# Bureau of Labor Statistics <br> Washington, D.C. 20212 

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## PRODUCTIVITY AND COSTS

Third Quarter 2003

The Bureau of Labor Statistics of the U.S. Department of Labor today reported preliminary productivity data-as measured by output per hour of all persons-for the third quarter of 2003. The preliminary seasonally-adjusted annual rates of productivity growth in the third quarter were:
7.4 percent in the business sector and
8.1 percent in the nonfarm business sector.

Productivity increased 7.4 percent in the business sector, as output grew 8.8 percent and hours increased 1.3 percent. The 8.1 percent increase in nonfarm business productivity also reflected an 8.8 percent growth in output, with a 0.7 percent rise in nonfarm business hours (table A).

In manufacturing, productivity increases in the third quarter were:
8.6 percent in manufacturing,
14.7 percent in durable goods manufacturing, and
2.3 percent in nondurable goods manufacturing.

The increase in manufacturing productivity compares with a 3.1-percent rise reported for the previous quarter (as revised). Output and hours in manufacturing, which includes about 15 percent of U.S. business sector employment, tend to vary more from quarter to quarter than data for the aggregate business and nonfarm business sectors. Third-quarter measures are summarized in table A and appear in detail in tables 1 through 5.

Revised historical measures through 2002 will be released on Jan. 7, 2004, reflecting the release of revised source data. For more information see "Upcoming changes" on page 5.

| Table A. Productivity and costs: Preliminary third-quarter 2003 measures (Seasonally adjusted annual rates) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sector | Productivity | Output | Hours | Hourly compensation | Real hourly compensation | Unit labor costs |
| Percent change from preceding quarter |  |  |  |  |  |  |
| Business | 7.4 | 8.8 | 1.3 | 2.4 | 0.1 | -4.6 |
| Nonfarm business | 8.1 | 8.8 | 0.7 | 3.1 | 0.8 | -4.6 |
| Manufacturing | 8.6 | 2.9 | -5.2 | 4.3 | 1.9 | -4.0 |
| Durable | 14.7 | 7.8 | -6.0 | 3.7 | 1.4 | -9.6 |
| Nondurable | 2.3 | -1.8 | -4.0 | 5.3 | 2.9 | 2.9 |
| Percent change from same quarter a year ago |  |  |  |  |  |  |
| Business | 4.7 | 4.1 | -0.6 | 2.8 | 0.6 | -1.8 |
| Nonfarm business | 4.7 | 4.1 | -0.6 | 2.7 | 0.5 | -1.9 |
| Manufacturing | 3.8 | -1.1 | -4.7 | 4.5 | 2.2 | 0.7 |
| Durable | 5.6 | 0.1 | -5.2 | 4.1 | 1.8 | -1.4 |
| Nondurable | 1.8 | -2.3 | -4.0 | 5.2 | 3.0 | 3.3 |

The data sources and methods used in the preparation of the manufacturing series differ from those used in preparing the business and nonfarm business series, and these measures are not directly comparable. Output measures for business and nonfarm business are based on measures of gross domestic product prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce. Quarterly output measures for manufacturing reflect indexes of industrial production independently prepared by the Board of Governors of the Federal Reserve System. See Technical Notes for further information on data sources (page 7).

## Business

From the second quarter to the third quarter of 2003, business sector productivity increased at a 7.4 percent annual rate. Output increased 8.8 percent, while hours of all persons engaged in the sector increased 1.3 percent (seasonally adjusted annual rates). The output increase was the largest since the fourth quarter of 1992 , when output grew at a 9.3 percent annual rate. After revisions, productivity in the business sector also rose 7.4 percent in the second quarter of 2003, reflecting a 4.5 -percent rise in output and a 2.7 -percent decline in hours (tables B and 1).

Hourly compensation in the business sector increased at an annual rate of 2.4 percent during the third quarter of 2003. Revised results show that hourly compensation increased 4.1 percent in the second quarter (seasonally adjusted annual rates). This measure includes wages and salaries, supplements, employer contributions to employee benefit plans, and taxes. Real hourly compensation, which takes into account changes in consumer prices, edged up 0.1 percent in the third quarter of 2003 .

Unit labor costs, which reflect changes in both hourly compensation and productivity, decreased at a 4.6-percent annual rate during the third quarter. These costs had decreased 3.1 percent in the second quarter of 2003 (as revised). The implicit price deflator for the business sector increased 1.8 percent during the third quarter of 2003, following a 1.0 percent increase in the previous quarter.

## Nonfarm business

Productivity in the nonfarm business sector grew at an 8.1-percent annual rate during the third quarter of 2003. Output grew 8.8 percent in the third quarter, faster than at any time since the fourth quarter of 1992, when it increased 9.8 percent (seasonally adjusted annual rates). Hours worked in the nonfarm business sector rose 0.7 percent, reflecting a 0.3 -percent gain in employment combined with a 0.4 -percent increase in average weekly hours at work. After revisions, nonfarm business productivity increased 7.0 percent in the second quarter of 2003, as output grew 4.6 percent and hours declined 2.2 percent (table 2 ).

