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PRODUCTIVITY AND COSTS

Second Quarter 1991

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 1991. The preliminary seasonally adjusted annual rates of productivity change in the second quarter were:

- 1.6 percent in the business sector,
- 1.9 percent in the nonfarm business sector,
- 3.6 percent in manufacturing,
- 3.8 percent in durable goods manufacturing, and
- 3.3 percent in nondurable goods manufacturing.

Productivity advanced moderately in business and nonfarm business as output rose while hours decreased. In manufacturing, however, a more rapid productivity increase occurred as output increased more and hours declined more than in the business and nonfarm business sectors. Second-quarter measures are summarized in table A and appear in detail in tables 1 through 5.

Business

Productivity increased at a 1.6 percent annual rate during the second quarter of 1991 in the business sector, as output rose 1.2 percent and hours of all persons engaged in the sector declined 0.5 percent (seasonally adjusted annual rates). Output increased for the first time since the third quarter of 1990, while hours declined for the fifth quarter in succession. Employment fell 1.2 percent, and average weekly hours rose 0.8 percent for the first lengthening of the workweek since the third quarter of 1989. During the first quarter of 1991, productivity had been unchanged (table 1).

NOTE: The productivity and cost measures in this release reflect regular benchmark revisions to employment and average weekly hours. New seasonal adjustment factors also have been computed, beginning in 1986. See Revised measures section (page 4).

Table A. Productivity and costs: Second-quarter 1991 measures
(Seasonally adjusted annual rates)

Sector	Produc- tivity	Output	Hours	Hourly compen- sation	Real hourly compen- sation	Unit labor costs
Percent change from preceding quarter						
Business	1.6	1.2	-0.5	4.4	2.3	2.7
Nonfarm business	1.9	1.3	-0.5	4.5	2.3	2.6
Manufacturing	3.6	1.6	-2.0	6.4	4.2	2.6
Durable	3.8	2.2	-1.6	6.5	4.4	2.7
Nondurable	3.3	0.8	-2.5	6.0	3.8	2.6
Percent change from same quarter a year ago						
Business	0.3	-1.6	-1.9	4.2	-0.6	3.9
Nonfarm business	0.4	-1.7	-2.1	4.4	-0.5	3.9
Manufacturing	1.4	-3.6	-4.9	4.4	-0.4	3.0
Durable	1.5	-5.1	-6.5	4.7	-0.2	3.1
Nondurable	1.6	-1.1	-2.7	4.3	-0.5	2.7

Hourly compensation increased at a 4.4 percent annual rate during the second quarter of 1991, compared with a 4.0 percent gain during the previous quarter. 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 2.7 percent annual rate during the second quarter, compared with a 4.1 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 2.3 percent annual rate during the second quarter, the largest gain in this series since the fourth quarter of 1987 (when it rose 3.7 percent). During the first quarter of 1991, it rose 0.5 percent.

The implicit price deflator for business output, which reflects changes in unit labor costs and unit nonlabor payments, increased 4.3 percent in the second quarter, compared with a 4.6 percent rise in the first quarter.

Nonfarm business

Productivity increased 1.9 percent in the nonfarm business sector, as output rose 1.3 percent and hours of all persons--employees, proprietors, and unpaid family workers--declined 0.5 percent. During the first quarter of 1991, productivity had been unchanged in this sector (table 2). As in the more comprehensive business sector, the second-quarter increase in output followed 2 quarters in which output declined, and hours have shown no increase in 5 quarters (table 2).

Hourly compensation increased 4.5 percent in the second quarter, or 2.3 percent when the increase in the CPI-U was taken into account. During the first quarter, the comparable changes were 4.2 percent and 0.7 percent, respectively. Unit labor costs increased 2.6 percent during the second quarter, compared with a 4.2 percent rise during the preceding period.

The implicit price deflator for nonfarm business output rose 3.8 percent in the second quarter, compared with a 4.5 percent increase a quarter earlier.

Manufacturing

Productivity increased at a 3.6 percent seasonally adjusted annual rate in manufacturing in the second quarter of 1991, as output increased 1.6 percent and hours of all persons fell 2.0 percent. The increase in output came after 2 quarters of large declines. Productivity increased more rapidly among durable goods than nondurable goods manufacturers (tables 4, 5). During the first quarter, productivity for all of manufacturing had decreased at a 1.8 percent rate.

Hourly compensation of all manufacturing workers increased 6.4 percent during the second quarter, compared with a 2.6 percent increase during the first quarter. Real hourly compensation rose 4.2 percent in the second quarter when the increase in consumer prices was taken into account. This increase was the largest in real hourly compensation since the second quarter of 1986 (when it rose 4.8 percent). During the first quarter, this measure fell at a 0.9 percent annual rate. Unit labor costs increased at a 2.6 percent annual rate in the second quarter, compared with a 4.5 percent increase during the first quarter of 1991.

