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PRODUCTIVITY AND COSTS  
Fourth Quarter and Annual Averages, 2001

The Bureau of Labor Statistics of the U.S. Department of Labor today reported revised fourth-quarter seasonally-adjusted annual rates of productivity change--as measured by output per hour of all persons--and revised annual changes for the full year 2001. Percent changes in business and nonfarm business productivity were:

	Fourth quarter	Annual averages 2000-2001
Business sector	5.1	1.9
Nonfarm business sector	5.2	1.9

In both sectors, fourth-quarter productivity was higher than originally reported due to upward revisions to the output measures. Fourth-quarter productivity and related measures are summarized in table A and appear in detail in tables 1 through 5; the preliminary and revised fourth-quarter and annual data appear in table C.

In the manufacturing sector, increases in productivity were:

	Fourth quarter	Annual averages 2000-2001
Manufacturing	4.1	1.1
Durable goods manufacturing	2.7	0.5
Nondurable goods manufacturing	5.2	1.6

Manufacturing productivity rose 4.1 percent (seasonally adjusted annual rate) in the fourth quarter. This increase was higher than originally reported, reflecting upward revisions to output per hour in both the durable and nondurable goods manufacturing subsectors. (Output and hours in manufacturing, which includes about 16 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.)

Table A. Productivity and costs: Revised fourth-quarter 2001 measures  
(Seasonally adjusted annual rates)

Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
Percent change from preceding quarter						
Business	5.1	1.3	-3.6	2.2	2.5	-2.7
Nonfarm business	5.2	1.2	-3.8	2.3	2.6	-2.7
Manufacturing	4.1	-6.7	-10.4	2.5	2.8	-1.5
Durable	2.7	-9.8	-12.3	3.6	3.9	0.8
Nondurable	5.2	-2.6	-7.5	1.2	1.5	-3.8
Percent change from same quarter a year ago						
Business	1.9	-0.1	-2.0	4.0	2.1	2.0
Nonfarm business	2.0	-0.1	-2.1	3.9	2.0	1.8
Manufacturing	0.8	-6.2	-7.0	4.5	2.6	3.6
Durable	0.1	-8.4	-8.5	5.1	3.2	5.0
Nondurable	1.3	-3.4	-4.7	3.9	2.0	2.5

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 data 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.

#### THIRD-TO-FOURTH QUARTER 2001 CHANGES

##### Business

Business sector productivity rose 5.1 percent (seasonally adjusted annual rate) in the fourth quarter of 2001, as output increased 1.3 percent and hours of all persons engaged in the sector decreased 3.6 percent (table 1). The fourth-quarter decrease in hours was the largest since the first quarter of 1991, when hours fell 4.6 percent. During third-quarter 2001, productivity had increased 0.7 percent as output declined 2.3 percent and hours fell 2.9 percent.

Hourly compensation grew at a 2.2-percent annual rate in the fourth quarter, compared with a 3.3-percent rise in the third quarter. 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, rose 2.5 percent in both the third and fourth quarters of 2001.

Unit labor costs, which reflect changes in both hourly compensation and productivity, decreased 2.7 percent during the fourth quarter. The implicit price deflator for business output, which reflects changes in unit labor costs and unit nonlabor payments, decreased 1.4 percent in the fourth quarter. This measure rose 1.9 percent during the third quarter.

##### Nonfarm business

In the nonfarm business sector, productivity rose at an annual rate of 5.2 percent in the fourth quarter of 2001, as output grew 1.2 percent and hours of all persons--employees, proprietors, and unpaid family workers--fell 3.8 percent (seasonally adjusted annual rates). During the third quarter, productivity had increased 1.1 percent, output had decreased 2.3 percent, and hours had declined 3.4 percent (table 2).

Hourly compensation rose 2.3 percent in the fourth quarter. This was the smallest increase in this measure since the second quarter of 1997, when hourly compensation increased 1.4 percent. When the increase in consumer prices was taken into account, real hourly compensation rose 2.6 percent in the fourth quarter of 2001.

Unit labor costs fell 2.7 percent in the fourth quarter, after rising 2.6 percent in the third quarter. The implicit price deflator for nonfarm business edged down 0.6 percent in the fourth quarter, as a 3.4 percent increase in unit nonlabor payments offset much of the decline in unit labor costs.