Hourly compensation increased at a 3.1 percent annual rate in the third quarter of 2003. When the rise in consumer prices is taken into account, real hourly compensation rose at a 0.8 percent annual rate during the July-September period. During the second quarter of 2002, real hourly compensation had risen 3.0 percent.

Unit labor costs fell 4.6 percent during the third quarter of 2003. In the second quarter, unit labor costs in the nonfarm business sector had decreased 3.2 percent. The implicit price deflator for nonfarm business output rose 1.5 percent in the third quarter of 2003 .

## Manufacturing

Productivity increased 8.6 percent in manufacturing in the third quarter of 2003, as output grew 2.9 percent and hours of all persons fell 5.2 percent (seasonally adjusted annual rates). Total manufacturing output had decreased in each of the previous three quarters. The 3.1 percent increase in labor productivity in the second quarter of 2003 reflected a 2.9-percent decrease in output and a 5.8 -percent drop in hours. In durable goods, productivity grew 14.7 percent in the third quarter as output increased 7.8 percent and hours of all persons fell 6.0 percent. The gain in durable manufacturing output per hour was the largest since the first quarter of 1971, when it increased 15.1 percent. Productivity increased 2.3 percent in nondurable goods, as output declined 1.8 percent and hours of all persons fell 4.0 percent (tables 3, 4, and 5).

Hourly compensation of manufacturing workers increased an average of 4.3 percent during the third quarter of 2003, reflecting increases of 3.7 percent in durable goods and 5.3 percent in nondurable goods. When the increase in consumer prices is taken into account, real hourly compensation in total manufacturing rose 1.9 percent in the third quarter.

Unit labor costs in manufacturing decreased 4.0 percent in the third quarter of 2003, after increasing 1.9 percent in the second quarter. In the durable goods sector, unit labor costs in the third quarter fell 9.6 percent, the largest decline in these costs since the second quarter of 2000, when they dropped 13.0 percent. Unit labor costs rose 2.9 percent in the nondurable goods sector in the third quarter of 2003 , about the same as the 2.7 percent rise one quarter earlier.

## Revised Measures

Current and previous measures for the first and second quarters of 2003 for the business, nonfarm business, and manufacturing sectors are compared in table B. In the business and nonfarm business sectors, growth in output and productivity were slightly higher in the second quarter than reported on Sept. 4, based on information then available. In the manufacturing sector, output declined more, and productivity increased less, than previously reported. In the first quarter of 2003, growth in hourly compensation in all of these sectors was revised down, which resulted in smaller increases in unit labor costs.

| Table B. Previous and revised productivity and related measures |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Quarterly percent change at seasonally adjusted annual rate |

## Revised measures: Nonfinancial Corporations

Productivity and cost measures for nonfinancial corporations for the first and second quarters of 2003 also were revised to incorporate more recent information than was available on Sept. 4.

Productivity grew at an annual rate of 8.4 percent in second-quarter 2003, compared with the increase of 8.1 percent published Sept. 4. This was largely the result of an upward revision in output growth from 5.9 percent to 6.3 percent. Hourly compensation was revised down slightly, and unit labor costs fell more, 4.3 percent, than the 3.8 -percent decline reported previously. Unit profits grew at a 61.6 percent annual rate in the second quarter of 2003, compared with the preliminary estimate of 55.5 percent. Nonfinancial corporate output, productivity, and hourly compensation grew less during the first quarter of 2003 than reported Sept. 4. Because hourly compensation was revised down more than productivity, unit labor costs were revised down as well (tables C and 6).

| Table C. Nonfinancial corporations: Previous and revised productivity and cost measures Quarterly percent changes at seasonally adjusted annual rates |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Productivity | Output | Hours | Hourly compensation | Real hourly compensation | Unit labor costs | Unit profits | Implicit price deflator |
| Second quarter 2003 |  |  |  |  |  |  |  |  |
| Previous........... | 8.1 | 5.9 | -2.0 | 3.9 | 3.3 | -3.8 | 55.5 | -0.7 |
| Current ............. | 8.4 | 6.3 | -1.9 | 3.7 | 3.1 | -4.3 | 61.6 | -0.5 |
| First quarter 2003 |  |  |  |  |  |  |  |  |
| Previous........... | 4.3 | 2.8 | -1.5 | 5.2 | 1.3 | 0.9 | 7.6 | 0.7 |
| Current ............. | 3.4 | 1.9 | -1.5 | 3.8 | 0.0 | 0.4 | 8.5 | 0.7 |

## Upcoming changes

In order to provide users with information on long-term productivity and cost trends reflecting the release of the revised national income and product accounts by the Bureau of Economic Analysis, U.S. Department of Commerce, on Dec. 10, 2003, revised historical measures of productivity and costs for all sectors will be prepared by the BLS. Revised data for the manufacturing and nonfinancial corporate sectors also will reflect conversion from the 1987 Standard Industrial Classification to the 2002 North American Industry Classification System. On Jan. 7, 2004, the BLS will post revised historical measures through the fourth quarter of 2002 on its web site http://www.bls.gov/lpc/ , but will not incorporate these data into the LABSTAT database at that time. In keeping with usual practices, revised data for the second and third quarters of 2003 will be reported in the "Productivity and Costs" release of Feb. 5, 2004, which also will include revised first-quarter 2003 data. All revised historical data will be incorporated into the LABSTAT database at the time of that release.