Table B. Nonfinancial corporations: Previous and current first-quarter productivity and related measures (Percent change)

Measure	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs	Unit profits	Implicit price deflator
Previous	-0.4	-6.0	-5.6	3.9	0.3	4.3	-0.5	5.9
Current	-1.1	-6.5	-5.5	3.8	0.2	4.9	-6.8	5.9

Revised measures

Tables B and C compare previous and current productivity and cost measures for the first quarter of 1991. The measures for nonfinancial corporations (table B) show a greater decline in productivity than had been previously reported on June 5, mainly reflecting slower output growth. Table C, which contains measures for business, nonfarm business, and manufacturing, also reflects changes in first-quarter movements in output and hours which lower productivity.

The productivity and cost measures in this news release are based on the latest measures of output and labor input available. Regular benchmark revisions to employment measures and a recomputation of monthly seasonal adjustment factors affected data from 1986 forward. The revisions were larger for 1989 and 1990 than for other years. The revised measures show business productivity declined 0.4 percent in both 1989 and 1990; previously, the declines were reported as 0.5 percent and 0.7 percent, respectively. See appendix tables 1-6 for quarterly measures.

Printed historical tables containing new quarterly values are available on request from the U.S. Bureau of Labor Statistics, Office of Productivity and Technology, Washington, D.C. 20212, or telephone (202) 523-9261.

Complete historical series of productivity and cost measures also are available on the **BLS Major Sector Labor and Multifactor Productivity Diskette**, formatted for use on IBM-compatible microcomputers using LOTUS 1-2-3 for \$38, prepaid. To order, send a check or money order payable to the Bureau of Labor Statistics to: BLS Data Diskettes, Room 2115, 441 G Street NW, Washington, D.C. 20212 or call (202) 523-7827. Please specify "Major Sector Labor and Multifactor Productivity Diskette," disk size (3.5" or 5.25"), and format (LOTUS 1-2-3 or ASCII).

Table C. Previous and revised productivity and related measures,
 first quarter 1991
 (Quarterly percent change at seasonally adjusted annual rate)

Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
Business:						
Previous	0.1	-4.5	-4.6	3.7	0.2	3.7
Revised	0.0	-4.7	-4.7	4.0	0.5	4.1
Nonfarm business:						
Previous	0.3	-4.6	-4.9	4.0	0.5	3.7
Revised	0.0	-4.8	-4.9	4.2	0.7	4.2
Manufacturing:						
Previous	-1.2	-10.9	-9.9	3.5	0.0	4.8
Revised	-1.8	-10.8	-9.1	2.6	-0.9	4.5

Next release date

The next release of productivity and cost measures is scheduled for 10:00 AM EDT, Thursday, September 5, 1991. Second-quarter measures for nonfinancial corporations will be released at that time.

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TECHNICAL NOTES

Labor Input: 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 hours of production and nonsupervisory workers in nonagricultural establishments. Jobs rather than persons are counted. Weekly hours are adjusted to the hours at work definition 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 of the U.S. Department of Commerce and the CPS are used to measure labor input for government enterprises, proprietors, unpaid family workers, and paid employees of private households.

Output: Business sector output is equal to gross national product (GNP) in constant 1982 dollars, less the rest-of-the-world sector, general government, output of nonprofit institutions, output of paid employees of private households, rental value of owner-occupied dwellings, and the statistical discrepancy in computing the NIPA. Corresponding exclusions are also made in labor inputs. Business output was about 81 percent of GNP in 1990. Nonfarm business, which also excludes farming, was about 79 percent of GNP in 1990.

Total manufacturing measures are computed by summing series prepared for the durable and nondurable goods sectors. Durables include the following 2-digit SIC industries: Primary metals; fabricated metal products; non-electrical machinery; electrical machinery; transportation equipment; instruments; lumber and lumber products; furniture and fixtures; stone, clay, and glass products; and miscellaneous manufactures. Nondurables include: Textile mill products, apparel products, leather and leather products, printing and publishing, chemicals and chemical products, petroleum products, rubber and plastic products, food, and tobacco products. Manufacturing accounted for about 23 percent of GNP in 1990.

Nonfinancial corporate output is equal to GNP in constant 1982 dollars, less the rest-of-the-world sector, general government, output of nonprofit institutions, output of paid employees of private households, rental value of owner-occupied dwellings, unincorporated businesses, the output of corporations engaged in banking, finance, stock and commodity trading, and credit and insurance agencies, and the statistical discrepancy in computing the NIPA. Nonfinancial corporations accounted for about 59 percent of GNP in 1990.

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.

