

News

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USDL 84-330
For Release: 10:00 AM EDT
Tuesday, July 31 1984

PRODUCTIVITY AND COSTS

Second Quarter 1984

Business, Nonfarm Business, and Manufacturing Sectors

Productivity, as measured by output per hour of all persons, increased at a 2.8 percent seasonally adjusted annual rate in the second quarter of 1984 in the business sector, according to preliminary measures announced today by the Bureau of Labor Statistics of the U.S. Department of Labor (table A). During the first quarter, productivity advanced 4.0 percent, according to revised measures.

The following tabulation shows the annual rate of productivity increase in the second quarter in major sectors:

- 2.8 percent in the business sector,
- 3.3 percent in the nonfarm business sector,
- 3.2 percent in manufacturing,
- 2.2 percent in durable goods manufacturing, and
- 4.7 percent in nondurables goods manufacturing.

Second quarter measures are summarized in table A and appear in detail in tables 1 through 5.

All of the productivity and cost measures in this release incorporate revised output and compensation measures reported by the Bureau of Economic Analysis of the U.S. Department of Commerce on July 23, 1984, as part of the regular revision cycle of the National Income and Product Accounts--the Gross National Product (GNP) measures. These revisions affected the productivity and cost measures beginning with 1981.

In addition, revised values for seasonally adjusting measures of employment and average weekly hours were introduced. Also, data for employees of nonagricultural establishments were re-benchmarked to the most recent levels from Unemployment Insurance data and improved estimates of employment levels in agricultural services were incorporated. These additional changes affected, in some cases, measures for years prior to 1981. Historical information, which shows the effect of these revisions, is available on request from the Office of Productivity and Technology, Bureau of Labor Statistics, Washington, D.C. 20212; telephone (202) 523-9261.

The appendix tables contained in this news release present the productivity and related measures for the entire period affected by the GNP revisions--1981 forward.



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Table A. Productivity and costs: Percent change at annual rate
(Seasonally adjusted)

Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
PRELIMINARY						
First quarter 1984 to second quarter 1984						
Business	2.8	8.7	5.7	1.8	-1.8	-1.0
Nonfarm business	3.3	8.0	4.6	3.6	-1.0	0.3
Manufacturing	3.2	8.2	4.8	3.1	-0.6	-0.1
Durable	2.2	8.9	6.5	2.8	-0.9	0.6
Nondurable	4.7	7.2	2.4	3.2	-0.4	-1.4
Second quarter 1983 to second quarter 1984						
Business	2.7	9.3	6.4	4.0	-0.3	1.2
Nonfarm business	2.3	9.1	6.6	4.0	-0.3	1.6
Manufacturing	3.9	12.6	8.4	4.5	0.2	0.6
Durable	4.5	16.2	11.2	4.5	0.1	0.0
Nondurable	2.9	7.5	4.5	4.0	-0.3	1.1

Business sector

Output per hour of all persons engaged in the business sector increased at an annual rate of 2.8 percent during the second quarter of 1984, compared with a 4.0 percent increase during the first quarter (table 1). The second quarter increase reflected a 8.7 percent advance in output and an increase of 5.7 percent in hours. Output and hours both grew more moderately in the second quarter than in the first, but employment increased at a 4.8 percent seasonally adjusted annual rate in both quarters.

Hourly compensation, which includes wages, salaries, and employer contributions to employee benefit plans, increased at a 1.8 percent annual rate during the second quarter, compared with a 6.2 percent gain during the first quarter. (This measure partly reflects a decline in hourly compensation in the farm sector, which is included in the business series.) The second-quarter increase in hourly compensation in the business sector was the smallest since the first quarter of 1969, when a 1.7 percent increase was recorded.

Real hourly compensation, which is adjusted for changes in the Consumer Price Index for All Urban Consumers (CPI-U), declined at a 1.8 percent annual rate during the second quarter, compared with a 1.2 percent increase during the first quarter of 1984. This was the first decline in real hourly compensation since the third quarter of 1983.

Unit labor costs--compensation per unit of output--declined at a 1.0 percent annual rate during the second quarter, compared with a 2.1 percent increase during the first quarter.

The implicit price deflator for the business sector--which shows the effects of changes in unit labor costs and unit nonlabor payments--increased at a 2.7 percent annual rate during the second quarter, compared with a 3.7 percent gain during the first quarter.

Nonfarm business

Productivity increased at a 3.3 percent annual rate in the second quarter in the nonfarm business sector, compared with a 2.9 percent gain during the first quarter. Although productivity grew more rapidly in the second quarter, output and hours growth was more moderate than during the first quarter (table 2).

Hourly compensation increased at a 3.6 percent annual rate in the second quarter, compared with a 6.1 percent gain during the first quarter. Real hourly compensation declined 0.1 percent, compared with a 1.0 percent gain in the first quarter. Reflecting the slowing of hourly compensation and the faster productivity growth during the second quarter, unit labor costs rose only 0.3 percent compared with a 3.1 percent rise during the first quarter. The implicit price deflator for nonfarm business output increased 2.2 percent in the second quarter.

Manufacturing

Productivity rose at a 3.2 percent annual rate in manufacturing during the second quarter, as output increased 8.2 percent and hours rose 4.8 percent. The gains in productivity, output, and hours were all more moderate than in the first quarter in this sector (table 3). Hourly compensation slowed appreciably in the second quarter, showing a 3.1 percent rise. During the first quarter, an 11.0 percent increase occurred. After allowing for the increase in the CPI-U, real hourly compensation declined at a 0.6 percent annual rate in the second quarter, compared with a 5.8 percent rise during the first quarter.

