

News

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PRODUCTIVITY AND COSTS Third Quarter 2002

The Bureau of Labor Statistics of the U.S. Department of Labor today reported revised productivity data—as measured by output per hour of all persons—for the third quarter of 2002. The seasonally adjusted annual rates of productivity growth in the third quarter were:

5.4 percent in the business sector, and
5.1 percent in the nonfarm business sector.

In both sectors, upward revisions to productivity were primarily due to increases in output larger than originally reported.

In manufacturing, revised productivity increases in the third quarter were:

5.5 percent in manufacturing,
8.8 percent in durable goods manufacturing, and
1.3 percent in nondurable goods manufacturing.

Manufacturing productivity rose less than reported on November 7. This reflects both a small downward revision to output and a small upward revision to hours. 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. Third-quarter 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 (page 7).

Table A. Productivity and costs: Revised third-quarter 2002 measures (Seasonally adjusted annual rates)						
Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
Percent change from preceding quarter						
Business	5.4	5.2	-0.2	5.3	3.4	-0.1
Nonfarm business	5.1	5.1	0.0	4.9	3.0	-0.2
Manufacturing	5.5	3.2	-2.2	4.4	2.5	-1.0
Durable	8.8	4.9	-3.5	4.3	2.3	-4.2
Nondurable	1.3	1.2	-0.1	4.9	3.0	3.5
Percent change from same quarter a year ago						
Business	5.8	3.8	-1.9	3.5	1.9	-2.2
Nonfarm business	5.6	3.8	-1.8	3.3	1.7	-2.2
Manufacturing	5.8	0.8	-4.7	3.6	2.0	-2.1
Durable	7.5	1.3	-5.8	3.7	2.1	-3.5
Nondurable	3.4	0.2	-3.1	3.6	2.0	0.1

Business

From second quarter to third quarter of 2002, business sector productivity rose at an annual rate of 5.4 percent, as output increased 5.2 percent and hours of all persons engaged in the sector dropped 0.2 percent (table 1). The decline in hours reflects an underlying increase in employment (0.4 percent) and a decline in average weekly hours (-0.6 percent). Average weekly hours worked by all persons in the sector also declined in the second quarter of 2002, by 0.3 percent, and dropped in ten of the last eleven quarters.

Hourly compensation increased 5.3 percent during the third quarter of 2002, up from the 4.2-percent rise in the previous quarter. Hourly compensation 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 3.4 percent in the third quarter of 2002.

Unit labor costs edged down 0.1 percent last quarter and have fallen in four of the last five quarters. The implicit price deflator for the business sector, which reflects changes both in unit labor costs and in unit nonlabor payments, increased at a 0.4 percent annual rate in the third quarter of 2002, somewhat less than the 0.7-percent increase in the second quarter of 2002.

Nonfarm business

Output per hour of all persons in the nonfarm business sector increased 5.1 percent during the third quarter of 2002 (table 2). Output rose 5.1 percent while hours of all persons

were unchanged. As in the larger business sector, employment rose (0.6 percent) while average weekly hours fell (0.6 percent). The third quarter productivity increase was higher than the 1.7-percent rise in the second quarter but lower than the increase registered in the first quarter of the year, 8.6 percent.

Hourly compensation grew at a 4.9 percent annual rate in the third quarter of 2002, up from the 3.9 percent increase in the previous quarter. When the rise in consumer prices is taken into account, real hourly compensation rose at a 3.0 percent annual rate in the third quarter of 2002.

Unit labor costs fell 0.2 percent in the third quarter, following a 2.2 percent increase one quarter earlier. The implicit price deflator for nonfarm business rose 0.1 percent in the third quarter of 2002.

Manufacturing

Productivity increased 5.5 percent in manufacturing in the third quarter of 2002, as output increased 3.2 percent and hours of all persons fell 2.2 percent (seasonally adjusted annual rates). In durable goods industries, productivity grew 8.8 percent as output rose 4.9 percent and hours dropped 3.5 percent. Productivity grew much more slowly in the nondurable goods industries, 1.3 percent, reflecting an output increase of 1.2 percent and a slight decline in hours, 0.1 percent (tables 3, 4, and 5).