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)	
Indexes 1982=100									
1990	I	r112.0	136.0	r121.3	r135.7	r102.2	121.1	135.5	125.8
	II	r112.4	136.4	r121.3	r137.7	r102.7	122.5	137.0	127.2
	III	r112.7	136.5	r121.2	r139.4	r102.3	r123.7	r137.5	128.2
	IV	r112.3	135.4	r120.5	r140.6	r101.4	r125.2	r136.5	128.8
	ANNUAL	r112.4	136.1	r121.1	r138.4	r102.2	123.1	r136.6	127.5
1991	I	r112.3	r133.7	r119.1	r142.0	r101.5	r126.4	r138.4	130.3
	II	112.8	134.1	118.9	143.5	102.1	127.3	140.9	131.7
Percent change from previous quarter at annual rate(5)									
1990	I	r-0.7	1.4	r2.1	r4.6	r-2.6	r5.3	r3.3	4.6
	II	r1.4	1.2	r-0.2	r6.1	r2.1	4.7	4.5	4.6
	III	0.9	0.5	-0.4	r5.0	r-1.7	r4.1	r1.7	3.2
	IV	-1.2	-3.4	r-2.1	r3.3	r-3.4	r4.6	r-3.0	2.0
	ANNUAL	r-0.4	0.2	r0.6	r4.0	r-1.3	r4.4	r2.6	3.8
1991	I	r0.0	r-4.7	r-4.7	r4.0	r0.5	r4.1	r5.7	r4.6
	II	1.6	1.2	-0.5	4.4	2.3	2.7	7.2	4.3
Percent change from corresponding quarter of previous year									
1990	I	r-0.9	0.3	r1.1	r3.0	r-2.1	3.8	r3.5	3.7
	II	r-0.6	0.3	r1.0	r3.7	r-0.8	4.4	r2.7	3.8
	III	r-0.1	0.3	r0.4	r4.5	r-0.9	4.6	r2.8	4.0
	IV	r0.1	-0.1	r-0.2	r4.8	r-1.4	r4.7	r1.6	3.6
	ANNUAL	r-0.4	0.2	r0.6	r4.0	r-1.3	r4.4	r2.6	3.8
1991	I	r0.2	-1.6	r-1.9	r4.6	r-0.7	r4.4	r2.2	3.6
	II	0.3	-1.6	-1.9	4.2	-0.6	3.9	2.9	3.5

See footnotes following table 6.
r=revised

August 6, 1991
Source: Bureau of Labor Statistics

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)	
Indexes 1982=100									
1990	I	r111.0	136.8	r123.3	r134.6	r101.3	121.3	135.7	125.8
	II	r111.3	137.2	r123.3	r136.6	r101.8	122.7	r137.4	127.3
	III	r111.5	137.4	r123.2	r138.2	r101.4	r124.0	r138.0	128.4
	IV	r111.2	136.1	r122.4	r139.5	r100.6	r125.4	r137.5	129.2
	ANNUAL	r111.2	136.9	r123.1	r137.2	r101.3	r123.4	r137.1	127.7
1991	I	r111.2	134.5	r120.9	r140.9	r100.8	r126.7	r139.3	130.7
	II	111.8	134.9	120.7	142.5	101.4	127.5	141.4	131.9
Percent change from previous quarter at annual rate (5)									
1990	I	r-1.1	1.4	r2.6	r4.0	-3.2	r5.2	r1.2	3.8
	II	r1.2	1.2	r0.0	r5.9	r2.0	4.7	r5.1	4.8
	III	0.6	0.4	r-0.1	r5.0	r-1.8	r4.4	r1.9	3.6
	IV	r-0.8	-3.6	-2.8	r3.7	r-3.0	r4.6	r-1.5	2.5
	ANNUAL	r-0.6	0.2	r0.7	r3.9	r-1.5	4.4	r2.5	3.8
1991	I	r0.0	r-4.8	-4.9	r4.2	r0.7	r4.2	r5.2	r4.5
	II	1.9	1.3	-0.5	4.5	2.3	2.6	6.3	3.8
Percent change from corresponding quarter of previous year									
1990	I	r-1.0	0.3	r1.3	r2.8	r-2.3	r3.8	r3.5	3.7
	II	r-0.7	0.3	r1.0	r3.7	r-0.9	4.4	r2.5	3.8
	III	r-0.4	0.2	r0.6	r4.4	r-1.1	4.8	r2.5	4.0
	IV	r-0.1	-0.1	r-0.1	r4.6	r-1.5	4.7	1.7	3.7
	ANNUAL	r-0.6	0.2	r0.7	r3.9	r-1.5	4.4	r2.5	3.8
1991	I	r0.2	-1.7	r-2.0	r4.7	r-0.6	r4.5	r2.6	r3.8
	II	0.4	-1.7	-2.1	4.4	-0.5	3.9	2.9	3.6