Productivity advanced more rapidly in nondurable than in durable goods manufacturing in the second quarter; however, output and hours both increased more among durable goods manufacturers. The more rapid growth in nondurables productivity was reflected in the 1.4 percent decline in unit labor costs in the sector. These costs rose 0.6 percent in durables (tables A, 4, and 5).

Revised measures

As noted in the box on page 1, all of the measures in this news release reflect revised GNP series recently released by the U.S. Department of Commerce. This more complete data, along with newly computed seasonal adjustment factors and benchmark levels, resulted in changes in both annual and quarterly productivity and cost series. The new data are found in appendix tables 1 through 6.

TECHNICAL NOTES

Business sector output is equal to gross national product, less the rest-of-the-world sector, general government, output of paid employees of private households and nonprofit institutions, 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 has accounted for about 77 percent of gross national product in recent years.

Total manufacturing measures are computed by summing series prepared for the durable and nondurable 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 the following 2-digit SIC industries: Textile mill products, apparel products, leather and leather products, printing and publishing, chemicals and chemical products, petroleum products, rubber and plastic products, foods, and tobacco products.

Manufacturing output has accounted for about 24 percent of gross national product in recent years.

Nonfinancial corporate output is equal to gross national product, less the rest-of-the-world sector, general government, unincorporated business, output of paid employees of private households and nonprofit institutions, 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 has accounted for about 59 percent of gross national product in recent years.

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 contributions 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 1977=100									
1983	I	102.2r	106.9r	104.7r	160.2r	99.0r	156.8r	139.8r	151.0r
	II	103.6r	110.1r	106.2	161.0r	98.5r	155.4r	144.6r	151.7r
	III	104.3r	112.5r	107.9	161.8r	98.0r	155.1r	147.9r	152.7r
	IV	104.7r	114.7r	109.5r	164.2r	98.4r	156.8r	149.1r	154.2r
	ANNUAL	103.7r	111.0r	107.1r	161.7r	98.4r	156.0r	145.5r	152.4r
1984	I	105.7r	117.8	111.4r	166.7r	98.6r	157.7r	151.6r	155.6r
	II	106.5p	120.3p	113.0p	167.5p	98.2p	157.3p	155.4p	156.7p
Percent change from previous quarter at annual rate(5)									
1983	I	2.1r	4.4r	2.2r	4.4r	4.1r	2.2r	10.2r	4.6r
	II	5.9	12.4r	6.1r	2.2r	-2.1r	-3.5r	14.5r	1.9r
	III	2.8r	9.3r	6.4r	2.0r	-2.1r	-0.8r	9.5r	2.5r
	IV	1.4r	7.8r	6.2r	6.1r	1.6r	4.6r	3.1r	4.1r
	ANNUAL	2.7	4.4r	1.7r	4.3r	1.1r	1.6r	6.3r	3.0r
1984	I	4.0r	11.4r	7.2r	6.2r	1.2r	2.1r	7.0r	3.7r
	II	2.8p	8.7p	5.7p	1.8p	-1.8p	-1.0p	10.4p	2.7p
Percent change from corresponding quarter of previous year(6)									
1983	I	1.2r	-0.2r	-1.4r	5.8r	2.1r	4.5r	1.3r	3.5r
	II	3.3r	3.4r	0.1	4.6r	1.3r	1.3r	5.5r	2.6r
	III	3.4r	6.1r	2.6r	3.3r	0.7r	-0.1r	8.9r	2.7r
	IV	3.1r	8.4r	5.2r	3.7r	0.3r	0.6r	9.2r	3.3r
	ANNUAL	2.7	4.4r	1.7r	4.3r	1.1r	1.6r	6.3r	3.0r
1984	I	3.5r	10.2r	6.5r	4.1r	-0.4r	0.6r	8.4r	3.0r
	II	2.7p	9.3p	6.4p	4.0p	-0.3p	1.2p	7.5p	3.2p

See footnotes following table 6.

r=revised

p=preliminary

July 31, 1984

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 1977=100									
1983	I	101.6	106.7	105.1r	160.1r	99.0r	157.6r	140.6r	151.9r
	II	103.6r	110.4r	106.5r	161.5r	98.8r	155.9r	146.4r	152.7r
	III	104.1r	112.7r	108.2	162.4r	98.3r	155.9r	149.4r	153.8r
	IV	104.4r	115.2r	110.3r	164.0r	98.2r	157.1r	151.4r	155.2r
	ANNUAL	103.4	111.2r	107.5r	162.0r	98.6r	156.6r	147.0r	153.4r
1984	I	105.2r	118.0r	112.3r	166.5r	98.5r	158.3r	152.2r	156.3r
	II	106.0p	120.4p	113.5p	167.9p	98.5p	158.4p	154.5p	157.1p
Percent change from previous quarter at annual rate(5)									
1983	I	4.4r	6.0r	1.5r	5.7r	5.4r	1.3r	12.7r	4.6r
	II	8.1r	14.3r	5.7r	3.5r	-0.8r	-4.2r	17.8r	2.2r
	III	2.1r	8.7r	6.5r	2.2r	-1.9r	0.1r	8.4r	2.7r
	IV	1.0r	9.1r	8.0r	4.1r	-0.3r	3.0r	5.3r	3.7
	ANNUAL	3.5r	5.0r	1.5r	4.9r	1.6r	1.4r	7.4r	3.2r
1984	I	2.9r	10.3r	7.2r	6.1r	1.0	3.1r	2.3r	2.8r
	II	3.3p	8.0p	4.6p	3.6p	-0.1p	0.3p	6.1p	2.2p
Percent change from corresponding quarter of previous year(6)									
1983	I	1.8r	0.3r	-1.5r	6.0r	2.4r	4.1r	2.7r	3.7r
	II	4.3r	4.1r	-0.2	5.4r	2.0r	1.1r	6.5r	2.8r
	III	3.9r	6.3r	2.3r	4.1r	1.5r	0.2r	9.2r	3.0r
	IV	3.9	9.5r	5.4r	3.9r	0.6r	0.0r	10.9r	3.3r
	ANNUAL	3.5r	5.0r	1.5r	4.9r	1.6r	1.4r	7.4r	3.2r
1984	I	3.5r	10.6r	6.9r	4.0r	-0.5r	0.4r	8.3r	2.9
	II	2.3p	9.1p	6.6p	4.0p	-0.3p	1.6p	5.5p	2.9p