Hourly compensation of all manufacturing workers rose 4.4 percent during the third quarter of 2002. In durable goods manufacturing, hourly compensation rose 4.3 percent during the third quarter. The increase in nondurable goods manufacturing was 4.9 percent. When the increase in consumer prices is taken into account, real hourly compensation for all manufacturing workers rose 2.5 percent in the third quarter.

Unit labor costs in manufacturing fell 1.0 percent in the third quarter, continuing a series of quarterly declines in these costs that began in the third quarter of 2001. Unit labor costs dropped 4.2 percent in durable goods manufacturing and rose 3.5 percent in nondurable goods manufacturing.

Nonfinancial Corporations

Third-quarter 2002 measures of productivity and costs also were released for nonfinancial corporations (tables B and 6). Output per all-employee hour grew at a 5.7 percent annual rate, similar to the 5.8 percent increase in the previous quarter. Output increased 4.3 percent in the third quarter, and hours of all employees fell 1.3 percent (seasonally adjusted annual rates). This decrease in employee hours is the eighth consecutive drop in this sector. The nonfinancial corporate sector includes all corporations doing business in the United States, except those classified as depository institutions, nondepository institutions, security and commodity brokers, insurance carriers, regulated investment offices, small business investment offices, and real estate investment trusts.

Table B. Nonfinancial corporations: Third-quarter 2002 productivity and cost measures (Seasonally adjusted annual rates)								
Period	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs	Unit profits	Implicit price deflator
Percent change from preceding quarter								
2002 III	5.7	4.3	-1.3	5.7	3.7	0.0	-10.4	-0.6
Percent change from same quarter a year ago								
2002 III	6.7	4.5	-2.0	4.0	2.4	-2.5	7.2	-1.3

Hourly compensation in nonfinancial corporations increased 5.7 percent in the third quarter, more rapidly than in the second quarter when it rose 4.4 percent. When the rise in consumer prices is taken into account, real hourly compensation increased 3.7 percent in the third quarter and 1.0 percent in the second quarter.

Unit labor costs for the sector were unchanged in the third quarter. Unit nonlabor costs rose 1.1 percent and unit profits fell 10.4 percent in the third quarter of 2002. As a result of these movements, the implicit price deflator for the output of nonfinancial corporations—which reflects a weighted average of these three measures—dropped 0.6 percent. The implicit price deflator also fell in the previous three quarters.

Revised Measures

Current and previous measures for the third quarter of 2002 for the business, nonfarm business, and manufacturing sectors are compared in table C. In the business and nonfarm business sectors, increases in productivity and output are larger than those reported on Nov. 7, based on the information available at that time. Unit labor cost measures for these sectors are correspondingly lower and now show small declines. In manufacturing, rates of growth in output and productivity were revised down in the third quarter. Unit labor costs were revised up due to the downward output revision but still show a decline in the quarter.

Table C. Previous and revised productivity and related measures Quarterly percent change at seasonally adjusted annual rate						
Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
Third quarter 2001						
Business:						
Previous	4.3	4.1	-0.1	5.2	3.2	0.9
Current	5.4	5.2	-0.2	5.3	3.4	-0.1
Nonfarm business:						
Previous	4.0	4.1	0.1	4.8	2.9	0.8
Current	5.1	5.1	0.0	4.9	3.0	-0.2
Manufacturing:						
Previous	5.9	3.4	-2.4	4.5	2.6	-1.3
Current	5.5	3.2	-2.2	4.4	2.5	-1.0

On Nov. 26, the Bureau of Economic Analysis, U.S. Department of Commerce, revised the price indexes used to calculate real output of nonfinancial corporations back to the first quarter of 1999. The appendix table shows revised 1999 measures for output, productivity, and unit costs.

Next release date

The next release of **Productivity and Costs** is scheduled for **8:30 AM EST, Thursday, February 6, 2003**. Preliminary fourth-quarter and annual 2002 measures will be released at that time. Quarterly output measures for the manufacturing sector will be revised back to 1949 to incorporate the historical revisions and rebasing of the Indexes of Industrial Production prepared and published by the Board of Governors of the Federal Reserve System, scheduled to be released on Dec. 5.