#### Manufacturing

Manufacturing productivity rose 4.1 percent (seasonally adjusted annual rate) in the fourth quarter of 2001, as output fell 6.7 percent and hours dropped by 10.4 percent (table 3). Productivity rose in both of the manufacturing subsectors. In durable goods, productivity increased 2.7 percent, reflecting declines of 9.8 percent in output and 12.3 percent in hours. In nondurable goods, productivity grew 5.2 percent, reflecting a 2.6-percent drop in output and a 7.5-percent decline in hours (tables 4 and 5). The 9.8-percent decline in durable goods output was the largest since a 14.5-percent drop in the first quarter of 1991. Similarly, the last time hours fell more than 12.3 percent in durable goods was the third quarter of 1982, when they declined by 13.2 percent.

Hourly compensation of all manufacturing workers increased 2.5 percent during the fourth quarter, rising in both of the manufacturing subsectors--3.6 percent in durable goods and 1.2 percent in nondurable goods. When the increase in consumer prices was taken into account, real hourly compensation for all manufacturing workers rose 2.8 percent in the fourth quarter.

Unit labor costs in manufacturing fell 1.5 percent in the fourth quarter of 2001, reflecting differing trends in the two subsectors. Unit labor costs rose 0.8 percent in durable goods manufacturing and declined 3.8 percent in nondurable goods manufacturing. This was the second consecutive decline in unit labor costs for nondurable goods which fell 0.1 percent in the third quarter of 2001.

#### ANNUAL AVERAGE CHANGES, 2000-2001

#### Business

In calendar year 2001, business sector productivity increased 1.9 percent, after having increased 3.4 percent in 2000 (table 1). Output grew 0.9 percent in 2001 and 4.6 percent in 2000. Hours of all persons in the business sector fell 1.0 percent in 2001.

Table B. Productivity and costs: Revised 2001 annual averages  
(Seasonally adjusted annual rates)

Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
Percent change from previous year						
Business	1.9	0.9	-1.0	5.9	3.0	3.9
Nonfarm business	1.9	0.9	-0.9	5.8	2.8	3.8
Manufacturing	1.1	-4.3	-5.3	7.3	4.4	6.2
Durable	0.5	-5.4	-5.9	7.9	5.0	7.4
Nondurable	1.6	-2.9	-4.4	6.4	3.4	4.7

Hourly compensation increased 5.9 percent in 2001, after having increased 6.4 percent in 2000. Real hourly compensation increased 3.0 percent in both 2000 and 2001. Calendar year 2001 was the sixth consecutive year of growth in real hourly compensation, following three years of declines (1993-95).

Unit labor costs increased 3.9 percent in 2001, more than in any year since 1990, when unit labor costs rose 4.3 percent. The implicit price deflator rose 1.8 percent in 2001, compared with a 1.9-percent increase in 2000.

#### Nonfarm business

Productivity increased 1.9 percent in the nonfarm business sector during 2001; output grew 0.9 percent and hours of all persons fell 0.9 percent. As in the business sector, this was the first annual decline in hours since 1992, when hours edged down 0.2 percent. In 2000, productivity rose 3.3 percent, as output grew 4.5 percent and hours of all persons rose 1.1 percent.

Hourly compensation grew 5.8 percent in 2001, compared with a 6.5-percent increase in 2000. Real hourly compensation increased 2.8 percent in 2001, following a 3.1-percent gain the previous year.

Unit labor costs in the nonfarm business sector rose 3.8 percent in 2001, more than the 3.1-percent increase posted in 2000. The implicit price deflator, which reflects nonlabor payments as well as labor costs, rose 1.7 percent in 2001, following a 2.0-percent rise in 2000.

#### Manufacturing

Manufacturing productivity grew 1.1 percent in 2001, the smallest increase since a 0.1-percent rise in 1989. Output fell 4.3 percent in 2001, and hours of all persons working in the sector dropped 5.3 percent. Labor productivity increased 0.5 percent in durable goods manufacturing, reflecting declines of 5.4 percent in output and 5.9 percent in hours. In nondurable goods manufacturing, productivity rose 1.6 percent in 2001, output fell 2.9 percent, and hours declined 4.4 percent (tables B, 3, 4, and 5).

Hourly compensation of manufacturing workers increased 7.3 percent in 2001, somewhat faster than the 7.0 percent increase a year earlier. Real hourly compensation rose 4.4 percent in 2001, the largest increase since 1956 (when it rose 4.9 percent). The hourly compensation increases in the two subsectors were 7.9 percent in durable goods and 6.4 percent in nondurable goods.

Unit labor costs grew 6.2 percent in manufacturing. In durable goods, unit labor costs rose 7.4 percent in 2001, after declining in each of the previous nine years. Unit labor costs also rose in nondurable goods industries last year, by 4.7 percent.