See footnotes following table 6.

r=revised

p=preliminary

July 31, 1984

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 (7)	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost
Indexes 1977=100							
1983	I	109.1r	98.4r	90.2r	162.7r	100.6r	149.1r
	II	110.8r	102.4r	92.4r	163.0r	99.7r	147.0r
	III	113.4r	107.2r	94.6r	163.5r	99.0r	144.1r
	IV	113.1r	109.6r	96.9r	164.6r	98.6r	145.5
	ANNUAL	111.6r	104.4r	93.5r	163.4r	99.4r	146.4r
1984	I	114.2r	113.0r	98.9r	169.0r	100.0r	148.0r
	II	115.1p	115.2p	100.1p	170.3p	99.9p	148.0p
Percent change from previous quarter at annual rate(5)							
1983	I	4.8r	7.3r	2.4r	4.2r	3.9r	-0.5r
	II	6.4r	17.1r	10.0r	0.6r	-3.5r	-5.5r
	III	9.7r	20.5r	9.8	1.3r	-2.8r	-7.7r
	IV	-1.0r	9.1r	10.2r	2.9r	-1.5r	3.9r
	ANNUAL	4.3r	5.2r	0.9r	3.4r	0.2r	-0.8r
1984	I	3.7r	12.9r	8.8r	11.0r	5.8r	7.0r
	II	3.2p	8.2p	4.8p	3.1p	-0.6p	-0.1p
Percent change from corresponding quarter of previous year(6)							
1983	I	3.4r	-2.2r	-5.4r	5.5r	1.8r	2.0r
	II	4.3r	2.4r	-1.8r	3.6r	0.3r	-0.6r
	III	4.3r	7.6r	3.1r	2.3r	-0.3r	-1.9r
	IV	4.9r	13.4r	8.1r	2.2r	-1.0r	-2.6r
	ANNUAL	4.3r	5.2r	0.9r	3.4r	0.2r	-0.8r
1984	I	4.7r	14.8r	9.7r	3.9r	-0.6r	-0.7r
	II	3.9p	12.6p	8.4p	4.5p	0.2p	0.6p

See footnotes following table 6.

r=revised

p=preliminary

July 31, 1984

Source: Bureau of Labor Statistics

Table 4. Durable manufacturing sector: Productivity, hourly compensation, and unit labor cost, seasonally adjusted(11)

Year and quarter		Output per hour of all persons	Output (7)	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost
Indexes 1977=100							
1983	I	108.5r	95.6r	88.1r	162.2r	100.3r	149.5r
	II	110.8r	100.1r	90.4r	162.2r	99.2r	146.5r
	III	113.5r	105.7r	93.2r	162.5r	98.4r	143.2r
	IV	113.1r	109.0r	96.4r	163.4r	97.8r	144.4r
	ANNUAL	111.5r	102.6r	92.0r	162.5r	98.9r	145.8r
1984	I	115.1r	113.9r	98.9r	168.3r	99.6r	146.2r
	II	115.7p	116.3p	100.5p	169.4p	99.3p	146.4p
Percent change from previous quarter at annual rate(5)							
1983	I	7.2r	10.7r	3.3r	3.9r	3.6r	-3.1r
	II	8.7r	20.5r	10.9r	0.1r	-4.1r	-7.9r
	III	10.2r	24.2r	12.8r	0.8r	-3.2r	-8.5r
	IV	-1.2r	13.2r	14.6r	2.1r	-2.3r	3.3r
	ANNUAL	5.6r	5.7r	0.1r	3.1r	-0.1r	-2.3r
1984	I	7.2r	18.9r	10.9r	12.5r	7.2r	5.0r
	II	2.2p	8.9p	6.5p	2.8p	-0.9p	0.6p
Percent change from corresponding quarter of previous year(6)							
1983	I	4.7	-3.8r	-8.1r	5.5r	1.8r	0.7r
	II	5.7r	1.8r	-3.7r	3.4r	0.1r	-2.2r
	III	5.5r	8.5r	2.9r	1.8r	-0.8r	-3.5r
	IV	6.1r	17.0r	10.3r	1.7r	-1.6r	-4.2r
	ANNUAL	5.6r	5.7r	0.1r	3.1r	-0.1r	-2.3r
1984	I	6.1r	19.2r	12.3r	3.7r	-0.7r	-2.2r
	II	4.5p	16.2p	11.2p	4.5p	0.1p	0.0p

