

United States Department of Labor



Bureau of Labor Statistics

Washington, D.C. 20212

Historical, technical information: (202) 523-9261 Current data : (202) 523-1221 or 1208 Media contact: (202) 523-1913 USDL 88-381 For Release 10:00 AM EDT Thursday, August 4, 1988

PRODUCTIVITY AND COSTS Second Quarter 1988

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 1988. The seasonally-adjusted annual rates of productivity change in the second quarter were:

-2.2 percent in the business sector,
-1.7 percent in the nonfarm business sector,
3.5 percent in manufacturing,
3.8 percent in durable goods manufacturing, and
2.6 percent in nondurable goods manufacturing.

The productivity declines in the business and nonfarm business sectors were the first since 1986. Although output continued to advance, even faster increases in hours of all persons engaged in these sectors were reflected in productivity declines. On the other hand, although manufacturing output was also up strongly, hours expanded relatively little, and productivity advanced. Second-quarter measures are summarized in table A and appear in detail in tables 1 through 5.

Business

Productivity declined at a 2.2 percent annual rate during the second quarter of 1988 in the business sector, as output rose 3.5 percent and hours of all persons engaged in the sector increased 5.9 percent (seasonally adjusted annual rates). This was the first decline in business productivity since 1986 (appendix table 1). During the first quarter of 1988, productivity had increased 3.5 percent (table 1). Although productivity declined in the April-June period, hours increases were the largest since the first quarter of 1984. In the second quarter of 1988, employment rose 4.8 percent and average weekly hours increased 1.1 percent.

Hourly compensation increased at a 4.7 percent annual rate during the second quarter of 1988, compared with a 3.7 percent gain during the previous quarter. This measure includes wages and salaries, supplements, employer

Sector	Produc- tivity	Output	Hours	Hourly compen . sation	Real hourly compen- sation	Unit labor costs
	Percent	change from	m preceding	quarter		
Business	-2.2	3.5	5.9	4.7	-0.1	7.0
Nonfarm business	-1.7	4.7	6.5	4.1	-0.6	5.9
Manufacturing	3.5	5.4	1.8	2.9	-1.8	-0.6
Durable	3.8	7.4	3.5	1.4	-3.2	-2.3
Nondurable	2.6	2.1	-0.5	5.2	0.4	2.5
Pe	ercent cha	ange from s	ame quarter	a year ag	30	
Business	1.4	5.3	3.9	4.8	0.8	3.3
Nonfarm business	1.6	5.7	4.1	4.6	0.7	3.0
Manufacturing	2.8	6.3	3.4	3.1	-0.7	0.3
Durable	3.3	7.2	3.8	3.1	-0.8	-0.2
Nondurable	1.9	4.8	2.9	3.2	-0.7	1.3

Table A. Productivity and costs: Preliminary second quarter 1988 measures (Seasonally adjusted annual rates)

contributions to employee-benefit plans, and taxes. Unit labor costs, which reflect changes in hourly compensation and productivity, increased at a 7.0 percent annual rate during the second quarter, compared with a 0.2 percent increase during the first quarter. The second-quarter increase was the largest since 1982 (when a 7.2 percent jump occurred in the third quarter).

Real hourly compensation, which takes into account changes in the Consumer Price Index for All Urban Consumers (CPI-U), declined at a 0.1 percent annual rate during the second quarter. During the first quarter, this measure had increased at a 0.3 percent annual rate.

The implicit price deflator for business output, which reflects changes in unit labor costs and unit nonlabor payments, increased 3.9 percent in the second quarter, compared with a 1.0 percent rise in the first quarter.

Nonfarm business

Productivity declined 1.7 percent in the nonfarm business sector during the second quarter of 1988, as output rose 4.7 percent and hours of all persons-employees, proprietors, and unpaid family workers-increased 6.5 percent. This was the first productivity decline since 1986 (appendix table 2), and the largest gain in hours since 1984, when they rose 7.7 percent during the first quarter. During the first quarter of 1988, productivity had increased 3.4 percent in this sector (table 2). As in the more comprehensive business sector, growth in output slowed and hours growth accelerated in the second quarter. Hourly compensation increased 4.1 percent in the second quarter, but fell 0.6 percent when the increase in the CPI-U was taken into account. During the first quarter the comparable changes were 3.5 percent and 0.1 percent, respectively. Unit labor costs increased 5.9 percent, compared with a 0.1 percent rise during the first quarter of 1988. The increase in these costs was the largest since 1986 (when they rose 6.1 percent in the fourth quarter).

The implicit price deflator for nonfarm business output rose 3.8 percent in the second quarter, compared with a 0.6 percent increase one quarter earlier.

Manufacturing

Productivity increased at a 3.5 percent seasonally adjusted annual rate in manufacturing in the second quarter of 1988, as output increased 5.4 percent and hours of all persons increased 1.8 percent. Productivity, output, and hours all grew faster in the second quarter of 1988 than in the first (table 3).

Hourly compensation of manufacturing workers increased 2.9 percent during the second quarter, compared with a 5.4 percent increase during the first quarter. Real hourly compensation declined 1.8 percent in the second quarter when the increase in consumer prices was taken into account. During the first quarter, this measure rose at a 2.0 percent annual rate. Only one increase has occurred in manufacturing real hourly compensation in the past 6 quarters. Unit labor costs were down at a 0.6 percent annual rate in the second quarter, compared with a 2.2 percent increase during the first quarter of 1988.