Scheduled release dates for productivity and costs measures for major sectors of the U.S. economy in 2003 are:

<u>Reference period</u>	<u>2003 release date</u>
2002:	
Fourth quarter, Annual	February 6
Fourth quarter, Annual (revised)	March 6
2003:	
First quarter	May 1
First quarter (revised)	June 4
Second quarter	August 7
Second quarter (revised)	September 4
Third quarter	November 6
Third quarter (revised)	December 3

These dates are based on presently available schedules for the release of underlying source data in 2003. Each issue of *Productivity and Costs* contains a "Next release date" paragraph that readers should use to confirm the dates above.

Upcoming change to productivity and cost data

The Bureau of Labor Statistics discontinued the Hours at Work Survey (HWS), used to adjust the paid hours of wage and salary employees to their hours at the workplace, following the 2000 survey. The survey will be replaced with a comparable set of measures derived from information on scheduled hours of work and paid leave collected from employers participating in the National Compensation Survey.

The new ratios of hours worked to hours paid will be incorporated into the measures of employee hours beginning with the release of the second quarter 2003 data on August 7. These ratios will be adjusted to levels from the HWS and will cover the period following 2000.

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 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 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 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									
2000	I	115.3	138.4	120.1	131.4	110.5	114.0	110.7	112.8
	II	117.2	140.3	119.7	132.4	110.5	113.0	114.1	113.4
	III	117.3	140.4	119.7	135.0	111.7	115.1	111.2	113.7
	IV	117.9	140.7	119.4	136.3	111.9	115.6	112.0	114.3
	ANNUAL	116.9	140.0	119.7	133.8	111.2	114.4	112.0	113.5
2001	I	117.5	140.4	119.5	137.3	111.8	116.9	112.3	115.2
	II	117.4	139.4	118.7	137.5	111.0	117.1	113.6	115.8
	III	117.9	139.1	117.9	137.8	111.1	116.8	115.5	116.4
	IV	120.1	140.3	116.8	138.3	111.6	115.1	117.2	115.9
	ANNUAL	118.2	139.8	118.2	137.7	111.4	116.5	114.7	115.8
2002	I	122.5	142.3	116.1	139.3	112.0	113.7	119.9	116.0
	II	123.1	142.5	115.8	140.8	112.2	114.4	119.3	116.2
	III	r124.7	r144.3	115.7	r142.6	r113.2	r114.3	r119.7	r116.3

Percent change from previous quarter at annual rate(5)									
2000	I	0.3	2.2	1.9	14.7	10.3	14.4	-15.1	2.4
	II	6.7	5.4	-1.2	3.0	0.0	-3.5	12.9	2.2
	III	0.4	0.4	0.0	8.3	4.6	7.8	-9.6	1.1
	IV	2.1	0.9	-1.2	3.7	0.7	1.6	2.6	1.9
	ANNUAL	3.0	4.1	1.0	6.8	3.4	3.7	-1.7	1.7
2001	I	-1.5	-1.0	0.4	3.1	-0.6	4.7	1.1	3.4
	II	-0.2	-2.8	-2.6	0.5	-2.6	0.7	4.9	2.2
	III	1.8	-0.9	-2.6	0.9	0.2	-0.9	6.8	1.8
	IV	7.6	3.5	-3.9	1.4	1.7	-5.8	6.1	-1.6
	ANNUAL	1.1	-0.2	-1.3	2.9	0.2	1.8	2.4	2.0
2002	I	8.3	5.9	-2.2	3.0	1.6	-4.9	9.6	0.3
	II	1.8	0.6	-1.2	4.2	0.8	2.4	-2.0	0.7
	III	r5.4	r5.2	r-0.2	r5.3	r3.4	r-0.1	r1.3	r0.4

