

# News

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## PRODUCTIVITY AND COSTS Second Quarter 1989

The Bureau of Labor Statistics of the U.S. Department of Labor today reported preliminary productivity data--as measured by output per hour of all persons--for the second quarter of 1989. The preliminary seasonally-adjusted annual rates of productivity change in the second quarter were:

- 0.9 percent in the business sector,
- 0.2 percent in the nonfarm business sector,
- 2.4 percent in manufacturing,
- 4.6 percent in durable goods manufacturing, and
- 0.7 percent in nondurable goods manufacturing.

Productivity advanced modestly in business and nonfarm business as output and hours both increased. In manufacturing, a more rapid productivity increase occurred, but hours declined while output rose. All of the manufacturing productivity gain took place among durable goods industries. Second-quarter measures are summarized in table A and appear in detail in tables 1 through 5.

Productivity and cost measures for business, nonfarm business, and nonfinancial corporations in this release incorporate revised output and compensation series reported by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce on July 27 as part of their regular revision cycle. Data for 1986-1989 are affected. For manufacturing, compensation measures are revised for this period, but output continues to be based on the Industrial Production Index data prepared by the Board of Governors of the Federal Reserve. BEA plans to announce revised manufacturing output measures later this year.

In addition, hours of labor input have undergone two revisions. The first revision, announced in the June 1 edition of this news release, is the redefinition of labor input to hours at work. Incorporating the results of the BLS Hours at Work Survey, labor input now reflects hours at the work site (rather than hours paid). This change affects all labor input series, which begin with data for 1947 (or, in the case of nonfinancial corporations, 1958). See Note on page 4. The second revision incorporates the benchmarking of employment levels of employees in nonagricultural establishments to the most current information from Unemployment Insurance records. This regular revision affects data for 1987-1989.

Table A. Productivity and costs: Second-quarter 1989 measures (Seasonally adjusted annual rates)

Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
Percent change from preceding quarter						
Business	0.9	1.4	0.4	6.6	0.3	5.7
Nonfarm business	0.2	1.7	1.5	5.5	-0.9	5.2
Manufacturing	2.4	2.1	-0.3	2.5	-3.7	0.1
Durable	4.6	2.0	-2.4	1.3	-4.8	-3.1
Nondurable	-0.7	2.3	3.0	5.0	-1.3	5.7
Percent change from same quarter a year ago						
Business	1.3	3.4	2.1	5.6	0.3	4.2
Nonfarm business	1.0	3.4	2.3	5.4	0.2	4.3
Manufacturing	3.0	4.4	1.3	4.1	-1.1	1.1
Durable	2.9	4.1	1.1	3.8	-1.4	0.9
Nondurable	3.1	4.8	1.7	4.6	-0.6	1.4

#### Business

Productivity increased at a 0.9 percent annual rate during the second quarter of 1989 in the business sector, as output rose 1.4 percent and hours of all persons engaged in the sector increased 0.4 percent (seasonally adjusted annual rates). These were the smallest increases in output and hours since 1986 (appendix table 1). During the first quarter of 1989, productivity had increased 1.0 percent (table 1). In the second quarter of 1989, employment rose 0.9 percent and average weekly hours declined 0.4 percent.

Hourly compensation increased at a 6.6 percent annual rate during the second quarter of 1989, compared with a 4.8 percent gain during the previous quarter. The second-quarter increase was the largest since 1987. This measure includes wages and salaries, supplements, employer contributions to employee-benefit plans, and taxes. Unit labor costs, which reflect changes in hourly compensation and productivity, increased at a 5.7 percent annual rate during the second quarter, compared with a 3.7 percent increase during the first quarter.

Real hourly compensation, which takes into account changes in the Consumer Price Index for All Urban Consumers (CPI-U), increased at a 0.3 percent annual rate during the second quarter. During the first quarter, this measure had declined at a 0.6 percent annual rate.

The implicit price deflator for business output, which reflects changes in unit labor costs and unit nonlabor payments, increased 4.9 percent in the second quarter, compared with a 3.3 percent rise in the first quarter.

#### **Nonfarm business**

Productivity increased 0.2 percent in the nonfarm business sector during the second quarter of 1989, as output rose 1.7 percent and hours of all persons--employees, proprietors, and unpaid family workers--increased 1.5 percent. During the first quarter of 1989, productivity had decreased 1.3 percent in this sector (table 2). As in the more comprehensive business sector, growth in both output and hours slowed in the second quarter.

Hourly compensation increased 5.5 percent in the second quarter, but fell 0.9 percent when the increase in the CPI-U was taken into account. During the first quarter the comparable changes were 4.8 percent and -0.6 percent, respectively. Unit labor costs increased 5.2 percent, compared with a 6.2 percent rise during the first quarter of 1989.

The implicit price deflator for nonfarm business output rose 4.8 percent in the second quarter, compared with a 2.8 percent increase one quarter earlier.

#### **Manufacturing**

Productivity increased at a 2.4 percent seasonally adjusted annual rate of manufacturing in the second quarter of 1989, as output increased 2.1 percent and hours of all persons decreased 0.3 percent. The productivity increase in total manufacturing resulted from opposite movements in durable and nondurable goods industries. Productivity increased among durable goods manufacturers, but declined in nondurables (tables 4, 5).

Hourly compensation of all manufacturing workers increased 2.5 percent during the second quarter, compared with a 3.1 percent increase during the first quarter. Real hourly compensation declined 3.7 percent in the second quarter when the increase in consumer prices was taken into account. During the first quarter, this measure fell at a 2.2 percent annual rate. Manufacturing real hourly compensation has declined in 6 of the past 10 quarters. Unit labor costs edged up at a 0.1 percent annual rate in the second quarter, compared with a 1.0 percent increase during the first quarter of 1989.

## Revised measures

The productivity and cost measures contained in this news release are based on the latest measures of output and compensation available. Revised quarterly and annual output and compensation measures prepared by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce were published on July 27 as part of the regular revision cycle of the national income and product accounts and affect the last 3 years. (For manufacturing, revised output measures will be announced by BEA later this year. Until then, post-1987 manufacturing output will continue to be based on the Federal Reserve Board's Index of Industrial Production.) See appendix tables 1-6.

In addition, the productivity and cost measures in this release incorporate recent information on employment and average weekly hours of all persons engaged in these sectors and the redefinition of labor input. (See Note below.) Appendix tables 7-12 show annual indexes of productivity and related measures using the new benchmarked data and the new hours at work definition. Historical tables containing quarterly values are available on request from the Bureau of Labor Statistics, Office of Productivity and Technology, Washington, D.C. 20212; (202) 523-9261.

Current productivity and cost measures on the BLS Major Sector Labor and Multifactor Productivity diskette, formatted for use on IBM-compatible microcomputers using LOTUS 1-2-3, also are available for \$38 prepaid. For ordering information, contact BLS Data Diskettes, 441 G Street NW, Room 2831 A, Washington, D.C. 20212; (202) 523-7827.

## Note

The Bureau of Labor Statistics has long been interested in replacing the labor input measure for productivity and cost series with an indicator of hours at work, rather than hours paid. Accordingly, in 1982 the BLS initiated a survey to collect data on paid leave practices of establishments reporting to the Current Employment Statistics program, the major source of labor input information for productivity measurement.

Survey data for 7 years (1981-1987) are now available; information from other sources has been linked to the survey results to produce continuous series from 1947 on. BLS plans to use this measure of labor input in future major sector productivity and cost series and will no longer maintain aggregate hours indexes on the old--hours paid--basis. A forthcoming article in the Monthly Labor Review will provide information on the methods used to construct the hours at work measure.

The survey results confirm that hours paid was a good proxy for hours at work. In the business sector, there is no difference between the 1947-1988 trends in hours at work and hours paid. For other major sectors reported here, long term trends of hours at work are 0.1 percent slower than hours paid. Year-to-year movements change by 0.1 percentage points or less in most cases, but larger changes occasionally occur. These result in equal and opposite changes in productivity and hourly compensation. Unit labor costs, the ratio of hourly compensation to productivity, are not directly affected. (There is a small indirect effect on unit labor costs due to a change in imputed labor compensation of proprietors.) See appendix tables 7-12.