## Next release date

The next release of Productivity and Costs is scheduled for 8:30 AM EST, Wednesday, Dec. 3, 2003. It will present third-quarter measures for nonfinancial corporations and revised third-quarter measures for business, nonfarm business, and manufacturing. Historical revisions to selected measures for the manufacturing sector, due to incorporation of revised indexes of industrial production for 2001-2003, will be reported at that time.

## TECHNICAL NOTES

Labor Hours: Hours data for the labor productivity and cost measures include hours for all persons working in the sector-wage and salary workers, the self-employed, and unpaid family workers. The primary source of hours and employment data is the BLS Current Employment Statistics (CES) program, which provides monthly survey data on the number of jobs held by wage and salary workers in nonfarm establishments. The CES also provides average weekly paid hours of production and nonsupervisory workers in these establishments. The Office of Productivity and Technology estimates average weekly paid hours of nonproduction and supervisory workers. Weekly paid hours were adjusted to hours at work using the BLS Hours at Work survey, conducted for this purpose. Data from the National Compensation Survey are used for recent years.

Data from the BLS Current Population Survey (CPS) are used for farm labor, nonfarm proprietors, and nonfarm unpaid family workers. Estimates of labor input for government enterprises are derived from the CPS, the CES, and the National Income and Product Accounts (NIPA) prepared by the Bureau of Economic Analysis (BEA) of the Department of Commerce.

Output: Business sector output is an annualweighted index constructed after excluding from gross domestic product (GDP) the following outputs: General government, nonprofit institutions, paid employees of private households, and the rental value of owner-occupied dwellings. Corresponding exclusions also are made in labor inputs. Business output accounted for about 77 percent of the value of GDP in 1996. Nonfarm business, which also excludes farming, accounted for about 76 percent of GDP in 1996.

Annual indexes for manufacturing and its durable and nondurable goods components are constructed by deflating current-dollar industry value of production data from the U.S. Bureau of the Census with deflators from the BEA. These deflators are based on data from the BLS producer price program and other sources. The industry shipments are aggregated using annual weights, and intrasector transactions are removed. Quarterly manufacturing output measures are based on the index of industrial production prepared monthly by the Board of Governors of the Federal Reserve System adjusted to be consistent with annual indexes of manufacturing sector output prepared by BLS. Durables include the
following 2-digit SIC industries: Primary metal industries; fabricated metal products; nonelectrical machinery; industrial and commercial machinery and computer equipment; electronic and other electrical equipment; transportation equipment; instruments; lumber and lumber products; furniture and fixtures; stone, clay, and glass and concrete products; and miscellaneous manufactures. Nondurables include: Food and kindred products, tobacco products, textile mill products, apparel products, paper and allied products, printing and publishing, chemicals and chemical products, petroleum refining and related industries, rubber and plastic products, and leather and leather products.

Nonfinancial corporate output is an annualweighted index calculated on the basis of the costs incurred and the incomes earned from production. The output measure excludes the following outputs from GDP: general government; nonprofit institutions; employees of private households; the rental value of owner-occupied dwellings; unincorporated business; and those corporations which are depository institutions, nondepository institutions, security and commodity brokers, insurance carriers, regulated investment offices, small business investment offices, and real estate investment trusts. Nonfinancial corporations accounted for about 53 percent of the value of GDP in 1996.

Productivity: These productivity measures describe the relationship between real output and the 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.
Information in this release will be made available to sensory-impaired individuals upon request. Voice phone: 202-691-5200; Federal Relay Service number: 1-800-877-8339.

Table 1. Business sector: Productivity, hourly compensation, unit labor costs, and prices, seasonally adjusted

