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PRODUCTIVITY AND COSTS
 Fourth Quarter and Annual Averages, 1997

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 1997. In the fourth quarter, productivity rose in both the business and nonfarm business sectors by less than it had in the previous quarter. Percent changes in business and nonfarm business productivity were:

	Fourth quarter	Annual averages 1996-1997
Business sector	1.8	1.9
Nonfarm business sector	1.6	1.7

For the year 1997, productivity increases in both sectors were about the same as the 1996 increases. 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 1996-1997
Manufacturing	4.3	4.4
Durable goods manufacturing	6.3	5.7
Nondurable goods manufacturing	1.3	3.2

Manufacturing productivity rose at a 4.3 percent annual rate in the fourth quarter as output growth accelerated to 8.2 percent and hours of all persons grew 3.8 percent (table A). On an annual basis, manufacturing productivity rose 4.4 percent in 1997, the largest increase in a decade. 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.

 Table A. Productivity and costs: Revised fourth-quarter 1997 measures (Seasonally adjusted annual rates)

Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
	Percent change from preceding quarter					
Business	1.8	5.0	3.2	5.5	3.4	3.7
Nonfarm business	1.6	5.1	3.5	5.2	3.1	3.5
Manufacturing	4.3	8.2	3.8	6.1	3.9	1.8
Durable	6.3	9.9	3.4	7.5	5.3	1.1
Nondurable	1.3	5.6	4.2	3.9	1.7	2.5
	Percent change from same quarter a year ago					
Business	2.3	4.6	2.3	4.2	2.3	1.9
Nonfarm business	2.1	4.6	2.4	4.1	2.2	1.9
Manufacturing	4.8	6.3	1.4	4.1	2.2	-0.7
Durable	6.9	9.4	2.4	4.2	2.2	-2.6
Nondurable	2.6	2.7	0.1	3.9	2.0	1.3

The data sources and methods used in the preparation of the manufacturing series differ from those used in preparing the business and nonfarm business series, and these measures are not directly comparable. Output 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 CHANGES, 1997

Business

Business sector productivity rose at a 1.8 percent annual rate in the fourth quarter of 1997 as output increased 5.0 percent and hours of all persons engaged in the sector increased 3.2 percent. The fourth-quarter increase in labor productivity was smaller than those posted in the previous two quarters. In the third quarter of 1997, labor productivity rose 3.5 percent as output increased 3.6 percent and hours of all persons grew 0.1 percent (table 1).

Hourly compensation rose faster, 5.5 percent, during the fourth quarter of 1997 than it had in the previous quarter, when it grew 4.2 percent. This measure includes wages and salaries, supplements, employer contributions to employee-benefit plans, and taxes. Unit labor costs, which reflect changes in both hourly compensation and productivity, increased at a 3.7 percent annual rate during the fourth quarter, after having increased only 0.7 percent in the third quarter.

Real hourly compensation, which takes into account changes in the Consumer Price Index for All Urban Consumers (CPI-U), rose at a 3.4 percent annual rate for persons in the business sector. This was the largest quarterly increase in the series since a 5.0-percent rise was posted in the first quarter of 1992. Real hourly compensation rose 2.2 percent during the third quarter.

The implicit price deflator for business output, which reflects changes in unit labor costs and unit nonlabor payments, rose 0.9 percent in the fourth quarter. This increase was down slightly from the 1.1 percent gain in the third quarter of 1997.

Nonfarm business

In the nonfarm business sector, productivity rose 1.6 percent at an annual rate in the fourth quarter as output rose 5.1 percent, and hours of all persons--employees, proprietors, and unpaid family workers--rose 3.5 percent. During the third quarter, nonfarm productivity had increased 3.6 percent as output grew 3.7 percent and hours edged up 0.1 percent (table 2).

Hourly compensation rose 5.2 percent in the fourth quarter, more rapidly than in the third quarter when it grew 3.8 percent. The fourth-quarter increase in hourly compensation in the nonfarm business sector was the largest since a 7.7-percent rise was posted in the first quarter of 1992. Real hourly compensation in the fourth quarter of 1997 increased 3.1 percent when the increase in the CPI-U was taken into account. During the third quarter, it had risen 1.8 percent.

Unit labor costs rose 3.5 percent in the fourth quarter, up from a 0.2-percent increase in the third quarter of 1997. The implicit price deflator for nonfarm business rose less in the fourth quarter, 1.0 percent, than it had one quarter earlier when it increased 1.2 percent.

