USDL 98-442
TRANSMISSION OF THIS
MATERIAL IS EMBARGOED
UNTIL 10:00 A.M. EST,
TUESDAY, NOVEMBER 10, 1998.

Internet address: http://stats.bls.gov/lprhome.htm
Historical, technical
information:
Current data:
Media contact:
(202) 606-5606
(202) 606-7828
(202) 606-5902

```
PRODUCTIVITY AND COSTS
    Third Quarter 1998
```

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 1998. The preliminary seasonally-adjusted annual rates of productivity growth in the third quarter were:

```
2.4 percent in the business sector, and
2.3 percent in the nonfarm business sector.
```

In both the business and the nonfarm business sectors, productivity increases in the third quarter were larger than those recorded in the second quarter of 1998 (as revised).

In manufacturing, productivity increases in the third quarter were:

```
3.7 percent in manufacturing,
5.4 percent in durable goods manufacturing, and
1.7 percent in nondurable goods manufacturing.
```

The 3.7 percent rise in manufacturing productivity occurred as output dropped slightly and hours of all persons working in the sector fell more. Output and hours in manufacturing, which includes about 18 percent of U.S. business sector employment, tend to vary more from quarter to quarter than data for the more aggregate business and nonfarm business sectors. Thirdquarter measures are summarized in table $A$ and appear in detail in tables 1 through 5.

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.

Table A. Productivity and costs: Preliminary third-quarter 1998 measures (Seasonally adjusted annual rates)

| Sector | Produc- <br> tivity | Output | Hours | Hourly <br> compen- <br> sation | Real <br> hourly <br> compen- <br> sation | Unit <br> labor <br> costs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percent change from preceding quarter |  |  |  |  |  |  |
| Business | 2.4 | 3.5 | 1.1 | 3.8 | 1.9 | 1.4 |
| Nonfarm business | 2.3 | 3.5 | 1.2 | 4.0 | 2.2 | 1.7 |
| Manufacturing | 3.7 | -0.6 | -4.1 | 2.9 | 1.1 | -0.7 |
| Durable | 5.4 | 1.8 | -3.4 | 1.2 | -0.6 | -4.0 |
| Nondurable | 1.7 | -3.5 | -5.1 | 5.6 | 3.7 | 3.8 |
| Percent change from same quarter a year ago |  |  |  |  |  |  |
| Business | 1.8 | 4.0 | 2.1 | 4.5 | 2.9 | 2.6 |
| Nonfarm business | 1.7 | 4.0 | 2.3 | 4.4 | 2.8 | 2.6 |
| Manufacturing | 3.1 | 2.6 | -0.5 | 4.4 | 2.7 | 1.3 |
| Durable | 4.6 | 4.3 | -0.3 | 3.8 | 2.2 | -0.7 |
| Nondurable | 1.2 | 0.6 | -0.7 | 5.2 | 3.6 | 4.0 |

Business
From the second quarter to the third quarter of 1998, business sector productivity increased at a 2.4 percent annual rate. Output rose 3.5 percent, while hours of all persons engaged in the sector went up 1.1 percent (seasonally adjusted annual rates). The increase in hours of all persons in the business sector reflected an employment increase of 2.1 percent and a drop in average weekly hours of 1.0 percent. Average weekly hours in the business sector have fallen in four of the last five quarters. After revisions, second-quarter productivity in the business sector rose 0.1 percent, as output and hours both increased 1.7 percent (tables $B$ and 1).

Hourly compensation increased 3.8 percent during the third quarter of 1998. This marks the third consecutive quarter in which the increase in hourly compensation was smaller than in the previous quarter--hourly compensation rose 4.1 percent in the second quarter of 1998. This measure includes wages and salaries, supplements, employer contributions to employee benefit plans, and taxes. Real hourly compensation, which takes into account changes in the Consumer Price Index for All Urban Consumers (CPI-U), increased 1.9 percent in the third quarter, about the same as the 2.0 -percent increase posted in the previous quarter.

Unit labor costs, which reflect changes in both hourly compensation and productivity, increased at a 1.4 percent annual rate during the third quarter. During the previous quarter, these costs had risen 4.0 percent. The implicit price deflator for the business sector increased at a 0.3 percent annual rate in both the second and third quarters. This measure has increased less than 1.0 percent for four consecutive quarters as declines in unit nonlabor payments, which account for about one-third of all payments, have somewhat offset rises in unit labor costs.

## Nonfarm business

Productivity rose 2.3 percent in the nonfarm business sector during the third quarter of 1998. The increase in labor productivity in the third quarter occurred as output rose 3.5 percent and hours of all persons grew by 1.2 percent. In the previous quarter, productivity had risen 0.3 percent as output grew 1.7 percent and hours increased 1.5 percent (table 2).

Hourly compensation increased at a 4.0 percent annual rate in both the second and third quarters, down somewhat from the 4.6 percent rise in the first quarter. When the rise in the CPI-U is taken into account, real hourly compensation rose at a 2.2 percent annual rate during the July-September period.