Both durable and nondurable goods industries experienced productivity increases in the second quarter, but growth was faster among durable goods producers (tables 4 and 5). Hours of all persons engaged in manufacturing declined in nondurable goods production.

Revised measures

The productivity and cost measures contained in this news release for business, nonfarm business, manufacturing, and nonfinancial corporations are based on the latest measures of output and hours available.

Revised quarterly and annual output and compensation measures prepared by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce are reflected in the productivity and cost measures for business, nonfarm business, and nonfinancial corporations. These new values were published by BEA on July 27 as part of the regular revision cycle of the national income and product accounts and affect the last 3 years. For manufacturing, revised quarterly changes in output and related measures were computed by BLS to take into account the new annual output levels from BEA for 1985-1987. See appendi: tables 1-6. In addition, recent information on employment and average weekly hours of all persons engaged in these sectors is also incorporated in productivity and cost measures at this time. Historical tables are available on request from the Bureau of Labor Statistics, Office of Productivity and Technology, Washington, D.C. 20212; (202) 523-9261.

Productivity and cost measures on diskettes formatted for use on IBMcompatible microcomputers using LOTUS 1-2-3 are also available for \$35. For ordering information, contact BLS Data Diskettes, 441 G Street NW, Room 2127, Washington, D.C. 20212; (202) 523-1090.

Next release date

The next release of productivity and cost measures is scheduled for 10:00 AM EDT, Thursday, September 1, 1988. Preliminary second-quarter measures for nonfinancial corporations will be released at that time.

TECHNICAL NOTES

Business sector output is equal to gross national product in constant 1982 dollars, less the rest-of-the-world sector, general government, output of 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 accounted for 80 percent of gross national product in 1987. The nonfarm business sector, which also excludes farming, accounted for about 78 percent of gross national product in 1987.

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

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

Manufacturing output accounted for about 22 percent of gross national product in 1987.

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 cutput of corporations engaged in banking, finance, stock and commodity trading, and credit and insurance agencies, and the statistical discrepancy in computing the national income accounts. Nonfinancial corporate output accounted for about 59 percent of gross national product in 1987.

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 Quiganization of production; mangerial skill; and the characteristics and effort of the work force.

	Year and quarter	Output per hour of all persons	Output	Hours of all persons	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unit labor cost	Unit non- labor pay- ments(3)	Implicit price deflator(4)
	*********			Indexe	es 1977=100	************			
1987	I	r109.9	r130.5	r118.8	r187.3	r101.5	r170.5	r165.6	r168.7
	11	r110.6	r132.2	r119.5	r189.0	r101.2	r170.8	r168.7	r170.1
	111	rl11.7	r134.3	r120.3	r191.1	r101.4	r171.1	r 171.5	r171.2
	IV	r111.8	r136.2	r121.8	r194.0	₹102 . 0	r173.5	r168.9	r171.9
	ANNUAL	r111.0	r133.3	r120.1	r190.4	r101.5	r171.5	r168.7	r170.5
1988	I	r112.8	r138.0	r122.3	r195.8	r102.1	r173.5	r170.0	.r172.3
	11	112.2	139.2	124.1	198.0	102.0	176.5	169.2	173.9
			Perce	nt change fro	m previous qua	rter at annual i	rate(5)		
1987	Í	r0.3	r3.7	r3.4	r2.5	r-2.8	r2.2	r4.6	r3.0
	II	r2.7	r5.3	r2.5	r3.6	r-1.2	r0.8	r7.9	r3.2
	111	r3.9	r6.6	r2.6	r4.6	r0.8	r0.7	r6.7	r2.8
	IV	r0.6	r5.7	. r5. 1	r6.2	r2.4	r5.6	r-5.8	r1.4
	ANNUAL	r0.8	r3.6	r2.8	r4.0	r0. 3	r3.1	r2.3	r2.8
1988	I	r3.5	5.5	r1.9	r3.7	r0.3	r0.2	r2.5	r1.0
	11	-2.2	3.5	5.9	4.7	-0.1	7.0	-1.8	3.9
			Percent	change from c	orresponding q	uarter of previo	us year		
1987	ľ	r-0.6	r1.6	r2.2	r3.8	r1.5	r4.4	r0.7	r3. 1
	11	r0.2	r3.1	r2.9	r3.8	r0.0	r3.6	r2.1	r3.1
	III	r1.5	r4.5	r3.0	r3.9	r-0.3	r2.3	r2.9	r2. 5
	ĽV	rl.9	r5.3	r3.4	r4.2	r-0.2	r2.3	r3.2	r2.6
	ANNUAL	r0.8	r3.6	r2.8	r 4.0	r0.3	r3.1	r2.3	τ2.8
1988	I	r2.7	r5.8	r3.0	r4.5	r0+5	r1.8	r2.7	r2.1
	II	1.4	5.3	3.9	4.8	0.8	3.3	0.3	2.3

Table 1. Business sector: Productivity, hourly compensation, unit labor cost, and prices, seasonally adjusted

See footnotes following table 6.