Manufacturing

Manufacturing productivity rose at a 4.3 percent seasonally adjusted annual rate in the fourth quarter of 1997, down from an increase of 8.0 percent in the third quarter. Output in the fourth quarter rose 8.2 percent, and hours of all persons increased 3.8 percent. The fourth-quarter output increase was the largest since a 13.3-percent increase in the first quarter of 1984. In the third quarter, manufacturing output had grown 6.1 percent, but hours had dropped 1.7 percent (table 3). Productivity and output grew more rapidly in durable goods industries than in nondurable goods. In durable goods, productivity increased 6.3 percent in the fourth quarter as output rose 9.9 percent and hours of all persons grew 3.4 percent. In nondurable goods, output grew 5.6 percent and hours of all persons increased 4.2 percent, resulting in a productivity increase of 1.3 percent (tables 4 and 5).

Hourly compensation of all manufacturing workers increased 6.1 percent during the fourth quarter, up sharply from the 3.4 percent increase in the previous quarter. Hourly compensation rose 7.5 percent in durable goods industries and 3.9 percent in nondurable goods industries. When the increase in consumer prices was taken into account, real hourly compensation in manufacturing rose 3.9 percent in the fourth quarter and 1.5 percent in the third quarter.

Unit labor costs rose in the fourth quarter of 1997 by 1.8 percent, as hourly compensation in the manufacturing sector rose faster than labor productivity. Unit labor costs had dropped in the third quarter by 4.2 percent as productivity increases exceeded increases in hourly compensation. In durable goods, unit labor costs rose 1.1 percent in the fourth quarter after having dropped 7.8 percent in the previous quarter. Unit labor costs in durable goods industries had fallen in 15 of the last 17 quarters. In nondurable goods industries, unit labor costs rose 2.5 percent in the fourth quarter, more rapidly than the 0.2-percent rise one quarter earlier.

ANNUAL AVERAGE CHANGES, 1996-1997

Business

In calendar year 1997, business productivity increased 1.9 percent, after having increased 2.0 percent in the previous year (table 1). Output grew 4.5 percent in 1997 and 3.5 percent in 1996. The 1997 output increase was the largest since an 8.5-percent rise in 1984. Hours of all persons in the business sector rose 2.6 percent in 1997 and 1.4 percent in the previous year.

 Table B. Productivity and costs: Revised 1997 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	4.5	2.6	3.9	1.6	2.0
Nonfarm business	1.7	4.5	2.7	3.8	1.5	2.1
Manufacturing	4.4	5.6	1.1	3.5	1.2	-0.9
Durable	5.7	8.0	2.2	3.1	0.8	-2.5
Nondurable	3.2	2.9	-0.3	4.0	1.6	0.7

Hourly compensation increased 3.9 percent in both 1996 and 1997. Real hourly compensation also increased in both years--0.9 percent in 1996 and 1.6 percent in 1997. These were the first increases in real hourly compensation since 1992 when it rose 2.1 percent.

Unit labor costs increased 2.0 percent in 1997, up slightly from the 1.8-percent increase in the previous year. The implicit price deflator rose 1.7 percent in 1997 and 1.9 percent in 1996. These are the only increases of

less than 2 percent in this series since the mid-1960s.

Nonfarm business

Productivity increased 1.7 percent in the nonfarm business sector during 1997, as output rose 4.5 percent and hours of all persons increased 2.7 percent. In 1996, productivity rose 1.9 percent, output rose 3.5 percent, and hours of all persons grew 1.6 percent.

Hourly compensation grew 3.8 percent in both 1997 and 1996. However, because the increase in the CPI-U was smaller in 1997 than in the previous year, the increase in real hourly compensation in 1997, 1.5 percent, was larger than the 0.8-percent increase in 1996. The 1997 increase in real hourly compensation was the largest since a 2.1 percent rise in 1992.

Unit labor costs in the nonfarm business sector grew 2.1 percent in 1997, slightly more than the 1.9-percent increase posted in 1996. The implicit price deflator, which reflects nonlabor payments as well as labor costs, rose 1.7 percent in both of the past two years.

Manufacturing

Manufacturing productivity grew 4.4 percent in 1997, continuing a trend of annual increases that began in 1980. Output in the manufacturing sector increased 5.6 percent in 1997, and hours of all persons rose 1.1 percent. In 1996, manufacturing productivity rose 3.7 percent as output increased 3.2 percent and hours fell 0.5 percent. Although productivity increased in both the durable and nondurable goods sectors in 1997, durable goods manufacturers had a larger increase (5.7 percent) than nondurable goods manufacturers (3.2 percent). Trends in output and hours also were different in the two subsectors. Output and hours rose 8.0 and 2.2 percent, respectively, in the durable goods sector in 1997. In the nondurable goods sector, output rose 2.9 percent while hours fell slightly, 0.3 percent (tables B, 3, 4, and 5).