Unit labor costs increased 1.7 percent during the third quarter of 1998. In the second quarter, unit labor costs in the nonfarm business sector rose 3.7 percent. The implicit price deflator for nonfarm business output rose 0.6 percent in the third quarter.

## Manufacturing

Productivity increased 3.7 percent in manufacturing in the third quarter of 1998 , as output dipped by 0.6 percent and hours of all persons fell 4.1 percent (seasonally adjusted annual rates). The third-quarter decline in output marks the first time output fell in the sector since a 10.0 -percent drop was recorded in the first quarter of 1991. Third-quarter growth rates in productivity and output were quite different in the durable and nondurable manufacturing sectors. In the durable goods sector, third-quarter productivity rose by 5.4 percent as output increased 1.8 percent and hours of all persons fell 3.4 percent. Labor productivity also increased in the nondurable goods sector during the third quarter, 1.7 percent, as output dropped 3.5 percent and hours of all persons dropped more, 5.1 percent. Nondurable goods output also dropped in the second quarter, by 1.3 percent (tables 3, 4, and 5).

Hourly compensation of manufacturing workers increased an average of 2.9 percent during the third quarter, after rising 2.6 percent in the previous quarter (seasonally adjusted annual rates). In the third quarter, hourly compensation grew 1.2 percent in durable goods and 5.6 percent in nondurable goods. When the increase in the CPI-U is taken into account, real hourly compensation in total manufacturing rose 1.1 percent in the third quarter.

Unit labor costs fell 0.7 percent in the third quarter of 1998 , the first decline in a year. This decline in unit labor costs reflects a drop of 4.0 percent in durable goods industries and an increase of 3.8 percent in the smaller nondurable goods sector.

## Revised Measures

Current and previous measures for the second quarter of 1998 for the business, nonfarm business, and manufacturing sectors are compared in table B. In the business and nonfarm business sectors, the quarterly movements in output per hour and output are slightly higher, and unit labor costs correspondingly lower, than those reported on Sept. 3, based on information then available. Conversely, productivity and output movements in the manufacturing sector were revised slightly downward and unit labor costs upward, based on newer information from the Federal Reserve Board's Indexes of Industrial Production.

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

| Sector | Productivity | Output | Hours | Hourly <br> compen- <br> sation | Real <br> hourly <br> compen- <br> sation | Unit labor costs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Second quarter 1998 |  |  |  |  |  |
| Business: |  |  |  |  |  |  |
| Previous | -0.2 | 1.4 | 1.7 | 4.1 | 2.0 | 4.3 |
| Current | 0.1 | 1.7 | 1.7 | 4.1 | 2.0 | 4.0 |
| Nonfarm business: |  |  |  |  |  |  |
| Previous | 0.1 | 1.6 | 1.5 | 4.0 | 2.0 | 3.9 |
| Current | 0.3 | 1.7 | 1.5 | 4.0 | 2.0 | 3.7 |
| Manufacturing: |  |  |  |  |  |  |
| Previous | 2.5 | 1.0 | -1.4 | 2.6 | 0.6 | 0.1 |
| Current | 2.3 | 0.8 | -1.4 | 2.6 | 0.6 | 0.3 |




## Next release date

The next release of Productivity and Costs is scheduled for 10:00 AM EST, Thursday, Dec. 3, 1998. Third-quarter measures for nonfinancial corporations and revised third-quarter measures for business, nonfarm business, and manufacturing will be released at that time.

Labor Hours: The primary source of hours and employment data is the BLS Current Employment Statistics (CES) program, which provides monthly survey data on total employment and average weekly paid hours of production and nonsupervisory workers in nonagricultural establishments. Jobs rather than persons are counted. Weekly paid hours are adjusted to hours at work using the BLS Hours at Work survey, conducted for this purpose.

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

Output: Business sector output is an annual-weighted 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 76 percent of the value of GDP in 1992. Nonfarm business, which also excludes farming, accounted for about 75 percent of GDP in 1992.

Annual manufacturing indexes 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 annual-weighted index constructed by excluding from GDP the following outputs: 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 52 percent of the value of GDP in 1992.

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: 202-606-STAT; TDD phone: 202-606-5897; TDD message referral phone number: 1-800-326-2577.