Percent change from corresponding quarter of previous year									
2000	I	2.3	4.6	2.3	5.9	2.5	3.5	-2.0	1.4
	II	4.1	5.4	1.3	6.5	3.1	2.3	0.8	1.7
	III	3.3	4.1	0.7	7.7	4.1	4.3	-2.5	1.7
	IV	2.4	2.2	-0.1	7.3	3.8	4.9	-2.9	1.9
	ANNUAL	3.0	4.1	1.0	6.8	3.4	3.7	-1.7	1.7
2001	I	1.9	1.4	-0.5	4.5	1.2	2.6	1.4	2.2
	II	0.2	-0.7	-0.9	3.9	0.5	3.6	-0.4	2.1
	III	0.5	-1.0	-1.5	2.0	-0.6	1.5	3.8	2.3
	IV	1.9	-0.3	-2.2	1.5	-0.3	-0.4	4.7	1.4
	ANNUAL	1.1	-0.2	-1.3	2.9	0.2	1.8	2.4	2.0
2002	I	4.3	1.4	-2.8	1.4	0.2	-2.8	6.8	0.7
	II	4.8	2.3	-2.5	2.4	1.1	-2.4	5.0	0.3
	III	r5.8	r3.8	-1.9	r3.5	r1.9	r-2.2	r3.6	0.0

See footnotes following Table 6.
r=revisedDecember 4, 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									
2000	I	114.7	138.7	120.9	130.8	110.0	114.0	112.3	113.4
	II	116.4	140.5	120.7	131.5	109.8	113.0	115.6	113.9
	III	116.6	140.6	120.6	134.3	111.1	115.2	112.8	114.3
	IV	117.1	141.0	120.4	135.3	111.2	115.6	113.4	114.8
	ANNUAL	116.2	140.2	120.6	133.0	110.6	114.4	113.5	114.1
2001	I	116.7	140.7	120.6	136.3	110.9	116.8	113.8	115.7
	II	116.6	139.7	119.8	136.3	110.1	116.9	115.3	116.3
	III	117.2	139.4	118.9	136.7	110.2	116.6	117.2	116.8
	IV	119.3	140.4	117.7	137.2	110.7	115.0	119.2	116.5
	ANNUAL	117.5	140.1	119.2	136.6	110.5	116.3	116.4	116.3
2002	I	121.8	142.5	117.0	138.2	111.1	113.4	121.7	116.4
	II	122.3	142.9	116.8	139.5	111.2	114.0	121.7	116.8
	III	r123.8	r144.7	116.8	r141.2	112.0	r114.0	r121.9	116.9
Percent change from previous quarter at annual rate(5)									
2000	I	0.2	1.9	1.7	15.2	10.7	14.9	-15.3	2.7
	II	6.0	5.4	-0.6	2.2	-0.7	-3.6	12.2	1.9
	III	0.6	0.2	-0.4	8.7	4.9	8.0	-9.1	1.4
	IV	1.7	1.1	-0.6	3.1	0.2	1.4	2.1	1.6
	ANNUAL	2.9	4.0	1.0	7.0	3.5	3.9	-1.7	1.8
2001	I	-1.5	-0.9	0.5	2.8	-0.9	4.3	1.5	3.3
	II	-0.1	-2.7	-2.6	0.1	-2.9	0.3	5.1	2.0
	III	2.1	-0.8	-2.9	1.0	0.3	-1.1	6.8	1.7
	IV	7.3	2.9	-4.1	1.5	1.8	-5.4	6.9	-1.0
	ANNUAL	1.1	-0.1	-1.2	2.7	-0.1	1.6	2.5	1.9
2002	I	8.6	6.2	-2.2	2.9	1.4	-5.3	8.8	-0.2
	II	1.7	0.9	-0.7	3.9	0.5	2.2	0.1	1.4
	III	r5.1	r5.1	r0.0	r4.9	r3.0	r-0.2	r0.4	r0.1
Percent change from corresponding quarter of previous year									
2000	I	2.3	4.5	2.1	6.2	2.8	3.7	-1.8	1.7
	II	4.0	5.4	1.3	6.6	3.2	2.5	0.7	1.8
	III	3.3	3.9	0.6	7.9	4.3	4.5	-2.6	1.8
	IV	2.1	2.2	0.0	7.2	3.7	4.9	-3.1	1.9
	ANNUAL	2.9	4.0	1.0	7.0	3.5	3.9	-1.7	1.8
2001	I	1.7	1.4	-0.3	4.2	0.9	2.4	1.4	2.1
	II	0.2	-0.6	-0.8	3.6	0.3	3.5	-0.3	2.1
	III	0.5	-0.8	-1.4	1.8	-0.8	1.2	3.9	2.2
	IV	1.9	-0.4	-2.3	1.4	-0.4	-0.5	5.1	1.5
	ANNUAL	1.1	-0.1	-1.2	2.7	-0.1	1.6	2.5	1.9
2002	I	4.4	1.3	-2.9	1.4	0.1	-2.9	6.9	0.6
	II	4.9	2.3	-2.5	2.3	1.0	-2.4	5.6	0.5
	III	r5.6	r3.8	r-1.8	3.3	1.7	r-2.2	r4.0	0.1

