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## U.S. Productivity and Costs in the Second Quarter, 2002

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The U.S. Department of Labor, Bureau of Labor Statistics reported revised productivity data for the second quarter of 2002.<sup>2</sup> Productivity as measured by output per hour of all persons (at seasonally adjusted annual rates) increased in the second quarter by 1.7 percent in the business sector, and by 1.5 percent in the non-farm business sector. In the business sector productivity grew as hours worked dropped by 1.2 percent and output edged up 0.5 percent. In the non-farm business sector productivity increased by 1.5 percent as hours worked fell by 0.7 percent and output grew by 0.8 percent.

Productivity increased by 4.3 percent in manufacturing, 6.0 percent in durable goods manufacturing, and 2.6 percent in nondurable goods manufacturing. Manufacturing productivity rose by 4.3 percent in the second quarter, as output grew by 3.6 percent and hours worked declined by 0.7 percent (at seasonally adjusted annual rates). In the first quarter productivity rose by 9.7 percent, reflecting an increase of 3.0 percent in output and a drop of 6.1 percent in hours worked. Growth in second-quarter productivity differed in the durable and non-durable goods sectors. In durable goods, productivity rose by 6.0 percent as output rose by 5.4 percent and hours worked of all persons fell by 0.6 percent. Hourly compensation of all manufacturing workers increased by 3.0 percent in the second quarter, reflecting growth of 2.8 percent in durable goods and 3.4 percent in non-durable goods.

Real hourly compensation of all manufacturing workers declined by 0.4 percent in the second quarter, after rising by 5.4 percent in the first quarter. Unit labor costs dropped by 1.2 percent in the second quarter, the fourth consecutive decline. Unit labor costs fell by 3.1 percent in durable goods manufacturing and rose by 0.8 percent in non-durable goods manufacturing. This difference in growth rates in unit labor costs reflects differing growth rates in productivity and hourly compensation between the two sectors.

However, output and output per hour in manufacturing, which include about 16 percent of U.S. business-sector employment, tend to vary more from quarter to quarter than data from the aggregate business and non-farm business sectors. Also, data sources and methods used in the preparation of the manufacturing series differ from those used in preparing the business and non-farm business series, and these measures are not directly comparable. Output measures for business and non-farm business are based on measures of gross domestic product prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce, whereas quarterly output measures for manufacturing reflect indexes of industrial production independently prepared by the Board of Governors of the Federal Reserve System. Moreover, productivity measures describe the relationship between real output and labor time involved in its production. They show the changes from period to period in the amount of goods and services produced per hour. Although these measures relate output to hours at work of all persons engaged in a sector, they do not measure the specific contribution of labor, capital, or any other factor of production. Rather, they reflect the joint effects of many influences, including changes in technology; capital investment; level of output; utilization of capacity, energy, and materials; the organization of production; managerial skill; and the characteristics and effort of the work force.

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<sup>2</sup> This article is taken largely from material found in U.S. Department of Labor, Bureau of Labor Statistics, "Productivity and Costs, Second Quarter 2002, Revised," *U.S. Department of Labor News*, USDL 02-508, Sept. 5, 2002; also found an Internet address <http://www.bls.gov/news.release/prod2.nr0.htm>.