See footnotes following table 6.
r=revised

August 6, 1991
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 1982=100						
1990	I	r134.7	145.9	r108.4	r129.3	96.0
	II	r136.0	147.5	r108.5	r131.0	r96.3
	III	r138.0	148.8	r107.8	132.5	96.1
	IV	r137.2	145.7	r106.2	r133.8	r97.5
	ANNUAL	r136.6	147.0	r107.6	r131.8	96.5
1991	I	r136.6	r141.6	r103.6	r134.6	98.6
	II	137.8	142.2	103.1	136.7	99.2
Percent change from previous quarter at annual rate (5)						
1990	I	r3.9	1.8	r-2.0	r1.3	-2.5
	II	r3.8	4.3	r0.5	r5.3	r1.5
	III	r6.1	3.5	r-2.4	r4.8	r-1.1
	IV	r-2.2	-8.1	r-6.0	r3.7	r6.0
	ANNUAL	r2.5	0.4	r-2.0	r3.2	0.7
1991	I	r-1.8	r-10.8	r-9.1	r2.6	r4.5
	II	3.6	1.6	-2.0	6.4	2.6
Percent change from corresponding quarter of previous year						
1990	I	r1.2	-0.8	r-1.9	r2.2	r-2.9
	II	r1.6	0.2	r-1.4	r3.1	r-1.4
	III	r3.7	1.9	-1.8	3.3	r-2.2
	IV	r2.9	0.3	r-2.5	r3.8	r-2.3
	ANNUAL	r2.5	0.4	r-2.0	r3.2	r-2.0
1991	I	r1.4	-3.0	r-4.3	r4.1	r-1.1
	II	1.4	-3.6	-4.9	4.4	-0.4

See footnotes following table 6.
r=revised

August 6, 1991
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 1982=100							
1990	I	r147.3	159.7	108.5	128.1	r96.5	87.0
	II	r149.9	162.6	r108.4	r129.8	r96.8	86.5
	III	r153.0	164.3	r107.4	r131.5	r96.5	86.0
	IV	r151.4	159.1	r105.1	r132.8	r95.7	87.7
	ANNUAL	r150.6	161.4	r107.2	r130.7	r96.5	86.8
1991	I	r150.8	r153.5	101.8	r133.7	r95.6	r88.7
	II	152.2	154.3	101.4	135.8	96.6	89.2
Percent change from previous quarter at annual rate(5)							
1990	I	r4.3	1.6	r-2.6	r0.9	r-6.0	r-3.3
	II	r7.4	7.3	r-0.1	r5.3	r1.3	-2.0
	III	r8.4	4.3	r-3.8	r5.6	r-1.2	r-2.6
	IV	r-4.1	-12.1	r-8.3	r3.8	r-3.0	r8.2
	ANNUAL	r3.4	0.3	r-3.0	r3.3	r-2.0	-0.1
1991	I	r-1.6	r-13.3	r-11.9	r2.8	r-0.7	r4.5
	II	3.8	2.2	-1.6	6.5	4.4	2.7
Percent change from corresponding quarter of previous year							
1990	I	r2.1	-1.2	r-3.2	r2.3	r-2.7	0.2
	II	r2.5	0.3	r-2.2	r3.2	r-1.4	0.7
	III	r4.7	2.0	r-2.5	r3.2	r-2.2	-1.4
	IV	3.9	0.0	-3.8	3.9	r-2.3	0.0
	ANNUAL	r3.4	0.3	r-3.0	r3.3	r-2.0	-0.1
1991	I	2.4	r-3.9	r-6.1	4.4	r-0.9	r1.9
	II	1.5	-5.1	-6.5	4.7	-0.2	3.1

See footnotes following table 6.
r-revised

August 6, 1991
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	
Indexes 1982=100							
1990	I	r117.9	127.6	r108.2	r131.3	r98.8	111.3
	II	r117.4	127.4	r108.5	r133.1	r99.2	r113.4
	III	r118.1	128.0	r108.4	r134.4	r98.6	113.8
	IV	r118.7	127.8	r107.7	r135.8	r97.9	r114.4
	ANNUAL	r118.1	127.7	r108.1	r133.8	r98.8	r113.2
1991	I	r118.2	125.7	r106.3	r136.8	r97.8	115.7
	II	119.2	125.9	105.6	138.8	98.7	116.4
Percent change from previous quarter at annual rate(5)							
1990	I	r3.4	2.3	r-1.1	r2.1	r-4.9	r-1.2
	II	r-1.8	-0.6	r1.3	r5.6	r1.6	r7.6
	III	r2.6	2.1	r-0.4	r4.0	r-2.7	r1.4
	IV	r1.9	-0.9	r-2.7	r4.2	r-2.5	r2.3
	ANNUAL	r1.2	0.6	r-0.6	r3.4	r-1.9	2.2
1991	I	r-1.4	-6.4	r-5.1	r3.0	r-0.5	r4.4
	II	3.3	0.8	-2.5	6.0	3.8	2.6
Percent change from corresponding quarter of previous year							
1990	I	r0.0	0.0	r0.0	r2.2	r-2.8	2.2
	II	r0.4	0.2	r-0.2	r3.1	r-1.4	2.7
	III	r2.3	1.6	r-0.7	r3.5	r-1.9	1.2
	IV	r1.5	0.7	r-0.7	r4.0	r-2.2	2.5
	ANNUAL	r1.2	0.6	r-0.6	r3.4	r-1.9	2.2
1991	I	r0.3	-1.5	r-1.8	r4.2	r-1.0	3.9
	II	1.6	-1.1	-2.7	4.3	-0.5	2.7

