data greatly understate a flourishing efficiency in the workplace.

"The numbers must be wrong; they must be understated," said Bruce Steinberg, chief economist at Merrill Lynch. "There is no way we could have had the outstanding economic performance this country has had over the last couple of years if those numbers were remotely accurate."

The new Labor Department numbers were doubly disappointing for those who hold, as Mr. Steinberg does, that the boom in corporate profits and stock prices, and the low inflation rate result chiefly from rising productivity. In the spring, the department's Bureau of Labor Statistics had announced a spurt in productivity in the first quarter, and the productivity optimists had expected the second-quarter data to reinforce this trend -- finally giving their views statistical support.

Instead, not only was the second-quarter number weak, but the bureau revised downward the bullish first-quarter number. Productivity growth for all of American business except farms grew at an annual rate of 1.4 percent in that quarter, the bureau said, not the 2.6 percent originally reported.

The latest report seemed to intensify a spreading debate between those who believe the American economy has entered a new prosperous era characterized by rising productivity and those who resist embracing such a concept in the absence of statistical evidence from the Labor Department, the official scorekeeper.

"The way I would put this is that the burden of proof is on someone who thinks there is a dramatic change, and every quarter that comes along without it is some evidence against that view," said Robert M. Solow, the Nobel laureate in economics. Productivity, in everyone's view, is the path to rising income, profits and standard of living. When a worker -- making shoes or repairing a car or cleaning a suit -- increases in a single hour the sales revenue from his or her output to, say, $102 from $100, then that worker's productivity growth rate is 2 percent. The additional revenue can go into profit or raises or both. And a company can prosper, along with its workers, without having to raise prices.

The productivity growth rate nationwide averaged 2.8 percent annually from 1947 until 1973. Since then, it has averaged 1 percent, or less, according to the official data, and yesterday's second-quarter report reconfirmed that trend. For the 12 months through the second quarter, productivity rose at an annual rate of seven-tenths of a percent, down from a revised 1.1 percent in the year ended with the first quarter.

The Labor Department also said that in the 1990's the annual productivity rate for nonfarm business has averaged 1 percent, including an upward revision to 1.3 percent in 1996 from a previously estimated seven-tenths of a percent. Most of the weak productivity growth this year came from downward revisions in output -- the revenue from selling what workers produce -- without similar downward revisions in hours worked. The big exception, as usual, was in manufacturing, where productivity rose by 3.2 percent in the second quarter, up from 2.5 percent in the first quarter. That implied that productivity in the much larger and harder to measure service and financial sectors of the economy was very weak.

But Mr. Steinberg and others say this cannot be. The combination in recent years of sharply rising corporate profits and a small upturn in wages has convinced them that rising productivity is generating the extra revenue
to make this possible throughout a strong economy. They cite the low inflation rate as evidence for this view. If they are wrong, the prosperous combination could come apart.

The official data, they say, are failing to capture technology's growing contribution to productivity, for example, or the hidden output generated by computer software, or the true efficiency of service sector workers, or the organizational improvements in corporate America. The opposite side in this debate says the contribution of computers to productivity is greatly overstated, the service sector includes large areas of inefficient labor and much production today is often labor intensive.

Some of the dispute stems from a disagreement over the proper measure of output. Should it be the sum of the revenue from the sale of every worker's output, known as the product side of the ledger? Or should it be the sum of all the 'income,' that is, the wages, salaries, profits and dividends earned from all the sales? In theory, the two should be equal, but lately income has been higher, suggesting a higher productivity number -- if only, the optimists argue, the Labor Department would shift to using 'income' instead of 'product.' Government statisticians reject this shift, arguing that the product calculation is more accurate. The Bureau of Labor Statistics is using the best available data, said Edwin Dean, chief of the bureau's productivity division. "Our methodology for computing labor productivity is widely accepted."

The bureau also reported that unit labor costs, the wages and benefits paid for each unit of output, had risen at a 2.4 percent annual rate, down from 3.1 percent in the first quarter. That meant that wage costs were exercising less upward pressure on prices, thus dampening the inflation rate. What is more, compensation per hour worked rose at a 3.1 percent annual rate in the second quarter, down from 4.5 percent in the first period.