See footnotes following Table 6.
r=revised

December 4, 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							
2000	I	133.6	138.3	103.5	131.4	110.5	98.4
	II	134.9	139.8	103.6	129.3	107.9	95.9
	III	135.4	139.3	102.9	132.2	109.4	97.7
	IV	135.9	137.6	101.3	131.5	108.0	96.7
	ANNUAL	134.9	138.7	102.8	131.1	109.0	97.2
2001	I	135.4	135.1	99.8	132.0	107.4	97.5
	II	135.4	133.0	98.2	133.0	107.4	98.2
	III	136.4	131.3	96.3	133.3	107.5	97.8
	IV	137.6	129.2	93.9	134.3	108.3	97.6
	ANNUAL	136.2	132.1	97.1	133.1	107.7	97.8
2002	I	140.9	130.2	92.4	135.6	109.0	96.2
	II	142.3	131.3	92.3	136.6	108.9	96.0
	III	r144.2	r132.3	r91.8	138.1	109.6	r95.8

Percent change from previous quarter at annual rate(5)							
2000	I	4.5	2.7	-1.7	25.3	20.5	19.9
	II	3.8	4.4	0.5	-6.3	-9.0	-9.7
	III	1.6	-1.3	-2.8	9.5	5.8	7.8
	IV	1.6	-4.8	-6.3	-2.3	-5.1	-3.8
	ANNUAL	4.1	2.5	-1.5	7.4	3.9	3.2
2001	I	-1.5	-7.1	-5.6	1.6	-2.1	3.1
	II	0.0	-6.2	-6.2	3.1	-0.1	3.1
	III	2.9	-4.9	-7.6	1.0	0.3	-1.9
	IV	3.8	-6.3	-9.7	2.9	3.2	-0.9
	ANNUAL	0.9	-4.8	-5.6	1.5	-1.2	0.6
2002	I	9.7	3.0	-6.1	3.8	2.4	-5.3
	II	4.2	3.5	-0.7	3.2	-0.2	-1.0
	III	r5.5	r3.2	r-2.2	r4.4	r2.5	r-1.0

Percent change from corresponding quarter of previous year							
2000	I	4.4	3.6	-0.8	8.9	5.5	4.3
	II	4.7	3.8	-0.8	6.9	3.5	2.1
	III	4.3	2.6	-1.7	7.9	4.3	3.4
	IV	2.9	0.2	-2.6	5.9	2.4	2.9
	ANNUAL	4.1	2.5	-1.5	7.4	3.9	3.2
2001	I	1.3	-2.3	-3.6	0.5	-2.7	-0.9
	II	0.4	-4.9	-5.2	2.9	-0.5	2.5
	III	0.7	-5.7	-6.4	0.8	-1.8	0.1
	IV	1.3	-6.1	-7.3	2.1	0.3	0.8
	ANNUAL	0.9	-4.8	-5.6	1.5	-1.2	0.6
2002	I	4.0	-3.7	-7.4	2.7	1.4	-1.3
	II	5.1	-1.3	-6.1	2.7	1.4	-2.3
	III	r5.8	0.8	r-4.7	3.6	2.0	-2.1

See footnotes following Table 6.
r=revised

December 4, 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							
2000	I	148.6	162.9	109.7	130.8	109.9	88.0
	II	150.0	165.2	110.2	127.5	106.4	85.0
	III	150.3	164.6	109.5	130.6	108.0	86.9
	IV	150.1	162.0	107.9	128.4	105.5	85.5
	ANNUAL	149.7	163.7	109.3	129.3	107.5	86.4
2001	I	149.0	157.9	106.0	129.4	105.3	86.8
	II	149.1	155.3	104.1	130.5	105.4	87.5
	III	150.1	152.2	101.4	130.2	105.0	86.7
	IV	150.9	148.6	98.5	131.8	106.3	87.3
	ANNUAL	149.8	153.5	102.5	130.4	105.5	87.1
2002	I	155.7	150.3	96.5	132.7	106.7	85.2
	II	158.0	152.3	96.4	133.6	106.5	84.6
	III	r161.3	r154.2	r95.5	135.0	r107.1	83.7