r=revised

	Year and quarter	Output per hour of all persons	Output	Hours of all persons	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unit labor cost	Unit non- labor pay- ments(3)	Implicit price deflator(4)
				Indexe	s 1977=100	**************************************			**********
1987	I	r107.8	r130.1	r120.7	r186.4	r101.0	r172.9	r167.2	r170.9
	11	r108.6	r131.9	r121.5	r187.9	r100.6	r173.0	r169.8	r171.9
	111	r109.6	r134.1	r122.3	r190.0	r100.8	r173.3	173.0	r173.2
	IV	r109.9	r136.0	r123.8	r192.9	r101.4	r175.6	r170.9	r174.0
	ANNUAL	r109 .0	r133.0	r122.1	r189.4	r101.0	r173.8	r170.2	r172.5
1988	I	r110.8	r137.9	r124.4	r194.6	r101.5	r175.7	r171.6	r174.2
	II	110.3	139.5	126.4	196.6	101.3	178.2	171.4	175.8
		,	Perce	nt change fro	m previous qua	rter at annual i	ate(5)		8
1987	I	r0.0	r4.0	r4.0	r2.1	r-3.2	r2.1	r5.7	r3.3
	11	r3.2	r5.7	r2.5	r3.4	r-1.4	r0.2	r6.5	r2.3
	111	r3.7	r6.8	r2.9	r4.5	r0.6	r0.7	r7.7	r3.1
	IV	r0.9	r5.9	r4.9	r6.4 .	r2.6	r5.4	r-4.8	r1.8
	ANNUAL	0.8	r3.8	r3.0	r3.8	r0.2	r3.1	r2.3	r2.8
1988	I	r3.4	r5.6	r2.1	r3.5	r0.1	r0.1	r1.6	r0.6
	11	-1.7	4.7	6.5	4.1	-0.6	5.9	-0.3	3.8
			Percent (change from c	orresponding q	uarter of previo	us year		
1987	I	r-0.8	r1.6	r2.4	r3.7	r1.4	r4.5	r0.6	r3. I
	11	г0.2	r3.2	r3.0	r3.7	r-0.1	r3.5	r1.9	r3.0
	111	1.5	r4.7	r3.2	r3.7	r-0.4	r2. 2	r2.9	r2.5
	IV	r1.9	r5.6	r3.6	r4.1	r-0.4	r2.1	r3.6	r2.6
	ANNUAL	0.8	r3.8	r3. 0	r3.8	r0.2	r3.1	r2.3	r2.8
1988	ľ	r2.8	r6.0	r3.1	1 4.4	r0.5	r1.6	r2.6	1.9
	11	1.6	5.7	4.1	4.6	0.7	3.0	1.0	2.3

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

See footnotes following table 6. r=revised

		Output per hour of all persons	Output (6)	Hours of all persons	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unit labor cost
	quarter hour of all person of all person 1987 I r130.0 II r131.7 III III r132.6 IV IV r133.2 IV ANNUAL r132.6 IV 1988 I r134.2 1988 I r134.2 1987 I r35.4 III r35.4 III 1987 I r3.4 1988 I r3.4 1988 I r3.4 1988 I r3.4 1988 I r3.4 1987 I r2.1 III r3.4 III		I	ndexes 1977=1	.00		
1987	ĩ	r130.0	r127.2	r97.8	r185.9	r100.8	r143.1
-	II	rl31.7	r128.7	97.7	r186.3	r99.7	r141.4
	111	r132.8	r131.1	r98.8	r187.2	r99.3	r141.0
	IV	r133.2	r133.5	r100.2	r188.2	r99.0	r141.3
	ANNUAL	r132.0	r130.1	r98.6	r186.9	r99. 7	r141.7
1988	I	r134.3	r135.0	r100.6	r190.7	19 9.4	r142.1
	II	135.4	136.8	101.0	192.1	99.0	141.9
		Percent ch	ange from p	revious quari	ter at annual r	ate(5)	
1987	I	r3.6	r4.1	r 0.5	r1.4	r-3.8	r-2.1
	11	r5.5	r4.9	r-0.6	r0.7	r-4.0	r-4.6
	111	r3.2	r7.8	τ4.4	r2.1	r-1.7	r-1.1
	IV	r1.3	r7.5	r6.1	2.1	-1.5	r0.8
	ANNUAL	r 3.4	r4.3	r0.9	r2.1	<u>.</u> -1.5	r-1.2
1988		r3,2	r4.6	r1.3	r5.4	r2.0	r2.2
	11	3.5	5.4	1.8	2.9	-1.8	-0.6
		Percent change	fron corre	sponding qua	rter of previou	4 yeat	
1987	I	r 2.7	r2.4	r-0.3	r 2.7	r0.4	r0.0
	11	r3.6	r3.7	r0.1	r2.3	r-1.4	r-1.2
	III	r3.7	ರ್.1	r1.4	r2.0	r-2.1	r-1.7
	IV	r3.4	r6. 0	r2.6	r1.6	r-2. 7	r-1.8
	ANNUAL	r3.4	r4.3	r0.9	r 2,1	r=1.5	r-1.2
1988	I	r3.3	r6.2	r2.\$	r 2.6	r-1.3	r-0. 7
	11	2.8	6.3	3.4	3.1	-0.7	0.3