**Next release date**

The next release of productivity and cost measures is scheduled for 10:00 AM EDT, Wednesday, September 6, 1989. Second-quarter measures for nonfinancial corporations will be released at that time.

### TECHNICAL NOTES

Business sector output is equal to gross national product in constant 1982 dollars, less the rest-of-the-world sector, general government, output of non-profit institutions, output of paid employees of private households, rental value of owner-occupied dwellings, and the statistical discrepancy in computing the national income accounts. Corresponding exclusions are also made in labor inputs. Business output accounted for 81 percent of gross national product in 1988. The nonfarm business sector, which also excludes farming, accounted for about 79 percent of gross national product in 1988.

Total manufacturing measures are computed by summing series prepared for the durable and nondurables goods sectors.

The durable sector includes the following 2-digit SIC industries: Primary metals; fabricated metal products; nonelectrical machinery; electrical machinery; transportation equipment; instruments; lumber and lumber products; furniture and fixtures; stone, clay, and glass products; and miscellaneous manufactures. The nondurable sector includes these 2-digit SIC industries: Textile mill products, apparel products, leather and leather products, printing and publishing, chemical and chemical products, petroleum products, rubber and plastic products, food, and tobacco products.

Manufacturing output accounted for about 22 percent of gross national product in 1988.

Nonfinancial corporate output is equal to gross national product in constant 1982 dollars, less the rest-of-the-world sector, general government, unincorporated business, output of nonprofit institutions, output of paid employees of private households, rental value of owner-occupied dwellings, the output of corporations engaged in banking, finance, stock and commodity trading, and credit and insurance agencies, and the statistical discrepancy in computing the national income accounts. Nonfinancial corporate output accounted for about 60 percent of gross national product in 1988.

The productivity and associated cost measures in this news release describe the relationship between output in real terms 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 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.

Table 1. Business sector: Productivity, hourly compensation, unit labor cost, 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 cost	Unit non-labor payments(3)	Implicit price deflator(4)
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Indexes 1977=100									
1988	I	r113.3	r138.2	r122.0	r196.5	r102.3	173.5	r168.9	r171.9
	II	r112.7	r139.3	r123.6	r199.3	r102.7	r176.9	r168.8	r174.1
	III	r113.6	r140.7	r123.9	r202.2	r102.9	r178.1	r171.7	r175.8
	IV	r113.6	r141.9	r124.9	r204.8	r103.1	r180.2	r173.6	r177.9
	ANNUAL	r113.1	r140.0	r123.8	r200.4	r102.7	r177.2	r170.8	r174.9
1989	I	r113.9	r143.6	r126.0	r207.2	r103.0	r181.9	r174.7	r179.4
	II	114.2	144.0	126.2	210.5	103.0	184.4	176.2	181.5
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Percent change from previous quarter at annual rate(5)									
1988	I	r2.7	r4.4	r1.7	r2.8	r-0.8	r0.1	r4.2	r1.5
	II	r-2.0	r3.3	r5.4	r5.9	r1.3	r8.1	r-0.3	r5.1
	III	r3.1	r4.0	r0.9	r5.8	r1.0	r2.6	r7.1	r4.1
	IV	r0.2	r3.4	r3.2	r5.2	r0.7	r5.0	r4.6	r4.8
	ANNUAL	r1.8	r4.9	r3.1	r4.9	r0.8	r3.1	r2.7	r2.9
1989	I	r1.0	r4.8	r3.8	r4.8	r-0.6	r3.7	r2.4	r3.3
	II	0.9	1.4	0.4	6.6	0.3	5.7	3.5	4.9
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Percent change from corresponding quarter of previous year									
1988	I	r3.0	r5.9	r2.8	r4.4	r0.4	r1.3	r3.9	r2.2
	II	r1.8	r5.4	r3.5	r5.2	r1.3	r3.3	r1.4	r2.6
	III	r1.6	r4.7	r3.0	r5.4	r1.2	r3.7	r1.7	r3.0
	IV	r1.0	r3.8	r2.8	r4.9	r0.5	r3.9	r3.9	r3.9
	ANNUAL	r1.8	r4.9	r3.1	r4.9	r0.8	r3.1	r2.7	r2.9
1989	I	r0.6	r3.9	r3.3	r5.4	r0.6	r4.8	r3.4	r4.3
	II	1.3	3.4	2.1	5.6	0.3	4.2	4.4	4.3
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See footnotes following table 6.

r=revised

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Table 2. Nonfarm business sector: Productivity, hourly compensation, unit labor cost, 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 cost	Unit non-labor payments(3)	Implicit price deflator(4)
1988	I	r111.1	r138.0	r124.3	r195.1	r101.6	175.7	r170.2	r173.8
	II	r110.7	r139.5	r126.1	r197.8	r101.9	r178.7	r169.8	r175.6
	III	r111.6	r141.1	r126.4	r200.5	r102.1	r179.6	r172.0	r177.0
	IV	r112.1	r142.8	r127.3	r203.3	r102.4	r181.3	r176.2	r179.6
	ANNUAL	r111.2	r140.3	r126.2	r198.9	r101.9	r178.8	r172.2	r176.5
1989	I	r111.8	r143.6	r128.5	r205.7	r102.3	r184.1	r174.6	r180.8
	II	111.8	144.2	129.0	208.5	102.0	186.4	176.3	182.9
Percent change from previous quarter at annual rate(5)									
1988	I	r3.0	r4.8	r1.8	r2.7	r-0.9	r-0.3	r3.6	r1.0
	II	r-1.5	r4.4	r5.9	r5.5	r0.9	r7.1	r-1.0	r4.3
	III	r3.4	r4.6	r1.2	r5.5	r0.8	r2.0	r5.4	r3.2
	IV	r1.9	4.8	r2.8	r5.9	r1.4	r3.9	r10.1	r5.9
	ANNUAL	r2.1	r5.4	r3.2	r4.8	r0.7	r2.7	r2.6	r2.7
1989	I	r-1.3	r2.4	r3.8	r4.8	r-0.6	r6.2	r-3.7	r2.8
	II	0.2	1.7	1.5	5.5	-0.9	5.2	3.9	4.8
Percent change from corresponding quarter of previous year									
1988	I	r3.1	r6.1	r2.9	r4.3	0.4	r1.2	r3.7	r2.0
	II	r1.9	r5.7	r3.7	r5.1	r1.1	r3.1	r1.3	2.5
	III	r1.9	r5.2	r3.3	r5.2	r1.0	r3.3	r1.0	r2.5
	IV	r1.7	r4.7	r2.9	r4.9	r0.5	r3.1	r4.4	r3.6
	ANNUAL	r2.1	r5.4	r3.2	r4.8	r0.7	r2.7	r2.6	r2.7
1989	I	r0.6	r4.1	r3.4	r5.4	r0.6	r4.8	r2.6	r4.0
	II	1.0	3.4	2.3	5.4	0.2	4.3	3.8	4.2