The hourly compensation of manufacturing workers increased 3.5 percent in 1997, somewhat faster than the 3.2-percent increase that occurred in 1996. Real hourly compensation in the manufacturing sector rose 1.2 percent in 1997 following a 0.2 percent rise in the previous year. The 1997 increase in real hourly compensation was the largest since 1992, when it rose 1.4 percent. Hourly compensation in durable goods rose 3.1 percent in 1997, and real hourly compensation increased 0.8 percent. In nondurable goods industries, hourly compensation rose 4.0 percent, while real hourly compensation grew 1.6 percent.

Unit labor costs in the manufacturing sector fell 0.9 percent last year. This was the third consecutive year of falling unit labor costs in this sector: they fell 0.5 percent in 1996 and 0.3 percent in 1995. In durable goods, unit labor costs have fallen every year since 1991 (when they rose 3.4 percent). Unit labor costs in durable goods industries fell 2.5 percent in 1997, and they rose 0.7 percent in nondurable goods.

Revised Measures

Productivity and cost data for the fourth quarter and full year 1997 for business, nonfarm business, and manufacturing were revised to incorporate the most recent information. In the business and nonfarm business sectors, productivity and output measures for the fourth quarter are lower and unit labor costs are higher than those reported on Feb. 10 based on information available at that time. Unit labor costs also were revised up in the manufacturing sector due to changes in the hourly compensation data. Annual measures of productivity and costs were unchanged in all sectors. Quarterly series for real hourly compensation in the business, nonfarm business, and manufacturing sectors were revised back to the first quarter of 1993 to incorporate the annual recalculation of seasonal factors for the Consumer Price Index (table C).

 Table C. Previous and revised productivity and related measures:
 Fourth-quarter and annual averages, 1997
 (Seasonally adjusted annual rates)

Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs

Percent change, third to fourth quarter 1997						
Business:						
Previous	2.2	5.5	3.2	5.4	3.2	3.1
Current	1.8	5.0	3.2	5.5	3.4	3.7
Nonfarm business:						
Previous	2.0	5.5	3.5	5.1	2.9	3.0
Current	1.6	5.1	3.5	5.2	3.1	3.5
Manufacturing:						
Previous	4.2	8.3	4.0	5.7	3.6	1.5
Current	4.3	8.2	3.8	6.1	3.9	1.8

Percent change, 1996 - 1997						
Business:						
Previous	1.9	4.5	2.6	3.9	1.6	2.0
Current	1.9	4.5	2.6	3.9	1.6	2.0
Nonfarm business:						
Previous	1.7	4.5	2.7	3.8	1.5	2.1
Current	1.7	4.5	2.7	3.8	1.5	2.1
Manufacturing:						
Previous	4.4	5.6	1.1	3.5	1.2	-0.9
Current	4.4	5.6	1.1	3.5	1.2	-0.9

Next release date

The next release of Productivity and Costs is scheduled for 10:00 AM EDT, Thursday, May 7, 1998, 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: 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 non-supervisory 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; non-electrical 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 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									
1995	I	100.1	108.7	108.6	105.7	98.2	105.5	108.3	106.5
	II	100.3	108.7	108.3	106.5	98.2	106.1	108.4	107.0
	III	100.6	109.8	109.2	107.3	98.4	106.7	108.8	107.4
	IV	101.2	110.7	109.3	108.3	r98.7	107.0	109.1	107.8
	ANNUAL	100.5	109.5	108.9	106.9	98.4	106.3	108.7	107.2
1996	I	102.0	111.4	109.2	109.3	98.9	107.2	110.5	108.4
	II	102.8	113.2	110.1	110.8	r99.3	107.8	111.0	108.9
	III	102.6	113.5	110.6	111.8	99.6	108.9	110.7	109.6
	IV	103.1	115.0	111.5	112.7	99.6	109.3	111.3	110.0
	ANNUAL	102.6	113.3	110.4	111.1	99.3	108.3	110.9	109.2
1997	I	103.5	116.6	112.7	113.8	r100.1	110.0	111.6	110.6
	II	104.1	117.8	113.1	114.7	100.5	110.2	112.4	111.0
	III	105.0	118.8	113.1	115.9	101.1	110.4	112.9	111.3
	IV	r105.5	r120.3	114.0	r117.5	101.9	r111.4	r111.8	r111.5
	ANNUAL	104.5	118.4	113.3	115.4	100.9	r110.5	r112.2	111.1

