

News

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PRODUCTIVITY AND COSTS Fourth Quarter and Annual Averages, 1987

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 fourth quarter and year of 1987. Based on information now available, productivity changes were:

	Fourth quarter	1986- 1987
Business sector.....	-0.7	0.9
Nonfarm business sector.....	-0.2	0.8
Manufacturing.....	0.1	3.3
Durable goods manufacturing.....	2.0	3.9
Nondurable goods manufacturing..	-3.4	2.5

Productivity advanced slowly in the business and nonfarm business sectors when 1987 is compared with 1986, reflecting strong growth mid-year and weak performance in the first and fourth quarters. Productivity gains for the year in these 2 sectors were about half as large as those of 1986. In manufacturing, productivity growth was more rapid than in the broader sectors, but was also smaller than the preceding year's increase.

Fourth-quarter measures are summarized in table A and appear in detail in tables 1 through 5. Annual changes in productivity and related measures appear in tables B and C.

THIRD TO FOURTH QUARTER CHANGES, 1987

Business

Productivity fell at a 0.7 percent annual rate during the fourth quarter of 1987 in the business sector, a considerable slowing from the 4.7 percent gain during the third quarter. In spite of the decline in productivity, output and payroll hours posted strong gains. Output rose 4.8 percent; hours of all persons engaged in the sector increased 5.6 percent (seasonally adjusted annual rates). The increase in hours reflected the largest gain in business employment -- 4.0 percent -- since 1984 (when it rose 4.8 percent in the second quarter). During the third quarter of 1987, output increased 6.3 percent and hours of all persons increased 1.5 percent (table 1).

Table A. Productivity and costs: Preliminary fourth quarter 1987 measures.
(Seasonally adjusted annual rates)

Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
Percent change from preceding quarter						
Business	-0.7	4.8	5.6	3.1	-0.5	3.9
Nonfarm business	-0.2	5.1	5.3	3.4	-0.1	3.7
Manufacturing	0.1	7.0	6.9	2.1	-1.4	2.0
Durable	2.0	9.8	7.7	2.2	-1.4	0.2
Nondurable	-3.4	2.1	5.7	1.8	-1.7	5.3
Percent change from same quarter a year ago						
Business	1.4	4.4	2.9	2.9	-1.5	1.4
Nonfarm business	1.4	4.6	3.1	2.8	-1.6	1.3
Manufacturing	3.3	5.8	2.4	1.1	-3.2	-2.2
Durable	3.8	6.0	2.1	0.7	-3.5	-3.0
Nondurable	2.5	5.5	2.9	1.8	-2.5	-0.7

Hourly compensation increased at a 3.1 percent annual rate during the fourth quarter of 1987, compared with a 3.8 percent gain during the third 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 3.9 percent annual rate during the fourth quarter, compared with a 0.9 percent decrease during the third quarter. The fourth-quarter increase was the largest quarterly gain in 2 years (a 6.2 percent increase was recorded in the fourth quarter of 1985).

Real hourly compensation, which takes into account the increase in the Consumer Price Index for All Urban Consumers (CPI-U), declined 0.5 percent in the fourth quarter, its fourth consecutive drop.

The implicit price deflator for the business sector, which reflects changes in unit labor costs and unit nonlabor payments, increased 1.6 percent in the fourth quarter, the smallest rise in 1987.

Nonfarm business

Productivity declined in the nonfarm business sector, slipping 0.2 percent during the fourth quarter. Output and payroll hours grew strongly; output rose 5.1 percent and hours of all persons -- employees, proprietors, and unpaid family workers -- increased 5.3 percent (table 2). Nonfarm employment posted its biggest advance since 1984 during the October-December 1987 period, mirroring the more comprehensive business sector. During the third quarter, productivity had advanced 4.2 percent.

Hourly compensation increased 3.4 percent in the fourth quarter, compared with a 3.6 percent gain during the preceding quarter. When the increase in the CPI-U is taken into account, real hourly compensation declined 0.1 percent. Unit labor costs increased 3.7 percent in the fourth quarter. During the third quarter, these costs fell 0.6 percent in spite of more rapid gains in hourly compensation. This reflects the impact of the more rapid productivity gain in the third period.

The implicit price deflator for nonfarm business output rose 1.5 percent in the fourth quarter, compared with a 2.7 percent increase in the third period. This was the smallest quarterly gain in these prices in 1987.