#### REVISED MEASURES

Productivity and cost data for the fourth-quarter and full-year 2001 for business, nonfarm business, and manufacturing were revised to incorporate the most recent information (table C). In the business and nonfarm business sectors, changes in productivity and output are higher--and decreases in unit labor costs are greater--than those reported on Feb. 6, based on information available at that time. Fourth-quarter measures of manufacturing productivity also were revised up from those reported on Feb. 6, reflecting a smaller decline in output than originally reported. As a result, unit labor costs in manufacturing showed a larger drop than originally reported. Annual measures of productivity and costs are similar to those reported on Feb. 6. Measures of real hourly compensation in the business, nonfarm business, and manufacturing sectors for 2001 were revised to incorporate the annual recalculation of seasonal factors for the Consumer Price Index.

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Table C. Previous and revised productivity and related measures:  
Fourth-quarter and annual averages 2001  
(Seasonally adjusted annual rates)  
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Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
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Percent change, third to fourth quarter 2001						
Business:						
Previous	3.4	-0.3	-3.6	2.3	2.7	-1.1
Current	5.1	1.3	-3.6	2.2	2.5	-2.7
Nonfarm business:						
Previous	3.5	-0.4	-3.7	2.3	2.8	-1.1
Current	5.2	1.2	-3.8	2.3	2.6	-2.7
Manufacturing:						
Previous	3.5	-7.2	-10.4	2.6	3.0	-0.9
Current	4.1	-6.7	-10.4	2.5	2.8	-1.5
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Percent change, 2000 - 2001						
Business:						
Previous	1.8	0.8	-1.0	6.0	3.0	4.0
Current	1.9	0.9	-1.0	5.9	3.0	3.9
Nonfarm business:						
Previous	1.8	0.8	-0.9	5.8	2.8	3.9
Current	1.9	0.9	-0.9	5.8	2.8	3.8
Manufacturing:						
Previous	1.0	-4.3	-5.3	7.3	4.4	6.2
Current	1.1	-4.3	-5.3	7.3	4.4	6.2
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NEXT RELEASE DATE

The next release of Productivity and Costs is scheduled for 8:30 AM EDT, Tuesday, May 7, 2002, and will present preliminary first-quarter measures for business, nonfarm business, and manufacturing. Fourth-quarter and annual data for nonfinancial corporations will be released at that time.

## TECHNICAL NOTES

**Labor Hours:** Hours data for the labor productivity and costs 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. Average weekly paid hours of nonproduction and supervisory workers are estimated by the Office of Productivity and Technology. 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 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 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 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 and quarter	Output per hour of all persons	Output	Hours of all persons	Compensation per hour (1)	Real compensation per hour (2)	Unit labor costs	Unit non-labor payments (3)	Implicit price deflator (4)
Indexes 1992=100								
1999	I	112.7	132.4	117.4	123.1	106.6	109.2	111.2
	II	112.4	132.9	118.2	124.4	106.9	110.7	111.4
	III	113.3	134.6	118.8	126.1	107.5	111.3	111.7
	IV	115.3	137.8	119.5	127.3	107.7	110.4	112.0
	ANNUAL	113.4	134.4	118.5	125.2	107.3	110.4	111.6
2000	I	115.3	138.6	120.2	129.3	108.4	112.2	112.9
	II	117.5	140.8	119.8	132.1	110.0	112.5	113.5
	III	117.8	141.2	119.9	134.3	110.8	114.0	113.9
	IV	118.7	141.9	119.5	137.4	112.5	115.8	114.4
	ANNUAL	117.3	140.6	119.8	133.3	110.5	113.6	113.7
2001	I	118.6	142.3	119.9	139.1	r112.9	117.3	115.2
	II	119.3	142.1	119.1	140.9	r113.5	118.1	115.7
	III	119.5	141.2	118.2	142.1	r114.2	118.9	116.2
	IV	r121.0	r141.7	117.1	142.9	114.9	r118.1	115.8
	ANNUAL	r119.6	r141.8	118.6	141.2	113.8	r118.1	115.7
Percent change from previous quarter at annual rate(5)								
1999	I	3.0	3.5	0.5	4.5	2.9	1.5	1.3
	II	-1.1	1.6	2.7	4.3	1.4	5.4	0.8
	III	3.1	5.1	1.9	5.3	2.3	2.2	0.9
	IV	7.4	9.9	2.3	4.0	0.7	-3.2	1.2
	ANNUAL	2.5	4.6	2.0	4.6	2.4	2.0	0.9
2000	I	-0.1	2.2	2.3	6.5	2.4	6.6	3.2
	II	7.7	6.5	-1.1	9.0	5.9	1.3	2.1
	III	1.2	1.3	0.1	6.8	3.1	5.5	1.7
	IV	3.0	1.8	-1.1	9.5	6.4	6.3	1.6
	ANNUAL	3.4	4.6	1.1	6.4	3.0	2.9	1.9
2001	I	-0.2	1.2	1.4	5.1	r1.3	5.3	2.9
	II	2.2	-0.7	-2.8	5.2	r2.0	3.0	1.7
	III	0.7	-2.3	-2.9	3.3	r2.5	2.6	1.9
	IV	r5.1	r1.3	-3.6	r2.2	r2.5	r-2.7	r-1.4
	ANNUAL	r1.9	r0.9	-1.0	r5.9	3.0	r3.9	1.8
Percent change from corresponding quarter of previous year								
1999	I	2.5	4.5	1.9	4.7	3.1	2.2	-1.4
	II	2.2	4.4	2.1	4.4	2.5	2.2	-1.2
	III	2.3	4.6	2.2	4.6	2.2	2.2	-1.2
	IV	3.0	5.0	1.9	4.5	1.8	1.4	0.5
	ANNUAL	2.5	4.6	2.0	4.6	2.4	2.0	-0.8
2000	I	2.3	4.7	2.3	5.0	1.7	2.7	-0.3
	II	4.5	5.9	1.4	6.2	2.8	1.6	2.2
	III	4.0	4.9	0.9	6.6	3.0	2.5	1.3
	IV	2.9	3.0	0.0	7.9	4.4	4.9	-2.4
	ANNUAL	3.4	4.6	1.1	6.4	3.0	2.9	0.2
2001	I	2.9	2.7	-0.2	7.6	r4.2	4.6	-2.2
	II	1.6	0.9	-0.6	6.6	r3.2	5.0	-3.2
	III	1.4	0.0	-1.4	5.8	3.0	4.3	-1.9
	IV	r1.9	r-0.1	-2.0	4.0	2.1	r2.0	r-0.1
	ANNUAL	r1.9	r0.9	-1.0	r5.9	3.0	r3.9	r-1.8