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

| Year |  | Output per |  | Hours | Compensa- | Real compensa- | Unit | Unit non- | Implicit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | arter | hour of all persons | Output | of all persons | tion per hour (1) | tion per hour (2) | labor costs | labor payments (3) | price <br> deflator (4) |
| Indexes 1992=100 |  |  |  |  |  |  |  |  |  |
| 1996 | I | 102.9 | 112.5 | 109.3 | 108.8 | 98.4 | 105.7 | 111.9 | 107.9 |
|  | II | 103.8 | 114.2 | 110.0 | 110.3 | 98.9 | 106.3 | 112.1 | 108.4 |
|  | III | 103.8 | 114.9 | 110.7 | 111.4 | 99.3 | 107.3 | 111.5 | 108.8 |
|  | IV | 104.2 | 116.4 | 111.6 | 112.3 | 99.3 | 107.8 | 111.8 | 109.2 |
| ANNUAL |  | 103.7 | 114.5 | 110.4 | 110.7 | 99.0 | 106.8 | 111.8 | 108.6 |
| 1997 | I | 104.5 | 117.8 | 112.7 | 113.4 | 99.7 | 108.5 | 112.4 | 109.9 |
|  | II | 105.0 | 119.1 | 113.4 | 114.1 | 100.0 | 108.7 | 113.1 | 110.3 |
|  | III | 106.0 | 120.6 | 113.8 | 115.3 | 100.5 | 108.8 | 113.8 | 110.6 |
|  | IV | 106.2 | 121.7 | 114.5 | 116.8 | 101.3 | 110.0 | 112.4 | 110.8 |
| ANNUAL |  | 105.4 | 119.8 | 113.6 | 114.9 | 100.5 | 109.0 | 112.9 | 110.4 |
| 1998 | I | 107.3 | 123.7 | 115.4 | 118.2 | 102.4 | 110.2 | 112.2 | 110.9 |
|  | II | r107.3 | r124.3 | 115.8 | 119.4 | 102.9 | 111.3 | r110.5 | 111.0 |
|  | III | 107.9 | 125.4 | 116.2 | 120.5 | 103.4 | 111.6 | 110.0 | 111.1 |

Percent change from previous quarter at annual rate(5)

| 1996 | I | 4.4 | 4.5 | 0.1 | 2.5 | -0.7 | -1.9 | 8.5 | 1.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 3.5 | 6.4 | 2.9 | 5.6 | 1.8 | 2.1 | 0.9 | 1.7 |
|  | III | 0.1 | 2.5 | 2.4 | 4.0 | 1.5 | 3.8 | -2.2 | 1.6 |
|  | IV | 1.5 | 5.1 | 3.5 | 3.4 | 0.0 | 1.8 | 1.0 | 1.5 |
|  | ANNUAL | 2.7 | 4.2 | 1.5 | 3.6 | 0.7 | 0.9 | 2.8 | 1.6 |
| 1997 | I | 1.0 | 4.9 | 3.9 | 3.9 | 1.7 | 2.8 | 2.0 | 2.5 |
|  | II | 2.0 | 4.7 | 2.6 | 2.6 | 1.3 | 0.6 | 2.8 | 1.4 |
|  | III | 3.7 | 4.9 | 1.2 | 4.1 | 2.1 | 0.4 | 2.2 | 1.1 |
|  | IV | 0.9 | 3.6 | 2.7 | 5.3 | 3.1 | 4.4 | -4.8 | 0.9 |
|  | ANNUAL | 1.7 | 4.6 | 2.9 | 3.8 | 1.5 | 2.1 | 1.0 | 1.7 |
| 1998 | I | 4.1 | 7.1 | 2.9 | 4.9 | 4.4 | 0.8 | -0.7 | 0.2 |
|  | II | r0.1 | r1.7 | 1.7 | 4.1 | 2.0 | r4.0 | r-6.0 | r0.3 |
|  | III | 2.4 | 3.5 | 1.1 | 3.8 | 1.9 | 1.4 | -1.5 | 0.3 |

Percent change from corresponding quarter of previous year

| 1996 | I | 2.5 | 3.2 | 0.7 | 3.0 | 0.2 | 0.6 | 3.3 | 1.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 3.1 | 4.7 | 1.6 | 3.7 | 0.8 | 0.6 | 3.4 | 1.6 |
|  | III | 2.8 | 4.2 | 1.4 | 4.0 | 1.0 | 1.1 | 2.4 | 1.6 |
|  | IV | 2.4 | 4.6 | 2.2 | 3.9 | 0.7 | 1.5 | 2.0 | 1.7 |
|  | ANNUAL | 2.7 | 4.2 | 1.5 | 3.6 | 0.7 | 0.9 | 2.8 | 1.6 |
| 1997 | I | 1.5 | 4.7 | 3.2 | 4.2 | 1.2 | 2.6 | 0.4 | 1.8 |
|  | II | 1.2 | 4.3 | 3.1 | 3.5 | 1.1 | 2.3 | 0.9 | 1.8 |
|  | III | 2.1 | 4.9 | 2.8 | 3.5 | 1.3 | 1.4 | 2.0 | 1.6 |
|  | IV | 1.9 | 4.5 | 2.6 | 4.0 | 2.0 | 2.0 | 0.5 | 1.5 |
|  | ANNUAL | 1.7 | 4.6 | 2.9 | 3.8 | 1.5 | 2.1 | 1.0 | 1.7 |
| 1998 | I | 2.6 | 5.1 | 2.3 | 4.2 | 2.7 | 1.5 | -0.2 | 0.9 |
|  | II | 2.1 | r4.3 | 2.1 | 4.6 | 2.9 | 2.4 | r-2.4 | 0.6 |
|  | III | 1.8 | 4.0 | 2.1 | 4.5 | 2.9 | 2.6 | -3.3 | 0.4 |