See footnotes following table 6.

r=revised

p=preliminary

July 31, 1984

Source: Bureau of Labor Statistics

Table 5. Nondurable manufacturing sector: Productivity, hourly compensation, and unit labor cost, seasonally adjusted(12)

Year and quarter		Output per hour of all persons	Output (7)	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost
Indexes 1977=100							
1983	I	110.0r	102.6r	93.3r	164.5r	101.7r	149.6r
	II	110.9r	105.7r	95.3r	165.1r	101.0r	148.8r
	III	113.3r	109.5r	96.6r	165.7r	100.3r	146.2r
	IV	113.2r	110.5r	97.6r	167.1r	100.1r	147.6r
	ANNUAL	111.9r	107.1r	95.7r	165.6r	100.7r	148.0r
1984	I	112.8r	111.7r	99.0r	170.3r	100.8r	151.0r
	II	114.1p	113.6p	99.5p	171.7p	100.7p	150.4p
Percent change from previous quarter at annual rate(5)							
1983	I	1.5r	2.8r	1.3r	4.5r	4.1r	2.9r
	II	3.4r	12.5r	8.8r	1.4r	-2.8r	-1.9r
	III	9.0r	15.3r	5.8r	1.4r	-2.6r	-7.0r
	IV	-0.6r	3.4r	4.0r	3.4r	-1.0r	4.0r
	ANNUAL	2.4r	4.4r	2.0r	4.1r	0.9r	1.7r
1984	I	-1.3r	4.4r	5.8r	8.0r	2.9r	9.4r
	II	4.7p	7.2p	2.4p	3.2p	-0.4p	-1.4p
Percent change from corresponding quarter of previous year(6)							
1983	I	1.4r	0.1r	-1.4r	6.2r	2.5r	4.7r
	II	2.2r	3.1r	0.9r	4.5r	1.1r	2.2r
	III	2.7r	6.2r	3.5r	3.2r	0.6r	0.6r
	IV	3.3r	8.4r	4.9r	2.7r	-0.6r	-0.6r
	ANNUAL	2.4r	4.4r	2.0r	4.1r	0.9r	1.7r
1984	I	2.6r	8.8r	6.1r	3.5r	-0.9r	0.9r
	II	2.9p	7.5p	4.5p	4.0p	-0.3p	1.1p

See footnotes following table 6.

r=revised

p=preliminary

July 31, 1984

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 (8)	Total unit cost (9)	Unit profits (10)	Implicit price deflator (4)
Indexes 1977=100										
1983 I	104.0r	107.5r	103.4r	159.2r	98.4r	153.1r	167.0r	156.7	92.5r	149.4r
II	105.8	111.4r	105.2	160.6r	98.2r	151.7r	165.1r	155.2r	111.8r	150.2r
III	107.2r	114.7r	106.9	161.8r	98.0r	150.9r	164.4r	154.4r	126.6r	151.2r
IV	107.2r	117.0r	109.2r	162.6r	97.4r	151.7r	163.3r	154.7r	135.9r	152.6r
ANNUAL	106.1r	112.6r	106.2r	161.0r	97.9r	151.8r	164.9r	155.2	117.2r	150.9r
1984 I	108.1r	120.2r	111.2r	164.8r	97.5r	152.5r	162.0r	155.0r	143.2r	153.6r
Percent change from previous quarter at annual rate (5)										
1983 I	3.2	4.4r	1.2r	3.9r	3.5r	0.7r	-4.1r	-0.7r	124.6r	4.7r
II	7.5r	15.1r	7.1r	3.5r	-0.8r	-3.7r	-4.5r	-3.9r	112.8r	2.3r
III	5.3r	12.4r	6.7r	3.1r	-1.0r	-2.1r	-1.7r	-2.0r	64.8r	2.8r
IV	-0.2r	8.4r	8.6r	2.0r	-2.4r	2.1r	-2.6r	0.8r	32.6r	3.6r
ANNUAL	3.3	4.5r	1.2r	4.2r	0.9r	0.8r	0.1r	0.6r	38.5r	3.1r
1984 I	3.6r	11.6r	7.7r	5.7r	0.7r	2.0r	-3.2r	0.6r	23.4r	2.7r
Percent change from corresponding quarter of previous year (6)										
1983 I	1.8r	-1.1r	-2.8r	5.4r	1.7r	3.5r	3.3r	3.5r	3.5r	3.5r
II	3.7r	3.1r	-0.6r	4.6r	1.3r	0.9r	0.5r	0.8r	28.7r	2.7r
III	3.8r	6.3r	2.4r	3.6r	1.0r	-0.2r	0.0r	-0.2r	46.3r	3.0r
IV	3.9r	10.0r	5.9r	3.1r	-0.2r	-0.8r	-3.2r	-1.5r	79.8r	3.3r
ANNUAL	3.3	4.5r	1.2r	4.2r	0.9r	0.8r	0.1r	0.6r	38.5r	3.1r
1984 I	4.0	11.8r	7.5r	3.6r	-0.9r	-0.4r	-3.0r	-1.1r	54.8r	2.8

See footnotes following table 6.

r=revised

p=preliminary

July 31, 1984

Source: Bureau of Labor Statistics

Footnotes, Tables 1-6

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: Based on data covering the period from the first quarter of 1976 to the second quarter of 1983, the probability is 0.95 that the interval between -1.8 and 2.1 index points contains the revision of the index of productivity in the business sector from the first to the third quarterly publication of the estimate.