See footnotes following Table 6.

r=revised

March 7, 2002

Source: Bureau of Labor Statistics

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

Year and quarter	Output per hour of all persons	Output	Hours of all persons	Compensation per hour (1)	Real compensation per hour (2)	Unit labor costs	Unit non-labor payments (3)	Implicit price deflator (4)
Indexes 1992=100								
1999	I	112.2	132.8	118.3	122.2	105.8	109.0	116.0
	II	111.8	133.2	119.2	123.5	106.1	110.5	114.2
	III	112.7	134.9	119.7	125.1	106.8	111.1	114.0
	IV	114.8	138.1	120.3	126.6	107.1	110.2	116.5
	ANNUAL	112.9	134.8	119.4	124.4	106.5	110.2	115.2
2000	I	114.8	138.8	120.9	128.7	107.9	112.1	115.9
	II	116.7	141.0	120.8	131.2	109.2	112.5	116.7
	III	117.2	141.4	120.7	133.6	110.2	114.0	115.3
	IV	117.8	142.1	120.6	136.5	111.8	115.8	113.4
	ANNUAL	116.6	140.8	120.8	132.5	109.8	113.6	115.3
2001	I	117.8	142.5	121.0	138.1	r112.1	117.2	113.1
	II	118.4	142.4	120.2	139.7	r112.5	118.0	112.9
	III	118.7	141.5	119.2	141.0	r113.3	118.7	112.9
	IV	r120.2	r142.0	118.1	141.8	114.0	r117.9	r113.9
	ANNUAL	r118.8	r142.1	119.6	140.1	112.9	r118.0	r113.2
Percent change from previous quarter at annual rate(5)								
1999	I	2.3	3.5	1.1	3.6	2.0	1.3	1.9
	II	-1.3	1.4	2.8	4.2	1.4	5.6	-5.9
	III	3.2	5.3	2.0	5.5	2.4	2.2	-0.9
	IV	7.8	9.8	1.9	4.7	1.4	-2.9	9.0
	ANNUAL	2.3	4.6	2.2	4.4	2.2	2.0	-0.4
2000	I	0.0	2.0	2.0	6.9	2.8	6.9	-1.8
	II	6.7	6.5	-0.2	8.1	5.0	1.3	2.5
	III	1.6	1.2	-0.5	7.4	3.7	5.7	-4.4
	IV	2.3	1.8	-0.5	8.9	5.8	6.4	-6.6
	ANNUAL	3.3	4.5	1.1	6.5	3.1	3.1	0.1
2001	I	-0.1	1.4	1.4	4.9	r1.1	5.0	-1.2
	II	2.1	-0.4	-2.4	4.7	r1.5	2.6	-0.5
	III	1.1	-2.3	-3.4	3.7	r2.9	2.6	0.0
	IV	r5.2	r1.2	r-3.8	2.3	r2.6	r-2.7	r3.4
	ANNUAL	r1.9	r0.9	-0.9	5.8	2.8	r3.8	r-1.8
Percent change from corresponding quarter of previous year								
1999	I	2.3	4.5	2.1	4.5	2.9	2.1	-1.1
	II	1.9	4.3	2.4	4.2	2.2	2.3	-0.9
	III	2.1	4.6	2.4	4.3	1.9	2.1	-0.8
	IV	2.9	4.9	1.9	4.5	1.8	1.5	0.9
	ANNUAL	2.3	4.6	2.2	4.4	2.2	2.0	-0.4
2000	I	2.4	4.6	2.2	5.3	2.0	2.9	0.0
	II	4.4	5.9	1.4	6.3	2.9	1.8	2.1
	III	4.0	4.8	0.8	6.7	3.2	2.7	1.2
	IV	2.6	2.8	0.2	7.8	4.3	5.0	-2.6
	ANNUAL	3.3	4.5	1.1	6.5	3.1	3.1	0.1
2001	I	2.6	2.7	0.1	7.3	r3.9	4.6	-2.5
	II	1.5	1.0	-0.5	6.5	r3.0	4.9	-3.2
	III	1.3	0.1	-1.2	5.5	2.8	4.1	-2.1
	IV	r2.0	r-0.1	-2.1	3.9	2.0	r1.8	r0.4
	ANNUAL	r1.9	r0.9	-0.9	5.8	2.8	r3.8	r-1.8