Percent change from previous quarter at annual rate(5)									
1995	I	-2.3	0.8	3.1	2.4	r-0.2	4.8	-0.2	2.9
	II	0.9	0.2	-0.8	3.2	r-0.1	2.3	0.4	1.6
	III	1.0	4.2	3.1	3.0	0.9	2.0	1.3	1.7
	IV	2.6	3.0	0.4	3.9	1.4	1.2	1.3	1.3
	ANNUAL	0.0	2.3	2.4	2.5	-0.3	2.6	1.7	2.3
1996	I	3.1	2.8	-0.3	3.7	r0.6	0.7	5.1	2.3
	II	3.1	6.6	3.4	5.5	r1.7	2.3	1.8	2.1
	III	-0.7	0.9	1.6	3.6	r1.2	4.4	-1.1	2.4
	IV	2.0	5.4	3.3	3.4	0.0	1.4	2.2	1.7
	ANNUAL	2.0	3.5	1.4	3.9	0.9	1.8	2.0	1.9
1997	I	1.6	5.9	4.2	4.1	r1.9	2.5	1.2	2.0
	II	2.2	3.9	1.6	3.1	r1.8	0.9	2.7	1.5
	III	3.5	3.6	0.1	4.2	r2.2	0.7	1.8	1.1
	IV	r1.8	r5.0	3.2	r5.5	r3.4	r3.7	r-3.7	r0.9
	ANNUAL	1.9	4.5	2.6	3.9	1.6	2.0	1.2	1.7

Percent change from corresponding quarter of previous year									
1995	I	-0.6	3.3	3.9	1.5	-1.3	2.2	3.2	2.6
	II	-0.4	1.7	2.1	2.4	-0.6	2.8	1.8	2.4
	III	0.0	2.4	2.3	2.7	0.1	2.7	1.3	2.2
	IV	0.6	2.0	1.5	3.1	0.5	2.6	0.7	1.9
	ANNUAL	0.0	2.3	2.4	2.5	-0.3	2.6	1.7	2.3
1996	I	1.9	2.5	0.6	3.5	0.7	1.5	2.0	1.7
	II	2.5	4.2	1.7	4.0	r1.1	1.5	2.4	1.8
	III	2.0	3.3	1.3	4.2	1.2	2.1	1.8	2.0
	IV	1.8	3.9	2.0	4.0	r0.9	2.2	2.0	2.1
	ANNUAL	2.0	3.5	1.4	3.9	0.9	1.8	2.0	1.9
1997	I	1.5	4.7	3.1	4.1	1.2	2.6	1.0	2.0
	II	1.3	4.0	2.7	3.6	1.2	2.3	1.2	1.9
	III	2.3	4.7	2.3	3.7	1.5	1.3	2.0	1.6
	IV	r2.3	r4.6	2.3	4.2	2.3	r1.9	r0.5	1.4
	ANNUAL	1.9	4.5	2.6	3.9	1.6	2.0	1.2	1.7