- (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) Nonlabor payments include profits, depreciation, interest, rental income, 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 changes: current quarter divided by comparable quarter a year ago. Annual changes: percent change between annual average levels.
- (7) Quarterly measures adjusted to annual estimates of output (gross product originating) from the Bureau of Economic Analysis, U.S. Department of Commerce.
- (8) Unit nonlabor cost includes depreciation, interest, and indirect taxes.
- (9) Total unit cost is the sum of labor and nonlabor costs.
- (10) Unit profits include corporate profit and inventory valuation adjustment.
- (11) The durable sector includes the following 2-digit SIC industries: Primary metal: 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.
- (12) The nondurable sector includes the following 2-digit SIC industries: Textile mill products; apparel products; leather and leather products; printing and publishing; chemicals and chemical products; petroleum products; rubber and plastic products; foods; and tobacco products.

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 1977=100									
1981	I	100.5	109.2	108.7r	139.2r	95.9r	138.5r	132.5r	136.5r
	II	100.6r	109.3r	108.6	141.7r	95.7r	140.9r	134.2r	138.6r
	III	101.5r	110.1r	108.5r	145.1r	95.3r	142.9r	140.5r	142.1r
	IV	100.3r	108.1r	107.8r	147.6r	95.4r	147.1r	139.6r	144.6r
	ANNUAL	100.7r	109.2r	108.4	143.4r	95.5r	142.4r	136.7r	140.4r
1982	I	100.9r	107.1r	106.1r	151.4r	96.9r	150.0r	138.0r	145.9r
	II	100.3r	106.4r	106.1r	153.9r	97.2r	153.4r	137.0	147.9r
	III	100.9r	106.1r	105.1r	156.7r	97.3r	155.3r	135.8r	148.7r
	IV	101.6r	105.8r	104.1r	158.4r	98.0r	155.9r	136.5r	149.3r
	ANNUAL	100.9r	106.3r	105.4	155.0r	97.3r	153.6r	136.8r	147.9r
Percent change from previous quarter at annual rate(5)									
1981	I	6.0r	8.4r	2.2r	10.5r	-0.7r	4.3r	28.3r	11.5r
	II	0.6r	0.3r	-0.4r	7.5r	-1.1r	6.8r	5.2r	6.3r
	III	3.6r	3.1r	-0.4r	9.8r	-1.5r	6.0r	20.3r	10.5r
	IV	-4.7r	-7.2r	-2.6r	7.0r	0.3r	12.3r	-2.4r	7.2r
	ANNUAL	1.9r	2.5r	0.6r	9.4r	-0.9r	7.3r	14.6r	9.6r
1982	I	2.5r	-3.6r	-5.9r	10.7r	6.7r	8.0r	-4.7r	3.7r
	II	-2.3r	-2.6r	-0.3r	6.8r	1.3r	9.4r	-2.7r	5.4r
	III	2.4r	-1.3r	-3.6r	7.5r	0.3r	5.0	-3.4r	2.3r
	IV	2.7r	-1.2r	-3.8r	4.5r	2.9r	1.7r	1.9r	1.8r
	ANNUAL	0.2r	-2.6r	-2.8r	8.1r	1.9r	7.9	0.1r	5.3r
Percent change from corresponding quarter of previous year(6)									
1981	I	1.3	1.0r	-0.4	10.3r	-0.8r	8.9r	14.6r	10.7r
	II	2.2r	3.8r	1.5r	9.2r	-0.5r	6.9r	14.7r	9.3r
	III	2.7r	4.5r	1.7r	9.3r	-1.4r	6.4r	16.8r	9.7r
	IV	1.3r	1.0r	-0.3	8.7r	-0.8r	7.3r	12.2r	8.9r
	ANNUAL	1.9r	2.5r	0.6r	9.4r	-0.9r	7.3r	14.6r	9.6r
1982	I	0.5r	-1.9r	-2.4	8.8r	1.0r	8.3r	4.2r	6.9r
	II	-0.3r	-2.6	-2.3r	8.6r	1.6r	8.9r	2.1r	6.7
	III	-0.6r	-3.7r	-3.1r	8.0r	2.1r	8.6r	-3.3r	4.6r
	IV	1.3r	-2.2r	-3.4	7.4r	2.8r	6.0r	-2.3r	3.3r
	ANNUAL	0.2r	-2.6r	-2.8r	8.1r	1.9r	7.9	0.1r	5.3r