See footnotes following table 6.  
r=revised

August 3, 1989  
Source: Bureau of Labor Statistics



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

Year and quarter		Output per hour of all persons	Output (6)	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost
Indexes 1977=100							
1988	I	r136.3	135.0	r99.1	r195.5	r101.8	r143.5
	II	r137.5	136.9	r99.6	r197.1	r101.5	r143.3
	III	r139.2	139.3	r100.0	r199.5	r101.5	r143.2
	IV	r140.0	141.1	r100.7	r202.3	r101.9	r144.5
	ANNUAL	r137.7	138.1	r100.3	r197.8	r101.3	r143.6
1989	I	r140.7	r142.2	r101.0	r203.9	r101.3	r144.8
	II	141.6	142.9	100.9	205.1	100.4	144.9
Percent change from previous quarter at annual rate(5)							
1988	I	r3.7	4.6	r0.9	r7.1	r3.4	r3.3
	II	r3.6	5.8	r2.2	r3.2	r-1.3	r-0.3
	III	5.2	7.1	1.8	r4.9	r0.2	r-0.3
	IV	r2.3	5.1	r2.8	r5.9	r1.4	3.5
	ANNUAL	r3.6	6.1	r2.4	r4.6	r0.4	r0.9
1989	I	2.1	r3.1	r1.1	r3.1	r-2.2	r1.0
	II	2.4	2.1	-0.3	2.5	-3.7	0.1
Percent change from corresponding quarter of previous year							
1988	I	r3.8	6.2	r2.3	r3.7	r-0.2	r-0.1
	II	r3.3	6.4	r3.0	r4.4	r0.5	r1.1
	III	r3.7	6.2	r2.5	r4.8	r0.6	r1.0
	IV	r3.7	5.6	r1.9	r5.3	r0.9	r1.5
	ANNUAL	r3.6	6.1	r2.4	r4.6	r0.4	r0.9
1989	I	r3.3	r5.3	2.0	r4.3	-0.5	1.0
	II	3.0	4.4	1.3	4.1	-1.1	1.1

See footnotes following table 6.  
r=revised

August 3, 1989  
Source: Bureau of Labor Statistics

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

Year and quarter		Output per hour of all persons	Output (6)	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost
Indexes 1977=100							
1988	I	r143.8	141.3	r98.3	r194.5	r101.3	r135.2
	II	r145.2	144.0	r99.2	r195.0	r100.4	r134.3
	III	r146.7	146.4	r99.8	r197.0	r100.3	r134.4
	IV	r147.2	148.3	r100.7	r200.2	r100.8	r135.9
	ANNUAL	r144.8	145.0	r100.2	r195.3	r100.1	r134.9
1989	I	r147.8	r149.1	r100.9	r201.8	r100.3	r136.6
	II	149.4	149.9	100.3	202.4	99.1	135.5
Percent change from previous quarter at annual rate(5)							
1988	I	r4.1	4.3	r0.1	r8.4	r4.6	r4.1
	II	3.8	7.7	r3.7	r1.1	r-3.3	r-2.6
	III	r4.1	6.8	r2.6	r4.2	r-0.5	r0.1
	IV	r1.6	5.3	r3.6	r6.5	r1.9	r4.8
	ANNUAL	r3.7	6.6	r2.8	r4.2	r0.1	r0.5
1989	I	r1.4	r2.2	r0.8	r3.3	r-2.1	r1.8
	II	4.6	2.0	-2.4	1.3	-4.8	-3.1
Percent change from corresponding quarter of previous year							
1988	I	r4.0	6.0	r2.0	r3.5	r-0.4	r-0.4
	II	r3.7	7.3	r3.4	r4.0	r0.2	r0.3
	III	r3.9	7.2	r3.2	r4.3	r0.1	r0.4
	IV	r3.4	6.0	r2.5	r5.0	r0.7	r1.6
	ANNUAL	r3.7	6.6	r2.8	r4.2	r0.1	r0.5
1989	I	2.7	r5.5	r2.7	r3.8	r-1.0	r1.0
	II	2.9	4.1	1.1	3.8	-1.4	0.9

See footnotes following table 6.  
r=revised

August 3, 1989  
Source: Bureau of Labor Statistics

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

Year and quarter		Output per hour of all persons	Output (6)	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost
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Indexes 1977=100							
1988	I	r125.3	125.6	r100.2	r197.8	r103.0	r157.8
	II	r126.1	126.4	r100.2	r200.9	r103.5	r159.3
	III	r128.3	128.8	r100.4	r203.8	r103.8	r158.9
	IV	r129.3	130.3	r100.8	r206.1	r103.8	r159.4
	ANNUAL	r127.3	127.8	r100.4	r202.2	r103.6	r158.9
1989	I	r130.3	r131.8	r101.1	r207.6	r103.2	r159.3
	II	130.1	132.5	101.9	210.1	102.8	161.5
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Percent change from previous quarter at annual rate(5)							
1988	I	r3.0	5.1	r2.0	r5.2	r1.5	r2.1
	II	r2.7	2.7	r0.0	r6.4	r1.8	r3.7
	III	r7.0	7.7	r0.7	r6.0	r1.2	r-1.0
	IV	r3.2	4.8	r1.5	r4.6	0.2	r1.4
	ANNUAL	r3.3	5.2	r1.9	r5.0	r0.9	r1.7
1989	I	r3.2	r4.7	r1.4	r2.9	r-2.4	r-0.4
	II	-0.7	2.3	3.0	5.0	-1.3	5.7
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Percent change from corresponding quarter of previous year							
1988	I	r3.6	6.4	r2.7	r4.2	r0.2	r0.6
	II	r2.5	4.9	r2.4	r4.9	r1.0	r2.4
	III	r3.2	4.6	r1.4	r5.4	r1.2	r2.2
	IV	r4.0	5.0	r1.0	r5.5	r1.2	r1.5
	ANNUAL	r3.3	5.2	r1.9	r5.0	r0.9	r1.7
1989	I	r4.0	r5.0	r0.9	r5.0	r0.2	r0.9
	II	3.1	4.8	1.7	4.6	-0.6	1.4
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See footnotes following table 6.  
r=revised

August 3, 1989  
Source: Bureau of Labor Statistics

Table 6. Nonfinancial corporations: Productivity, hourly compensation, unit labor cost, 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 cost	Unit non-labor cost(7)	Total unit cost (8)	Unit profits (9)	Implicit price deflator (4)
Indexes 1977=100										
1988 I	r114.8	r141.2	r123.0	r191.2	r99.6	r166.6	r187.8	r171.9	r127.0	r166.5
II	r115.0	r142.8	r124.2	r193.6	r99.7	r168.4	r188.9	r173.6	r129.1	r168.2
III	r115.4	r144.3	r125.1	r196.0	r99.8	r169.9	r191.0	r175.2	r127.5	r169.5
IV	r115.3	r145.4	r126.2	r198.3	r99.9	r172.1	r193.3	r177.5	r131.6	r172.0
ANNUAL	r114.9	r143.5	r124.8	r194.5	r99.7	r169.3	r190.3	r174.6	r128.8	r169.1
1989 I	r114.7	r145.8	r127.1	r200.7	r99.7	r174.9	r196.9	r180.4	r119.6	r173.1
Percent change from previous quarter at annual rate(5)										
1988 I	4.3	r6.8	r2.3	r3.3	r-0.3	r-1.0	r1.1	r-0.4	r17.6	r1.1
II	r0.6	r4.6	r4.0	r5.2	r0.6	r4.5	r2.5	r3.9	r6.8	r4.2
III	r1.4	r4.3	r2.8	r5.1	r0.3	r3.6	r4.6	r3.9	r-4.7	r3.1
IV	r-0.4	r3.2	r3.6	r4.8	r0.4	r5.3	r4.9	r5.2	r13.3	r5.9
ANNUAL	r2.6	r6.0	r3.3	r4.6	r0.4	r1.9	r2.1	r2.0	r4.7	r2.2
1989 I	r-1.8	r1.0	r2.8	r4.8	r-0.6	r6.6	r7.5	r6.9	r-31.7	r2.8
Percent change from corresponding quarter of previous year										
1988 I	r4.0	r7.4	r3.2	r4.1	r0.2	r0.1	1.5	r0.5	r7.5	r1.1
II	r3.0	r6.6	r3.5	r4.8	r0.9	r1.7	1.4	r1.6	r5.4	r2.0
III	r2.1	r5.4	r3.3	r4.9	r0.7	r2.8	r2.2	r2.6	r-1.3	r2.2
IV	r1.5	r4.7	r3.2	r4.6	r0.2	r3.1	3.3	r3.1	r7.9	r3.5
ANNUAL	r2.6	r6.0	r3.3	r4.6	r0.4	r1.9	r2.1	r2.0	r4.7	r2.2
1989 I	r0.0	r3.2	r3.3	r5.0	r0.2	r5.0	r4.9	r5.0	r-5.8	r4.0

See footnotes following table 6.  
r=revised

August 3, 1989  
Source: Bureau of Labor Statistics

SOURCE: Output data from Bureau of Economic Analysis, U.S. Department of Commerce, and the Federal Reserve Board. Compensation and hours data from the Bureau of Labor Statistics, U.S. Department of Labor, 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. In the business sector, the probability is 0.95 that the third publication (second revision) of a quarterly index of output per hour of all persons will differ from the initial value by between -1.8 and +2.1 index points. This interval is based on the performance of this measure between the first quarter of 1976 and the second quarter of 1988.