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

See footnotes following table 6. r-revised

August 4, 1988 Source: Bureau of Labor Statistics

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	Year and quarter	Output per hour of all persons	Output (6)	Hours of all persons	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unit labor cost
			1	ndexes 1977=1	100	***********	************
· •.	1987 I	r136.6	r133.3	r97.6	r184.9	r100.2	r135.3
	II	r138.1	r134.2	97.2	r184.4	r98.8	r133.5
	III	r139.1	r136.5	r98.2	r185.3	r98.3	r133.2
	IV	r140.0	r139.9	r99.9	r186.2	r97.9	r133.0
	ANNUAL	r138.5	r136.0	98.2	r185.2	r98.8	r133.7
	1988 1	r141.3	r141.3	r100.0	r189.5	r98.8	r134.1
	II	142.7	143.9	100.9	190.1	98.0	133.3
	******	Percent cl	hange from p	revious quart	er at annual r	nte(5)	
:	1987 I	r4. 7	r4.5	r-0.2	r1.3	r-3.9	r-3.2
1	11	r4.4	. r2.8	r-1.5	r-1.0	r-5.6	r-5.1
	III	r2.9	r7.0	r4.0	r2.0	r-1.7	r-0.9
	ÎV.	r2.6	r10.2	£7.3	rl.9	r-1.7	r-0.7
	ANNUAL	r3.8	r4.0	0.2	r1.8	r-1.8	r-1.9
4	1988 I	r3.8	4.3	r0.4	r7.1	r3.6	r3.2
	11	3.8	7.4	3.5	1.4	-3+2	-2.3
		Percent: change	e from corre	sponding quan	ter of previou	s year	
•	1987 I	r3.3	r2.1	" r-1.2	r2.6	r0.3	r-0.8
1	· 11	r4.1	r3.3	r-0.8	r2.0	r-1.7	r-2.0
	111	r3.8	r4.5	r0.6	r1.7	r-2.4	r-2.1
• •	IV	r3.7	r6.1	1 2.3	rl.1	r-3.2	r-2.5
	ANNUAL	r3.8	r4.0	0.2	F1.8	r-1.8	r-1.9
	1988 I	r3.4	r6.0	τ2.5	r2.5	r-1.4	· =-0.9
•	11	3.3	7.2	3.8	3.1	-0.8	-0.2
1	See footnotes r=revised	following table 6.			August (· .	Statistics

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

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	Year and quart er	Output per hour of all persons	Output (6)	Hours of all persons	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unit labor cost
			I	ndexes 1977=	100	,	
1987	I	r120.1	r118.0	r98.2	r188.0	r101.9	r156.4
• •	11	r122.4	r120.5	r98.4	r189.7	r101.6	r155.0
	III	r123.5	r123.1	1 99 . 7	r190.8	r101.2	r154.5
	۷1	r123.2	r124.0	r100.7	r191.9	r100 .9	r155.8
	ANNUAL	r122.3	r121.4	1 99.3	r190.1	r101.4	r155.4
1988	I	r123.9	r125.6	r101.4	r193.2	r100.8	r156.0
	11	124.7	126.2	101.3	195.7	100.9	157.0
		Percent ch	nange from p	revious quar	ter at annual r	ate(5)	
1987	T	r1.9	r3.4	r1.5	r1.6	r-3.6	r=0.2
	II	r7.6	r8.5	r0 .8	r3.8	r-1.0	r-3.6
	111	r3.8	r9. 0	r5.1	r2.4	r-1.4	r~1.3
	ΙŸ	r-1.1	r3.1	r4.2	r2.2	r-1.4	r3.4
	ANNUAL	r2.8	r 4.9	2.0	r2.8	r~0.8	r0.(
1988	I	£2.3	r5.1	r2.7	r2.9	r-0.5	r 0.(
	II	2.6	2.1	-0.5	5.2	0.4	2.
		Percent change	e from corre	sponding qua	rter of previou	s year	****
1 987	I	r1.8	r2.9	r1.1	r3.2	r0.9	ri .
	II	r2.9	r4.4	r1.5	r3.1	r-0.7	r0. 2
	111	r3.6	ró.2	r2.5	r2.6	r-1.5	r-1.0
	IV	r3. 0	r6.0	2.9	r2.5	r-1.9	r-0 .
	ANNUAL	r2.8	r4.9	2.0	r2.8	r-0.8	r0.
1988	ĩ	r3. 1	r6.4	r3.2	r2.8	r-1.1	r-0.3
	11	1.9	4.8	2.9	3.2	-0.7	1.3

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

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August 4, 1988 Source: Bureau of Labor Statistics

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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		Real hourly compen- sation(2)	Unit labor cost	Unit non- labor cost(7)	Total unit cost (8)	Unit pro- fits (9)	Implicit price deflator (4)
		~~ <u>~</u> ~~~~~~	. # # # # # # # # #		Indexes	1977-100	*	~~~~~			و رو رو به به به در مر ور
987	T.	r110.1	r131.3	119.3	r182.9	r99.1	r166.2	r180.8	r169.9	r128.5	r164.9
	11	r110.9	r133.3	r120.2	r184.3	r98.7	r166.1	r182.6	r170.3	r129.8	r165.4
	III	r112.2	r136.1	r121.3	r186.1	r98.7	r165.9	r183.0	r170.2	r136.4	r166.]
	IV	r112.2	r137.7	r122.8	r188.5	r99.1	r168.1	r183.6	r172.0	r128.3	r166.
	ANNUAL	r111.3	r134.6	r120.9	r185.5	r98.9	r166.6	r182.5	r170.6	r130.8	r165.8
988	I	r113.3	r140.1	r123.6	r189.9	199. 0	r167.5	r183.4	r171.5	r132.5	r166.9
		67 ~~ 20	Pe	cent cha	nge from p	revious que	rter at a	nnual rate	e(5)		
987	I	r-1.0	r2.9	r4.0	r1. 6	r-3.6	r2.6	r2. 5	r2.6	r-3.5	r2.(
	II	r3.1	r6.1	r2.9	r2.9	r-1.8	r-0.2	r4. 1	r1.0	r3.9	rl.
	111	r4.7	r8.8	r4.0	r4.1	r0.3	r-0.6	r0.8	r-0.2	r21.9	- rl.
	IV	r-0.1	r4.7	r4.8	r5.2	r1.5	r5.3	r1.3	r4.2	r-21.5	rl.
	ANNUAL	r1.5	r4,3	r2.7	r3.4	r-0.3	1.8	r2.3	r1.9	r-1.2	r 1.(
988	I	r4.3	r7.2	r2.8	r3.0	r-0.4	r-1.2	r-0.3	r-1.0	r13.8	r0.
			Percei	nt change	from corre	esponding q	warter of	previous	year		
987	I	r0.5	r2.0	1.5	r3.3	r1.0	r2.8	r2.3	r2.6	r-3.8	2.0
	II	r1.5	r3.9	г2.4	r3.2	r-0.6	r 1.7	r3.2	r2.1	r-2.2	rl.7
	111	r2.3	r5.6	r3.2	r3.3	r-0.9	r0,9	r1.5	rl.1	r2.0	ri.:
	IV	r1.6	r5.6	r3.9	r3.4	r-1.0	r1.8	r2.2	r1.9	r-1.1	rl. (
	ANNUAL	r1.5	r4.3	r2.7	r3.4	r-0.3	1.8	r2. 3	r1.9	r-1.2	rl.
988	I	r3.0	r6.7	г3.6	r3.8	r-0.1	r0.8	r1.5	r1.0	r3.1	rl.