| Year <br> and quarter |  | Output per hour of all persons | Output | Hours of all persons | Compensation per hour (1) | Real <br> compensa- <br> tion per <br> hour (2) | Unit labor costs | Unit nonlabor payments (3) | Implicit price deflator |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indexes 1992=100 |  |  |  |  |  |  |  |  |  |
| 2001 | I | 117.4 | 140.4 | 119.6 | 137.4 | 111.9 | 117.1 | 112.0 | 115.2 |
|  | II | 117.8 | 139.4 | 118.3 | 138.2 | 111.6 | 117.3 | 113.3 | 115.8 |
|  | III | 118.8 | 139.1 | 117.1 | 139.1 | 112.1 | 117.1 | 115.1 | 116.4 |
|  | IV | 121.3 | 140.3 | 115.6 | 139.8 | 112.8 | 115.2 | 117.0 | 115.9 |
| 2002 | ANNUAL | 118.8 | 139.8 | 117.6 | 138.6 | 112.1 | 116.7 | 114.3 | 115.8 |
|  | I | 123.9 | 142.3 | 114.9 | 141.0 | 113.4 | 113.8 | 119.7 | 116.0 |
|  | II | 124.1 | 142.5 | 114.8 | 142.4 | 113.5 | 114.7 | 118.8 | 116.2 |
|  | III | 125.9 | 144.4 | 114.6 | 143.1 | 113.5 | 113.6 | 120.9 | 116.3 |
|  | IV | 126.4 | 145.0 | 114.7 | 143.7 | 113.4 | 113.7 | 122.1 | 116.8 |
|  | ANNUAL | 125.1 | 143.5 | 114.7 | 142.5 | 113.5 | 113.9 | 120.4 | 116.3 |
| 2003 | I | 127.2 | 145.5 | 114.3 | r144.8 | r113.3 | r113.8 | r123.0 | 117.2 |
|  | II | 129.5 | r147.1 | r113.6 | r146.3 | r114.2 | r112.9 | r125.3 | r117.5 |
|  | III | 131.9 | 150.2 | 113.9 | 147.2 | 114.2 | 111.6 | 129.0 | 118.0 |


| Percent change from previous quarter at annual rate(5) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001 | I | -0.5 | -1.0 | -0.5 | 4.6 | 0.8 | 5.1 | 0.3 | 3.4 |
|  | II | 1.5 | -2.8 | -4.3 | 2.3 | -0.9 | 0.8 | 4.6 | 2.2 |
|  | III | 3.3 | -0.9 | -4.1 | 2.5 | 1.6 | -0.8 | 6.8 | 1.8 |
|  | IV | 8.7 | 3.5 | -4.8 | 2.1 | 2.7 | -6.1 | 6.7 | -1.6 |
|  | ANNUAL | 2.0 | -0.2 | -2.1 | 3.8 | 1.0 | 1.8 | 2.3 | 2.0 |
| 2002 | I | 8.7 | 5.9 | -2.6 | 3.5 | 2.2 | -4.8 | 9.6 | 0.3 |
|  | II | 0.8 | 0.6 | -0.2 | 4.0 | 0.4 | 3.1 | -3.2 | 0.7 |
|  | III | 5.9 | 5.3 | -0.6 | 2.1 | 0.0 | -3.6 | 7.6 | 0.5 |
|  | IV | 1.5 | 1.7 | 0.2 | 1.6 | -0.4 | 0.1 | 3.8 | 1.5 |
|  | ANNUAL | 5.3 | 2.7 | -2.5 | 2.8 | 1.2 | -2.3 | 5.3 | 0.4 |
| 2003 | I | 2.7 | 1.4 | -1.2 | r3.2 | r-0.6 | r0. 5 | r3.2 | 1.6 |
|  | II | r7.4 | r4.5 | -2.7 | r4.1 | r3. 5 | r-3.1 | r7.7 | r1.0 |
|  | III | 7.4 | 8.8 | 1.3 | 2.4 | 0.1 | -4.6 | 12.3 | 1.8 |

Percent change from corresponding quarter of previous year

| 2001 | I | 2.2 | 1.4 | -0.8 | 4.9 | 1.4 | 2.6 | 1.4 | 2.2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 1.1 | -0.7 | -1.7 | 4.8 | 1.4 | 3.7 | -0.5 | 2.1 |
|  | III | 1.7 | -1.0 | -2.6 | 3.3 | 0.6 | 1.6 | 3.7 | 2.3 |
|  | IV | 3.2 | -0.3 | -3.4 | 2.9 | 1.0 | -0.3 | 4.6 | 1.4 |
|  | ANNUAL | 2.0 | -0.2 | -2.1 | 3.8 | 1.0 | 1.8 | 2.3 | 2.0 |
| 2002 | I | 5.5 | 1.4 | -3.9 | 2.6 | 1.4 | -2.8 | 6.9 | 0.7 |
|  | II | 5.4 | 2.3 | -2.9 | 3.0 | 1.7 | -2.2 | 4.9 | 0.3 |
|  | III | 6.0 | 3.8 | -2.1 | 2.9 | 1.3 | -2.9 | 5.0 | 0.0 |
|  | IV | 4.2 | 3.4 | -0.8 | 2.8 | 0.5 | -1.4 | 4.3 | 0.7 |
|  | ANNUAL | 5.3 | 2.7 | -2.5 | 2.8 | 1.2 | -2.3 | 5.3 | 0.4 |
| 2003 | I | 2.7 | 2.2 | -0. 5 | r2.7 | r-0.1 | r0. 0 | r2. 8 | 1.1 |
|  | II | 4.3 | 3.2 | -1.1 | r2.8 | r0.6 | r-1.5 | r5. 5 | 1.1 |
|  | III | 4.7 | 4.1 | -0.6 | 2.8 | 0.6 | -1. 8 | 6.7 | 1.4 |

See footnotes following Table 6.
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r=revised
Source: Bureau of Labor Statistics

Table 2. Nonfarm business sector: Productivity, hourly compensation, unit labor costs, and prices, seasonally adjusted