See footnotes following table 6.
r=revised

July 31, 1984

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 1977=100									
1981	I	99.9r	109.1r	109.3r	138.9r	95.7r	139.1r	131.1r	136.4r
	II	99.7r	108.9r	109.3r	141.5r	95.5r	141.9r	132.5r	138.7r
	III	100.3r	109.5r	109.1r	144.7r	95.1r	144.3r	138.2r	142.3r
	IV	99.2r	107.4r	108.3r	147.3r	95.2r	148.5r	138.5r	145.1r
	ANNUAL	99.8r	108.7r	109.0	143.1r	95.3r	143.5r	135.0	140.6r
1982	I	99.8r	106.4r	106.7r	151.0r	96.7r	151.4r	136.9r	146.5r
	II	99.4r	106.0r	106.7r	153.2r	96.8r	154.2r	137.5r	148.6r
	III	100.3r	106.0r	105.7r	156.0r	96.9r	155.6r	136.8r	149.3r
	IV	100.5r	105.2r	104.7r	157.9r	97.7r	157.1	136.4r	150.2r
	ANNUAL	100.0r	105.9r	106.0	154.5r	97.0r	154.5r	136.9r	148.6
Percent change from previous quarter at annual rate(5)									
1981	I	5.0r	7.6r	2.4	10.8r	-0.5r	5.5r	28.1r	12.2r
	II	-0.7r	-0.7r	0.0r	7.7r	-1.0r	8.4r	4.2r	7.0r
	III	2.4r	2.0r	-0.4r	9.6	-1.7r	7.1r	18.4r	10.6r
	IV	-4.4	-7.2r	-2.9r	7.1r	0.3r	12.1r	0.8r	8.3r
	ANNUAL	1.5r	2.1r	0.6r	9.6r	-0.7r	8.0r	13.8r	9.8r
1982	I	2.5r	-3.8r	-6.1r	10.5r	6.5r	7.9r	-4.5r	3.8r
	II	-1.6r	-1.4r	0.2r	5.9	0.4	7.6r	1.7r	5.7r
	III	3.6r	-0.1r	-3.6r	7.5r	0.3r	3.7r	-1.8r	2.0r
	IV	1.1r	-3.0r	-4.0r	5.1r	3.5r	4.0r	-1.1r	2.4r
	ANNUAL	0.2r	-2.6r	-2.8r	8.0r	1.7r	7.7r	1.4	5.7r
Percent change from corresponding quarter of previous year(6)									
1981	I	1.3r	0.9	-0.4	10.5r	-0.6r	9.1r	14.3r	10.7r
	II	2.0r	3.7r	1.6r	9.5r	-0.3r	7.3r	13.1r	9.1r
	III	2.0r	3.8r	1.8r	9.5r	-1.2r	7.4r	15.8r	10.0r
	IV	0.5r	0.3r	-0.2	8.8r	-0.7r	8.2r	12.3r	9.5r
	ANNUAL	1.5r	2.1r	0.6r	9.6r	-0.7r	8.0r	13.8r	9.8r
1982	I	-0.1	-2.5	-2.4	8.7r	1.0r	8.8r	4.4r	7.4
	II	-0.3	-2.6r	-2.3r	8.3	1.4r	8.6r	3.8r	7.1
	III	0.0r	-3.2r	-3.1r	7.8r	1.9r	7.8r	-1.0r	4.9r
	IV	1.4r	-2.1r	-3.4r	7.2r	2.6r	5.8r	-1.5r	3.5r
	ANNUAL	0.2r	-2.6r	-2.8r	8.0r	1.7r	7.7r	1.4	5.7r

See footnotes following table 6.
r=revised

July 31, 1984

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 (7)	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost
Indexes 1977=100							
1981	I	104.6r	106.3r	101.6	141.0r	97.2r	134.8
	II	105.0r	107.2r	102.1r	143.7r	97.0r	136.8r
	III	105.9r	107.6r	101.6r	146.5r	96.2r	138.3r
	IV	104.0r	103.1r	99.1r	149.8r	96.8r	144.0r
	ANNUAL	104.9r	106.1r	101.1r	145.2r	96.8r	138.4r
1982	I	105.5r	100.6r	95.4r	154.3r	98.8r	146.2r
	II	106.3r	100.0r	94.1r	157.2	99.4r	148.0r
	III	108.8r	99.7r	91.7r	159.8r	99.2r	146.9r
	IV	107.8	96.7r	89.6r	161.0r	99.6r	149.3r
	ANNUAL	107.1r	99.3r	92.7r	158.0r	99.2r	147.6r
Percent change from previous quarter at annual rate(5)							
1981	I	4.2r	6.0r	1.8r	8.0r	-3.0r	3.7r
	II	1.5r	3.5r	2.0r	7.7r	-0.9r	6.1r
	III	3.4r	1.7r	-1.6r	8.0r	-3.1r	4.4r
	IV	-6.9r	-15.7r	-9.5r	9.4r	2.4r	17.5r
	ANNUAL	3.1r	2.5r	-0.6	9.4r	-0.9r	6.1
1982	I	5.9r	-9.4r	-14.4r	12.4r	8.4r	6.2r
	II	2.9r	-2.5r	-5.2r	8.0r	2.4r	5.0r
	III	9.6r	-1.2r	-9.9r	6.6r	-0.5r	-2.8r
	IV	-3.3r	-11.6r	-8.6r	3.2r	1.6r	6.7r
	ANNUAL	2.1r	-6.4r	-8.3r	8.8r	2.5r	6.6r
Percent change from corresponding quarter of previous year(6)							
1981	I	2.2r	-1.5r	-3.6r	11.3r	0.1r	8.9r
	II	4.5r	5.5r	1.0r	9.6r	-0.2r	5.0r
	III	5.5r	7.9r	2.3r	8.4r	-2.2r	2.8r
	IV	0.4r	-1.5r	-2.0r	8.3r	-1.2r	7.8r
	ANNUAL	3.1r	2.5r	-0.6	9.4r	-0.9r	6.1
1982	I	0.9r	-5.3r	-6.1r	9.4r	1.6r	8.4r
	II	1.2r	-6.7r	-7.8r	9.4r	2.4r	8.1r
	III	2.7r	-7.4r	-9.8r	9.1r	3.1r	6.2r
	IV	3.7r	-6.3r	-9.6r	7.5r	2.9r	3.7
	ANNUAL	2.1r	-6.4r	-8.3r	8.8r	2.5r	6.6r