See footnotes following table 6. r=revised

August 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 selfemployed.
- (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.

I II I I I I I I I I I I I I I I I I I	I 106.7 I 106.7 II 107.5 II 108.3 IV 108.5 IL 107.7 I 110.5 I 110.4 I 110.0 V 109.8	Output 122.4 123.7 124.8 125.9 124.2 128.4 128.2 128.5	114.7 115.0 115.3 116.1 115.3 116.2	Compensa- tfon per hour(1) es 1977=100 172.5 174.2 176.4 178.8 175.5	Real compensa- tion per hour(2) 98.5 98.4 99.1 99.4	Unit labor cost 161.6 162.0 163.0 164.8	Unit non- labor pay- ments(3) 158.7 161.1 162.1	Implicit price deflator(4) 160.6 161.7 162.6
I II I I 1986 I I I I I I I I I I I I I I I I I I I	11 107.5 11 108.3 1V 108.5 1L 107.7 1 110.5 1 110.4 1 110.0 V 109.8	123.7 124.8 125.9 124.2 128.4 128.2	114.7 115.0 115.3 116.1 115.3 116.2	172.5 174.2 176.4 178.8	98.4 99.1 99.4	162.0 163.0	161.1 162.1	161.7 162.6
I II I I I I I I I I I I I I I I I I I	11 107.5 11 108.3 1V 108.5 1L 107.7 1 110.5 1 110.4 1 110.0 V 109.8	123.7 124.8 125.9 124.2 128.4 128.2	115.0 115.3 116.1 115.3 116.2	174.2 176.4 178.8	98.4 99.1 99.4	162.0 163.0	161.1 162.1	161.7 162.6
11 1' ANNUAI 1986 1 11 111 111 111 111 111 111 111 111 1	II 108.3 IV 108.5 IL 107.7 I 110.5 I 110.4 I 110.0 V 109.8	124.8 125.9 124.2 128.4 128.2	115.3 116.1 115.3 116.2	176.4 178.8	99.1 99.4	163.0	162.1	162.6
I' ANNUAI 1986 1 II IV IV ANNUAI 1985 I I I I I I I I I I I I I I I I I I I	IOB.5 IL 107.7 I 110.5 I 110.4 I 110.0 V 109.8	125.9 124.2 128.4 128.2	116.1 115.3 116.2	178.8	99.4			
ANNUAI 1986 1 111 111 111 111 111 111 111 1985 1 11 11	L 107.7 I 110.5 I 110.4 I 110.0 V 109.8	124.2 128.4 128.2	115.3 116.2			164.8		
1986 1 11 111 17 1985 1 1985	I 110.5 I 110.4 I 110.0 V 109.8	128.4 128.2	116.2	175.5			161.6	163.7
11 111 17 1985 1 11 11	I 110.4 I 110.0 V 109.8	128.2			98.8	162.9	160.9	162.2
111 IV ANNUAI 1985 I I I I I I	I 110.0 V 109.8			180.4	100.0	163.3	164.5	163.7
IV ANNUAJ 1985 I I I I I I I	V 109.8	128.5	116.1	182.0	101.2	164.9	165.2	165.0
ANNUAI 1985 I I I I I			116.8	184.0	101.7	167.3	166.6	167.0
1985 I II I	L 110.1	129.3	117.8	186.2	102.2	169.6	163.7	167.5
		128.6	116.8	183.1	101.2	166.3	165.0	165.8
		Perce	ent change fr	om previous qua	rter at annual i	ate(5)		
	I 2.9	5.7	2.7	5.2	1.6	2.2	1.8	2.0
, I	11 3.1	4.0	0.9	4.0	-0.4	0.9	6.2	2.7
	11 2.8	3.7	0.9	5.3	2.9	2.4.	2.6	2.5
ANNUA	IV 0.7	3.6	2.9	5.4	1.3	4.7	-1.1	2.6
	AL 2.1	4.2	2.1	4.5	0.9	2.4	2.8	2.5
1986	I 7.7	8.3	0.6	3.7	2.1	-3.7	7.3	0.1
I	II - 0.4	-0.8	-0.4	3.7	5.1	4.1	1.7	3.2
II	II - 1.4	0.9	2.3	4.4	2.0	5.8	3.4	5.0
I	LV -0.8	2.5	3.4	4.8	2.1	5.7	-6.7	1.1
ANNUA	AL 2.2	3.5	1.3	4.3	2.4	2.1	2.5	2.3
		Percent	change from	corresponding q	uarter of previo	ous year		
1985	I 1.6	4.6	3.0	4.0	0.4	2.4	3.0	2.6
I	II 1.8	3.8	1.9	4.4	0.6	2.5	2.7	2.6
11	LI 2.6	4.2	1.6	4.6	1.2	1.9	3.5	2.5
I	IV 2.4	4.3	1.8	5.0	1.4	2.5	2.3	2.5
ANNUA	.L. 2.1	4.2	2.1	4.5	0.9	2.4	2.8	2.5
1986 1	I 3.5	4.9	1.3	4.6	1.5	1.0	3.7	2.0
11		3.7	1.0	4.5	2.9	1.8	2.6	2.1
III		3.0	1.3	4.3	2.6	2.6	2.8	2.7
14		2.7	1.5	4.2	2.8	2.9	1.3	2.3
ANŅUAI	L 2.2	3.5	1.3	4.3	2.4	2.1	2.5	2.3