See footnotes following Table 6.
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Source: Bureau of Labor Statistics

Table 3. Manufacturing sector: Productivity, hourly compensation, and unit labor costs, seasonally adjusted


Percent change from corresponding quarter of previous year

| 2001 | I | 1.2 | -2.4 | -3.6 | 0.5 | -2.9 | -0.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 0.7 | -5.0 | -5.7 | 3.4 | 0.0 | 2.7 |
|  | III | 1.8 | -5.9 | -7.5 | 2.1 | -0.6 | 0.3 |
|  | IV | 2.9 | -6.2 | -8.9 | 3.9 | 2.1 | 1.0 |
|  | ANNUAL | 1.6 | -4.9 | -6.4 | 2.4 | -0.4 | 0.8 |
| 2002 | I | 5.7 | -4.0 | -9.2 | 4.8 | 3.6 | -0.9 |
|  | II | 6.7 | -1.7 | -7.8 | 5.1 | 3.8 | -1.4 |
|  | III | 6.8 | 0.3 | -6.1 | 4.7 | 3.1 | -2.0 |
|  | IV | 5.1 | 1.0 | -4.0 | 4.2 | 1.9 | -0.9 |
|  | ANNUAL | 6.1 | -1.1 | -6.8 | 4.7 | 3.1 | -1.3 |
| 2003 | I | 3.9 | 0.5 | -3.3 | r 4.3 | r1.4 | r0. 4 |
|  | II | r3.3 | r-1.1 | r-4.2 | r4.0 | r1. 8 | r0.7 |
|  | III | 3.8 | -1.1 | -4.7 | 4.5 | 2.2 | 0.7 |

See footnotes following Table 6.
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Source: Bureau of Labor Statistics

Table 4. Durable manufacturing sector: Productivity, hourly compensation, and unit labor costs, seasonally adjusted

|  | Year <br> and <br> quarter | Output per hour of all persons | Output | Hours <br> of all <br> persons | Compensation per hour (1) | Real compensation per hour (2) | Unit labor costs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Indexes 1992=100 |  |  |  |  |  |  |
| 2001 | I | 149.3 | 158.3 | 106.0 | 129.4 | 105.3 | 86.6 |
|  | II | 149.7 | 154.9 | 103.5 | 131.3 | 106.1 | 87.7 |
|  | III | 151.7 | 151.8 | 100.1 | 132.0 | 106.4 | 87.0 |
|  | IV | 153.7 | 148.6 | 96.7 | 134.3 | 108.4 | 87.4 |
|  | ANNUAL | 151.0 | 153.4 | 101.5 | 131.7 | 106.5 | 87.2 |
| 2002 | I | 158.1 | 149.4 | 94.5 | 135.6 | 109.1 | 85.8 |
|  | II | 160.7 | 151.2 | 94.1 | 138.2 | 110.3 | 86.0 |
|  | III | 163.9 | 152.6 | 93.1 | 138.8 | 110.1 | 84.7 |
|  | IV | 164.5 | 151.5 | 92.0 | 140.0 | 110.5 | 85.1 |
|  | ANNUAL | 161.8 | 151.2 | 93.4 | 138.1 | 110.0 | 85.4 |
| 2003 | I | 165.9 | 151.3 | 91.2 | r141.5 | r110.6 | r85.3 |
|  | II | r167.2 | r149.9 | r89.7 | r143.1 | r111.7 | r85.6 |
|  | III | 173.0 | 152.8 | 88.3 | 144.4 | 112.1 | 83.5 |

Percent change from previous quarter at annual rate(5)

| 2001 | I | -2.0 | -8.9 | -7.0 | 3.1 | -0.6 | 5.2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 1.0 | -8.2 | -9.1 | 6.2 | 2.9 | 5.1 |
|  | III | 5.4 | -7.9 | -12.6 | 2.0 | 1.1 | -3.3 |
|  | IV | 5.5 | -8.0 | -12.8 | 7.2 | 7.8 | 1.6 |
|  | ANNUAL | 0.9 | -6.3 | -7.1 | 1.8 | -0.9 | 0.9 |
| 2002 | I | 11.9 | 2.1 | -8.7 | 3.9 | 2.6 | -7.1 |
|  | II | 6.7 | 4.9 | -1.7 | 8.1 | 4.4 | 1.2 |
|  | III | 8.3 | 3.8 | -4.2 | 1.6 | -0.5 | -6.2 |
|  | IV | 1.5 | -2.9 | -4.4 | 3.5 | 1.5 | 2.0 |
|  | ANNUAL | 7.1 | -1.5 | -8.0 | 4.9 | 3.3 | -2.1 |
| 2003 | I | 3.4 | -0.5 | -3.8 | r4.4 | r0. 5 | r0.9 |
|  | II | r3.1 | r-3.5 | r-6.4 | r4.6 | r4.0 | 1.4 |
|  | III | 14.7 | 7.8 | -6.0 | 3.7 | 1.4 | -9.6 |