#### Footnotes, Tables 1-6

- (1) Wages and salaries of the 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 gross product divided by constant dollar gross product.
- (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) Quarterly manufacturing output measures are based on the index of industrial production prepared monthly by the Board of Governors of the Federal Reserve adjusted by BLS to annual manufacturing output levels (gross product originating) from the National Income and Product Accounts prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce.
- (7) Unit nonlabor cost includes capital consumption allowances, interest, rental income of persons, and indirect taxes. For nonfinancial corporations, rental income of persons is zero by definition.
- (8) Total unit cost is the sum of labor and nonlabor costs.
- (9) Unit profits include corporate profits with inventory valuation and capital consumption adjustments.

Appendix table 1.

Business sector: Productivity, hourly compensation, unit labor cost, and prices, seasonally adjusted

Year and quarter	Output per hour of all persons	Output of all persons	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost	Unit non-labor payments(3)	Implicit price deflator(4)
Indexes 1977=100								
1986 I	110.3	128.0	116.0	181.0	100.2	164.1	162.7	163.6
II	110.1	127.4	115.8	183.0	101.7	166.3	161.9	164.8
III	109.6	127.7	116.5	185.1	102.2	168.9	162.8	166.7
IV	109.8	128.9	117.4	187.4	102.8	170.6	160.7	167.1
ANNUAL	109.8	128.0	116.6	183.8	101.7	167.5	162.1	165.6
1987 I	109.9	130.4	118.6	188.2	101.9	171.2	162.6	168.2
II	110.7	132.2	119.5	189.5	101.4	171.3	166.5	169.6
III	111.7	134.4	120.3	191.8	101.7	171.6	168.9	170.7
IV	112.5	136.7	121.5	195.2	102.6	173.5	167.2	171.3
ANNUAL	111.1	133.4	120.1	191.0	101.9	171.9	166.3	170.0
Percent change from previous quarter at annual rate(5)								
1986 I	7.3	6.8	-0.5	5.5	3.6	-1.7	3.0	-0.1
II	-0.8	-1.7	-0.9	4.4	6.2	5.3	-1.9	2.8
III	-1.6	0.8	2.5	4.6	2.2	6.4	2.3	4.9
IV	0.8	4.0	3.2	5.0	2.1	4.2	-5.1	1.0
ANNUAL	2.3	3.1	0.8	5.2	3.3	2.8	0.7	2.1
1987 I	0.5	4.7	4.3	1.9	-3.3	1.4	4.8	2.5
II	2.6	5.6	2.9	2.7	-2.0	0.1	10.0	3.4
III	3.9	6.7	2.7	4.8	1.1	0.9	5.9	2.6
IV	2.9	7.1	4.1	7.4	3.6	4.3	-4.0	1.4
ANNUAL	1.2	4.2	3.0	3.9	0.2	2.6	2.6	2.6
Percent change from corresponding quarter of previous year								
1986 I	3.7	4.5	0.8	5.4	2.2	1.6	2.6	1.9
II	2.7	3.0	0.3	5.5	3.8	2.7	0.5	1.9
III	1.5	2.3	0.8	5.2	3.5	3.6	0.5	2.5
IV	1.3	2.4	1.1	4.9	3.5	3.5	-0.5	2.1
ANNUAL	2.3	3.1	0.8	5.2	3.3	2.8	0.7	2.1
1987 I	-0.3	1.9	2.2	4.0	1.7	4.3	-0.1	2.8
II	0.5	3.8	3.2	3.6	-0.3	3.0	2.8	2.9
III	1.9	5.3	3.3	3.6	-0.6	1.7	3.7	2.4
IV	2.5	6.0	3.5	4.2	-0.2	1.7	4.0	2.5
ANNUAL	1.2	4.2	3.0	3.9	0.2	2.6	2.6	2.6

See footnotes following table 6:

August 3, 1989

Source: Bureau of Labor Statistics

Appendix table 2. Nonfarm business sector: Productivity, hourly compensation, unit labor cost, and prices, seasonally adjusted

Year and quarter		Output per hour of all persons	Output of all persons	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost	Unit non-labor payments(3)	Implicit price deflator(4)
Indexes 1977=100									
1986	I	108.3	127.6	117.8	180.2	99.7	166.4	164.2	165.6
	II	108.0	127.0	117.6	182.0	101.1	168.5	163.2	166.7
	III	107.5	127.2	118.3	184.1	101.7	171.2	164.1	168.8
	IV	107.6	128.4	119.3	186.4	102.2	173.2	161.6	169.2
	ANNUAL	107.7	127.6	118.4	182.9	101.1	169.8	163.3	167.6
1987	I	107.7	130.0	120.7	187.0	101.3	173.6	164.1	170.3
	II	108.6	132.0	121.6	188.3	100.7	173.4	167.6	171.4
	III	109.5	134.1	122.4	190.5	101.0	173.9	170.3	172.6
	IV	110.3	136.4	123.7	193.9	101.9	175.8	168.7	173.4
	ANNUAL	108.9	133.1	122.2	189.8	101.2	174.2	167.7	172.0
Percent change from previous quarter at annual rate(5)									
1986	I	8.1	6.8	-1.2	6.3	4.3	-1.7	4.1	0.2
	II	-1.1	-1.7	-0.6	4.1	5.9	5.2	-2.4	2.5
	III	-1.7	0.7	2.5	4.6	2.2	6.5	2.4	5.1
	IV	0.3	3.7	3.4	5.0	2.1	4.7	-5.9	1.0
	ANNUAL	2.0	3.0	0.9	5.1	3.2	3.0	0.9	2.3
1987	I	0.4	5.2	4.8	1.4	-3.8	1.0	6.3	2.8
	II	3.3	6.1	2.8	2.7	-2.1	-0.6	8.8	2.5
	III	3.6	6.6	2.9	4.8	1.1	1.2	6.5	3.0
	IV	2.7	7.0	4.2	7.3	3.5	4.5	-3.6	1.7
	ANNUAL	1.1	4.4	3.2	3.7	0.1	2.6	2.7	2.6
Percent change from corresponding quarter of previous year									
1986	I	3.2	4.3	1.1	5.1	1.9	1.9	3.2	2.3
	II	2.4	3.0	0.5	5.3	3.6	2.8	0.9	2.1
	III	1.4	2.3	0.8	5.2	3.5	3.7	0.2	2.5
	IV	1.3	2.3	1.0	5.0	3.6	3.6	-0.6	2.2
	ANNUAL	2.0	3.0	0.9	5.1	3.2	3.0	0.9	2.3
1987	I	-0.5	2.0	2.5	3.8	1.5	4.3	0.0	2.8
	II	0.5	3.9	3.4	3.4	-0.4	2.9	2.7	2.8
	III	1.9	5.4	3.5	3.5	-0.7	1.6	3.8	2.3
	IV	2.5	6.2	3.7	4.0	-0.4	1.5	4.4	2.5
	ANNUAL	1.1	4.4	3.2	3.7	0.1	2.6	2.7	2.6

See footnotes following table 6.