Appendix table 1. Business sector: Productivity, hourly compensation, unit labor cost, and prices, seasonally adjusted

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See footnotes following table 6. r-revised

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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	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unir labor cost	Unit non- labor pay- ments(3)	Implicit price deflator(4
				Index	es 1977=100	****	7 7		
1985	I	105.4	122.3	116.0	172.3	98.4	163.4	159.2	161.9
	11	106.0	123.4	116.4	173.7	98.2	164.0	161.7	163.2
	111	106.4	124.4	116.9	175.7	98.7	165.1	163.9	164.7
	IV	106.5	125.5	117.9	177.9	99.0	167.1	162.7	165.5
	ANNUAL	106.1	123.9	116.8	174.9	98.5	164.9	161.9	163.8
1986	I	108.6	128.1	117.9	179.8	99.6	165.5	166.1	165.7
	'n	108.4	127.8	117.9	181.2	100.7	167.1	166.6	167.0
	111	108.0	128.1	118.6	183.1	101.2	169.5	168.1	169.0
	IV	107.8	128.8	119.5	185.4	101.8	172.1	164.9	169.5
	ANNUAL	108.2	128.2	118.5	182.3	100.8	168.6	166.4	167.8
			Perce	nt change fr	om previous qua	rter at annual	rate(5)		
1985	I	2.1	5.2	3.0	4.9	1.4	2.7	1.5	2.3
	11	2.0	3.7	1.6	3.5	-1.0	1.4	6.5	3.2
	III	1.7	3.3	1.6	4.5	2.2	2.8	5.5	3.7
	IV	0.2	3.5	3.4	5.1	1.0	4.9	-2.9	2.1
	ANNUAL	1.4	3.9	2.5	4.2	0.6	2.8	3.5	3.0
1986	I	8.4	8.5	0.0	4.3	2.7	-3.8	8.8	0.4
	11	~0.8	-0.8	0.0	3.2	4.6	4.0	1.2	3.0
	III	-1.5	0.8	2.4	4.3	1.9	5.9	3.6	5.1
	EV	-0.9	2.4	3.3	5,1	2.3	6.1	-7.5	1.2
	ANNUAL	2.0	3.5	1.5	4.2	2.3	2.2	2.8	2.4
			Percent	change from	corresponding q	uarter of previo	Dus year		
1985	I	1.3	4.4	3.1	4.0	0.4	2.7	4.0	3.2
	II	1.2	3.4	2.2	4.2	0.4	2.9	3.4	3.1
	111	1.8	3.8	2.0	4.2	0.8	2.4	4.5	3.1
	IV	1.5	3.9	2.4	4.5	0.9	2.9	2.6	2.8
	ANNUAL	1.4	3.9	2.5	4.2	0.6	2.8	3.5	3.0
1986	I	3.0	4.7	1.6	4.4	1.2	1.3	4.4	2.3
	II	2.3	3.6	1.2	4.3	2.6	1.9	3.1	2.3
	III	1.5	3.0	1.4	4.2	2.6	2.7	2.6	2.7
	IV	1.2	2.7	1.4	4.2	2.9	3.0	1.4	2.4
	ANNUAL	2.0	3.5	1.5	4.2	2.3	2.2	2.8	2.4