Manufacturing

Overall manufacturing productivity showed little change as largely offsetting movements occurred in durables and nondurables. Strong gains occurred in both all-manufacturing output and payroll hours. Output per hour (productivity) increased at a 0.1 percent seasonally-adjusted annual rate in the final quarter of 1987, compared with a 3.7-percent increase during the third quarter. Output rose 7.0 percent in the fourth quarter and hours of all persons increased 6.9 percent. Although the productivity gain was the smallest since 1981 (when a 4.1 percent decline occurred in the fourth quarter), the increase in hours was the largest quarterly gain since 1984. During the third quarter of 1987, output rose 7.6 percent and hours increased 3.8 percent (table 3).

Productivity grew in durables while declining more rapidly in nondurables, but output and hours increased in both subsectors (nearly half again as many jobs produce durable as nondurable goods). Output grew much more rapidly among durable goods industries (tables 4, 5).

Hourly compensation of all manufacturing workers increased 2.1 percent during the fourth quarter. When the increase in consumer prices is taken into account, real hourly compensation declined 1.4 percent, the sixth consecutive quarter in which this series declined or failed to rise. Unit labor costs increased at a 2.0 percent annual rate, compared with a 2.3 percent decrease during the third quarter of 1987. This was the only quarter during which manufacturing unit labor costs rose this year.

ANNUAL CHANGES, 1986-1987

Business

Business productivity for 1987 was 0.9 percent higher than in 1986, as output advanced 3.4 percent and hours of all persons rose 2.4 percent (table B). Employment grew 2.5 percent (about 2.2 million jobs) during 1987, a cumulative increase of 13.6 percent (10.8 million jobs) since the recession-low of 1982. During 1986, productivity rose 1.9 percent. Hourly compensation increased 2.9 percent in 1987, compared with a 3.9 percent gain during 1986. The increase in 1987 was the smallest since 1955 (when a 2.5 percent increase was recorded). Unit labor costs increased a modest 2.0 percent during both 1987 and 1986.

Table B. Productivity and costs: 1987 annual measures.

Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
Percent change in annual averages, 1986 - 1987						
Business	0.9	3.4	2.4	2.9	-0.7	2.0
Nonfarm business	0.8	3.4	2.6	2.8	-0.8	2.0
Manufacturing	3.3	4.3	1.0	1.3	-2.2	-1.9
Durable	3.9	4.1	0.2	1.1	-2.5	-2.7
Nondurable	2.5	4.6	2.0	2.0	-1.6	-0.5

Real hourly compensation declined 0.7 percent in 1987, compared with a 2.0 percent rise in 1986. This was the first drop since 1984 (when it fell 0.2 percent). The implicit price deflator for the business sector increased 2.5 percent in 1987, up from the 2.1 percent gain of 1986.

Annual changes in productivity and related measures for the 1978-1987 decade are shown in table C. These values were computed by comparing annual average values for adjacent years. The preliminary indexes for 1987 are compared with currently-available measures for 1986.

Nonfarm business

Productivity increased 0.8 percent in the nonfarm business sector during 1987. Output rose 3.4 percent and hours of all persons increased 2.6 percent (table 2). Employment rose 2.6 percent (2.2 million jobs) in 1987, a cumulative increase of 14.6 percent (11.2 million jobs) over the recession-low of 1982.

Hourly compensation increased a modest 2.8 percent in 1987, the smallest rise in this series, which begins with data for 1947. Real hourly compensation fell 0.8 percent, the first drop in the annual measure since 1984 (when it declined 0.2 percent). There has been almost no change in real hourly compensation in a decade.

Unit labor costs increased 2.0 percent in 1987 and 2.2 percent in 1986. The implicit price deflator for the nonfarm business sector rose 2.4 percent in 1987, compared with a 2.3 percent rise in 1986.

Manufacturing

Productivity increased 3.3 percent in manufacturing in 1987, compared with a 3.7 percent increase during 1986. Productivity gains in manufacturing have been substantially larger recently than in the more comprehensive business sector (of which it is a part, accounting for about one-quarter of business hours).

Table C. Annual changes in productivity and related measures, 1978-1987.