See footnotes following Table 6.
November 10, 1998
r=revised

Table 2. Nonfarm business sector: Productivity, hourly compensation, unit labor costs, and prices, 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 | Unit nonlabor payments (3) | Implicit price deflator <br> (4) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indexes 1992=100 |  |  |  |  |  |  |  |  |  |
| 1996 | I | 103.0 | 112.8 | 109.4 | 108.6 | 98.3 | 105.4 | 112.3 | 107.9 |
|  | II | 103.8 | 114.5 | 110.3 | 110.0 | 98.6 | 106.0 | 112.3 | 108.2 |
|  | III | 103.8 | 115.2 | 111.0 | 111.0 | 98.9 | 107.0 | 111.6 | 108.6 |
|  | IV | 104.1 | 116.6 | 112.0 | 112.0 | 98.9 | 107.5 | 112.2 | 109.2 |
| ANNUAL |  | 103.7 | 114.8 | 110.7 | 110.4 | 98.7 | 106.5 | 112.1 | 108.5 |
| 1997 | I | 104.2 | 117.9 | 113.1 | 113.1 | 99.4 | 108.5 | 112.8 | 110.0 |
|  | II | 104.7 | 119.2 | 113.9 | 113.8 | 99.7 | 108.7 | 113.6 | 110.4 |
|  | III | 105.6 | 120.6 | 114.2 | 114.9 | 100.2 | 108.8 | 114.5 | 110.8 |
|  | IV | 105.9 | 121.8 | 115.1 | 116.3 | 100.9 | 109.9 | 113.3 | 111.1 |
| ANNUAL |  | 105.1 | 119.9 | 114.1 | 114.5 | 100.1 | 109.0 | 113.6 | 110.6 |
| 1998 | I | 106.8 | 123.9 | 116.0 | 117.6 | 101.9 | 110.2 | 113.2 | 111.2 |
|  | II | 106.8 | 124.4 | r116.4 | 118.8 | 102.4 | 111.2 | r111.5 | 111.3 |
|  | III | 107.4 | 125.5 | 116.8 | 120.0 | 102.9 | 111.6 | 111.1 | 111.5 |

Percent change from previous quarter at annual rate(5)

| 1996 | I | 4.1 | 4.2 | 0.0 | 2.6 | -0.5 | -1.5 | 7.4 | 1.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 3.0 | 6.4 | 3.3 | 5.2 | 1.4 | 2.2 | -0.1 | 1.3 |
|  | III | 0.0 | 2.5 | 2.4 | 3.7 | 1.3 | 3.7 | -2.3 | 1.4 |
|  | IV | 1.2 | 5.0 | 3.7 | 3.3 | 0.0 | 2.1 | 2.3 | 2.2 |
|  | ANNUAL | 2.4 | 4.1 | 1.6 | 3.5 | 0.6 | 1.1 | 2.0 | 1.4 |
| 1997 | I | 0.5 | 4.5 | 4.1 | 4.0 | 1.8 | 3.6 | 2.2 | 3.1 |
|  | II | 1.8 | 4.5 | 2.6 | 2.6 | 1.2 | 0.7 | 2.8 | 1.5 |
|  | III | 3.6 | 4.8 | 1.2 | 3.9 | 2.0 | 0.3 | 3.1 | 1.4 |
|  | IV | 0.9 | 4.0 | 3.0 | 4.9 | 2.8 | 4.0 | -4.3 | 0.9 |
|  | ANNUAL | 1.4 | 4.5 | 3.0 | 3.7 | 1.4 | 2.3 | 1.3 | 1.9 |
| 1998 | I | 3.5 | 7.0 | 3.4 | 4.6 | 4.1 | 1.1 | -0.3 | 0.6 |
|  | II | ro. 3 | r1.7 | 1.5 | 4.0 | 2.0 | r3.7 | r-5.7 | 0.2 |
|  | III | 2.3 | 3.5 | 1.2 | 4.0 | 2.2 | 1.7 | -1.5 | 0.6 |