See footnotes following table 6.
r=revised

August 6, 1991
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 1982=100											
1990	I	r114.0	140.5	r123.2	r131.2	r98.8	115.1	112.4	114.3	142.9	116.1
	II	r114.8	141.4	r123.2	r133.7	r99.7	116.5	112.6	115.4	149.1	117.5
	III	r114.6	141.1	r123.1	r135.2	r99.2	118.0	114.8	117.1	138.6	118.5
	IV	r114.6	139.6	r121.8	r136.4	r98.4	119.0	117.3	118.6	127.5	119.1
	ANNUAL	r114.6	140.6	r122.8	r134.2	r99.1	117.1	114.3	116.3	139.5	117.8
1991	I	r114.3	r137.3	r120.1	r137.7	r98.4	r120.4	r120.8	r120.5	r125.3	120.8
Percent change from previous quarter at annual rate(5)											
1990	I	-1.5	0.3	1.8	2.8	-4.3	4.3	3.3	4.0	1.1	3.8
	II	r2.6	2.5	r0.0	r7.6	r3.6	4.9	0.5	3.7	18.6	4.8
	III	r-0.7	-0.8	r-0.1	r4.8	r-2.0	5.5	8.3	6.3	-25.3	3.4
	IV	r0.2	-4.1	r-4.3	r3.6	r-3.1	3.4	9.1	5.0	-28.4	2.2
	ANNUAL	r-0.4	0.1	r0.6	r3.7	r-1.6	4.1	5.3	4.4	-9.0	3.3
1991	I	r-1.1	r-6.5	r-5.5	r3.8	r0.2	r4.9	r12.2	r6.9	r-6.8	5.9
Percent change from corresponding quarter of previous year											
1990	I	r-0.5	0.7	r1.2	r2.3	r-2.7	2.9	6.6	3.9	-9.8	2.7
	II	r-0.1	0.8	r0.9	r3.7	r-0.9	3.8	4.7	4.0	-5.9	3.2
	III	r-0.9	-0.3	r0.6	r4.3	r-1.2	5.3	4.6	5.1	-10.2	3.8
	IV	r0.1	-0.6	r-0.7	r4.7	r-1.5	4.5	5.2	4.7	-10.5	3.5
	ANNUAL	r-0.4	0.1	r0.6	r3.7	r-1.6	4.1	5.3	4.4	-9.0	3.3
1991	I	0.2	r-2.3	r-2.5	r4.9	r-0.4	r4.7	7.4	r5.4	r-12.3	4.1

See footnotes following table 6.
r=revised

August 6, 1991

Source: Bureau of Labor Statistics

SOURCE: Output data from the 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 third revisions after an additional 60 days. In the business sector, the probability is 0.95 that the third publication (third 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 second quarter of 1976 and the third quarter of 1989.

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 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	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 1982=100									
1988	I	113.2	131.2	115.8	126.3	104.8	111.5	125.9	116.2
	II	112.9	132.6	117.5	127.9	104.9	113.3	126.5	117.5
	III	113.6	133.8	117.8	129.7	105.1	114.2	128.7	118.9
	IV	113.1	134.5	118.8	130.8	104.8	115.6	130.2	120.3
	ANNUAL	113.2	133.0	117.5	128.6	104.9	113.7	127.9	118.2
1989	I	113.0	135.6	120.0	131.8	104.4	116.6	130.9	121.2
	II	113.1	135.9	120.1	132.8	103.6	117.3	133.4	122.5
	III	112.8	136.1	120.7	133.4	103.2	118.3	133.8	123.3
	IV	112.2	135.5	120.7	134.2	102.9	119.6	134.4	124.3
	ANNUAL	112.8	135.8	120.4	133.0	103.5	118.0	133.1	122.8
Percent change from previous quarter at annual rate (5)									
1988	I	4.7	5.7	0.9	2.5	-0.6	-2.1	9.1	1.7
	II	-1.1	4.6	5.8	5.2	0.5	6.4	1.9	4.8
	III	2.5	3.5	1.0	5.8	0.6	3.3	7.3	4.7
	IV	-1.6	2.0	3.7	3.3	-1.0	5.0	4.8	4.9
	ANNUAL	2.2	5.3	3.0	4.5	0.4	2.2	4.4	3.0
1989	I	-0.5	3.5	4.0	3.2	-1.7	3.7	2.1	3.1
	II	0.4	0.9	0.5	2.9	-3.0	2.5	7.8	4.3
	III	-1.3	0.6	1.9	1.8	-1.3	3.2	1.2	2.5
	IV	-1.9	-1.8	0.1	2.5	-1.4	4.5	1.8	3.5
	ANNUAL	-0.4	2.1	2.4	3.4	-1.3	3.8	4.1	3.9
Percent change from corresponding quarter of previous year									
1988	I	3.4	6.2	2.7	4.0	0.1	0.5	5.3	2.2
	II	2.4	5.8	3.3	4.8	0.9	2.4	3.1	2.6
	III	2.3	5.2	2.9	5.3	1.0	2.9	3.4	3.1
	IV	1.1	3.9	2.8	4.2	-0.1	3.1	5.7	4.0
	ANNUAL	2.2	5.3	3.0	4.5	0.4	2.2	4.4	3.0
1989	I	-0.2	3.4	3.6	4.4	-0.4	4.6	4.0	4.4
	II	0.2	2.5	2.3	3.8	-1.3	3.6	5.5	4.2
	III	-0.7	1.7	2.5	2.8	-1.8	3.6	3.9	3.7
	IV	-0.8	0.8	1.6	2.6	-1.9	3.4	3.2	3.4
	ANNUAL	-0.4	2.1	2.4	3.4	-1.3	3.8	4.1	3.9