August 3, 1989  
Source: Bureau of Labor Statistics

Appendix table 3. Manufacturing sector: Productivity, hourly compensation, and unit labor cost, seasonally adjusted

Year and quarter		Output per hour of all persons	Output (6)	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost
Indexes 1977=100							
1986	I	127.5	124.2	97.4	182.8	101.1	143.4
	II	128.1	124.1	96.9	183.9	102.2	143.5
	III	129.1	124.8	96.6	185.8	102.6	143.9
	IV	130.1	125.9	96.8	187.8	103.0	144.3
	ANNUAL	128.2	124.7	97.3	184.3	101.9	143.8
1987	I	131.3	127.2	96.8	188.5	102.0	143.5
	II	133.1	128.7	96.7	188.7	101.0	141.8
	III	134.3	131.1	97.6	190.4	100.9	141.8
	IV	135.1	133.5	98.9	192.2	101.0	142.3
	ANNUAL	132.9	130.1	97.9	189.2	100.9	142.3
Percent change from previous quarter at annual rate(5)							
1986	I	5.0	2.8	-2.1	5.7	3.8	0.7
	II	2.1	-0.2	-2.2	2.5	4.2	0.4
	III	3.2	2.1	-1.0	4.2	1.8	1.0
	IV	3.2	3.7	0.5	4.3	1.4	1.1
	ANNUAL	3.8	2.3	-1.4	4.5	2.6	0.7
1987	I	3.7	4.1	0.4	1.6	-3.7	-2.1
	II	5.6	4.9	-0.7	0.5	-4.1	-4.8
	III	3.6	7.8	4.0	3.5	-0.2	-0.1
	IV	2.3	7.5	5.0	3.8	0.2	1.5
	ANNUAL	3.7	4.3	0.6	2.7	-1.0	-1.0
Percent change from corresponding quarter of previous year							
1986	I	4.9	3.2	-1.6	4.7	1.5	-0.2
	II	3.4	2.0	-1.4	4.6	2.9	1.2
	III	3.3	1.8	-1.5	4.6	2.9	1.2
	IV	3.3	2.1	-1.2	4.1	2.8	0.8
	ANNUAL	3.8	2.3	-1.4	4.5	2.6	0.7
1987	I	3.0	2.4	-0.6	3.1	0.9	0.1
	II	3.9	3.7	-0.2	2.6	-1.2	-1.2
	III	4.0	5.1	1.0	2.5	-1.7	-1.5
	IV	3.8	6.0	2.2	2.4	-2.0	-1.4
	ANNUAL	3.7	4.3	0.6	2.7	-1.0	-1.0

See footnotes following table b.

August 3, 1989  
Source: Bureau of Labor Statistics



Appendix table 4. Durable manufacturing sector: Productivity, hourly compensation, and unit labor cost, seasonally adjusted

Year and quarter		Output per hour of all persons	Output (6)	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost
Indexes 1977=100							
1986	I	133.0	130.5	98.2	182.0	100.7	136.8
	II	133.7	130.0	97.2	182.6	101.5	136.6
	III	135.2	130.7	96.7	184.4	101.9	136.4
	IV	136.6	131.8	96.5	186.9	102.5	136.8
	ANNUAL	133.7	130.8	97.8	182.7	101.0	136.7
1987	I	138.4	133.3	96.4	187.9	101.7	135.8
	II	140.0	134.2	95.9	187.4	100.3	133.9
	III	141.2	136.5	96.7	189.0	100.2	133.9
	IV	142.4	139.9	98.2	190.6	100.1	133.9
	ANNUAL	139.5	136.0	97.5	187.4	100.0	134.3
Percent change from previous quarter at annual rate(5)							
1986	I	7.0	3.2	-3.6	6.7	4.7	-0.3
	II	2.1	-1.8	-3.8	1.5	3.2	-0.6
	III	4.7	2.3	-2.3	4.0	1.6	-0.7
	IV	4.3	3.6	-0.7	5.5	2.6	1.2
	ANNUAL	4.9	2.3	-2.5	5.0	3.0	0.0
1987	I	5.2	4.5	-0.6	2.1	-3.2	-3.0
	II	4.9	2.8	-2.0	-0.9	-5.5	-5.6
	III	3.3	7.0	3.6	3.4	-0.3	0.0
	IV	3.5	10.2	6.5	3.4	-0.2	-0.1
	ANNUAL	4.4	4.0	-0.4	2.6	-1.0	-1.7
Percent change from corresponding quarter of previous year							
1986	I	6.2	3.7	-2.4	5.2	2.0	-1.0
	II	4.5	1.9	-2.5	5.2	3.5	0.7
	III	4.5	1.7	-2.7	5.0	3.3	0.4
	IV	4.5	1.8	-2.6	4.4	3.0	-0.1
	ANNUAL	4.9	2.3	-2.5	5.0	3.0	0.0
1987	I	4.0	2.1	-1.8	3.2	1.0	-0.8
	II	4.8	3.3	-1.4	2.6	-1.2	-2.0
	III	4.4	4.5	0.1	2.5	-1.7	-1.9
	IV	4.2	6.1	1.8	2.0	-2.3	-2.2
	ANNUAL	4.4	4.0	-0.4	2.6	-1.0	-1.7

See footnotes following table 6.

August 3, 1989

Appendix table 5. Nondurable manufacturing sector: Productivity, hourly compensation, and unit labor cost, seasonally adjusted

Year and quarter	Output per hour of all persons	Output (6)	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost
Indexes 1977=100						
1986 I	119.0	114.7	96.3	183.8	101.7	154.4
II	119.8	115.4	96.4	185.9	103.3	155.3
III	120.0	115.9	96.6	188.2	103.9	156.8
IV	120.5	117.0	97.1	189.4	103.9	157.1
ANNUAL	119.8	115.8	96.6	186.8	103.3	155.9
1987 I	121.0	118.0	97.6	189.8	102.8	156.9
II	123.1	120.5	97.9	191.5	102.4	155.6
III	124.3	123.1	99.0	193.3	102.5	155.5
IV	124.4	124.0	99.7	195.3	102.6	157.0
ANNUAL	123.2	121.4	98.6	192.5	102.7	156.2
Percent change from previous quarter at annual rate(5)						
1986 I	1.9	2.2	0.3	4.3	2.4	2.4
II	2.4	2.5	0.1	4.6	6.4	2.2
III	0.9	1.8	0.9	4.9	2.5	3.9
IV	1.6	3.9	2.3	2.6	-0.2	1.0
ANNUAL	2.0	2.3	0.3	4.1	2.2	2.0
1987 I	1.5	3.4	1.8	1.0	-4.2	-0.5
II	7.1	8.5	1.2	3.4	-1.3	-3.4
III	4.2	9.0	4.7	3.9	0.2	-0.3
IV	0.1	3.1	3.0	4.2	0.5	4.1
ANNUAL	2.8	4.9	2.0	3.0	-0.6	0.2
Percent change from corresponding quarter of previous year						
1986 I	2.9	2.4	-0.5	4.0	0.8	1.1
II	1.8	2.1	0.3	3.9	2.2	2.0
III	1.6	2.0	0.4	4.3	2.6	2.7
IV	1.7	2.6	0.9	4.1	2.8	2.4
ANNUAL	2.0	2.3	0.3	4.1	2.2	2.0
1987 I	1.6	2.9	1.3	3.3	1.0	1.6
II	2.8	4.4	1.6	3.0	-0.9	0.2
III	3.6	6.2	2.5	2.7	-1.4	-0.8
IV	3.2	6.0	2.7	3.1	-1.2	-0.1
ANNUAL	2.8	4.9	2.0	3.0	-0.6	0.2

See footnotes following table 6.