Measure	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Business:										
Productivity.....	0.8	-1.2	-0.3	1.4	-0.4	2.7	2.5	1.8	1.9	0.9
Output.....	5.8	2.0	-1.1	2.1	-3.1	4.2	8.4	4.0	3.3	3.4
Hours.....	4.9	3.2	-0.8	0.7	-2.8	1.5	5.7	2.1	1.4	2.4
Hourly compensation..	8.5	9.7	10.5	9.2	7.8	4.2	4.1	4.7	3.9	2.9
Real hourly comp.....	0.8	-1.4	-2.7	-1.0	1.6	1.0	-0.2	1.1	2.0	-0.7
Unit labor costs.....	7.6	11.1	10.9	7.7	8.3	1.4	1.5	2.8	2.0	2.0
Implicit price def...	7.3	9.0	9.0	9.6	5.9	3.3	3.3	2.7	2.1	2.5
Nonfarm business:										
Productivity.....	0.8	-1.6	-0.4	1.0	-0.6	3.3	2.1	1.2	1.6	0.8
Output.....	6.0	1.9	-1.2	1.7	-3.3	5.0	8.3	3.6	3.2	3.4
Hours.....	5.1	3.5	-0.7	0.7	-2.7	1.6	6.0	2.5	1.6	2.6
Hourly compensation..	8.6	9.5	10.5	9.4	7.8	4.3	3.9	4.4	3.9	2.8
Real hourly comp.....	0.9	-1.6	-2.7	-0.9	1.5	1.1	-0.3	0.8	1.9	-0.8
Unit labor costs.....	7.7	11.2	11.0	8.3	8.4	1.0	1.8	3.2	2.2	2.0
Implicit price def...	7.0	8.9	9.7	9.7	6.3	3.5	3.0	3.2	2.3	2.4
Manufacturing:										
Productivity.....	1.5	-0.1	0.0	2.2	2.2	5.8	5.5	5.1	3.7	3.3
Output.....	6.0	2.0	-4.5	1.6	-6.1	6.4	12.2	4.3	2.8	4.3
Hours.....	4.4	2.1	-4.5	-0.6	-8.1	0.6	6.4	-0.8	-0.9	1.0
Hourly compensation..	8.2	9.7	11.6	9.6	8.5	3.1	3.4	5.3	3.3	1.3
Real hourly comp.....	0.5	-1.4	-1.7	-0.7	2.2	-0.1	-0.8	1.6	1.3	-2.2
Unit labor costs.....	6.6	9.7	11.7	7.3	6.2	-2.5	-1.9	0.2	-0.4	-1.9
Implicit price def...	5.2	6.2	8.4	8.9	5.1	1.1	0.7	-0.7	0.4	n.a.

n.a. - Not available.

Output rose 4.3 percent and hours of all persons increased 1.0 percent (table 3). Employment grew 0.5 percent (101,000 jobs) in 1987. Since 1982, manufacturing employment has grown 1.6 percent cumulatively (312,000 jobs). Productivity grew in both durables and nondurables in 1987, but hours increased mainly in nondurables. Output grew more rapidly in non-durable goods industries (tables 4, 5).

Hourly compensation of all manufacturing sector workers increased 1.3 percent during 1987, the smallest gain ever recorded in this series, which begins with data for 1947. When the increase in consumer prices is taken into account, real hourly compensation fell 2.2 percent, the largest annual drop experienced. There has been little change in manufacturing real hourly compensation in about a decade. Unit labor costs fell 1.9 percent in 1987, compared with a 0.4 percent drop during 1986.

REVISED THIRD QUARTER 1987 MEASURES

The Bureau of Labor Statistics also reported revised measures for the third quarter of 1987 for nonfinancial corporations (table D). Productivity increased more rapidly in the third quarter than had been reported on December 3, 1987, based on information then available.

Previous and revised productivity and cost measures for the third quarter are compared in table E for the business and manufacturing sectors. The changes mainly reflect upward revisions in the underlying output measures since December.