Percent change from corresponding quarter of previous year

| 2001 | I | 0.5 | -2.9 | -3.3 | -1.1 | -4.3 | -1.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | -0.2 | -6.3 | -6.1 | 3.0 | -0.4 | 3.2 |
|  | III | 0.9 | -7.8 | -8.6 | 1.1 | -1.6 | 0.2 |
|  | IV | 2.4 | -8.2 | -10.4 | 4.6 | 2.7 | 2.1 |
|  | ANNUAL | 0.9 | $-6.3$ | -7.1 | 1.8 | -0.9 | 0.9 |
| 2002 | I | 5.9 | -5.6 | -10.8 | 4.8 | 3.6 | -1.0 |
|  | II | 7.3 | -2.4 | -9.1 | 5.3 | 3.9 | -1.9 |
|  | III | 8.1 | 0.5 | -7.0 | 5.2 | 3.5 | -2.7 |
|  | IV | 7.0 | 1.9 | -4.8 | 4.2 | 2.0 | -2.6 |
|  | ANNUAL | 7.1 | -1. 5 | -8.0 | 4.9 | 3.3 | -2.1 |
| 2003 | I | 5.0 | 1.3 | -3.5 | r 4.4 | r1. 4 | $r-0.6$ |
|  | II | r4.1 | -0.8 | -4.7 | r3.5 | r1.3 | r-0.5 |
|  | III | 5.6 | 0.1 | -5.2 | 4.1 | 1.8 | -1.4 |

See footnotes following Table 6.
November 6, 2003
r=revised
Source: Bureau of Labor Statistics

Table 5. Nondurable manufacturing sector: Productivity, hourly compensation, and unit labor costs, seasonally adjusted

|  | Year <br> and <br> quarter | Output per hour of all persons | Output | Hours <br> of all <br> persons | Compensation per hour (1) | Real <br> compensa- <br> tion per <br> hour (2) | Unit labor costs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Indexes 1992=100 |  |  |  |  |  |
| 2001 | I | 123.1 | 112.7 | 91.6 | 134.7 | 109.7 | 109.4 |
|  | II | 123.8 | 111.7 | 90.2 | 135.8 | 109.7 | 109.7 |
|  | III | 125.6 | 111.3 | 88.6 | 138.6 | 111.7 | 110.3 |
|  | IV | 127.4 | 110.1 | 86.4 | 139.2 | 112.4 | 109.3 |
|  | ANNUAL | 125.0 | 111.5 | 89.2 | 137.0 | 110.8 | 109.7 |
| 2002 | I | 129.1 | 110.2 | 85.4 | 141.6 | 113.9 | 109.7 |
|  | II | 130.4 | 110.8 | 84.9 | 142.9 | 113.9 | 109.5 |
|  | III | 131.9 | 111.4 | 84.4 | 144.3 | 114.5 | 109.4 |
|  | IV | 130.9 | 110.1 | 84.1 | 145.3 | 114.7 | 111.0 |
|  | ANNUAL | 130.6 | 110.6 | 84.7 | 143.5 | 114.3 | 109.9 |
| 2003 | I | 132.5 | 109.9 | 82.9 | r147.8 | r115.5 | r111.5 |
|  | II | r133.5 | 109.4 | 81.9 | r149.9 | r117.0 | 112.2 |
|  | III | 134.3 | 108.9 | 81.1 | 151.8 | 117.9 | 113.1 |
| Percent change from previous quarter at annual rate(5) |  |  |  |  |  |  |  |
| 2001 | I | -2.5 | -6.0 | -3.6 | -0.8 | -4.4 | 1.8 |
|  | II | 2.3 | -3.8 | -5.9 | 3.3 | 0.0 | 1.0 |
|  | III | 5.8 | -1.4 | -6.7 | 8.4 | 7.4 | 2.5 |
|  | IV | 6.0 | -4.0 | -9.4 | 1.9 | 2.5 | -3.8 |
|  | ANNUAL | 2.3 | -3.2 | -5.3 | 3.6 | 0.8 | 1.3 |
| 2002 | I | 5.4 | 0.3 | -4.9 | 7.1 | 5.8 | 1.6 |
|  | II | 4.2 | 1.9 | -2.1 | 3.5 | 0.0 | -0.6 |
|  | III | 4.6 | 2.3 | -2.2 | 4.2 | 2.0 | -0.4 |
|  | IV | -3.1 | -4.6 | -1.6 | 2.6 | 0.6 | 5.9 |
|  | ANNUAL | 4.5 | -0.8 | -5.0 | 4.7 | 3.1 | 0.2 |
| 2003 | I | 5.2 | -0.6 | -5.5 | r7.0 | r3.1 | r1.7 |
|  | II | r3.1 | r-1.9 | -4.9 | 5.9 | 5.3 | r2.7 |
|  | III | 2.3 | -1.8 | -4.0 | 5.3 | 2.9 | 2.9 |