See footnotes following Table 6.
r=revised

March 10, 1998
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									
1995	I	100.3	108.9	108.6	105.5	98.1	105.2	109.6	106.8
	II	100.5	108.9	108.4	106.3	r98.0	105.8	109.6	107.2
	III	100.8	110.2	109.3	107.1	98.3	106.3	109.7	107.5
	IV	101.4	111.0	109.5	108.1	98.6	106.7	109.8	107.8
	ANNUAL	100.7	109.8	109.0	106.7	98.3	106.0	109.7	107.3
1996	I	102.1	111.7	109.4	109.1	98.7	106.9	111.0	108.4
	II	102.8	113.5	110.4	110.5	99.1	107.5	111.3	108.8
	III	102.6	113.8	110.9	111.4	99.3	108.6	110.9	109.4
	IV	103.1	115.3	111.9	112.3	99.3	109.0	111.4	109.8
	ANNUAL	102.6	113.6	110.7	110.8	99.1	108.0	111.2	109.1
1997	I	103.4	116.9	113.1	113.5	r99.8	109.8	111.7	110.5
	II	104.0	118.0	113.5	114.4	100.2	110.0	112.4	110.9
	III	104.9	119.1	113.5	115.5	100.7	110.1	113.2	111.2
	IV	r105.3	r120.6	114.5	r117.0	101.4	r111.0	r112.2	111.5
	ANNUAL	r104.3	118.7	113.7	115.0	r100.6	110.2	r112.4	111.0
Percent change from previous quarter at annual rate(5)									
1995	I	-1.8	1.2	3.1	2.3	r-0.3	4.2	1.3	3.1
	II	0.8	0.2	-0.7	3.1	r-0.3	2.3	0.1	1.5
	III	1.4	4.6	3.1	3.1	1.0	1.7	0.5	1.2
	IV	2.2	3.0	0.7	3.7	1.2	1.4	0.1	1.0
	ANNUAL	0.2	2.6	2.4	2.5	-0.3	2.4	2.1	2.3
1996	I	2.8	2.6	-0.3	3.9	r0.7	1.0	4.6	2.3
	II	2.9	6.8	3.8	5.1	r1.3	2.2	0.9	1.7
	III	-0.7	1.0	1.7	3.3	r0.8	4.0	-1.4	2.0
	IV	1.9	5.4	3.5	3.4	0.0	1.5	2.0	1.7
	ANNUAL	1.9	3.5	1.6	3.8	0.8	1.9	1.4	1.7
1997	I	1.1	5.6	4.5	4.3	r2.0	3.1	1.1	2.4
	II	2.3	3.8	1.5	3.2	r1.8	0.9	2.3	1.4
	III	3.6	3.7	0.1	3.8	1.8	0.2	2.9	1.2
	IV	r1.6	r5.1	3.5	r5.2	r3.1	r3.5	r-3.2	r1.0
	ANNUAL	1.7	4.5	2.7	3.8	1.5	2.1	r1.1	1.7
Percent change from corresponding quarter of previous year									
1995	I	-0.3	3.5	3.9	1.6	-1.2	2.0	4.3	2.8
	II	-0.3	1.9	2.2	2.3	-0.7	2.6	2.5	2.6
	III	0.4	2.7	2.3	2.8	0.2	2.4	1.5	2.1
	IV	0.6	2.2	1.6	3.1	0.4	2.4	0.5	1.7
	ANNUAL	0.2	2.6	2.4	2.5	-0.3	2.4	2.1	2.3
1996	I	1.8	2.6	0.7	3.5	r0.6	1.6	1.3	1.5
	II	2.3	4.2	1.8	3.9	r1.0	1.6	1.5	1.6
	III	1.8	3.3	1.5	4.0	1.0	2.1	1.0	1.7
	IV	1.7	3.9	2.2	3.9	0.7	2.2	1.5	1.9
	ANNUAL	1.9	3.5	1.6	3.8	0.8	1.9	1.4	1.7
1997	I	1.3	4.7	3.4	4.0	r1.1	2.7	0.6	1.9
	II	1.1	4.0	2.8	3.5	r1.2	2.4	1.0	1.9
	III	2.2	4.7	2.4	3.7	1.4	1.4	2.1	1.7
	IV	r2.1	r4.6	2.4	4.1	r2.2	r1.9	r0.7	1.5
	ANNUAL	1.7	4.5	2.7	3.8	1.5	2.1	r1.1	1.7

See footnotes following Table 6.
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March 10, 1998
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							
1995	I	106.6	112.2	105.2	r99.7	100.6	
	II	107.7	112.0	104.0	99.8	100.5	
	III	108.8	112.8	103.6	100.2	100.4	
	IV	109.2	113.0	103.4	100.4	100.8	
	ANNUAL	108.1	112.5	104.1	100.1	100.6	
1996	I	110.4	113.4	102.7	100.2	100.3	
	II	111.6	115.7	103.7	r100.4	100.4	
	III	113.0	117.0	103.6	100.6	99.9	
	IV	114.0	118.3	103.7	100.3	99.5	
	ANNUAL	112.1	116.1	103.6	100.3	100.0	
1997	I	114.9	120.0	104.4	100.8	99.8	
	II	116.0	121.5	104.7	101.1	99.5	
	III	118.3	123.3	104.3	101.5	98.4	
	IV	119.5	r125.7	r105.2	r102.5	r98.9	
	ANNUAL	117.1	122.6	104.7	r116.1	r101.5	

Percent change from previous quarter at annual rate(5)							
1995	I	3.3	3.9	0.5	2.2	r-0.4	-1.1
	II	4.3	-0.4	-4.5	3.8	r0.4	-0.5
	III	4.2	2.6	-1.5	3.9	1.7	-0.3
	IV	1.6	0.8	-0.7	3.2	0.7	1.6
	ANNUAL	3.2	3.5	0.3	2.9	0.1	-0.3
1996	I	4.4	1.5	-2.7	2.4	r-0.7	-1.9
	II	4.2	8.1	3.8	4.7	r0.9	0.5
	III	5.3	4.9	-0.4	3.1	r0.7	-2.1
	IV	3.6	4.2	0.6	1.9	-1.4	-1.6
	ANNUAL	3.7	3.2	-0.5	3.2	0.2	-0.5
1997	I	3.3	6.2	2.8	4.4	r2.2	1.0
	II	3.8	4.9	1.1	2.6	r1.3	-1.1
	III	8.0	6.1	-1.7	3.4	r1.5	-4.2
	IV	r4.3	r8.2	r3.8	r6.1	r3.9	r1.8
	ANNUAL	4.4	5.6	1.1	3.5	1.2	-0.9