Table D. Previously published and revised measures for nonfinancial corporations, third quarter 1987.
Percent change from previous quarter
(Seasonally-adjusted annual rates)

Item	Produc- tivity	Output	Hours	Real		Unit labor costs	Unit nonlabor costs	Unit profits
				Hourly compen- sation	hourly compen- sation			
Previous	2.6	5.5	2.8	3.0	-0.8	0.4	1.2	25.0
Revised	3.3	6.4	3.0	2.9	-0.9	-0.4	1.5	30.7

Table E. Previously published and revised productivity and related measures, third quarter 1987.
Percent change from previous quarter
(Seasonally-adjusted annual rates)

Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
Business:						
Previous	4.0	5.4	1.4	4.0	0.2	0.1
Revised	4.7	6.3	1.5	3.8	-0.1	-0.9
Nonfarm business:						
Previous	3.6	5.5	1.8	3.8	-0.1	0.2
Revised	4.2	6.3	2.0	3.6	-0.3	-0.6
Manufacturing:						
Previous	3.8	7.4	3.5	1.4	-2.3	-2.3
Revised	3.7	7.6	3.8	1.3	-2.5	-2.3

NEXT RELEASE DATE

The next issue of Productivity and Costs is scheduled for release at 10:00 AM EST, Thursday, March 3, 1988, and will contain measures for nonfinancial corporations, business, nonfarm business, and manufacturing.

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

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 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 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 1977=100									
1986	I	109.5	127.3	116.3	180.7	100.1	165.0	163.1	164.3
	II	109.7	127.5	116.3	182.2	101.3	166.2	163.9	165.4
	III	109.6	128.1	116.9	183.6	101.4	167.5	165.7	166.9
	IV	109.6	129.0	117.8	185.2	101.6	169.0	162.4	166.7
	ANNUAL	109.5	128.0	116.9	182.8	101.0	166.9	163.8	165.8
1987	I	109.7	130.2	118.7	185.8	100.7	169.4	166.0	168.2
	II	110.1	131.1	119.1	187.3	100.3	170.2	168.6	169.6
	III	r111.3	r133.1	r119.6	r189.1	100.3	r169.8	r172.2	r170.7
	IV	111.1	134.7	121.2	190.5	100.2	171.4	171.2	171.3
	ANNUAL	110.5	132.3	119.7	188.2	100.3	170.2	169.5	170.0
Percent change from previous quarter at annual rate(5)									
1986	I	5.8	6.4	0.5	3.2	1.6	-2.5	7.5	0.9
	II	0.6	0.7	0.1	3.5	4.8	2.8	2.1	2.6
	III	-0.3	1.8	2.1	3.0	0.5	3.3	4.5	3.7
	IV	-0.1	3.0	3.1	3.6	0.9	3.7	-7.7	-0.5
	ANNUAL	1.9	3.3	1.4	3.9	2.0	2.0	2.2	2.1
1987	I	0.5	3.5	3.0	1.4	-3.7	0.9	9.0	3.7
	II	1.4	3.0	1.6	3.3	-1.6	1.8	6.4	3.4
	III	r4.7	r6.3	r1.5	r3.8	r-0.1	r-0.9	r8.8	r2.5
	IV	-0.7	4.8	5.6	3.1	-0.5	3.9	-2.3	1.6
	ANNUAL	0.9	3.4	2.4	2.9	-0.7	2.0	3.5	2.5
Percent change from corresponding quarter of previous year									
1986	I	2.8	4.2	1.3	4.8	1.7	1.9	2.8	2.2
	II	2.3	3.4	1.1	4.4	2.7	2.1	2.2	2.1
	III	1.3	2.7	1.5	3.7	2.0	2.4	2.4	2.4
	IV	1.5	2.9	1.4	3.3	1.9	1.8	1.4	1.7
	ANNUAL	1.9	3.3	1.4	3.9	2.0	2.0	2.2	2.1
1987	I	0.2	2.3	2.1	2.8	0.6	2.7	1.8	2.3
	II	0.4	2.8	2.5	2.8	-1.0	2.4	2.8	2.6
	III	r1.6	r3.9	2.3	r3.0	-1.1	r1.4	r3.9	r2.3
	IV	1.4	4.4	2.9	2.9	-1.5	1.4	5.4	2.8
	ANNUAL	0.9	3.4	2.4	2.9	-0.7	2.0	3.5	2.5

See footnotes following table 6.