See footnotes following table 6.

August 6, 1991
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	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 1982-100									
1988	I	112.2	131.6	117.3	125.5	104.2	111.9	126.9	116.6
	II	112.1	133.4	119.1	127.1	104.3	113.4	127.3	117.8
	III	112.8	134.8	119.5	128.8	104.4	114.2	128.8	118.8
	IV	112.9	136.0	120.5	130.0	104.2	115.2	132.1	120.5
	ANNUAL	112.5	134.0	119.1	127.8	104.3	113.7	128.8	118.4
1989	I	112.1	136.4	121.7	131.0	103.7	116.9	131.1	121.4
	II	112.1	136.8	122.1	131.7	102.7	117.5	134.0	122.7
	III	111.9	137.1	122.5	132.4	102.5	118.3	134.7	123.5
	IV	111.3	136.3	122.5	133.3	102.2	119.8	135.3	124.7
	ANNUAL	111.9	136.7	122.2	132.1	102.8	118.1	133.8	123.0
Percent change from previous quarter at annual rate (5)									
1988	I	4.8	5.9	1.1	2.4	-0.7	-2.3	9.1	1.4
	II	-0.5	5.6	6.1	5.1	0.4	5.6	1.3	4.1
	III	2.7	4.1	1.4	5.5	0.3	2.7	4.8	3.4
	IV	0.1	3.6	3.5	3.7	-0.6	3.5	10.7	5.9
	ANNUAL	2.5	5.7	3.1	4.4	0.3	1.9	4.2	2.7
1989	I	-2.8	1.2	4.1	3.1	-1.8	6.0	-3.1	2.8
	II	0.1	1.3	1.1	2.2	-3.8	2.0	9.3	4.4
	III	-0.7	0.6	1.3	2.3	-0.8	3.0	2.0	2.6
	IV	-2.2	-2.1	0.1	2.6	-1.3	5.0	1.8	3.9
	ANNUAL	-0.5	2.0	2.6	3.4	-1.4	3.9	3.8	3.9
Percent change from corresponding quarter of previous year									
1988	I	3.5	6.3	2.7	3.9	0.0	0.4	5.0	2.0
	II	2.4	6.0	3.6	4.7	0.8	2.3	2.9	2.5
	III	2.5	5.6	3.1	5.1	0.9	2.6	2.6	2.6
	IV	1.8	4.8	3.0	4.2	-0.2	2.3	6.4	3.7
	ANNUAL	2.5	5.7	3.1	4.4	0.3	1.9	4.2	2.7
1989	I	-0.1	3.6	3.7	4.3	-0.4	4.5	3.3	4.1
	II	0.0	2.6	2.5	3.6	-1.5	3.6	5.3	4.1
	III	-0.8	1.7	2.5	2.8	-1.8	3.6	4.6	3.9
	IV	-1.4	0.3	1.7	2.5	-1.9	4.0	2.4	3.4
	ANNUAL	-0.5	2.0	2.6	3.4	-1.4	3.9	3.8	3.9

See footnotes following table 6.

August 6, 1991
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 1982=100							
1988	I	130.2	141.3	108.5	121.1	100.5	93.0
	II	131.8	143.8	109.1	122.1	100.1	92.6
	III	133.5	146.1	109.4	123.7	100.2	92.6
	IV	133.3	147.1	110.3	125.0	100.2	93.8
	ANNUAL	132.1	144.6	109.4	122.9	100.2	93.0
1989	I	133.1	147.1	110.5	126.6	100.2	95.1
	II	133.8	147.1	110.0	127.1	99.1	95.0
	III	133.1	146.0	109.8	128.4	99.4	96.5
	IV	133.4	145.3	108.9	128.9	98.8	96.6
	ANNUAL	133.3	146.4	109.8	127.7	99.3	95.8