See footnotes following table 6.
r=revised

July 31, 1984
Source: Bureau of Labor Statistics

Appendix Table 4. Durable manufacturing sector: Productivity, hourly compensation, and unit labor cost, seasonally adjusted(11)

Year and quarter		Output per hour of all persons	Output (7)	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost
Indexes 1977=100							
1981	I	103.9r	106.8r	102.9	141.0r	97.2r	135.7r
	II	104.3r	108.2r	103.7r	143.6r	96.9r	137.6r
	III	105.1r	108.3r	103.1r	146.3r	96.1r	139.2r
	IV	102.9r	103.0r	100.1r	149.7r	96.7r	145.5r
	ANNUAL	104.1r	106.6r	102.4	145.1r	96.7r	139.4r
1982	I	103.6r	99.3r	95.9r	153.7r	98.5r	148.4r
	II	104.7r	98.3	93.9r	156.8	99.1	149.7r
	III	107.6r	97.4r	90.5r	159.7r	99.2r	148.4r
	IV	106.6r	93.2r	87.4r	160.7r	99.4r	150.7r
	ANNUAL	105.6r	97.1r	91.9r	157.6r	99.0r	149.3r
Percent change from previous quarter at annual rate(5)							
1981	I	5.9r	7.4r	1.4r	7.3r	-3.7r	1.3r
	II	1.7r	5.3r	3.5r	7.6r	-1.0r	5.7r
	III	3.1r	0.5r	-2.5r	7.8r	-3.3r	4.6r
	IV	-8.2r	-18.3r	-11.0r	9.5r	2.5r	19.3r
	ANNUAL	3.7r	2.9r	-0.7r	9.5r	-0.8r	5.6r
1982	I	2.8r	-13.5r	-15.8r	11.4r	7.4r	8.4r
	II	4.6r	-3.9r	-8.2r	8.3r	2.7r	3.5r
	III	11.3r	-3.7r	-13.5r	7.4r	0.2r	-3.5r
	IV	-3.6r	-16.3r	-13.2r	2.5r	0.9r	6.3r
	ANNUAL	1.4r	-8.9r	-10.2r	8.6r	2.3r	7.1r
Percent change from corresponding quarter of previous year(6)							
1981	I	2.8r	-2.0r	-4.7r	11.6r	0.4r	9.5r
	II	5.0r	6.6r	1.5r	9.8r	0.0r	4.6r
	III	6.5r	9.6r	2.9r	8.4r	-2.2r	1.8r
	IV	0.5r	-1.9r	-2.3r	8.0r	-1.4r	7.5r
	ANNUAL	3.7r	2.9r	-0.7r	9.5r	-0.8r	5.6r
1982	I	-0.3r	-7.0r	-6.8r	9.1r	1.3r	9.4r
	II	0.4r	-9.1r	-9.5r	9.2r	2.3r	8.8r
	III	2.4r	-10.1r	-12.2r	9.1r	3.2r	6.6r
	IV	3.6r	-9.5r	-12.7r	7.3r	2.7r	3.6
	ANNUAL	1.4r	-8.9r	-10.2r	8.6r	2.3r	7.1r

See footnotes following table 6.
r=revised

July 31, 1984

Source: Bureau of Labor Statistics

Appendix Table 5. Nondurable manufacturing sector: Productivity, hourly compensation, and unit labor cost, seasonally adjusted(1)

Year and quarter	Output per hour of all persons	Output (7)	Hours of all persons	Compensation per hour(1)	Real compensation per hour(2)	Unit labor cost
Indexes 1977=100						
1981 I	105.8r	105.4r	99.7r	140.6r	96.9r	139.0r
II	106.1r	105.6r	99.6r	143.2r	96.7r	135.0
III	107.1r	106.6r	99.5r	146.2r	96.1r	136.5r
IV	105.8r	103.4r	97.7r	149.7r	96.7r	141.5r
ANNUAL	106.2r	105.3r	99.1r	144.9r	96.6r	136.5
1982 I	108.5r	102.6r	94.6r	154.9r	99.2r	142.8r
II	108.5r	102.5r	94.4r	158.0r	99.9r	145.6r
III	110.4r	103.1r	93.4r	160.5r	99.7r	145.4r
IV	109.6r	101.9r	93.0r	162.7r	100.7	148.5r
ANNUAL	109.2r	102.5r	93.9r	159.0r	99.8r	145.6r
Percent change from previous quarter at annual rate(5)						
1981 I	1.6r	3.9r	2.3r	9.4r	-1.9r	7.7r
II	1.1r	0.8r	-0.3r	7.5r	-1.2r	6.3r
III	4.0r	3.7r	-0.3r	9.7r	-2.5r	4.5r
IV	-4.9r	-11.7r	-7.1r	9.8r	2.8r	15.5r
ANNUAL	2.3r	1.9r	-0.4	9.3r	-1.0r	6.9r
1982 I	10.5r	-3.0r	-12.2r	14.8r	10.6r	3.9r
II	0.3r	-0.4r	-0.7	8.3r	2.7r	8.0r
III	7.1r	2.5r	-4.3r	6.4r	-0.8r	-0.7r
IV	-2.9r	-4.5r	-1.6	5.7r	4.1r	8.0r
ANNUAL	2.9r	-2.6r	-5.3r	9.7r	3.4r	6.7r
Percent change from corresponding quarter of previous year(6)						
1981 I	1.1r	-0.7r	-1.7r	11.0r	-0.2r	9.8r
II	3.7r	4.0r	0.2r	9.2r	-0.6r	5.2r
III	4.0r	5.4r	1.4	8.2r	-2.4r	4.1r
IV	0.4r	-1.0r	-1.4r	8.8r	-0.7r	8.4r
ANNUAL	2.3r	1.9r	-0.4	9.3r	-1.0r	6.9r
1982 I	2.5r	-2.7r	-5.1r	10.2r	2.3r	7.4r
II	2.3r	-3.0r	-5.2	10.4r	3.3r	7.9r
III	3.1r	-3.3r	-6.2r	9.8r	3.8r	6.9r
IV	3.6r	-1.4	-4.8r	8.7	4.1r	5.0
ANNUAL	2.9r	-2.6r	-5.3r	9.7r	3.4r	6.7r