See footnotes following Table 6.  
r=revised

March 7, 2002  
Source: Bureau of Labor Statistics



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

Year and quarter		Output per hour of all persons	Output	Hours of all persons	Compensation per hour (1)	Real compensation per hour (2)	Unit labor costs
Indexes 1992=100							
1999	I	127.6	133.1	104.3	119.8	103.7	93.9
	II	128.3	134.2	104.5	121.2	104.2	94.4
	III	129.6	135.6	104.6	123.0	104.9	94.9
	IV	132.7	137.8	103.8	124.5	105.4	93.8
	ANNUAL	129.6	135.2	104.3	122.1	104.6	94.3
2000	I	135.2	139.9	103.5	126.3	105.9	93.4
	II	137.2	142.3	103.8	128.6	107.0	93.8
	III	138.3	142.5	103.0	131.9	108.8	95.4
	IV	139.2	141.1	101.3	135.9	111.3	97.6
	ANNUAL	137.5	141.5	102.9	130.7	108.3	95.1
2001	I	138.3	138.5	100.1	137.9	r111.9	99.7
	II	138.1	136.3	98.7	140.0	r112.7	101.3
	III	139.0	134.6	96.8	141.2	113.4	101.5
	IV	r140.4	r132.3	94.2	r142.0	114.2	r101.2
	ANNUAL	138.9	135.4	97.5	140.2	113.0	r100.9
Percent change from previous quarter at annual rate(5)							
1999	I	5.6	3.2	-2.3	2.4	0.9	-3.0
	II	2.4	3.1	0.7	4.8	1.9	2.4
	III	3.9	4.4	0.4	6.0	2.9	2.0
	IV	10.1	6.7	-3.1	5.2	1.9	-4.5
	ANNUAL	4.5	3.7	-0.8	4.0	1.9	-0.5
2000	I	7.6	6.3	-1.2	5.9	1.8	-1.6
	II	6.1	7.1	0.9	7.5	4.5	1.4
	III	3.3	0.4	-2.8	10.6	6.8	7.1
	IV	2.8	-4.0	-6.6	12.7	9.5	9.7
	ANNUAL	6.1	4.6	-1.4	7.0	3.5	0.9
2001	I	-2.7	-7.1	-4.5	6.0	r2.1	8.9
	II	-0.5	-6.2	-5.7	6.1	2.9	6.7
	III	2.6	-4.9	-7.3	3.5	r2.7	0.8
	IV	r4.1	r-6.7	-10.4	r2.5	r2.8	r-1.5
	ANNUAL	r1.1	-4.3	-5.3	7.3	4.4	6.2
Percent change from corresponding quarter of previous year							
1999	I	4.7	3.2	-1.4	3.8	2.2	-0.9
	II	4.3	3.3	-0.9	3.5	1.6	-0.7
	III	3.7	3.8	0.1	4.1	1.7	0.4
	IV	5.5	4.3	-1.1	4.6	1.9	-0.8
	ANNUAL	4.5	3.7	-0.8	4.0	1.9	-0.5
2000	I	6.0	5.1	-0.8	5.5	2.1	-0.5
	II	6.9	6.1	-0.7	6.1	2.8	-0.7
	III	6.7	5.1	-1.5	7.3	3.7	0.5
	IV	4.9	2.3	-2.4	9.1	5.6	4.0
	ANNUAL	6.1	4.6	-1.4	7.0	3.5	0.9
2001	I	2.3	-1.0	-3.3	9.2	r5.7	6.7
	II	0.7	-4.3	-4.9	8.8	r5.3	8.1
	III	0.5	-5.5	-6.0	7.0	r4.3	6.5
	IV	r0.8	r-6.2	-7.0	4.5	2.6	r3.6
	ANNUAL	r1.1	-4.3	-5.3	7.3	4.4	6.2