Percent change from corresponding quarter of previous year

| 1996 | I | 2.4 | 3.2 | 0.8 | 3.0 | 0.2 | 0.6 | 2.7 | 1.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 2.9 | 4.7 | 1.8 | 3.6 | 0.7 | 0.7 | 2.4 | 1.3 |
|  | III | 2.4 | 4.1 | 1.6 | 3.8 | 0.8 | 1.3 | 1.4 | 1.3 |
|  | IV | 2.1 | 4.5 | 2.4 | 3.7 | 0.5 | 1.6 | 1.7 | 1.7 |
|  | ANNUAL | 2.4 | 4.1 | 1.6 | 3.5 | 0.6 | 1.1 | 2.0 | 1.4 |
| 1997 | I | 1.2 | 4.6 | 3.4 | 4.1 | 1.1 | 2.9 | 0.5 | 2.0 |
|  | II | 0.9 | 4.1 | 3.2 | 3.4 | 1.1 | 2.5 | 1.2 | 2.0 |
|  | III | 1.8 | 4.7 | 2.9 | 3.5 | 1.2 | 1.7 | 2.6 | 2.0 |
|  | IV | 1.7 | 4.4 | 2.7 | 3.9 | 1.9 | 2.1 | 0.9 | 1.7 |
|  | ANNUAL | 1.4 | 4.5 | 3.0 | 3.7 | 1.4 | 2.3 | 1.3 | 1.9 |
| 1998 | I | 2.4 | 5.1 | 2.6 | 4.0 | 2.5 | 1.5 | 0.3 | 1.1 |
|  | II | 2.0 | r4.4 | 2.3 | 4.4 | 2.7 | 2.3 | r-1.9 | 0.8 |
|  | III | 1.7 | 4.0 | 2.3 | 4.4 | 2.8 | 2.6 | -3.0 | 0.6 |

[^0]|  | 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 |  |  |  |  |  |  |  |
| 1996 | I | 112.9 | 115.8 | 102.6 | 109.2 | 98.8 | 96.8 |
|  | II | 114.0 | 118.3 | 103.8 | 110.3 | 98.9 | 96.8 |
|  | III | 115.2 | 119.9 | 104.1 | 111.2 | 99.1 | 96.5 |
|  | IV | 116.3 | 121.2 | 104.3 | 111.9 | 98.9 | 96.2 |
|  | ANNUAL | 114.6 | 118.8 | 103.7 | 110.7 | 99.0 | 96.6 |
| 1997 | I | 117.1 | 123.0 | 105.1 | 113.0 | 99.3 | 96.5 |
|  | II | 118.0 | 124.5 | 105.5 | 114.0 | 99.9 | 96.6 |
|  | III | 120.1 | 126.4 | 105.2 | 115.5 | 100.7 | 96.2 |
|  | IV | 121.5 | 128.9 | 106.1 | 117.8 | 102.2 | 96.9 |
|  | ANNUAL | 119.2 | 125.7 | 105.5 | 115.1 | 100.6 | 96.6 |
| 1998 | I | 121.9 | 129.6 | 106.3 | 119.0 | 103.1 | 97.6 |
|  | II | r122.6 | r129.8 | 105.9 | 119.7 | 103.2 | 97.6 |
|  | III | 123.7 | 129.6 | 104.8 | 120.6 | 103.5 | 97.5 |
| Percent change from previous quarter at annual rate(5) |  |  |  |  |  |  |  |
| 1996 | I | 6.2 | 2.6 | -3.3 | -0.1 | -3.2 | -6.0 |
|  | II | 3.9 | 9.0 | 4.9 | 4.1 | 0.4 | 0.2 |
|  | III | 4.3 | 5.4 | 1.1 | 3.1 | 0.7 | -1.1 |
|  | IV | 3.8 | 4.5 | 0.7 | 2.5 | -0.9 | -1.3 |
| 1997 | ANNUAL | 4.5 | 4.2 | -0.4 | 2.2 | -0. 8 | -2.3 |
|  | I | 2.8 | 6.2 | 3.3 | 4.2 | 2.0 | 1.3 |
|  | II | 3.2 | 4.9 | 1.7 | 3.5 | 2.1 | 0.3 |
|  | III | 7.3 | 6.1 | -1.1 | 5.6 | 3.6 | -1.6 |
|  | IV | 4.9 | 8.2 | 3.1 | 8.0 | 5.8 | 3.0 |
| 1998 | ANNUAL | 4.0 | 5.8 | 1.7 | 4.0 | 1.7 | 0.0 |
|  | I | 1.4 | 2.2 | 0.8 | 4.1 | 3.6 | 2.7 |
|  | II | r2.3 | r0. 8 | -1.4 | 2.6 | 0.6 | r0. 3 |
|  | III | 3.7 | -0.6 | -4.1 | 2.9 | 1.1 | -0.7 |


| Percent change from corresponding quarter of previous year |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1996 | I | 4.7 | 2.2 | -2.4 | 1.9 | -0.9 | -2.7 |
|  | II | 4.4 | 4.3 | -0.1 | 2.1 | -0.7 | -2.2 |
|  | III | 4.3 | 4.7 | 0.4 | 2.2 | -0.7 | -2.0 |
|  | IV | 4.6 | 5.4 | 0.8 | 2.4 | -0.8 | -2.1 |
|  | ANNUAL | 4.5 | 4.2 | -0.4 | 2.2 | -0.8 | -2.3 |
| 1997 | I | 3.7 | 6.3 | 2.5 | 3.5 | 0.5 | -0.2 |
|  | II | 3.5 | 5.3 | 1.7 | 3.3 | 1.0 | -0.2 |
|  | III | 4.2 | 5.4 | 1.1 | 3.9 | 1.7 | -0.3 |
|  | IV | 4.5 | 6.3 | 1.7 | 5.3 | 3.4 | 0.7 |
|  | ANNUAL | 4.0 | 5.8 | 1.7 | 4.0 | 1.7 | 0.0 |
| 1998 | I | 4.2 | 5.3 | 1.1 | 5.3 | 3.8 | 1.1 |
|  | II | r3.9 | 4.3 | 0.3 | 5.0 | 3.4 | r1.1 |
|  | III | 3.1 | 2.6 | -0.5 | 4.4 | 2.7 | 1.3 |