Percent change from previous quarter at annual rate(5)							
2000	I	7.6	6.3	-1.2	29.7	24.6	20.5
	II	3.9	5.8	1.8	-9.6	-12.1	-13.0
	III	0.8	-1.6	-2.3	9.9	6.1	9.1
	IV	-0.6	-6.2	-5.7	-6.5	-9.2	-6.0
	ANNUAL	4.4	3.6	-0.7	7.7	4.2	3.2
2001	I	-3.0	-9.7	-6.9	3.1	-0.6	6.2
	II	0.4	-6.5	-6.9	3.6	0.4	3.2
	III	2.7	-7.6	-10.0	-1.0	-1.7	-3.6
	IV	2.3	-9.2	-11.2	5.0	5.4	2.7
	ANNUAL	0.0	-6.2	-6.2	0.9	-1.9	0.8
2002	I	13.2	4.7	-7.5	2.8	1.3	-9.2
	II	6.0	5.4	-0.5	2.8	-0.6	-3.0
	III	8.8	r4.9	r-3.5	r4.3	r2.3	r-4.2

Percent change from corresponding quarter of previous year							
2000	I	5.2	5.1	-0.1	10.5	7.0	5.0
	II	5.1	5.3	0.2	7.4	4.0	2.2
	III	4.3	3.2	-1.1	8.1	4.5	3.6
	IV	2.9	1.0	-1.9	4.8	1.4	1.8
	ANNUAL	4.4	3.6	-0.7	7.7	4.2	3.2
2001	I	0.3	-3.1	-3.3	-1.1	-4.2	-1.3
	II	-0.6	-6.0	-5.5	2.3	-1.0	3.0
	III	-0.1	-7.5	-7.4	-0.3	-2.8	-0.2
	IV	0.6	-8.2	-8.8	2.6	0.8	2.1
	ANNUAL	0.0	-6.2	-6.2	0.9	-1.9	0.8
2002	I	4.5	-4.8	-8.9	2.6	1.3	-1.9
	II	5.9	-1.9	-7.4	2.4	1.1	-3.4
	III	7.5	r1.3	r-5.8	3.7	2.1	-3.5

See footnotes following Table 6.
r=revised

December 4, 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						
2000	I	120.6	114.9	95.3	130.6	108.3
	II	121.8	115.6	95.0	130.4	107.1
	III	122.6	115.4	94.1	133.2	108.7
	IV	123.9	114.5	92.4	135.0	108.9
	ANNUAL	122.2	115.1	94.2	132.3	108.3
2001	I	123.9	113.4	91.6	134.7	108.7
	II	123.6	111.7	90.4	135.5	109.6
	III	124.4	111.3	89.5	137.2	110.3
	IV	125.9	110.5	87.8	137.1	108.9
	ANNUAL	124.4	111.7	89.8	136.1	109.4
2002	I	127.5	110.8	86.9	139.1	109.1
	II	128.3	111.2	86.7	140.4	109.5
	III	r128.7	r111.6	86.7	142.1	r110.4

Percent change from previous quarter at annual rate(5)						
2000	I	0.8	-1.8	-2.5	17.8	17.0
	II	3.8	2.4	-1.4	-0.5	-4.2
	III	2.6	-0.9	-3.5	8.7	5.9
	IV	4.6	-3.0	-7.2	5.6	0.9
	ANNUAL	3.8	1.1	-2.6	6.7	2.9
2001	I	-0.1	-3.7	-3.6	-0.8	-0.7
	II	-0.9	-5.9	-5.0	2.3	3.2
	III	2.5	-1.5	-3.8	5.1	2.5
	IV	4.9	-2.9	-7.4	-0.3	-5.0
	ANNUAL	1.8	-2.9	-4.7	2.9	1.0
2002	I	5.3	1.2	-3.9	6.0	0.6
	II	2.4	1.5	-0.9	3.9	1.5
	III	r1.3	r1.2	r-0.1	r4.9	r3.5