See footnotes following Table 6.  
r=revised

March 7, 2002  
Source: Bureau of Labor Statistics

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

Year and quarter		Output per hour of all persons	Output	Hours of all persons	Compensation per hour (1)	Real compensation per hour (2)	Unit labor costs
-----							
Indexes 1992=100							
1999	I	140.7	154.5	109.8	117.6	101.8	83.6
	II	142.1	156.1	109.9	119.3	102.6	84.0
	III	143.9	159.4	110.7	121.1	103.3	84.1
	IV	147.3	161.8	109.8	122.7	103.9	83.3
	ANNUAL	143.5	157.9	110.1	120.2	103.0	83.8
2000	I	152.0	166.7	109.7	124.4	104.3	81.8
	II	155.0	171.0	110.3	126.7	105.4	81.7
	III	156.4	171.6	109.7	130.1	107.3	83.2
	IV	156.9	169.5	108.0	134.6	110.2	85.7
	ANNUAL	155.1	169.7	109.4	128.9	106.9	83.1
2001	I	155.2	165.2	106.5	136.6	r110.8	88.0
	II	155.2	162.5	104.7	138.7	r111.7	89.3
	III	156.0	159.3	102.1	140.2	112.6	89.8
	IV	r157.1	r155.2	98.8	141.4	113.7	r90.0
	ANNUAL	r155.9	r160.6	103.0	139.2	112.2	89.3
-----							
Percent change from previous quarter at annual rate(5)							
1999	I	8.3	4.0	-4.0	3.8	2.2	-4.1
	II	4.0	4.4	0.3	5.9	2.9	1.7
	III	5.2	8.5	3.1	6.1	3.0	0.8
	IV	9.7	6.2	-3.2	5.5	2.2	-3.8
	ANNUAL	6.9	6.1	-0.8	4.7	2.5	-2.1
2000	I	13.5	12.8	-0.6	5.6	1.5	-7.0
	II	8.2	10.7	2.3	7.7	4.6	-0.5
	III	3.7	1.4	-2.2	11.2	7.4	7.3
	IV	1.3	-4.8	-6.0	14.3	11.1	12.9
	ANNUAL	8.1	7.4	-0.6	7.3	3.8	-0.8
2001	I	-4.3	-9.7	-5.6	6.1	r2.3	10.9
	II	0.0	-6.5	-6.6	6.3	r3.0	6.2
	III	2.0	-7.6	-9.4	4.3	r3.5	2.3
	IV	r2.7	r-9.8	-12.3	3.6	r3.9	r0.8
	ANNUAL	0.5	-5.4	-5.9	7.9	5.0	7.4
-----							
Percent change from corresponding quarter of previous year							
1999	I	7.6	6.0	-1.5	4.2	2.6	-3.2
	II	7.3	6.1	-1.0	4.3	2.3	-2.8
	III	6.1	6.6	0.5	4.9	2.6	-1.1
	IV	6.8	5.7	-1.0	5.3	2.6	-1.4
	ANNUAL	6.9	6.1	-0.8	4.7	2.5	-2.1
2000	I	8.0	7.9	-0.1	5.7	2.4	-2.1
	II	9.1	9.5	0.4	6.2	2.8	-2.7
	III	8.7	7.7	-0.9	7.5	3.9	-1.1
	IV	6.5	4.8	-1.7	9.6	6.1	2.9
	ANNUAL	8.1	7.4	-0.6	7.3	3.8	-0.8
2001	I	2.1	-0.9	-2.9	9.8	r6.3	7.5
	II	0.1	-5.0	-5.1	9.4	r5.9	9.3
	III	-0.3	-7.2	-6.9	7.7	4.9	8.0
	IV	r0.1	r-8.4	-8.5	5.1	3.2	r5.0
	ANNUAL	0.5	-5.4	-5.9	7.9	5.0	7.4
-----							