See footnotes following Table 6. November 10, 1998

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


Percent change from previous quarter at annual rate(5)

| 1996 | I | 8.8 | 5.9 | -2.7 | -2.8 | -5.8 | -10.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 6.2 | 14.2 | 7.5 | 3.8 | 0.1 | -2.2 |
|  | III | 5.2 | 6.8 | 1.5 | 2.6 | 0.2 | -2.5 |
|  | IV | 3.6 | 4.3 | 0.7 | 1.4 | -1.9 | -2.1 |
|  | ANNUAL | 6.2 | 7.1 | 0.9 | 0.8 | -2.1 | -5.0 |
| 1997 | I | 3.5 | 9.4 | 5.7 | 3.9 | 1.6 | 0.3 |
|  | II | 5.6 | 8.1 | 2.4 | 3.4 | 2.0 | -2.0 |
|  | III | 10.4 | 10.2 | -0.2 | 5.5 | 3.5 | -4.5 |
|  | IV | 7.5 | 10.3 | 2.7 | 10.2 | 7.9 | 2.5 |
|  | ANNUAL | 5.4 | 8.3 | 2.8 | 3.7 | 1.4 | -1.6 |
| 1998 | I | 1.2 | 2.6 | 1.4 | 2.6 | 2.1 | 1.4 |
|  | II | r4.5 | r2. 5 | -1.8 | r1. 6 | r-0.4 | r-2.8 |
|  | III | 5.4 | 1.8 | -3.4 | 1.2 | -0.6 | -4.0 |

Percent change from corresponding quarter of previous year

| 1996 | I | 6.0 | 4.8 | -1.2 | 0.4 | -2.4 | -5.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 6.5 | 8.0 | 1.4 | 0.7 | -2.1 | -5.4 |
|  | III | 6.2 | 8.0 | 1.7 | 0.9 | -2.0 | -5.0 |
|  | IV | 5.9 | 7.7 | 1.7 | 1.2 | -1.9 | -4.4 |
|  | ANNUAL | 6.2 | 7.1 | 0.9 | 0.8 | -2.1 | -5.0 |
| 1997 | I | 4.6 | 8.6 | 3.8 | 2.9 | 0.0 | -1.6 |
|  | II | 4.5 | 7.1 | 2.6 | 2.8 | 0.5 | -1.6 |
|  | III | 5.7 | 8.0 | 2.1 | 3.5 | 1.3 | -2.1 |
|  | IV | 6.7 | 9.5 | 2.6 | 5.7 | 3.7 | -0.9 |
|  | ANNUAL | 5.4 | 8.3 | 2.8 | 3.7 | 1.4 | -1.6 |
| 1998 | I | 6.1 | 7.8 | 1.6 | 5.4 | 3.9 | -0.7 |
|  | II | r5.8 | 6.4 | 0.5 | 4.9 | 3.2 | -0.9 |
|  | III | 4.6 | 4.3 | -0.3 | 3.8 | 2.2 | -0.7 |

[^1]November 10, 1998
r=revised
Source: Bureau of Labor Statistics

Table 5. Nondurable manufacturing sector: 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 |  |  |  |  |  |
| 1996 | I | 105.9 | 104.5 | 98.7 | 111.4 | 100.8 | 105.2 |
|  | II | 106.4 | 105.3 | 99.0 | 112.6 | 100.9 | 105.8 |
|  | III | 107.2 | 106.3 | 99.1 | 113.7 | 101.3 | 106.0 |
|  | IV | 108.3 | 107.5 | 99.3 | 114.8 | 101.5 | 106.0 |
|  | ANNUAL | 107.0 | 105.9 | 99.0 | 113.1 | 101.2 | 105.8 |
| 1997 | I | 109.0 | 108.2 | 99.2 | 116.1 | 102.0 | 106.5 |
|  | II | 109.2 | 108.5 | 99.4 | 117.1 | 102.6 | 107.2 |
|  | III | 110.2 | 108.9 | 98.8 | 118.7 | 103.5 | 107.6 |
|  | IV | 110.7 | 110.3 | 99.7 | 120.0 | 104.1 | 108.4 |
|  | ANNUAL | 109.8 | 109.0 | 99.2 | 118.0 | 103.1 | 107.4 |
| 1998 | I | 111.3 | 110.8 | 99.6 | 121.9 | 105.6 | 109.5 |
|  | II | r111.1 | 110.5 | 99.4 | 123.2 | 106.2 | r110.9 |
|  | III | 111.6 | 109.5 | 98.1 | 124.9 | 107.2 | 111.9 |