Percent change from previous quarter at annual rate(5)							
1988	I	5.0	7.6	2.4	4.0	0.8	-1.0
	II	5.1	7.5	2.2	3.2	-1.4	-1.9
	III	5.1	6.3	1.2	5.3	0.1	0.2
	IV	-0.5	2.8	3.3	4.5	0.2	5.0
	ANNUAL	4.5	7.7	3.0	3.4	-0.7	-1.1
1989	I	-0.6	0.1	0.6	5.0	0.0	5.6
	II	2.0	0.1	-1.8	1.6	-4.3	-0.4
	III	-2.1	-2.9	-0.8	4.2	1.0	6.5
	IV	1.1	-2.0	-3.1	1.6	-2.3	0.5
	ANNUAL	0.9	1.3	0.4	3.9	-0.9	3.0

Percent change from corresponding quarter of previous year							
1988	I	5.5	8.6	3.0	2.2	-1.6	-3.1
	II	4.6	8.3	3.6	3.3	-0.6	-1.3
	III	4.8	7.7	2.8	4.1	-0.1	-0.7
	IV	3.7	6.0	2.3	4.2	-0.1	0.6
	ANNUAL	4.5	7.7	3.0	3.4	-0.7	-1.1
1989	I	2.3	4.1	1.8	4.5	-0.3	2.2
	II	1.5	2.3	0.8	4.1	-1.0	2.6
	III	-0.3	0.0	0.3	3.8	-0.8	4.1
	IV	0.1	-1.2	-1.3	3.1	-1.4	3.0
	ANNUAL	0.9	1.3	0.4	3.9	-0.9	3.0

See footnotes following table 6.

August 6, 1991

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 1982=100 -----							
1988	I	139.6	152.1	109.0	120.4	99.9	86.3
	II	141.9	156.4	110.3	120.4	98.8	84.9
	III	143.9	159.6	110.9	121.8	98.7	84.7
	IV	144.3	161.7	112.0	123.4	98.9	85.5
	ANNUAL	142.3	157.5	110.6	121.4	99.0	85.3
1989	I	144.3	161.7	112.1	125.2	99.1	86.8
	II	146.3	162.2	110.9	125.7	98.1	86.0
	III	146.2	161.0	110.2	127.4	98.6	87.2
	IV	145.7	159.1	109.2	127.8	98.0	87.7
	ANNUAL	145.6	161.0	110.6	126.5	98.5	86.9
----- Percent change from previous quarter at annual rate(5) -----							
1988	I	7.9	10.3	2.2	4.7	1.5	-3.0
	II	6.7	11.9	4.8	-0.1	-4.5	-6.4
	III	5.9	8.3	2.2	4.8	-0.4	-1.0
	IV	1.2	5.5	4.2	5.1	0.8	3.9
	ANNUAL	6.6	10.7	3.9	2.5	-1.5	-3.8
1989	I	-0.1	0.0	0.2	6.1	1.1	6.2
	II	5.7	1.1	-4.3	1.7	-4.2	-3.7
	III	-0.3	-2.8	-2.4	5.5	2.2	5.8
	IV	-1.2	-4.7	-3.5	1.2	-2.7	2.4
	ANNUAL	2.3	2.3	-0.1	4.2	-0.6	1.9
----- Percent change from corresponding quarter of previous year -----							
1988	I	7.7	11.0	3.1	1.7	-2.2	-5.6
	II	6.5	11.6	4.7	2.1	-1.7	-4.1
	III	7.1	11.4	4.1	3.1	-1.1	-3.7
	IV	5.4	9.0	3.4	3.6	-0.7	-1.7
	ANNUAL	6.6	10.7	3.9	2.5	-1.5	-3.8
1989	I	3.4	6.3	2.8	4.0	-0.8	0.6
	II	3.1	3.7	0.5	4.4	-0.7	1.3
	III	1.6	0.9	-0.6	4.6	-0.1	3.0
	IV	1.0	-1.6	-2.5	3.6	-0.9	2.6
	ANNUAL	2.3	2.3	-0.1	4.2	-0.6	1.9

See footnotes following table 6.