See footnotes following Table 6.  
r=revised

March 7, 2002  
Source: Bureau of Labor Statistics

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

Year and quarter		Output per hour of all persons	Output	Hours of all persons	Compensation per hour (1)	Real compensation per hour (2)	Unit labor costs
-----							
Indexes 1992=100							
1999	I	116.6	113.2	97.1	122.0	105.6	104.7
	II	116.6	113.6	97.4	123.0	105.7	105.5
	III	117.4	113.4	96.6	124.6	106.3	106.1
	IV	120.5	115.4	95.8	126.0	106.6	104.6
	ANNUAL	117.8	113.9	96.7	123.9	106.1	105.2
2000	I	120.6	115.0	95.3	127.9	107.2	106.1
	II	121.7	115.7	95.1	130.1	108.3	106.9
	III	122.6	115.4	94.2	133.1	109.8	108.6
	IV	124.0	114.6	92.4	136.2	111.5	109.8
	ANNUAL	122.2	115.2	94.2	131.8	109.2	107.8
2001	I	123.8	113.5	91.7	138.2	r112.1	111.7
	II	123.3	111.8	90.7	140.2	r112.9	113.7
	III	124.1	111.4	89.8	141.1	r113.4	113.7
	IV	r125.7	r110.7	88.1	r141.5	113.8	r112.6
	ANNUAL	r124.2	111.8	90.1	140.2	113.0	r112.9
-----							
Percent change from previous quarter at annual rate(5)							
1999	I	1.8	2.2	0.4	0.5	-1.1	-1.3
	II	0.2	1.4	1.3	3.2	0.3	3.0
	III	2.9	-0.6	-3.4	5.2	2.2	2.3
	IV	10.7	7.4	-3.0	4.8	1.5	-5.3
	ANNUAL	1.6	0.7	-0.9	2.8	0.7	1.2
2000	I	0.5	-1.6	-2.1	6.3	2.2	5.7
	II	3.6	2.5	-1.1	6.9	3.9	3.2
	III	2.9	-0.9	-3.7	9.4	5.7	6.3
	IV	4.8	-2.9	-7.4	9.7	6.6	4.7
	ANNUAL	3.8	1.1	-2.6	6.4	2.9	2.5
2001	I	-0.9	-3.7	-2.8	5.9	r2.1	6.9
	II	-1.6	-5.9	-4.4	5.9	r2.7	7.6
	III	2.7	-1.5	-4.1	2.6	r1.8	-0.1
	IV	r5.2	r-2.6	r-7.5	r1.2	r1.5	r-3.8
	ANNUAL	r1.6	-2.9	-4.4	6.4	r3.4	r4.7
-----							
Percent change from corresponding quarter of previous year							
1999	I	1.2	-0.1	-1.4	3.1	1.5	1.8
	II	0.6	0.0	-0.6	2.3	0.4	1.7
	III	0.8	0.3	-0.5	2.5	0.2	1.6
	IV	3.8	2.6	-1.2	3.4	0.7	-0.4
	ANNUAL	1.6	0.7	-0.9	2.8	0.7	1.2
2000	I	3.5	1.6	-1.8	4.9	1.5	1.3
	II	4.4	1.9	-2.4	5.8	2.4	1.4
	III	4.4	1.8	-2.5	6.8	3.3	2.4
	IV	3.0	-0.7	-3.6	8.1	4.6	5.0
	ANNUAL	3.8	1.1	-2.6	6.4	2.9	2.5
2001	I	2.6	-1.3	-3.8	8.0	r4.6	5.3
	II	1.3	-3.3	-4.6	7.7	r4.3	6.4
	III	1.2	-3.5	-4.7	6.0	r3.3	4.7
	IV	r1.3	r-3.4	-4.7	3.9	r2.0	r2.5
	ANNUAL	r1.6	-2.9	-4.4	6.4	r3.4	r4.7