Percent change from previous quarter at annual rate(5)

| 1996 | I | 3.1 | -1.2 | -4.2 | 4.2 | 1.0 | 1.0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 1.8 | 3.1 | 1.2 | 4.1 | 0.4 | 2.3 |
|  | III | 3.3 | 3.8 | 0.5 | 4.0 | 1.5 | 0.7 |
|  | IV | 4.0 | 4.6 | 0.6 | 4.2 | 0.8 | 0.2 |
|  | ANNUAL | 2.7 | 0.6 | -2.1 | 4.1 | 1.1 | 1.4 |
| 1997 | I | 2.7 | 2.5 | -0.2 | 4.3 | 2.1 | 1.6 |
|  | II | 0.5 | 1.2 | 0.6 | 3.5 | 2.2 | 3.0 |
|  | III | 4.0 | 1.5 | -2.4 | 5.6 | 3.6 | 1.5 |
|  | IV | 1.7 | 5.5 | 3.7 | 4.6 | 2.5 | 2.9 |
|  | ANNUAL | 2.6 | 2.9 | 0.2 | 4.3 | 1.9 | 1.6 |
| 1998 | I | 2.0 | 1.8 | -0.2 | 6.4 | 5.8 | 4.3 |
|  | II | r-0.4 | r-1.3 | r-0.9 | r4.5 | 2.4 | r4.9 |
|  | III | 1.7 | -3.5 | -5.1 | 5.6 | 3.7 | 3.8 |

Percent change from corresponding quarter of previous year

| 1996 | I | 3.3 | -1.0 | -4.1 | 4.1 | 1.3 | 0.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 2.3 | -0.1 | -2.3 | 4.1 | 1.2 | 1.8 |
|  | III | 2.3 | 0.8 | -1.5 | 4.1 | 1.2 | 1.8 |
|  | IV | 3.0 | 2.5 | -0. 5 | 4.1 | 0.9 | 1.0 |
|  | ANNUAL | 2.7 | 0.6 | -2.1 | 4.1 | 1.1 | 1.4 |
| 1997 | I | 2.9 | 3.5 | 0.5 | 4.2 | 1.2 | 1.2 |
|  | II | 2.6 | 3.0 | 0.4 | 4.0 | 1.7 | 1.4 |
|  | III | 2.8 | 2.4 | -0.4 | 4.4 | 2.2 | 1.6 |
|  | IV | 2.2 | 2.6 | 0.4 | 4.5 | 2.6 | 2.2 |
|  | ANNUAL | 2.6 | 2.9 | 0.2 | 4.3 | 1.9 | 1.6 |
| 1998 | I | 2.1 | 2.5 | 0.4 | 5.0 | 3.5 | 2.9 |
|  | II | r1. 8 | r1. 8 | 0.0 | 5.2 | 3.6 | r3.4 |
|  | III | 1.2 | 0.6 | -0.7 | 5.2 | 3.6 | 4.0 |

See footnotes following Table 6.
November 10, 1998
r=revised
Source: Bureau of Labor Statistics

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


| Indexes 1992=100 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1996 | I | 106.4 | 117.3 | 110.3 | 107.7 | 97.4 | 101.2 | 98.7 | 100.6 | 153.7 | 105.4 |
|  | II | 107.2 | 119.3 | 111.2 | 109.0 | 97.7 | 101.7 | 97.9 | 100.7 | 154.1 | 105.5 |
|  | III | 108.0 | 120.9 | 111.9 | 110.1 | 98.1 | 101.9 | 97.5 | 100.8 | 155.3 | 105.7 |
|  | IV | 108.6 | 122.5 | 112.8 | 110.9 | 98.0 | 102.1 | 97.4 | 100.9 | 155.4 | 105.8 |
|  | ANNUAL | 107.6 | 120.0 | 111.5 | 109.5 | 97.9 | 101.7 | 97.9 | 100.7 | 154.6 | 105.6 |
| 1997 | I | 109.0 | 124.3 | 114.0 | 111.8 | 98.3 | 102.6 | 97.3 | 101.2 | 156.6 | 106.2 |
|  | II | 109.7 | 126.2 | 115.1 | 112.6 | 98.6 | 102.6 | 97.1 | 101.2 | 157.3 | 106.3 |
|  | III | 111.2 | 128.7 | 115.7 | 113.7 | 99.2 | 102.3 | 96.4 | 100.7 | 161.7 | 106.3 |
|  | IV | 111.4 | 130.2 | 116.8 | 115.1 | 99.9 | 103.3 | 95.7 | 101.3 | 155.7 | 106.3 |
|  | ANNUAL | 110.4 | 127.3 | 115.3 | 113.4 | 99.1 | 102.7 | 96.6 | 101.1 | 157.8 | 106.3 |
| 1998 | I | 112.2 | 132.1 | 117.7 | 116.2 | 100.6 | 103.5 | 95.4 | 101.4 | 153.5 | 106.2 |
|  | II | r113.0 | r133.4 | 118.0 | 117.5 | 101.2 | r103.9 | 95.5 | r101.7 | r150.4 | 106.1 |