See footnotes following table 6. r=revised

August 4, 1988 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 <u>all</u> persons	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unit labor cost
			I	ndexes 1977=	100		ه ي په سور بلاگ ند ر
1985	I	121.1	120.3	99.4	174.0	99.4	143.7
	II	123.6	121.7	98.5	175.3	99.0	141.8
	III	124.6	122.6	98.4	177.0	99.4	142.1
	IV	125.3	123.3	98.4	179.4	99.8	143.2
	ANNUAL	123.6	122.0	98.7	176.4	99.3	142.7
1986	I	126.6	124.2	98.1	181.1	100.3	143.0
	II	127.2	124.1	97.6	182.0	101.2	143.2
	III	128.0	124.8	97.4	183.6	101.5	143.4
	IV	128.8	125.9	97.7	185.3	101.7	143.8
	ANNUAL	127.7	124.7	97.7	183.0	101.2	143.3
		Percent ch	ange from p	previous quar	ter at annual r	ate(5)	ب الربيعية الله الربينية بإذا بزيدي
1985	I	3.9	2.5	-1.3	7.0	3.5	3.1
	II	8.5	4.7	-3.4	2.9	-1.6	-5.2
	III	3.3	2.8	-0.4	3.9	1.7	0.6
	. IA	2.5	2.5	0.0	5.7	1.6	3.2
	ANNUAL	4.6	3.8	-0.8	5.0	1.4	0.3
1986	I	4.0	2.8	-1.2	3.7	2.0	-0.3
	II	1.8	-0.2	-2.0	2.2	3.5	0.3
	III	2.8	2.1	-0.7	3.5	1.2	0.7
	IV	2.5	3.7	1.2	3.7	1.0	1.2
	ANNUAL	3.3	2.3	-1.0	3.7	1.9	0.5
، خلة من بلغي	:==:========	Percent change	from corre	esponding qua	rter of previou	s year	
1985	I	4.1	4.9	0.7	5.1	1.5	0.9
	II	5.5	4.1	-1.3	5.2	1.4	-0.3
	III	4.6	3.1	-1.4	4.9	1.5	0.3
	IV	4.5	3.1	-1.3	4.9	1.3	0.4
	ANNUAL.	4.6	3.8	-0.8	5.0	1.4	0.3
1986	I	4.5	·3.Ż	-1.3	4.0	0.9	-0.5
	II	2.9	2.0	-0.9	3.9	.2.2	0.9
	III	2.8	1.8	-1.0	3.8	2.1	0.9
	IV	2.8	2.1	-0.7	3.3	1.9	0.5
	ANNUAL	3.3	2.3	-1.0	3.7	1.9	0.5

See footnotes following table 6. r=revised

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	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unit labo cost		
			I	ndexes 1977=	100	994			
1985	I	125.0	125.9	100.7	172.7	98.6	138.2		
	11	127.8	127.5	99.8	173.5	98.0	135.7		
	111	129.2	128.5	99.4	175.5	98.6	135.8		
	IV	130.4	129.5	99.3	178.6	99.3	136.9		
	ANNUAL	128.1	127.9	99.8	175.0	98.6	136.6		
986	I	132.2	130.5	98.7	180.3	99.9	136.4		
	II	132.6	130.0	98.0	180.8	100.5	136.3		
	111	133.9	130.7	97.6	182.2	100.7	136.0		
	IV	135.1	131.8	97.6	184.2	101.2	136.4		
	ANNUAL	133.5	130.8	98.0	181.9	100.6	136.3		
		Percent ch	ange from p	previous quar	ter at annual r	ate(5)			
985	I	5.6	4.0	-1.5	8.8	5.2	3.0		
	11	9.5	5.4	-3.7	1.8	-2.5	-7.0		
	111	4.5	3.1	-1.4	4.8	2.4	0.1		
	IV	3.7	3.2	-0.5	7.2	3.1	3.4		
	ANNUAL	6.2	5.8	-0.4	5.2	1.6	-1.0		
986	I	5.6	3.2	-2.2	3.9	2.2	-1.6		
	II	1.3	-1.8	-3.0	1.2	2.5	-0.1		
	111	4.1	2.3	-1.7	3.2	0.9	-0.9		
	IV	3.3	3.6	0.2	4.5	1.8	1.1		
	ANNUAL	4.2	2.3	-1.8	3.9	2.0	-0.3		
		Percent change	from corre	esponding qua	rter of previou	s year			
985	I	6.5	8.6	2.0	5.1	1.5	-1.		
	II	7.1	6.5	-0.5	5.0	1.2	-1.9		
	III	5.8	4.3	-1.4	5.1	1.7	-0.0		
	IV	5.8	3.9	-1.8	5.6	2.0	-0.2		
	ANNUAL	6.2	5.8	-0.4	5.2	1.6	-1.		
1986	I	5.8	3.7	-2.0	4.4	1.3	-1.		
	II	3.7	1.9	-1.8	4.2	2.6	0.		
	III IV	3.6	1.7	-1.9	3.8	2.2	0.: -0.4		
		3.6	1.8	-1.7	3.2	1.8			
	ANNUAL	4.2	2.3	-1.8	3.9	2.0	-0.		
	footnotes fo vised	ollowing table 6.		-	August 4, 1988 Source: Bureau of Labor Statistic				