August 3, 1989  
Source: Bureau of Labor Statistics

Appendix table 6. Nonfinancial corporations: Productivity, hourly compensation, unit labor cost, unit profit seasonally adjusted

Year and quarter		Output per all-employee hour	Output	Employee hours	Hourly compensation (1)	Real hourly compensation(2)	Unit labor cost	Unit non-labor cost(7)	Total unit cost (8)	Unit profits (9)	Implicit price deflator (4)
-----											
Indexes 1977=100											
1986	I	109.6	128.7	117.5	177.4	98.2	162.0	179.0	166.3	126.8	161.5
	II	109.5	128.1	117.0	179.1	99.5	163.6	179.7	167.7	122.9	162.3
	III	109.5	128.4	117.2	181.0	100.0	165.3	184.5	170.1	122.2	164.4
	IV	110.6	130.3	117.8	183.0	100.4	165.4	183.7	170.1	120.4	164.1
	ANNUAL	109.6	128.9	117.6	179.9	99.5	164.1	181.7	168.5	123.1	163.1
1987	I	110.4	131.5	119.2	183.6	99.4	166.3	185.0	171.0	118.1	164.7
	II	111.6	133.9	120.0	184.7	98.8	165.5	186.3	170.8	122.5	165.0
	III	113.0	136.9	121.1	186.9	99.1	165.3	186.9	170.8	129.3	165.8
	IV	113.6	138.9	122.3	189.7	99.6	167.0	187.2	172.1	122.0	166.1
	ANNUAL	112.1	135.3	120.8	186.1	99.3	166.1	186.4	171.2	123.0	165.4
-----											
Percent change from previous quarter at annual rate(5)											
1986	I	6.6	6.5	-0.2	5.8	3.9	-0.7	6.2	1.1	-15.7	-0.7
	II	-0.4	-1.9	-1.6	3.8	5.6	4.2	1.6	3.5	-11.6	2.0
	III	0.1	0.8	0.6	4.2	1.8	4.1	11.1	6.0	-2.3	5.2
	IV	4.3	6.4	1.9	4.7	1.8	0.3	-1.6	-0.2	-6.0	-0.7
	ANNUAL	2.3	2.7	0.4	4.8	2.9	2.5	3.4	2.7	-7.5	1.7
1987	I	-1.0	3.7	4.7	1.2	-4.0	2.2	2.8	2.3	-7.2	1.5
	II	4.4	7.5	3.0	2.5	-2.3	-1.8	2.8	-0.6	15.4	0.7
	III	5.3	9.2	3.7	4.8	1.0	-0.5	1.3	0.0	24.2	2.0
	IV	1.9	6.0	4.0	6.0	2.3	4.0	0.8	3.1	-20.8	0.7
	ANNUAL	2.2	5.0	2.7	3.4	-0.2	1.2	2.6	1.6	-0.1	1.4
-----											
Percent change from corresponding quarter of previous year											
1986	I	2.5	3.5	1.0	4.8	1.6	2.2	2.3	2.2	-1.9	1.8
	II	2.5	2.6	0.1	5.0	3.3	2.4	1.8	2.3	-5.1	1.6
	III	1.6	1.7	0.1	4.9	3.2	3.2	5.2	3.8	-13.2	2.0
	IV	2.6	2.8	0.2	4.6	3.3	1.9	4.2	2.6	-9.0	1.4
	ANNUAL	2.3	2.7	0.4	4.8	2.9	2.5	3.4	2.7	-7.5	1.7
1987	I	0.8	2.2	1.4	3.5	1.2	2.7	3.4	2.9	-6.8	2.0
	II	1.9	4.5	2.6	3.1	-0.7	1.2	3.7	1.8	-0.4	1.6
	III	3.2	6.7	3.3	3.3	-0.9	0.0	1.3	0.4	5.8	0.9
	IV	2.6	6.6	3.8	3.6	-0.8	0.9	1.9	1.2	1.3	1.2
	ANNUAL	2.2	5.0	2.7	3.4	-0.2	1.2	2.6	1.6	-0.1	1.4

See footnotes following table 6.

August 3, 1989

Source: Bureau of Labor Statistics

Appendix table 7. Business sector: Productivity, hourly compensation, unit labor cost, and prices

Year	Output per hour of all persons	Output of all persons	Hours of all persons	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unit labor cost	Unit non- labor pay- ments(3)	Implicit price deflator(4)
1947	43.8	36.2	82.7	16.2	44.0	37.0	32.7	35.5
1948	46.0	38.3	83.4	17.6	44.2	38.2	37.7	38.0
1949	46.4	37.4	80.6	17.9	45.5	38.5	36.6	37.8
1950	50.3	41.0	81.4	19.2	48.3	38.1	38.9	38.4
1951	52.4	43.9	83.7	21.1	49.2	40.2	42.0	40.8
1952	54.1	45.3	83.7	22.4	51.3	41.4	41.2	41.4
1953	56.1	47.4	84.4	24.0	54.4	42.7	39.8	41.7
1954	57.0	46.5	81.6	24.7	55.7	43.4	39.9	42.2
1955	58.7	49.7	84.7	25.4	57.3	43.2	43.4	43.2
1956	59.5	51.1	85.9	27.1	60.3	45.5	43.0	44.6
1957	61.1	51.7	84.6	28.8	62.2	47.2	44.3	46.2
1958	62.9	50.7	80.7	30.2	63.3	48.0	45.0	46.9
1959	65.0	54.4	83.7	31.5	65.6	48.4	46.7	47.8
1960	66.1	55.4	83.8	32.9	67.3	49.7	46.4	48.5
1961	68.4	56.5	82.5	34.1	69.2	49.9	46.8	48.8
1962	70.9	59.4	83.8	35.7	71.7	50.4	48.5	49.7
1963	73.8	62.1	84.2	37.1	73.5	50.3	50.0	50.2
1964	77.0	65.9	85.5	39.0	76.3	50.7	50.7	50.7
1965	79.4	70.0	88.2	40.6	78.0	51.1	53.2	51.9
1966	81.6	73.6	90.2	43.4	81.2	53.2	54.3	53.6
1967	84.1	75.6	89.9	45.9	83.3	54.6	55.6	54.9
1968	86.6	78.9	91.2	49.6	86.5	57.3	57.6	57.5
1969	86.8	81.1	93.4	53.2	87.9	61.3	58.6	60.4
1970	87.6	80.3	91.7	57.2	89.4	65.3	59.4	63.2
1971	90.4	82.5	91.3	60.9	91.1	67.4	64.5	66.4
1972	93.1	87.7	94.2	64.7	93.9	69.5	68.1	69.0
1973	95.2	92.9	97.6	70.3	96.0	73.8	72.6	73.4
1974	93.4	91.3	97.7	77.3	95.0	82.7	76.4	80.5
1975	95.4	89.4	93.7	84.9	95.6	89.0	88.2	88.7
1976	98.2	94.5	96.3	92.6	98.6	94.3	93.4	94.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.9	105.8	104.9	108.6	100.9	107.7	106.7	107.3
1979	99.7	107.9	108.2	119.3	99.5	119.6	112.3	117.0
1980	99.4	106.7	107.3	131.8	97.0	132.6	118.4	127.6
1981	101.0	108.9	107.9	144.1	96.1	142.7	134.4	139.8
1982	100.2	105.5	105.3	154.9	97.3	154.5	136.3	148.1
1983	102.6	109.9	107.2	160.8	97.8	156.7	146.2	153.0
1984	105.2	119.2	113.3	167.4	97.6	159.1	156.4	158.2
1985	107.3	124.2	115.7	174.8	98.4	162.8	160.9	162.2
1986	109.8	128.0	116.6	183.8	101.7	167.5	162.1	165.6
1987	111.1	133.4	120.1	191.0	101.9	171.9	166.3	170.0
1988	113.1	140.0	123.8	200.4	102.7	177.2	170.8	174.9

See footnotes following table 6.