Percent change from corresponding quarter of previous year

| 2001 | I | 2.1 | -1.9 | -3.9 | 3.1 | -0.3 | 1.0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 1.7 | -3.4 | -5.1 | 4.1 | 0.7 | 2.4 |
|  | III | 2.5 | -3.5 | -5.9 | 4.1 | 1.3 | 1.5 |
|  | IV | 2.8 | -3.8 | -6.4 | 3.1 | 1.3 | 0.3 |
|  | ANNUAL | 2.3 | -3.2 | -5.3 | 3.6 | 0.8 | 1.3 |
| 2002 | I | 4.8 | -2.2 | -6.7 | 5.1 | 3.9 | 0.3 |
|  | II | 5.3 | -0.8 | -5.8 | 5.2 | 3.9 | -0.1 |
|  | III | 5.0 | 0.1 | -4.7 | 4.2 | 2.5 | -0.8 |
|  | IV | 2.7 | -0.1 | -2.7 | 4.3 | 2.1 | 1.6 |
|  | ANNUAL | 4.5 | -0.8 | -5.0 | 4.7 | 3.1 | 0.2 |
| 2003 | I | 2.7 | -0.3 | -2.9 | r4.3 | r1.4 | r1.6 |
|  | II | r2. 4 | r-1.3 | -3.6 | r4.9 | r2.7 | 2.5 |
|  | III | 1.8 | -2.3 | -4.0 | 5.2 | 3.0 | 3.3 |

See footnotes following Table 6.
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Source: Bureau of Labor Statistics

Table 6. Nonfinancial corporations: Productivity, hourly compensation, unit labor costs, unit profits, and prices, seasonally adjusted

|  | Year <br> and quarter | Output per allemployee hour | Output | Employee hours | Hourly compensation (1) | Real <br> hourly compensation(2) | Unit <br> labor costs | Unit <br> non- <br> labor <br> costs (6) | Total unit costs (7) | Unit profits (8) | Implicit price deflator <br> (4) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indexes 1992=100 |  |  |  |  |  |  |  |  |  |  |  |
| 2001 | I | 118.7 | 147.9 | 124.7 | 131.2 | 106.8 | 110.6 | 111.6 | 110.8 | 93.1 | 109.3 |
|  | II | 120.0 | 147.8 | 123.1 | 132.6 | 107.1 | 110.4 | 113.5 | 111.3 | 95.4 | 109.9 |
|  | III | 121.3 | 147.7 | 121.7 | 133.8 | 107.8 | 110.3 | 115.5 | 111.7 | 97.9 | 110.5 |
|  | IV | 124.5 | 149.6 | 120.2 | 134.7 | 108.7 | 108.2 | 114.1 | 109.8 | 107.6 | 109.6 |
|  | ANNUAL | 121.1 | 148.2 | 122.4 | 133.0 | 107.6 | 109.9 | 113.7 | 110.9 | 98.5 | 109.8 |
| 2002 | I | 126.0 | 150.8 | 119.7 | 135.9 | 109.4 | 107.9 | 114.0 | 109.5 | 107.6 | 109.4 |
|  | II | 127.7 | 152.8 | 119.6 | 137.3 | 109.5 | 107.5 | 114.5 | 109.4 | 107.8 | 109.3 |
|  | III | 128.7 | 153.4 | 119.2 | 138.2 | 109.7 | 107.4 | 115.4 | 109.6 | 104.6 | 109.1 |
|  | IV | 129.9 | 154.5 | 118.9 | 139.2 | 109.9 | 107.1 | 115.2 | 109.3 | 110.1 | 109.4 |
|  | ANNUAL | 128.1 | 152.9 | 119.3 | 137.7 | 109.6 | 107.5 | 114.8 | 109.4 | 107.5 | 109.3 |
| 2003 | I | r131.0 | r155.2 | 118.4 | r140.5 | r109.9 | r107.2 | r114.9 | 109.3 | r112.4 | 109.6 |
|  | II | r133.7 | r157.6 | r117.9 | r141.8 | r110.7 | r106.1 | r112.6 | r107.8 | r126.8 | 109.4 |
| Percent change from previous quarter at annual rate(5) |  |  |  |  |  |  |  |  |  |  |  |
| 2001 | I | -2.6 | -3.3 | -0.7 | -1.2 | -4.7 | 1.4 | 10.1 | 3.7 | -20.2 | 1.7 |
|  | II | 4.7 | -0.5 | -5.0 | 4.3 | 1.0 | -0.4 | 7.1 | 1.6 | 10.0 | 2.2 |
|  | III | 4.4 | -0.3 | -4.5 | 3.7 | 2.8 | -0.6 | 7.2 | 1.5 | 10.8 | 2.2 |
|  | IV | 10.8 | 5.4 | -4.9 | 2.7 | 3.3 | -7.3 | -4.9 | -6.7 | 46.1 | -3.3 |
| 2002 | ANNUAL | 2.0 | -0.1 | -2.1 | 3.1 | 0.3 | 1.0 | 6.5 | 2.5 | -11.7 | 1.2 |
|  | I | 5.0 | 3.3 | -1.6 | 3.7 | 2.5 | -1.2 | -0.2 | -0.9 | -0.2 | -0.8 |
|  | II | 5.5 | 5.3 | -0.3 | 4.2 | 0.6 | -1.3 | 1.7 | -0.5 | 0.9 | -0.3 |
|  | III | 3.1 | 1.7 | -1.4 | 2.7 | 0.5 | -0.5 | 3.1 | 0.5 | -11.2 | -0.5 |
|  | IV | 3.8 | 2.8 | -1.0 | 2.8 | 0.8 | -1.0 | -0.6 | -0.9 | 22.8 | 0.9 |
| 2003 | ANNUAL | 5.8 | 3.1 | -2. 5 | 3.5 | 1.9 | -2.2 | 1.0 | -1.3 | 9.1 | -0. 5 |
|  | 3 I | r3.4 | r1.9 | -1.5 | r3. 8 | r0. 0 | r0. 4 | $r-1.0$ | r0. 0 | r8. 5 | 0.7 |
|  | II | r8.4 | r6.3 | r-1.9 | r3.7 | r3.1 | r-4.3 | r-7.9 | r-5.3 | r61.6 | r-0.5 |