See footnotes following table 6.
r=revised

July 31, 1984

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(8)	Total unit cost (9)	Unit price (10)	Implicit price deflator (11)
Indexes 1977=100										
1981 I	101.2r	110.7r	109.3r	139.0r	95.8r	137.3r	144.4r	139.1r	102.0r	134.9r
II	101.5r	111.2r	109.5r	141.6r	95.6r	139.5r	148.6r	141.9r	100.0r	137.1r
III	102.3r	112.7r	109.6	144.8r	95.1r	141.5r	153.5r	146.6r	108.2r	140.4r
IV	101.3r	109.9r	108.5r	147.1r	95.1r	145.2r	158.5r	148.7r	100.2r	143.1r
ANNUAL	101.6r	111.0r	109.2r	143.1r	95.3r	140.9r	151.2r	143.6r	102.6r	138.9r
1982 I	102.2r	108.7r	106.4r	151.1r	96.7r	147.9r	161.6r	151.5r	89.4r	144.3r
II	102.1r	108.0r	105.8r	153.5r	97.0r	150.3r	164.3r	154.0r	86.8r	146.3r
III	103.3	107.9r	104.5r	156.2r	97.0r	151.3r	164.4r	154.7r	86.6r	146.9r
IV	103.2r	106.4	103.1r	157.7r	97.5r	152.9	168.8r	157.9r	75.6r	147.7r
ANNUAL	102.6r	107.7r	105.0r	154.6r	97.0r	150.6	164.8r	154.3r	84.6r	146.3r
Percent change from previous quarter at annual rate(5)										
1981 I	3.9r	7.3r	3.3r	10.3r	-0.9r	6.2r	20.1r	9.7r	58.7r	13.2r
II	1.0r	1.7r	0.7r	7.6r	-1.0r	6.6r	12.2r	8.1r	-7.8r	6.6r
III	3.3r	3.7r	0.4r	9.3r	-7.0r	5.8r	14.0r	8.0r	37.3r	10.2r
IV	-4.0r	-7.9r	-4.1r	6.6r	-0.2r	11.0r	13.7r	11.8r	-26.5r	7.9r
ANNUAL	1.9r	2.8r	0.9r	9.4r	-0.9r	7.4r	13.8r	9.0r	19.3r	9.8r
1982 I	3.5r	-4.3r	-7.5r	11.3r	7.3r	7.5r	8.1r	7.7r	-36.5r	3.5r
II	-0.7r	-2.5r	-2.3r	6.6r	1.0r	6.8r	6.7r	6.8r	-11.2r	5.4
III	4.6r	-0.4r	-4.9r	7.3r	0.1r	2.6r	0.2r	1.9r	-1.1r	1.7r
IV	-0.4r	-5.4r	-5.1r	3.8r	2.3r	4.3r	11.1r	6.1r	-41.9r	2.2r
ANNUAL	1.0r	-2.9r	-3.9r	8.0r	1.8r	6.9r	8.9r	7.5r	-17.5r	5.3r
Percent change from corresponding quarter of previous year(6)										
1981 I	1.8r	1.2r	-0.6r	10.5r	-0.7r	8.5r	15.6r	10.4r	16.8r	10.9r
II	2.6r	4.4r	1.7r	9.4r	-0.4r	6.6r	11.7r	7.9r	24.0r	9.1r
III	2.0r	4.6r	2.5	9.2r	-1.5r	7.0r	12.8r	8.6r	27.2r	10.0r
IV	1.0r	1.0r	0.0r	8.6r	-1.0r	7.4r	15.0r	9.4r	10.2r	9.4r
ANNUAL	1.9r	2.8r	0.9r	9.4r	-0.9r	7.4r	13.8r	9.0r	19.3r	9.8r
1982 I	0.9r	-1.8r	-2.7r	8.7r	1.0	7.7r	12.0r	8.9r	-12.3r	7.0r
II	0.6r	-2.8r	-3.4r	8.4r	1.5r	7.8r	10.6r	8.5	-13.1r	6.7r
III	0.9r	-3.8r	-4.7r	7.9r	2.0r	6.9r	7.1r	7.0r	-20.0r	4.6r
IV	1.8r	-3.2r	-5.0r	7.2r	2.6r	5.3r	6.5r	5.6r	-24.5r	3.2r
ANNUAL	1.0r	-2.9r	-3.9r	8.0r	1.8r	6.9r	8.9r	7.5r	-17.5r	5.3r

See footnotes following table 6.
r=revised

July 31, 1984

Source: Bureau of Labor Statistics