Percent change from previous quarter at annual rate(5)

| 1996 | I | 1.2 | 1.4 | 0.2 | 1.7 | -1.5 | 0.4 | -0.7 | 0.1 | 13.1 | 1.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 3.3 | 6.9 | 3.5 | 5.0 | 1.2 | 1.7 | -2.9 | 0.5 | 1.1 | 0.6 |
|  | III | 2.9 | 5.6 | 2.6 | 3.9 | 1.4 | 0.9 | -1.7 | 0.3 | 3.0 | 0.6 |
|  | IV | 2.1 | 5.5 | 3.3 | 2.9 | -0.4 | 0.7 | -0. 5 | 0.4 | 0.3 | 0.4 |
|  | ANNUAL | 2.8 | 4.5 | 1.7 | 3.1 | 0.2 | 0.3 | -1.1 | -0.1 | 7.7 | 0.9 |
| 1997 | I | 1.5 | 5.9 | 4.3 | 3.6 | 1.3 | 2.0 | -0.6 | 1.4 | 3.2 | 1.6 |
|  | II | 2.5 | 6.3 | 3.8 | 2.6 | 1.3 | 0.2 | -0.6 | 0.0 | 1.7 | 0.2 |
|  | III | 5.6 | 8.2 | 2.4 | 4.2 | 2.2 | -1.3 | -3.1 | -1.8 | 11.8 | 0.0 |
|  | IV | 1.0 | 4.8 | 3.8 | 5.0 | 2.9 | 4.0 | -2.7 | 2.3 | -14.1 | -0.1 |
|  | ANNUAL | 2.6 | 6.1 | 3.5 | 3.6 | 1.2 | 1.0 | -1.3 | 0.4 | 2.1 | 0.6 |
| 1998 | I | 2.6 | 5.9 | 3.2 | 3.6 | 3.1 | 0.9 | -1.1 | 0.4 | -5.6 | -0.4 |
|  | II | r3.1 | r4.0 | 0.9 | 4.6 | 2.5 | r1. 5 | r0.1 | r1.1 | r-7.7 | r-0.1 |

Percent change from corresponding quarter of previous year

| 1996 | I | 2.9 | 3.9 | 1.0 | 2.5 | -0.3 | -0.4 | -0.6 | -0. 5 | 11.5 | 0.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | II | 3.2 | 4.9 | 1.7 | 3.1 | 0.2 | -0.1 | -1.6 | -0.5 | 11.1 | 0.9 |
|  | III | 2.6 | 4.4 | 1.8 | 3.4 | 0.5 | 0.8 | -0.9 | 0.3 | 4.5 | 0.9 |
|  | IV | 2.4 | 4.8 | 2.4 | 3.4 | 0.2 | 0.9 | -1.4 | 0.3 | 4.3 | 0.8 |
|  | ANNUAL | 2.8 | 4.5 | 1.7 | 3.1 | 0.2 | 0.3 | -1.1 | -0.1 | 7.7 | 0.9 |
| 1997 | I | 2.5 | 5.9 | 3.4 | 3.8 | 0.9 | 1.3 | -1.4 | 0.6 | 1.9 | 0.8 |
|  | II | 2.3 | 5.8 | 3.5 | 3.2 | 0.9 | 1.0 | -0.8 | 0.5 | 2.0 | 0.7 |
|  | III | 2.9 | 6.4 | 3.4 | 3.3 | 1.1 | 0.4 | -1.2 | 0.0 | 4.2 | 0.5 |
|  | IV | 2.6 | 6.3 | 3.5 | 3.9 | 1.9 | 1.2 | -1.8 | 0.5 | 0.2 | 0.4 |
|  | ANNUAL | 2.6 | 6.1 | 3.5 | 3.6 | 1.2 | 1.0 | -1.3 | 0.4 | 2.1 | 0.6 |
| 1998 | I | 2.9 | 6.3 | 3.3 | 3.9 | 2.4 | 0.9 | -1.9 | 0.2 | -2.0 | -0.1 |
|  | II | r3.1 | r5.7 | 2.6 | 4.3 | 2.7 | r1.2 | r-1.7 | r0. 5 | r-4.3 | r-0.1 |

See footnotes following Table 6.
November 10, 1998
r=revised
Source: Bureau of Labor Statistics

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 30 days after the close of the reference period; revisions appear 30 days later, and second revisions after an additional 60 days.

## 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 self-employed, data also include an estimate of wages, salaries, and supplemental payments for the selfemployed.
(2) Compensation per hour adjusted for changes in the Consumer Price Index for All Urban Consumers.
(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.


[^0]:    See footnotes following Table 6. November 10, 1998
    r=revised
    Source: Bureau of Labor Statistics

[^1]:    See footnotes following Table 6.