Percent change from corresponding quarter of previous year							
1995	I	2.7	5.6	2.8	2.0	-0.9	-0.7
	II	2.7	3.6	0.9	2.8	-0.2	0.1
	III	3.5	3.2	-0.3	3.1	0.5	-0.4
	IV	3.3	1.7	-1.6	3.2	0.6	-0.1
	ANNUAL	3.2	3.5	0.3	2.9	0.1	-0.3
1996	I	3.6	1.1	-2.4	3.3	0.5	-0.3
	II	3.6	3.2	-0.3	3.5	0.7	0.0
	III	3.8	3.8	0.0	3.4	0.4	-0.5
	IV	4.4	4.7	0.3	3.0	-0.1	-1.3
	ANNUAL	3.7	3.2	-0.5	3.2	0.2	-0.5
1997	I	4.1	5.8	1.7	3.5	0.6	-0.5
	II	4.0	5.0	1.0	3.0	r0.7	-0.9
	III	4.7	5.3	0.7	3.1	0.9	-1.5
	IV	4.8	r6.3	r1.4	r4.1	r2.2	-0.7
	ANNUAL	4.4	5.6	1.1	3.5	1.2	-0.9

See footnotes following Table 6.
r=revised

March 10, 1998
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							
1995	I	110.6	118.2	106.9	107.1	r99.6	96.8
	II	111.4	118.1	106.0	107.9	99.5	96.8
	III	112.8	119.6	106.0	108.8	99.8	96.4
	IV	113.5	120.6	106.3	109.3	r99.6	96.3
	ANNUAL	112.1	119.1	106.3	108.2	99.7	96.6
1996	I	115.2	121.8	105.7	109.7	99.2	95.2
	II	116.9	125.4	107.3	111.0	99.5	94.9
	III	118.6	127.2	107.3	111.7	99.5	94.2
	IV	119.5	128.4	107.5	111.8	98.8	93.6
	ANNUAL	117.4	125.7	107.1	110.9	99.1	94.5
1997	I	120.7	131.3	108.8	113.1	99.4	93.7
	II	122.5	133.9	109.3	113.7	99.6	92.8
	III	125.8	137.2	109.1	114.4	99.7	90.9
	IV	r127.7	r140.5	r110.0	r116.5	r101.0	r91.2
	ANNUAL	124.1	r135.7	109.4	114.3	99.9	92.1

Percent change from previous quarter at annual rate(5)							
1995	I	4.9	5.7	0.8	2.4	r-0.2	-2.4
	II	3.1	-0.4	-3.4	3.0	r-0.4	-0.1
	III	5.0	5.0	0.0	3.3	1.2	-1.6
	IV	2.5	3.5	1.0	2.0	-0.4	-0.5
	ANNUAL	4.0	5.3	1.3	2.6	-0.2	-1.3
1996	I	6.2	4.0	-2.1	1.4	r-1.7	-4.4
	II	6.0	12.6	6.2	4.7	r0.9	-1.2
	III	5.9	5.8	-0.1	2.6	r0.2	-3.1
	IV	3.1	3.8	0.7	0.5	-2.8	-2.5
	ANNUAL	4.7	5.5	0.8	2.4	-0.5	-2.2
1997	I	4.1	9.4	5.1	4.8	r2.5	0.6
	II	6.2	8.1	1.8	2.1	r0.7	-3.9
	III	11.0	10.2	-0.8	2.4	r0.4	-7.8
	IV	r6.3	r9.9	r3.4	r7.5	r5.3	r1.1
	ANNUAL	5.7	8.0	2.2	3.1	0.8	-2.5