August 3, 1989  
Source: Bureau of Labor Statistics

Appendix table 8. Nonfarm business sector: Productivity, hourly compensation, unit labor cost, and prices

Year	Output per hour of all persons	Output of all persons	Hours of all persons	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unit labor cost	Unit non- labor pay- ments(3)	Implicit price deflator(4)
1947	50.3	35.2	70.0	17.7	48.0	35.1	31.8	34.0
1948	52.2	37.2	71.3	19.2	48.2	36.7	35.8	36.4
1949	53.0	36.4	68.5	19.7	50.3	37.2	36.3	36.9
1950	56.5	39.9	70.6	20.9	52.7	37.1	38.4	37.5
1951	58.2	43.0	73.8	22.8	53.1	39.1	40.6	39.6
1952	59.5	44.4	74.5	24.1	55.0	40.4	40.4	40.4
1953	60.8	46.4	76.3	25.4	57.7	41.8	39.8	41.1
1954	61.7	45.5	73.7	26.3	59.2	42.6	40.2	41.8
1955	63.5	48.7	76.7	27.2	61.5	42.8	43.6	43.1
1956	63.9	50.2	78.6	28.9	64.4	45.2	43.2	44.5
1957	65.1	50.9	78.1	30.6	65.9	46.9	44.5	46.1
1958	66.6	49.8	74.8	31.8	66.6	47.7	44.6	46.6
1959	68.8	53.7	78.0	33.1	68.9	48.1	47.3	47.8
1960	69.5	54.6	78.5	34.5	70.7	49.7	46.3	48.5
1961	71.7	55.7	77.6	35.7	72.3	49.8	46.9	48.8
1962	74.1	58.7	79.3	37.1	74.5	50.2	49.0	49.7
1963	76.7	61.5	80.1	38.5	76.2	50.1	50.4	50.2
1964	79.8	65.4	81.9	40.3	78.7	50.5	51.5	50.8
1965	81.8	69.5	85.0	41.6	80.1	50.9	53.7	51.9
1966	83.6	73.4	87.8	44.1	82.5	52.7	54.8	53.5
1967	85.8	75.3	87.8	46.7	84.7	54.4	56.2	55.0
1968	88.3	78.8	89.3	50.4	87.7	57.0	58.5	57.5
1969	88.0	80.9	91.9	53.8	88.8	61.1	59.2	60.4
1970	88.4	80.0	90.5	57.6	90.0	65.2	60.0	63.4
1971	91.0	82.2	90.3	61.3	91.8	67.4	65.1	66.6
1972	93.8	87.5	93.3	65.3	94.6	69.6	67.8	69.0
1973	95.8	92.9	97.0	70.7	96.4	73.8	69.4	72.3
1974	93.9	91.2	97.1	77.7	95.5	82.7	74.0	79.7
1975	95.7	89.1	93.1	85.3	96.1	89.1	86.7	88.3
1976	98.3	94.4	96.0	92.7	98.7	94.2	93.1	93.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.9	106.0	105.0	108.6	101.0	107.7	105.6	107.0
1979	99.4	107.9	108.6	119.0	99.3	119.8	110.3	116.5
1980	99.0	106.7	107.8	131.6	96.7	132.9	118.1	127.8
1981	100.0	108.5	108.5	144.0	96.0	144.0	133.2	140.3
1982	99.1	104.9	105.9	154.7	97.1	156.1	136.1	149.2
1983	102.0	110.1	108.0	160.8	97.8	157.6	148.1	154.3
1984	104.2	119.2	114.4	167.2	97.5	160.4	156.3	159.0
1985	105.6	123.9	117.4	174.0	98.0	164.9	161.9	163.8
1986	107.7	127.6	118.4	182.9	101.1	169.8	163.3	167.6
1987	108.9	133.1	122.2	189.8	101.2	174.2	167.7	172.0
1988	111.2	140.3	126.2	198.9	101.9	178.8	172.2	176.5

See footnotes following table 6.

August 3, 1989  
Source: Bureau of Labor Statistics

Appendix table 9. Manufacturing sector: Productivity, hourly compensation, and unit labor cost

Year	Output per hour of all persons	Output (6)	Hours of all persons	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unit labor cost
1947	42.7	35.0	82.2	17.0	46.1	39.8
1948	45.3	37.0	81.7	18.9	47.5	41.8
1949	47.1	35.1	74.4	19.8	50.3	42.0
1950	49.7	40.0	80.4	20.8	52.3	41.8
1951	51.7	44.7	86.5	22.9	53.4	44.3
1952	52.7	46.2	87.7	24.4	55.8	46.3
1953	53.8	49.6	92.1	25.7	58.4	47.8
1954	54.6	46.0	84.2	26.9	60.6	49.3
1955	57.2	50.8	88.9	28.0	63.2	48.9
1956	56.9	51.3	90.1	29.8	66.3	52.3
1960	60.7	52.5	86.5	35.6	73.0	58.7
1961	62.4	52.6	84.3	36.7	74.3	58.7
1962	65.1	57.1	87.8	38.1	76.4	58.5
1963	69.5	61.6	88.6	39.2	77.7	56.4
1964	72.9	66.0	90.5	40.9	79.9	56.1
1965	74.8	71.7	95.8	41.7	80.2	55.7
1966	75.7	77.2	102.0	43.6	81.6	57.6
1967	75.9	77.0	101.4	46.0	83.4	60.6
1968	78.7	80.9	102.9	49.5	86.2	62.9
1969	79.9	83.2	104.1	53.1	87.7	66.5
1970	80.2	78.6	97.9	57.0	89.0	71.0
1971	84.6	79.9	94.5	60.4	90.3	71.4
1972	87.9	87.0	99.0	63.3	91.8	72.0
1973	92.6	96.3	104.0	68.2	93.1	73.7
1974	90.3	91.7	101.6	75.9	93.2	84.0
1975	92.6	84.9	91.6	84.9	95.6	91.7
1976	97.0	93.1	96.0	92.0	98.0	94.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.6	106.0	104.3	108.3	100.6	106.6
1979	101.6	108.1	106.3	118.9	99.2	117.0
1980	101.7	103.2	101.5	132.8	97.7	130.6
1981	104.0	104.8	100.8	145.7	97.1	140.1
1982	106.6	98.4	92.3	158.7	99.6	148.8
1983	112.2	104.7	93.4	162.7	99.0	145.1
1984	118.2	117.5	99.4	168.1	98.1	142.3
1985	123.5	122.0	98.7	176.3	99.3	142.7
1986	128.2	124.7	97.3	184.3	101.9	143.8
1987	132.9	130.1	97.9	189.2	100.9	142.3
1988	137.7	138.1	100.3	197.8	101.3	143.6

See footnotes following table 6.

August 3, 1989  
Source: Bureau of Labor Statistics

Appendix table 10. Durable manufacturing sector: Productivity, hourly compensation, and unit labor cost.

Year	Output per hour of all persons	Output (6)	Hours of all persons	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unit labor cost
1947	48.0	35.8	74.5	16.6	45.0	34.5
1948	50.9	37.6	73.8	18.3	46.1	36.0
1949	52.9	34.5	65.2	19.2	49.0	36.4
1950	55.8	40.6	72.7	20.3	50.9	36.3
1951	57.3	47.0	82.0	22.4	52.3	39.2
1952	58.8	49.4	84.0	24.1	55.2	41.1
1953	59.8	54.0	90.3	25.5	57.8	42.6
1954	60.2	48.1	79.9	26.6	60.0	44.2
1955	63.3	54.0	85.3	27.8	62.9	44.0
1956	61.5	53.7	87.3	29.6	65.9	48.1
1957	62.7	54.0	86.2	31.4	67.6	50.0
1958	61.2	46.6	76.3	33.1	69.4	54.1
1959	63.6	52.6	82.6	34.3	71.4	53.9
1960	63.5	52.4	82.5	35.7	73.1	56.2
1961	65.2	51.8	79.4	36.7	74.3	56.3
1962	68.2	57.1	83.7	38.2	76.6	56.0
1963	72.6	61.9	85.2	39.2	77.7	54.1
1964	76.5	67.1	87.7	40.8	79.7	53.3
1965	78.9	74.3	94.2	41.5	79.9	52.6
1966	79.1	80.9	102.3	43.3	81.0	54.8
1967	79.6	80.8	101.5	45.6	82.7	57.3
1968	82.1	84.5	102.9	49.1	85.5	59.8
1969	82.8	86.5	104.5	52.7	87.1	63.7
1970	82.0	78.9	96.2	56.7	88.5	69.1
1971	86.5	79.1	91.4	60.4	90.4	69.8
1972	89.6	87.1	97.2	63.2	91.7	70.5
1973	93.4	97.6	104.6	67.8	92.6	72.7
1974	91.6	94.1	102.7	75.2	92.4	82.1
1975	93.0	84.2	90.6	84.8	95.6	91.3
1976	97.6	92.6	94.8	92.1	98.0	94.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.5	107.7	106.1	107.6	100.0	106.0
1979	100.3	109.7	109.3	118.1	98.6	117.7
1980	101.0	104.0	103.0	132.4	97.4	131.1
1981	102.6	104.9	102.2	145.3	96.9	141.6
1982	102.5	93.9	91.6	157.9	99.2	154.1
1983	109.6	101.1	92.2	161.2	98.1	147.1
1984	120.4	120.9	100.4	166.2	96.9	138.0
1985	127.4	127.9	100.4	174.1	98.0	136.6
1986	133.7	130.8	97.8	182.7	101.0	136.7
1987	139.5	136.0	97.5	187.4	100.0	134.3
1988	144.8	145.0	100.2	195.3	100.1	134.9