Percent change from corresponding quarter of previous year						
2000	I	3.4	1.6	-1.8	6.1	2.6
	II	4.4	1.8	-2.5	5.8	1.4
	III	4.4	1.7	-2.5	7.4	2.9
	IV	2.9	-0.8	-3.7	7.7	4.6
	ANNUAL	3.8	1.1	-2.6	6.7	2.9
2001	I	2.7	-1.3	-3.9	3.1	0.4
	II	1.5	-3.4	-4.8	3.9	2.3
	III	1.5	-3.5	-4.9	3.0	1.5
	IV	1.6	-3.5	-5.0	1.5	0.0
	ANNUAL	1.8	-2.9	-4.7	2.9	1.0
2002	I	2.9	-2.3	-5.0	3.2	0.3
	II	3.7	-0.4	-4.0	3.6	-0.1
	III	r3.4	r0.2	-3.1	3.6	r0.1

See footnotes following Table 6.
r=revised

December 4, 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											
2000	I	r117.8	r147.3	125.1	126.9	106.7	r107.8	r104.5	r106.9	r119.5	r108.0
	II	r118.3	r147.9	125.0	127.8	106.6	r108.0	r106.3	r107.5	r118.8	r108.5
	III	r119.5	r149.4	125.0	130.4	107.9	r109.1	r107.1	r108.6	r109.5	r108.6
	IV	r119.5	r149.2	124.8	131.7	108.2	r110.2	r108.9	r109.8	r98.6	r108.9
	ANNUAL	r118.8	r148.4	125.0	129.2	107.4	r108.8	r106.7	r108.2	r111.6	r108.5
2001	I	r118.8	r147.9	124.6	131.3	106.9	r110.6	r111.6	r110.8	r93.1	r109.3
	II	r119.4	r147.8	123.7	131.9	106.5	r110.4	r113.5	r111.3	r95.4	r109.9
	III	r120.4	r147.7	122.7	132.7	107.0	r110.3	r115.5	r111.7	r97.9	r110.5
	IV	r123.5	r149.6	121.2	133.6	107.8	r108.2	r114.1	r109.8	r107.6	r109.6
	ANNUAL	r120.5	r148.2	123.0	132.4	107.0	r109.9	r113.7	r110.9	r98.5	r109.8
2002	I	r124.9	r150.8	120.8	134.7	108.3	r107.9	r114.0	r109.5	r107.6	r109.4
	II	r126.7	r152.8	120.6	136.2	108.6	r107.5	r114.5	r109.4	r107.8	r109.3
	III	128.4	154.4	120.2	138.1	109.6	107.5	114.8	109.5	104.9	109.1

Percent change from previous quarter at annual rate(5)											
2000	I	r7.1	r9.5	2.3	14.2	9.8	r6.7	r-0.4	r4.7	r-19.0	r2.2
	II	r2.0	r1.6	-0.4	2.8	-0.1	r0.8	r7.0	r2.4	r-2.2	r2.0
	III	r4.1	r4.0	0.0	8.5	4.7	r4.2	r3.0	r3.9	r-27.8	r0.6
	IV	r0.1	r-0.4	-0.5	4.1	1.1	r4.0	r6.9	r4.8	r-34.5	r0.8
	ANNUAL	r3.5	r5.0	1.5	6.7	3.2	r3.1	r3.3	r3.1	r-15.2	r1.2
2001	I	-2.6	r-3.3	-0.7	-1.2	-4.8	1.4	10.1	r3.7	-20.2	r1.7
	II	r2.2	r-0.5	-2.7	1.8	-1.3	r-0.4	7.1	r1.6	10.0	r2.2
	III	3.2	-0.3	-3.4	2.5	1.9	r-0.6	7.2	1.5	r10.8	r2.2
	IV	10.8	5.4	-4.8	2.7	3.0	-7.3	r-4.9	-6.7	r46.1	-3.3
	ANNUAL	r1.4	r-0.1	-1.5	2.5	-0.3	r1.0	r6.5	r2.5	r-11.7	r1.2
2002	I	4.6	3.3	-1.3	3.4	2.0	r-1.2	-0.2	-0.9	r-0.2	-0.8
	II	r5.8	r5.2	-0.5	4.4	1.0	-1.3	1.7	-0.5	0.9	r-0.3
	III	5.7	4.3	-1.3	5.7	3.7	0.0	1.1	0.3	-10.4	-0.6