Percent change from corresponding quarter of previous year							
1995	I	4.1	7.9	3.7	1.7	-1.1	-2.2
	II	3.5	5.4	1.9	2.5	-0.5	-0.9
	III	3.9	4.7	0.7	2.8	0.2	-1.1
	IV	3.9	3.4	-0.4	2.7	r0.0	-1.1
	ANNUAL	4.0	5.3	1.3	2.6	-0.2	-1.3
1996	I	4.2	3.0	-1.1	2.4	-0.3	-1.7
	II	4.9	6.2	1.3	2.9	0.0	-1.9
	III	5.1	6.4	1.2	2.7	-0.3	-2.3
	IV	5.3	6.5	1.1	2.3	r-0.8	-2.8
	ANNUAL	4.7	5.5	0.8	2.4	-0.5	-2.2
1997	I	4.8	7.8	2.9	3.1	0.2	-1.6
	II	4.8	6.8	1.9	2.5	0.1	-2.2
	III	6.1	7.9	1.7	2.4	0.2	-3.4
	IV	r6.9	r9.4	2.4	r4.2	r2.2	r-2.6
	ANNUAL	5.7	8.0	2.2	3.1	0.8	-2.5

See footnotes following Table 6.
r=revised

March 10, 1998
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							
1995	I	102.8	105.8	103.0	107.0	99.5	104.1
	II	104.2	105.6	101.4	108.3	r99.8	103.9
	III	105.1	105.6	100.5	109.5	100.4	104.2
	IV	105.3	105.0	99.7	110.7	r100.9	105.2
	ANNUAL	104.4	105.5	101.1	108.9	100.3	104.4
1996	I	105.9	104.6	98.8	111.8	101.1	105.5
	II	106.6	105.4	98.9	112.9	r101.2	105.9
	III	107.9	106.4	98.6	114.1	101.6	105.7
	IV	109.0	107.6	98.7	115.3	101.9	105.7
	ANNUAL	107.2	106.0	98.9	113.4	101.4	105.7
1997	I	109.8	108.3	98.6	116.2	r102.2	105.8
	II	110.1	108.6	98.6	117.2	102.7	106.4
	III	111.4	109.0	97.8	118.7	103.4	106.5
	IV	111.8	110.5	r98.8	r119.8	r103.9	107.1
	ANNUAL	110.7	109.1	98.5	117.9	103.0	106.5

Percent change from previous quarter at annual rate(5)							
1995	I	1.1	1.3	0.1	1.7	r-0.9	0.6
	II	5.6	-0.8	-6.1	4.8	r1.3	-0.8
	III	3.4	-0.3	-3.6	4.5	2.3	1.0
	IV	0.8	-2.3	-3.1	4.7	2.2	3.8
	ANNUAL	2.3	1.2	-1.1	3.2	0.4	0.9
1996	I	2.5	-1.2	-3.6	4.0	r0.8	1.4
	II	2.6	3.1	0.4	4.1	r0.4	1.5
	III	4.8	3.8	-0.9	4.0	r1.5	-0.7
	IV	4.3	4.6	0.3	4.3	1.0	0.1
	ANNUAL	2.8	0.5	-2.2	4.1	1.1	1.3
1997	I	3.0	2.5	-0.5	3.3	r1.1	0.3
	II	1.1	1.2	0.1	3.4	r2.0	2.3
	III	4.8	1.5	-3.1	5.0	r3.0	0.2
	IV	r1.3	5.6	r4.2	r3.9	r1.7	r2.5
	ANNUAL	3.2	2.9	-0.3	r4.0	1.6	0.7

Percent change from corresponding quarter of previous year							
1995	I	1.3	3.0	1.6	2.1	-0.7	0.8
	II	1.9	1.3	-0.5	3.0	0.0	1.2
	III	3.0	1.1	-1.8	3.4	0.7	0.4
	IV	2.7	-0.5	-3.2	3.9	1.2	1.1
	ANNUAL	2.3	1.2	-1.1	3.2	0.4	0.9
1996	I	3.1	-1.1	-4.1	4.5	r1.6	1.4
	II	2.3	-0.2	-2.5	4.3	1.4	1.9
	III	2.7	0.8	-1.8	4.2	1.2	1.5
	IV	3.5	2.5	-1.0	4.1	0.9	0.5
	ANNUAL	2.8	0.5	-2.2	4.1	1.1	1.3
1997	I	3.7	3.5	-0.2	3.9	1.0	0.3
	II	3.3	3.0	-0.3	3.8	1.4	0.5
	III	3.3	2.4	-0.8	4.0	1.8	0.7
	IV	r2.6	2.7	r0.1	r3.9	r2.0	1.3
	ANNUAL	3.2	2.9	-0.3	r4.0	1.6	0.7