August 6, 1991
Source: Bureau of Labor Statistics

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 1982=100 -----							
1988	I	117.6	126.8	107.8	122.1	101.3	103.8
	II	118.3	127.1	107.4	124.6	102.2	105.4
	III	119.3	128.1	107.3	126.4	102.4	105.9
	IV	118.3	127.6	107.9	127.4	102.1	107.7
	ANNUAL	118.3	127.4	107.7	125.0	102.0	105.7
1989	I	117.9	127.6	108.2	128.4	101.7	108.9
	II	116.9	127.1	108.7	129.0	100.7	110.4
	III	115.5	126.1	109.2	129.8	100.5	112.4
	IV	116.9	126.9	108.5	130.6	100.1	111.7
	ANNUAL	116.7	126.9	108.7	129.4	100.7	110.8
----- Percent change from previous quarter at annual rate (5) -----							
1988	I	0.6	3.4	2.8	2.8	-0.4	2.1
	II	2.2	0.8	-1.4	8.3	3.5	6.0
	III	3.6	3.2	-0.4	5.9	0.7	2.2
	IV	-3.5	-1.6	2.0	3.2	-1.1	7.0
	ANNUAL	1.2	3.0	1.7	4.5	0.4	3.3
1989	I	-1.1	0.1	1.3	3.3	-1.6	4.5
	II	-3.4	-1.6	1.9	1.9	-4.0	5.5
	III	-4.7	-3.2	1.6	2.4	-0.7	7.5
	IV	5.1	2.5	-2.5	2.4	-1.6	-2.6
	ANNUAL	-1.3	-0.4	1.0	3.4	-1.3	4.8
----- Percent change from corresponding quarter of previous year -----							
1988	I	2.0	5.0	2.9	3.1	-0.8	1.0
	II	1.4	3.4	2.0	4.9	0.9	3.5
	III	1.2	2.1	1.0	5.4	1.2	4.2
	IV	0.7	1.4	0.7	5.0	0.7	4.3
	ANNUAL	1.2	3.0	1.7	4.5	0.4	3.3
1989	I	0.3	0.6	0.4	5.2	0.4	4.9
	II	-1.2	0.0	1.2	3.6	-1.5	4.8
	III	-3.2	-1.6	1.7	2.7	-1.8	6.1
	IV	-1.1	-0.6	0.6	2.5	-2.0	3.7
	ANNUAL	-1.3	-0.4	1.0	3.4	-1.3	4.8

See footnotes following table 6.

August 6, 1991

Source: Bureau of Labor Statistics

Appendix 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 1982=100											
1988	I	115.0	134.8	117.2	122.9	102.0	106.9	103.0	105.8	174.5	110.1
	II	115.1	136.5	118.5	124.4	102.1	108.1	103.2	106.7	175.6	111.0
	III	115.4	137.8	119.4	126.0	102.1	109.2	104.1	107.8	168.4	111.6
	IV	115.5	139.3	120.6	126.9	101.7	109.9	105.0	108.5	175.2	112.7
	ANNUAL	115.4	137.1	118.8	125.2	102.1	108.5	103.8	107.2	173.4	111.4
1989	I	114.6	139.5	121.7	128.2	101.5	111.9	105.4	110.1	158.4	113.1
	II	114.9	140.3	122.1	128.9	100.6	112.2	107.5	110.9	158.4	113.9
	III	115.6	141.5	122.4	129.7	100.4	112.1	109.8	111.5	154.4	114.2
	IV	114.5	140.4	122.6	130.3	99.9	113.9	111.5	113.2	142.5	115.0
	ANNUAL	115.1	140.4	122.1	129.5	100.7	112.5	108.6	111.4	153.4	114.0
Percent change from previous quarter at annual rate(5)											
1988	I	4.2	6.5	2.3	2.0	-1.1	-2.1	7.7	0.5	5.5	0.9
	II	0.5	5.1	4.5	5.1	0.4	4.5	0.7	3.5	2.6	3.4
	III	0.9	3.9	3.0	5.2	0.0	4.2	3.7	4.1	-15.4	2.0
	IV	0.3	4.4	4.1	2.8	-1.5	2.5	3.4	2.8	17.1	4.1
	ANNUAL	2.2	5.7	3.5	4.0	-0.1	1.8	2.1	1.9	2.3	1.9
1989	I	-2.9	0.7	3.8	4.4	-0.6	7.5	1.7	5.9	-33.1	1.5
	II	1.0	2.2	1.2	2.2	-3.7	1.2	8.2	3.0	-0.2	2.7
	III	2.6	3.4	0.8	2.3	-0.8	-0.3	8.8	2.1	-9.7	1.0
	IV	-4.0	-3.1	0.9	2.1	-1.8	6.4	6.4	6.4	-27.5	3.1
	ANNUAL	-0.3	2.4	2.7	3.4	-1.3	3.7	4.6	3.9	-11.5	2.4
Percent change from corresponding quarter of previous year											
1988	I	3.0	6.5	3.4	3.5	-0.4	0.5	0.8	0.5	11.8	1.6
	II	2.4	6.1	3.7	4.3	0.4	1.9	1.1	1.7	3.3	1.8
	III	1.9	5.4	3.4	4.6	0.3	2.6	2.5	2.6	-6.2	1.7
	IV	1.5	5.0	3.5	3.8	-0.6	2.3	3.8	2.7	1.7	2.6
	ANNUAL	2.2	5.7	3.5	4.0	-0.1	1.8	2.1	1.9	2.3	1.9
1989	I	-0.3	3.5	3.8	4.3	-0.4	4.7	2.3	4.0	-9.2	2.7
	II	-0.2	2.8	3.0	3.6	-1.5	3.8	4.2	3.9	-9.8	2.6
	III	0.2	2.7	2.5	2.9	-1.7	2.7	5.5	3.4	-8.3	2.3
	IV	-0.9	0.8	1.7	2.7	-1.8	3.6	6.2	4.3	-18.7	2.1
	ANNUAL	-0.3	2.4	2.7	3.4	-1.3	3.7	4.6	3.9	-11.5	2.4

See footnotes following table 6.

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 Source: Bureau of Labor Statistics