See footnotes following table 6.

August 3, 1989  
Source: Bureau of Labor Statistics

Appendix table 11. Nondurable manufacturing sector: Productivity, hourly compensation, and unit labor cost

Year	Output per hour of all persons	Output (6)	Hours of all persons	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unit labor cost
1947	36.4	34.0	93.4	18.0	48.8	49.4
1948	38.7	36.1	93.2	20.2	50.7	52.1
1949	40.9	36.0	88.0	21.1	53.6	51.5
1950	42.5	39.0	91.7	22.0	55.4	51.8
1951	44.4	41.3	93.1	23.9	55.8	53.9
1952	44.6	41.6	93.2	25.1	57.4	56.2
1953	45.4	43.1	94.8	26.4	59.8	58.0
1954	47.3	42.8	90.5	27.7	62.5	58.7
1955	49.0	46.0	94.0	28.5	64.4	58.1
1956	50.5	47.6	94.3	30.3	67.5	60.0
1957	51.8	47.8	92.4	32.1	69.2	62.0
1958	53.5	47.7	89.1	33.3	69.9	62.3
1959	56.1	52.1	93.0	34.5	71.9	61.6
1960	56.9	52.6	92.5	36.0	73.7	63.2
1961	58.8	53.9	91.6	37.2	75.4	63.2
1962	60.9	57.1	93.7	38.4	77.0	63.0
1963	65.4	61.2	93.6	39.6	78.5	60.6
1964	67.8	64.2	94.6	41.3	80.8	60.9
1965	69.0	67.8	98.3	42.2	81.2	61.2
1966	70.5	71.7	101.7	44.1	82.5	62.5
1967	70.5	71.4	101.3	46.7	84.7	66.2
1968	73.5	75.6	102.9	50.1	87.2	68.1
1969	75.5	78.3	103.6	53.8	88.8	71.2
1970	77.7	78.0	100.5	57.8	90.2	74.4
1971	82.0	81.1	98.9	60.8	91.0	74.2
1972	85.5	86.8	101.6	63.8	92.5	74.7
1973	91.5	94.4	103.1	68.8	93.9	75.2
1974	88.1	88.1	100.0	76.8	94.4	87.1
1975	92.2	85.9	93.2	85.3	96.1	92.6
1976	96.1	93.9	97.8	92.2	98.1	95.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.7	103.3	101.7	109.0	101.3	107.2
1979	103.6	105.7	102.0	119.4	99.6	115.2
1980	102.7	101.9	99.3	132.9	97.7	129.4
1981	106.0	104.8	98.8	145.8	97.2	137.5
1982	112.7	105.1	93.3	160.3	100.7	142.3
1983	115.8	110.1	95.1	165.8	100.9	143.1
1984	114.8	112.4	98.0	171.2	99.9	149.2
1985	117.5	113.2	96.4	179.5	101.1	152.8
1986	119.8	115.8	96.6	186.8	103.3	155.9
1987	123.2	121.4	98.6	192.5	102.7	156.2
1988	127.3	127.8	100.4	202.2	103.6	158.9

See footnotes following table 6.

August 3, 1989  
Source: Bureau of Labor Statistics



Appendix table 12. Nonfinancial corporations: Productivity, hourly compensation, unit labor cost, unit profits, and prices

Year	Output per all-employee hour	Output	Employee hours	Hourly compensation (1)	Real hourly compensation(2)	Unit labor cost	Unit non-labor cost(7)	Total unit cost (8)	Unit profits (9)	Implicit price deflator (4)
1958	68.4	43.0	62.8	33.5	70.2	48.9	46.4	48.3	55.6	49.2
1959	71.0	47.3	66.7	34.7	72.3	48.9	45.2	48.0	65.9	50.1
1960	71.9	48.7	67.6	36.1	74.0	50.2	47.0	49.4	59.8	50.7
1961	74.1	49.7	67.1	37.3	75.5	50.3	48.0	49.7	59.7	50.9
1962	76.9	53.6	69.8	38.7	77.7	50.3	47.5	49.6	65.4	51.5
1963	80.2	57.2	71.3	40.0	79.1	49.8	47.0	49.1	68.5	51.4
1964	83.2	61.0	73.4	41.7	81.5	50.1	47.0	49.3	72.0	52.1
1965	85.0	65.9	77.5	42.9	82.5	50.5	46.8	49.5	77.7	52.9
1966	86.3	70.5	81.7	45.3	84.6	52.4	46.8	51.0	77.5	54.2
1967	87.4	72.2	82.6	47.8	86.7	54.7	49.8	53.4	72.4	55.7
1968	89.8	76.3	85.0	51.3	89.4	57.2	53.3	56.2	72.7	58.2
1969	89.9	79.4	88.3	54.8	90.5	61.0	57.3	60.0	65.0	60.6
1970	90.2	78.6	87.1	58.6	91.6	65.0	64.2	64.8	52.3	63.3
1971	92.7	80.7	87.1	62.3	93.3	67.3	68.3	67.5	59.9	66.6
1972	94.5	86.6	91.7	65.8	95.4	69.6	68.8	69.4	64.8	68.9
1973	96.8	93.1	96.1	71.0	96.9	73.4	70.7	72.7	65.6	71.9
1974	94.2	90.9	96.5	77.9	95.7	82.6	82.0	82.5	56.6	79.4
1975	96.4	88.2	91.5	85.6	96.4	88.8	94.9	90.3	77.0	88.7
1976	98.3	93.9	95.5	92.7	98.7	94.3	96.2	94.8	89.4	94.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	106.1	105.4	108.5	100.8	107.8	105.7	107.3	102.0	106.6
1979	99.9	109.1	109.2	118.9	99.3	119.0	115.8	118.2	94.5	115.4
1980	99.3	107.2	108.0	131.4	96.6	132.3	136.7	133.4	85.2	127.6
1981	99.9	108.9	109.0	143.7	95.8	143.8	159.1	147.7	98.1	141.7
1982	100.2	105.7	105.4	154.1	96.8	153.8	176.4	159.5	78.5	149.8
1983	103.0	110.6	107.4	159.1	96.8	154.5	174.3	159.5	110.9	153.7
1984	105.5	120.7	114.5	165.0	96.3	156.5	173.6	160.8	136.5	157.9
1985	107.2	125.5	117.1	171.6	96.7	160.2	175.8	164.1	133.0	160.4
1986	109.6	128.9	117.6	179.9	99.5	164.1	181.7	168.5	123.1	163.1
1987	112.1	135.3	120.8	186.1	99.3	166.1	186.4	171.2	123.0	165.4
1988	114.9	143.5	124.8	194.5	99.7	169.3	190.3	174.6	128.8	169.1

See footnotes following table 6.

August 3, 1989

Source: Bureau of Labor Statistics