See footnotes following Table 6.
r=revised

March 10, 1998
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											
1995	I	102.9	112.3	109.2	105.1	97.7	102.2	99.8	101.6	135.2	104.6
	II	103.4	112.9	109.2	105.9	97.6	102.4	100.1	101.8	134.9	104.8
	III	104.7	114.9	109.7	106.6	97.8	101.9	99.0	101.1	145.5	105.1
	IV	105.4	115.9	110.0	107.5	98.0	102.0	99.1	101.2	147.3	105.4
	ANNUAL	104.1	114.0	109.5	106.3	97.9	102.1	99.5	101.4	140.8	105.0
1996	I	106.0	116.5	109.9	108.3	98.0	102.1	99.2	101.4	152.5	106.0
	II	107.1	118.7	110.8	109.7	r98.3	102.4	98.4	101.4	154.7	106.2
	III	107.8	120.0	111.3	110.7	98.6	102.7	98.1	101.5	156.0	106.4
	IV	108.3	121.5	112.1	111.5	98.6	102.9	97.4	101.5	156.4	106.5
	ANNUAL	107.3	119.2	111.0	110.1	98.4	102.6	98.3	101.4	154.9	106.3
1997	I	108.8	123.3	113.3	112.6	r99.0	103.5	97.0	101.8	157.9	106.9
	II	109.4	124.7	114.0	113.5	r99.4	103.7	97.1	102.0	159.1	107.2
	III	111.1	127.1	114.4	114.7	100.0	103.2	96.6	101.5	164.5	107.2

Percent change from previous quarter at annual rate(5)											
1995	I	-3.3	0.0	3.4	2.1	r-0.5	5.6	2.8	4.9	-18.1	1.8
	II	2.0	2.0	0.0	3.0	r-0.3	1.0	1.0	1.0	-0.8	0.8
	III	5.2	7.2	1.9	2.9	0.7	-2.2	-4.2	-2.7	35.4	1.3
	IV	2.8	3.8	1.0	3.3	0.8	0.4	0.4	0.4	4.9	1.0
	ANNUAL	0.8	3.7	2.9	2.3	-0.5	1.5	-0.2	1.1	4.7	1.5
1996	I	2.4	2.0	-0.3	3.1	r-0.1	0.7	0.6	0.7	15.0	2.4
	II	4.1	7.6	3.4	5.1	r1.4	1.1	-3.1	0.0	5.8	0.7
	III	2.7	4.3	1.6	3.8	r1.4	1.1	-1.4	0.5	3.5	0.9
	IV	2.1	5.2	3.1	3.0	-0.3	0.9	-2.8	0.0	1.0	0.1
	ANNUAL	3.1	4.5	1.4	3.5	0.6	0.4	-1.2	0.0	10.0	1.2
1997	I	1.7	6.1	4.3	4.0	r1.8	2.3	-1.8	1.3	3.8	1.6
	II	2.4	4.7	2.3	3.2	r1.8	0.8	0.5	0.7	3.2	1.1
	III	6.3	7.8	1.5	4.3	r2.3	-1.9	-1.9	-1.9	14.3	0.2

Percent change from corresponding quarter of previous year											
1995	I	-0.7	3.9	4.7	1.4	-1.4	2.2	-1.7	1.2	6.6	1.8
	II	0.3	3.5	3.1	2.1	-0.9	1.8	1.3	1.7	1.9	1.7
	III	1.5	4.3	2.7	2.5	-0.1	1.0	-0.5	0.6	6.7	1.3
	IV	1.6	3.2	1.6	2.8	0.2	1.2	0.0	0.9	3.6	1.2
	ANNUAL	0.8	3.7	2.9	2.3	-0.5	1.5	-0.2	1.1	4.7	1.5
1996	I	3.1	3.7	0.6	3.1	0.3	0.0	-0.6	-0.2	12.8	1.4
	II	3.6	5.1	1.5	3.6	0.7	0.0	-1.6	-0.4	14.6	1.3
	III	3.0	4.4	1.4	3.8	r0.9	0.8	-0.9	0.4	7.2	1.2
	IV	2.8	4.8	1.9	3.8	0.6	1.0	-1.7	0.3	6.2	1.0
	ANNUAL	3.1	4.5	1.4	3.5	0.6	0.4	-1.2	0.0	10.0	1.2
1997	I	2.6	5.8	3.1	4.0	1.0	1.3	-2.3	0.4	3.5	0.8
	II	2.2	5.1	2.8	3.5	r1.2	1.3	-1.4	0.6	2.9	0.9
	III	3.1	5.9	2.8	3.6	1.4	0.5	-1.5	0.0	5.5	0.7

See footnotes following Table 6.
r=revised

March 10, 1998
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 self-employed.
- (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.