r=revised

February 4, 1988

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								
1986 I	107.7	126.9	117.9	180.0	99.7	167.2	164.7	166.4
II	107.7	127.1	118.0	181.3	100.8	168.4	165.2	167.3
III	107.5	127.6	118.7	182.6	100.9	169.8	167.0	168.8
IV	107.5	128.5	119.6	184.4	101.2	171.5	163.9	168.8
ANNUAL	107.5	127.5	118.6	182.0	100.6	169.3	165.2	167.8
1987 I	107.6	129.7	120.6	184.9	100.2	171.8	167.4	170.3
II	108.0	130.7	121.1	186.3	99.7	172.5	169.2	171.4
III	r109.1	r132.7	r121.7	r187.9	r99.6	r172.2	r173.0	172.5
IV	109.0	134.4	123.2	189.5	99.6	173.8	171.9	173.1
ANNUAL	108.4	131.9	121.6	187.1	99.8	172.6	170.4	171.8
Percent change from previous quarter at annual rate(5)								
1986 I	6.6	6.4	-0.2	3.9	2.3	-2.6	10.0	1.6
II	0.1	0.6	0.6	2.9	4.2	2.8	1.3	2.3
III	-0.6	1.7	2.3	2.8	0.4	3.5	4.2	3.7
IV	0.0	2.9	2.9	4.0	1.3	4.0	-7.2	0.0
ANNUAL	1.6	3.2	1.6	3.9	1.9	2.2	2.4	2.3
1987 I	0.4	3.8	3.4	1.1	-3.9	0.8	8.8	3.4
II	1.4	3.2	1.7	3.0	-1.8	1.5	4.6	2.6
III	r4.2	r6.3	r2.0	r3.6	r-0.3	r-0.6	r9.3	r2.7
IV	-0.2	5.1	5.3	3.4	-0.1	3.7	-2.5	1.5
ANNUAL	0.8	3.4	2.6	2.8	-0.8	2.0	3.2	2.4
Percent change from corresponding quarter of previous year								
1986 I	2.3	4.0	1.7	4.5	1.4	2.2	3.2	2.6
II	1.9	3.3	1.4	4.1	2.5	2.2	2.3	2.3
III	1.1	2.6	1.6	3.6	1.9	2.5	2.2	2.4
IV	1.5	2.9	1.4	3.4	2.0	1.9	1.9	1.9
ANNUAL	1.6	3.2	1.6	3.9	1.9	2.2	2.4	2.3
1987 I	-0.1	2.2	2.3	2.7	0.5	2.8	1.6	2.4
II	0.3	2.9	2.6	2.7	-1.0	2.4	2.4	2.4
III	r1.5	r4.0	2.5	r2.9	-1.2	r1.4	r3.6	r2.2
IV	1.4	4.6	3.1	2.8	-1.6	1.3	4.9	2.5
ANNUAL	0.8	3.4	2.6	2.8	-0.8	2.0	3.2	2.4

See footnotes following table 6.

r=revised

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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							
1986	I	127.6	125.2	98.1	181.0	100.3	141.5
	II	128.4	125.3	97.5	182.1	101.2	141.8
	III	129.3	126.0	97.5	183.1	101.2	141.7
	IV	129.8	127.1	97.9	184.3	101.2	142.0
	ANNUAL	128.8	125.9	97.8	182.7	100.9	141.8
1987	I	130.8	128.4	98.1	183.9	99.6	140.5
	II	132.9	129.9	97.7	184.8	98.9	139.0
	III	134.1	r132.3	r98.7	185.4	98.3	138.2
	IV	134.1	134.5	100.3	186.3	97.9	138.9
	ANNUAL	133.0	131.3	98.7	185.1	98.7	139.1
Percent change from previous quarter at annual rate(5)							
1986	I	4.8	3.5	-1.3	1.8	0.2	-2.8
	II	2.6	0.2	-2.3	2.5	3.8	-0.1
	III	2.7	2.3	-0.4	2.2	-0.2	-0.5
	IV	1.7	3.7	2.0	2.7	0.0	0.9
	ANNUAL	3.7	2.8	-0.9	3.3	1.3	-0.4
1987	I	3.2	4.0	0.8	-1.0	-6.0	-4.1
	II	6.4	4.7	-1.6	2.0	-2.8	-4.2
	III	r3.7	r7.6	r3.8	r1.3	r-2.5	-2.3
	IV	0.1	7.0	6.9	2.1	-1.4	2.0
	ANNUAL	3.3	4.3	1.0	1.3	-2.2	-1.9
Percent change from corresponding quarter of previous year							
1986	I	5.2	3.8	-1.3	4.4	1.3	-0.7
	II	3.5	2.5	-0.9	3.4	1.8	-0.1
	III	3.2	2.3	-0.9	2.9	1.2	-0.3
	IV	2.9	2.4	-0.5	2.3	0.9	-0.6
	ANNUAL	3.7	2.8	-0.9	3.3	1.3	-0.4
1987	I	2.5	2.5	0.0	1.6	-0.7	-1.0
	II	3.5	3.7	0.2	1.5	-2.3	-2.0
	III	r3.7	r5.0	r1.2	r1.2	-2.8	-2.4
	IV	3.3	5.8	2.4	1.1	-3.2	-2.2
	ANNUAL	3.3	4.3	1.0	1.3	-2.2	-1.9