See footnotes following Table 6.  
r=revised

March 7, 2002  
Source: Bureau of Labor Statistics

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

Year and quarter	Output per all-employee hour	Output	Employee hours	Hourly compensation (1)	Real hourly compensation(2)	Unit labor costs	Unit non-labor costs (6)	Total unit costs (7)	Unit profits (8)	Implicit price deflator (4)	
Indexes 1992=100											
1999	I	114.5	139.5	121.9	119.1	103.1	104.1	102.8	103.7	141.6	106.9
	II	114.7	140.8	122.7	120.4	103.5	104.9	103.4	104.5	135.4	107.1
	III	115.4	142.5	123.4	121.9	104.0	105.6	105.0	105.4	128.0	107.4
	IV	116.4	144.8	124.3	123.2	104.2	105.8	105.1	105.6	131.3	107.8
	ANNUAL	115.3	141.9	123.1	121.2	103.8	105.1	104.1	104.8	134.0	107.3
2000	I	117.2	146.6	125.1	125.0	104.8	106.6	106.2	106.5	135.1	108.9
	II	118.8	148.7	125.1	127.6	106.1	107.4	106.5	107.1	139.3	109.8
	III	119.6	149.7	125.2	129.7	107.0	108.5	107.1	108.1	135.8	110.5
	IV	119.8	149.8	125.1	132.7	108.7	110.8	107.8	110.0	120.5	110.9
	ANNUAL	118.8	148.7	125.1	128.8	106.7	108.3	106.9	107.9	132.6	110.0
2001	I	119.9	150.1	125.1	134.5	r109.2	112.2	109.3	111.4	111.1	111.4
	II	120.9	150.4	124.4	136.5	109.9	112.9	111.2	112.5	107.4	112.0
	III	121.2	149.4	123.3	138.1	r111.0	114.0	114.2	114.0	99.6	112.8
Percent change from previous quarter at annual rate(5)											
1999	I	4.5	6.8	2.2	4.3	2.7	-0.2	-1.7	-0.6	11.6	0.7
	II	0.8	3.6	2.8	4.2	1.4	3.4	2.4	3.1	-16.4	0.8
	III	2.4	4.9	2.5	5.2	2.1	2.7	6.1	3.6	-20.0	0.8
	IV	3.5	6.5	2.9	4.2	0.9	0.7	0.7	0.7	10.5	1.7
	ANNUAL	3.1	5.6	2.4	4.5	2.3	1.3	1.9	1.4	-5.4	0.7
2000	I	2.8	5.3	2.5	6.0	2.0	3.2	4.1	3.4	12.2	4.3
	II	5.6	5.7	0.1	8.4	5.4	2.7	1.1	2.3	13.0	3.4
	III	2.6	2.8	0.2	7.0	3.3	4.3	2.4	3.8	-9.8	2.2
	IV	0.7	0.3	-0.3	9.6	6.5	8.9	2.6	7.2	-38.0	1.6
	ANNUAL	3.1	4.8	1.7	6.3	2.8	3.1	2.7	3.0	-1.0	2.5
2001	I	0.5	0.7	0.2	5.5	r1.7	5.0	5.8	5.2	-27.8	1.8
	II	3.3	0.8	-2.4	6.1	r2.8	2.7	7.0	3.8	-12.6	2.3
	III	0.9	-2.6	-3.5	4.7	r3.9	3.8	11.2	5.7	-26.1	2.8
Percent change from corresponding quarter of previous year											
1999	I	4.2	6.3	2.1	4.6	3.1	0.4	1.1	0.6	-1.6	0.4
	II	3.2	5.8	2.5	4.3	2.3	1.1	1.5	1.2	-3.6	0.7
	III	2.4	5.1	2.6	4.4	2.0	2.0	3.1	2.3	-11.6	0.7
	IV	2.8	5.5	2.6	4.5	1.8	1.6	1.8	1.7	-4.7	1.0
	ANNUAL	3.1	5.6	2.4	4.5	2.3	1.3	1.9	1.4	-5.4	0.7
2000	I	2.4	5.1	2.7	4.9	1.6	2.5	3.3	2.7	-4.6	1.9
	II	3.6	5.6	2.0	6.0	2.6	2.3	3.0	2.5	2.9	2.5
	III	3.6	5.1	1.4	6.4	2.9	2.7	2.0	2.5	6.0	2.9
	IV	2.9	3.5	0.6	7.8	4.3	4.7	2.5	4.1	-8.2	2.9
	ANNUAL	3.1	4.8	1.7	6.3	2.8	3.1	2.7	3.0	-1.0	2.5
2001	I	2.3	2.3	0.0	7.6	r4.2	5.2	2.9	4.6	-17.8	2.2
	II	1.8	1.2	-0.6	7.0	r3.6	5.2	4.4	5.0	-22.9	2.0
	III	1.3	-0.2	-1.5	6.5	3.7	5.1	6.6	5.5	-26.7	2.1

See footnotes following Table 6.

r=revised

March 7, 2002

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 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 -1.5 and +1.7 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 third quarter of 2001.

#### 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 self-employed.

(2) The change for recent quarters is based on the Consumer Price Index for all urban consumers (CPI-U). The trend from 1978-2000 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.