| Percent change from corresponding quarter of previous year |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001 | I | 0.9 | 0.4 | -0.4 | 3.5 | 0.1 | 2.6 | 6.7 | 3.7 | -22.0 | 1.3 |
|  | II | 1.5 | -0.1 | -1.6 | 3.9 | 0.5 | 2.3 | 6.8 | 3.5 | -19.7 | 1.3 |
|  | III | 1.6 | -1.1 | -2.7 | 2.7 | 0.0 | 1.1 | 7.8 | 2.9 | -10.6 | 1.7 |
|  | IV | 4.2 | 0.3 | -3.8 | 2.4 | 0.5 | -1.8 | 4.7 | 0.0 | 9.2 | 0.7 |
|  | ANNUAL | 2.0 | -0.1 | -2.1 | 3.1 | 0.3 | 1.0 | 6.5 | 2.5 | -11.7 | 1.2 |
| 2002 | I | 6.2 | 1.9 | -4.0 | 3.6 | 2.4 | -2.4 | 2.2 | -1.2 | 15.5 | 0.0 |
|  | II | 6.4 | 3.4 | -2.8 | 3.6 | 2.3 | -2.6 | 0.9 | -1.7 | 13.0 | -0.6 |
|  | III | 6.1 | 3.9 | -2.1 | 3.3 | 1.7 | -2.6 | -0.1 | -1.9 | 6.9 | -1.3 |
|  | IV | 4.4 | 3.2 | -1.1 | 3.3 | 1.1 | -1.0 | 1.0 | -0.4 | 2.4 | -0.2 |
|  | ANNUAL | 5.8 | 3.1 | -2.5 | 3.5 | 1.9 | -2.2 | 1.0 | -1.3 | 9.1 | -0. 5 |
| 2003 | I | r4.0 | r2.9 | -1.1 | r3.4 | r0. 5 | r-0.6 | $\text { r0. } 8$ | $-0.2$ | r4.5 | $0.2$ |
|  | II | r4.7 | r3.1 | -1.5 | r3.2 | r1.1 | r-1.4 | r-1.7 | $\mathrm{r}-1.5$ | r17.6 | 0.1 |

See footnotes following Table 6. November 6, 2003
r=revised

SOURCES: Output data are from the Bureau of Economic Analysis and the Census Bureau of the U.S. Department of Commerce; the Bureau of Labor Statistics, U.S. Department of Labor; and the Federal Reserve Board. Compensation and hours data are from the Bureau of Labor Statistics and the Bureau of Economic Analysis.

RELIABILITY: Productivity and cost measures are regularly revised as more complete information becomes available. The measures are first published within 40 days of the close of the reference period; revisions appear 30 days later, and second revisions after an additional 60 days. In the business sector, the third publication (second revision) of a quarterly index of output per hour of all persons has differed from the initial value by between -1.4 and +1.5 index points approximately 95 percent of the time. This interval is based on the performance of this measure between the fourth quarter of 1995 and the second quarter of 2003.

## Footnotes, Tables 1-6

(1) Wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. Except for nonfinancial corporations, where there are no selfemployed, data also include an estimate of wages, salaries, and supplemental payments for the self-employed.
(2) The change for recent quarters is based on the Consumer Price Index for all urban consumers (CPI-U). The trend from 1978-2002 is based on the Consumer Price Index research series (CPI-U-RS).
(3) Unit nonlabor payments include profits, capital consumption allowances, interest, rental income of persons, and indirect taxes.
(4) Current dollar output divided by the output index.
(5) Quarterly changes: Percent change compounded at annual rate from the original data rather than index numbers. Annual changes: Percent change between annual average levels.
(6) Unit nonlabor costs include capital consumption allowances, interest, rental income of persons, and indirect taxes. For nonfinancial corporations, rental income of persons is zero by definition.
(7) Total unit costs are the sum of unit labor and nonlabor costs.
(8) Unit profits include corporate profits with inventory valuation and capital consumption adjustments.