See footnotes following table 6.

r=revised

February 4, 1988

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							
1986	I	135.3	133.6	98.8	179.9	99.7	133.0
	II	136.0	133.2	98.0	180.8	100.5	132.9
	III	137.5	134.1	97.5	181.6	100.3	132.1
	IV	138.4	135.3	97.8	183.1	100.5	132.3
	ANNUAL	136.8	134.1	98.0	181.4	100.2	132.6
1987	I	139.9	136.9	97.8	182.2	98.7	130.2
	II	141.7	137.8	97.2	182.9	97.9	129.1
	III	r143.0	140.1	98.0	183.4	97.3	128.3
	IV	143.7	143.5	99.9	184.4	96.9	128.4
	ANNUAL	142.1	139.6	98.2	183.3	97.7	129.0
Percent change from previous quarter at annual rate(5)							
1986	I	6.7	4.1	-2.4	1.2	-0.4	-5.2
	II	2.1	-1.1	-3.2	1.9	3.3	-0.2
	III	4.4	2.7	-1.7	1.7	-0.7	-2.6
	IV	2.6	3.8	1.1	3.4	0.7	0.8
	ANNUAL	5.2	3.2	-1.8	3.4	1.4	-1.7
1987	I	4.5	4.5	0.0	-1.9	-6.8	-6.1
	II	5.3	2.8	-2.4	1.6	-3.1	-3.5
	III	r3.6	r7.0	r3.3	1.1	-2.7	-2.4
	IV	2.0	9.8	7.7	2.2	-1.4	0.2
	ANNUAL	3.9	4.1	0.2	1.1	-2.5	-2.7
Percent change from corresponding quarter of previous year							
1986	I	7.3	5.2	-2.0	4.9	1.8	-2.2
	II	4.9	3.0	-1.8	3.6	2.0	-1.2
	III	4.5	2.5	-1.9	2.8	1.1	-1.6
	IV	4.0	2.4	-1.5	2.1	0.7	-1.8
	ANNUAL	5.2	3.2	-1.8	3.4	1.4	-1.7
1987	I	3.4	2.4	-0.9	1.3	-0.9	-2.1
	II	4.2	3.4	-0.7	1.2	-2.5	-2.9
	III	4.0	r4.5	r0.5	1.0	-3.0	-2.8
	IV	3.8	6.0	2.1	0.7	-3.5	-3.0
	ANNUAL	3.9	4.1	0.2	1.1	-2.5	-2.7

See footnotes following table 6.