Percent change from corresponding quarter of previous year											
2000	I	r3.0	r5.7	2.6	5.6	2.3	r2.5	r2.9	r2.6	r-12.9	r0.9
	II	r3.5	r5.4	1.9	6.2	2.8	r2.6	r3.5	r2.8	r-12.4	r1.2
	III	r4.2	r5.4	1.2	7.6	4.0	r3.3	r2.5	r3.1	r-14.2	r1.3
	IV	r3.3	r3.6	0.3	7.3	3.8	r3.9	r4.1	r4.0	r-21.8	r1.4
	ANNUAL	r3.5	r5.0	1.5	6.7	3.2	r3.1	r3.3	r3.1	r-15.2	r1.2
2001	I	r0.9	r0.4	-0.4	3.5	0.2	r2.6	r6.7	r3.7	r-22.0	r1.3
	II	r0.9	r-0.1	-1.0	3.2	-0.1	r2.3	r6.8	r3.5	r-19.7	r1.3
	III	r0.7	r-1.1	-1.8	1.8	-0.8	r1.1	r7.8	r2.9	r-10.6	r1.7
	IV	3.3	0.3	-2.9	1.4	-0.4	-1.8	4.7	r0.0	r9.2	r0.7
	ANNUAL	r1.4	r-0.1	-1.5	2.5	-0.3	r1.0	r6.5	r2.5	r-11.7	r1.2
2002	I	5.2	r1.9	-3.1	2.6	1.4	r-2.4	r2.2	-1.2	r15.5	0.0
	II	6.1	3.4	-2.5	3.3	1.9	r-2.6	r0.9	-1.7	13.0	-0.6
	III	6.7	4.5	-2.0	4.0	2.4	-2.5	-0.6	-2.0	7.2	-1.3

See footnotes following Table 6.
r=revised

December 4, 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 second quarter of 2002.

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 1978-2001 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.

Appendix table 1. Nonfinancial corporations: Revised 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	114.3	139.3	121.9	120.2	104.3	105.1	101.6	104.2	137.1	107.0
	II	114.4	140.3	122.7	120.4	103.8	105.2	102.7	104.5	135.6	107.2
	III	114.7	141.7	123.5	121.2	103.7	105.6	104.5	105.3	127.7	107.2
	IV	115.8	144.0	124.4	122.7	104.2	106.0	104.6	105.7	126.0	107.4
	ANNUAL	114.8	141.3	123.1	121.1	104.1	105.5	103.4	104.9	131.5	107.2

Percent change from previous quarter at annual rate(5)											
1999	I	4.1	6.1	2.0	8.3	6.5	4.0	-6.3	1.1	-1.7	0.8
	II	0.2	2.9	2.7	0.7	-2.1	0.5	4.3	1.5	-4.4	0.8
	III	1.3	4.0	2.7	2.8	-0.1	1.4	7.2	2.9	-21.3	0.1
	IV	3.6	6.7	3.0	5.2	1.9	1.6	0.6	1.3	-5.3	0.6
	ANNUAL	2.7	5.2	2.4	4.4	2.3	1.7	1.2	1.5	-7.2	0.6

Percent change from corresponding quarter of previous year											
1999	I	4.0	6.2	2.1	5.6	4.0	1.5	-0.1	1.0	-4.7	0.4
	II	2.8	5.4	2.5	4.3	2.3	1.4	0.8	1.2	-3.4	0.7
	III	1.8	4.5	2.6	3.8	1.5	1.9	2.7	2.1	-11.9	0.5
	IV	2.3	4.9	2.6	4.2	1.5	1.9	1.3	1.7	-8.5	0.6
	ANNUAL	2.7	5.2	2.4	4.4	2.3	1.7	1.2	1.5	-7.2	0.6

See footnotes following Table 6.

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Source: Bureau of Labor Statistics