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	Compensa- tion per hour(1)	Real compensa- tion per hour(2)	Unit labo cost
]	ndexes 1977=	100		*****
1985	. I	115.1	112.0	97.3	175.8	100.4	152.8
	11	117.0	113.0	96.6	177.9	100.5	152.0
	III	117.4	113.7	96.8	179.1	100.6	152.6
	IV	.117.6	114.1	97.0	180.5	100.4	153.5
	ANNUAL	116.7	113.2	970	:178.3	100.4	152.7
1986	I	118.1	114.7	97.1	182.1	100.9	154.3
	11	118.9	115.4	97.0	184.0	102.3	154.7
	111	119.2	115.9	97.2	186.0	102.8	156.0
	IV	119.6	117.0	97.9	187.2	102.8	156.5
	ANNUAL	118.9	115.8	97.3	184.8	102.2	155.4
*****		Percent ch	ange from p	revious quar	ter at annual r	nte(5)	
1985	1	1.1	0.1	-1.0	4.1	0.6	3.0
	II	6.9	3.7	-3.0	4.8	0.3	-2.0
	111	1.4	2.4	1.0	2.8	0.5	1.4
	IV	0.6	1.3	0.7	3.2	-0.8	2.6
	ANNUAL	Z. 1	0.7	-1.4	4.5	0.9	2.4
1986	I	1.7	2.2	0.5	3.7	2.0	1.9
	11	3.0	2.5	-0.4	4.2	5.6	1.2
	111	1.0	1.8	0.9	4.4	2.0	3.4
	IV	1.3	3.9	2.6	2.6	-0.1	1.4
	ANNUAL	1.9	2.3	0.4	3.7	1.8	1.7
		Percent change	from corre	sponding qua	rter of previou	s year	
1985	I	0.4	-0.7	-1.2	4.8	1.2	4.4
	11	2.8	0.4	-2.4	5.2	1.4	2.3
	III	2.7	1.2	-1.4	4.4	1.1	1.7
	IV	2.4	1.9	-0.6	3₊7	0.2	1.2
	ANNUAL	2.1	0.7	-1.4	4.5	0+9	2.4
1986	1	2.6	2.4	-0,2	3.6	0.5	1.0
	11	1.6	2.1	0.4	3.5	1.8	1.8
	111	1.5	2.0	0.4	3.9	2.2	2.3
	IV	1.7	2.6	0.9	3.7	2.4	2.0
	ANNUAL	1.9	2.3	0.4	3.7	1.8	1.7

See footnotes following table 6.

August 4, 1988 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 compensa- tion (1)	Real hourly compen- sation(2)	Unit labor cost	Unit non- labor cost(7)	Total unit cost (8)	Unit pro- fits (9)	Implici price deflato (4)
					Indexes	1977=100	********		• •		
1985	I	107.3	124.3	115.9	170.1	97.1	158.5	174,9	162.6	129.3	158.6
	11	107.3	124.9	116.4 -	171.3	96.8	159.7	176.5	164.0	129.5	159.8
	III	108.1	126.2	116.7	173.1	97.3	160.1	175.3	163.9	140.8	161.2
	IV	108.0	126.7	117.3	175.3	97.5	162.3	176.3	165.8	132.4	161.8
	ANNUAL	107.7	125.5	116.6	172.5	97.1	160.2	175.8	164.1	133.0	160.4
1986	I	109.5	128.8	117.6	·177.1.	98.1	161.7	176.7	165.5	133.7	161.7
	11	109.3	128.3	117.3	178.5	99.2	163.3	176.9	166.7	132.7	162.6
	111	109.6	128.9	117.6	180.2	° 99. 6	164.3	180.3	168.4	133.6	164.2
	IV	110.3	130.4	118.1	182.2	100.1	165.1	179.6	168.8	129.7	164.1
	ANNUAL	109.7	129.1	117.7	179.5	99.2	163.6	1 ⁷ 8.4	167.3	132.4	163.2
			Pe	rcent cha	nge from pi	revious qua	rter at a	annual rat	e(5)		
1985	I	3.6	5.5	1.9	4.7	1.2	1.1	-4.3	-0.4	-13.8	-1.8
	11	-0.2	1.7	1.9	3.0	-1.4	3.2	3.6	3:3	0.7	3.1
	111	3.3	4.3	1.0	4.2	1.9	0.9	-2.7	-0.1	39.7	3.3
	IV	-0.5	1.7	2.2	5.1	1.0	5.6	2.4	4.7	-22.0	1.6
	ANNUAL :	1.6	¹ 4.0	2.3	4.0	0.5	2.4	1.2	2.1	-2.6	1.6
1986	1	- 5.7	6.6	0.8	4.3	2.6	-1.4	1.0	-0.8	4.0	-0.3
	11	·-0.8	i ∹1 .7	-0.9	3.2	34.5	4.0	0.3	3.0	-3.0	2.4
	III	1.2	: 2.1º	0.8	3.8	1.5	2.6	8.0	4.0	2.9	3.9
	IV	2.6	4.6	2.0 ΄	4.6	1.9	2.0	-1.6	1.0	-11.2	-0.2
	ANNUAL	1.8	2.8	1.0	4.0	2.2	2.2	1.5	2.0	-0.5	1.7
			Percei		from corre	seponding q	uarter of	f previous	YEAT	,	
1985	I	. 1.6	5.0	3.3	3.9	0.3	2.2	2.9	2.4	-4.8	1.6
	II	1.1	3.5	2.4	4.0	` 0.2	2.9	2.6	2.8	-9.0	1.5
	III	2.2	4.1	1.8	4.0	0.6	1.7	0.0	1.2	5.4	1.6
	IV	1.5	3.3	1.7	4.2	0.7	2.7	-0.3	1.9	-1.4	1.5
	ANNUAL	1.6	4.0	2.3	4.0	0.5	2.4	1.2	2.1	-2.6	1.6
1986	I	° 2.1	3.6	1.5	4.1	- 1.0	2.0	1.0	1.8	3.4	1.9
	II	1.9	2.7	0.8	4.2	2.5	2.2	0.2	1.7	2.4	1.7
	111	1.4	2.1	0.7	4.1	2.4	2.6	2.9	2.7	-5.1	1.9
	IV	2.2	2.9	0.7	4.0	2.6	1.8	1.9	1.8	-2.0	1.4
	ANNUAL	1.8	2.8	1.0	4.0	2.2	2.2	1.5	2.0	-0.5	1.7

See footnotes following table 6.

r-revised

August 4, 1988 Source: Bureau of Labor Statistics

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