r=revised

February 4, 1988

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 1977=100.							
1986	I	116.0	112.7	97.2	182.7	101.2	157.5
	II	117.0	113.4	96.9	184.3	102.4	157.5
	III	117.0	113.9	97.3	185.8	102.7	158.8
	IV	117.1	114.9	98.1	186.5	102.4	159.3
	ANNUAL	116.8	113.7	97.4	184.8	102.1	158.3
1987	I	117.4	115.8	98.6	186.9	101.2	159.1
	II	119.9	118.1	98.5	188.2	100.7	156.9
	III	r121.1	r120.6	r99.6	r189.0	r100.2	156.1
	IV	120.0	121.2	101.0	189.8	99.8	158.1
	ANNUAL	119.6	118.9	99.4	188.5	100.5	157.5
Percent change from previous quarter at annual rate(5)							
1986	I	1.8	2.3	0.5	3.2	1.6	1.4
	II	3.6	2.5	-1.0	3.6	5.0	0.0
	III	0.1	1.7	1.6	3.4	0.9	3.3
	IV	0.4	3.6	3.3	1.5	-1.1	1.2
	ANNUAL	1.5	1.9	0.5	3.3	1.3	1.8
1987	I	1.1	3.1	1.9	0.7	-4.4	-0.5
	II	8.7	8.2	-0.5	2.8	-2.0	-5.4
	III	r3.9	r8.8	r4.7	r1.7	r-2.0	-2.1
	IV	-3.4	2.1	5.7	1.8	-1.7	5.3
	ANNUAL	2.5	4.6	2.0	2.0	-1.6	-0.5
Percent change from corresponding quarter of previous year							
1986	I	1.8	1.6	-0.2	3.7	0.6	1.9
	II	1.3	1.7	0.4	3.2	1.6	1.8
	III	1.3	1.8	0.6	3.3	1.6	2.0
	IV	1.4	2.5	1.1	2.9	1.6	1.5
	ANNUAL	1.5	1.9	0.5	3.3	1.3	1.8
1987	I	1.3	2.7	1.4	2.3	0.1	1.0
	II	2.5	4.1	1.6	2.1	-1.6	-0.4
	III	r3.5	r5.9	r2.3	r1.7	r-2.4	-1.7
	IV	2.5	5.5	2.9	1.8	-2.5	-0.7
	ANNUAL	2.5	4.6	2.0	2.0	-1.6	-0.5

See footnotes following table 6.
r=revised

February 4, 1988
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										
1986 I	109.8	129.1	117.6	177.2	98.2	161.5	180.7	166.3	129.7	161.9
II	109.7	128.8	117.4	178.4	99.1	162.6	180.6	167.2	129.5	162.7
III	109.9	129.3	117.6	179.5	99.2	163.2	184.2	168.5	130.6	164.0
IV	110.5	130.4	118.0	181.0	99.3	163.8	183.2	168.7	127.7	163.8
ANNUAL	109.9	129.4	117.7	178.9	98.9	162.8	182.2	167.7	129.3	163.1
1987 I	109.7	130.9	119.3	180.8	98.0	164.8	184.1	169.7	132.2	165.2
II	109.9	131.6	119.8	182.0	97.4	165.6	186.6	170.9	132.9	166.3
III	r110.8	r133.7	120.6	r183.3	97.2	r165.5	r187.3	r171.0	r142.1	167.5
Percent change from previous quarter at annual rate(5)										
1986 I	3.3	4.4	1.0	3.5	1.8	0.1	3.0	0.9	3.0	1.1
II	-0.2	-0.9	-0.6	2.6	4.0	2.9	-0.2	2.0	-0.5	1.8
III	0.9	1.6	0.7	2.5	0.0	1.5	8.2	3.3	3.3	3.3
IV	2.1	3.4	1.3	3.5	0.8	1.3	-2.3	0.3	-8.5	-0.5
ANNUAL	1.6	2.6	1.0	3.5	1.6	1.9	2.2	2.0	-3.4	1.5
1987 I	-2.9	1.5	4.6	-0.5	-5.5	2.5	2.2	2.4	14.7	3.5
II	0.7	2.2	1.6	2.6	-2.2	2.0	5.4	2.9	2.1	2.8
III	r3.3	r6.4	r3.0	r2.9	r-0.9	r-0.4	r1.5	r0.1	r30.7	2.8
Percent change from corresponding quarter of previous year										
1986 I	2.6	4.1	1.4	4.3	1.2	1.6	1.8	1.7	-1.7	1.3
II	1.8	2.7	0.8	3.9	2.2	2.0	1.0	1.7	-2.1	1.4
III	0.7	1.5	0.8	3.3	1.6	2.6	3.8	2.9	-8.4	1.7
IV	1.5	2.1	0.6	3.0	1.6	1.5	2.1	1.6	-0.8	1.4
ANNUAL	1.6	2.6	1.0	3.5	1.6	1.9	2.2	2.0	-3.4	1.5
1987 I	0.0	1.4	1.5	2.0	-0.2	2.1	1.9	2.0	1.9	2.0
II	0.2	2.2	2.0	2.0	-1.7	1.8	3.3	2.2	2.6	2.3
III	r0.8	r3.4	2.6	r2.1	r-2.0	r1.3	r1.7	r1.4	r8.8	2.1

See footnotes following table 6.
r=revised

February 4, 1988
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 -2.0 and +2.0 index points. This interval is based on the performance of this measure between the first quarter of 1976 and the second quarter of 1987.

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.