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PRODUCTIVITY AND COSTS
First Quarter 1999

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 first quarter of 1999. The seasonally adjusted annual rates of productivity change in the first quarter were:

4.7 percent in the business sector and
4.0 percent in the nonfarm business sector.

These productivity gains resulted from a combination of strong output growth and modest increases in hours of all persons. Output grew 5.1 percent in the business sector and 5.0 percent in the nonfarm business sector. Hours at work increased 0.4 percent in business and 0.9 percent in nonfarm business. First-quarter measures are summarized in table A and appear in detail in tables 1 through 5.

In manufacturing, productivity changes in the first quarter were:

5.8 percent in manufacturing,
8.2 percent in durable goods manufacturing, and
2.4 percent in nondurable goods manufacturing.

Productivity growth in manufacturing in the first quarter of 1999 reflected a modest rate of increase in output (1.3 percent) and a drop in the hours of all persons (4.3 percent). Output and hours in manufacturing, which includes about 17 percent of U.S. business-sector employment, tend to vary more from quarter to quarter than data for the more aggregate business and nonfarm business sectors.

The data sources and methods used in the preparation of the manufacturing series differ from those used in preparing the business and nonfarm business series, and these measures are not directly comparable. Output measures for business and nonfarm business are based on measures of gross domestic product prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce. Quarterly output measures for manufacturing reflect indexes of industrial production independently prepared by the Board of Governors of the Federal Reserve System. See Technical Notes for further information on data sources.

Table A. Productivity and costs: Preliminary first-quarter 1999 measures
(Seasonally adjusted annual rates)

Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
	Percent change from preceding quarter					
Business	4.7	5.1	0.4	5.2	3.7	0.4
Nonfarm business	4.0	5.0	0.9	4.3	2.8	0.3
Manufacturing	5.8	1.3	-4.3	4.9	3.3	-0.9
Durable	8.2	1.4	-6.2	4.7	3.2	-3.2
Nondurable	2.4	1.1	-1.3	5.4	3.9	2.9
	Percent change from same quarter a year ago					
Business	3.0	4.5	1.5	4.4	2.6	1.3
Nonfarm business	2.8	4.5	1.7	4.1	2.4	1.3
Manufacturing	4.9	2.2	-2.6	3.5	1.8	-1.4
Durable	7.9	4.8	-2.9	2.8	1.1	-4.8
Nondurable	1.2	-0.9	-2.1	4.7	3.0	3.5

Business

Productivity in the business sector increased at a 4.7 percent annual rate from the fourth quarter of 1998 to the first quarter of 1999, about the same as one quarter earlier (4.6 percent). During the first quarter of 1999, output increased 5.1 percent and hours of all persons engaged in the sector rose 0.4 percent (seasonally adjusted annual rates). In the fourth quarter of 1998, output and hours grew at rates of 7.3 percent and 2.6 percent, respectively (table 1).

Hourly compensation increased 5.2 percent during the first quarter of 1999. 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 0.4 percent rate during the first quarter, after declining by 0.1 percent one quarter earlier.

Real hourly compensation, which takes into account changes in the Consumer Price Index for All Urban Consumers (CPI-U), rose at a 3.7 percent annual rate in the first quarter. This was the seventh consecutive quarter in which real hourly compensation increased at least 2.0 percent (seasonally adjusted annual rate).

The implicit price deflator for the business sector, which reflects changes in both unit labor costs and unit nonlabor payments, rose 0.7 percent in the first quarter.

Nonfarm business

Productivity increased 4.0 percent in the nonfarm business sector in the first quarter, as output increased 5.0 percent and hours of all persons rose 0.9 percent. During the fourth quarter of 1998, productivity had risen 4.3 percent in this sector, reflecting gains of 7.4 percent in output and 2.9 percent in hours (table 2).

Hourly compensation increased at a 4.3 percent annual rate in the first quarter. When the rise in the CPI-U was taken into account, real hourly compensation rose 2.8 percent in the first quarter of 1999; it had increased 2.2 percent in the fourth quarter of 1998.

Unit labor costs rose 0.3 percent in the first quarter, after falling 0.4 percent in the fourth quarter of 1998. The implicit price deflator for nonfarm business output rose 1.0 percent in the first quarter, compared with a 0.2 percent rise one quarter earlier.

Manufacturing

Productivity increased at a 5.8 percent seasonally adjusted annual rate in manufacturing in the first quarter of 1999, as output increased 1.3 percent and hours of all persons declined 4.3 percent. This was the fourth consecutive quarter in which both productivity and output rose and hours fell (table 3). Productivity grew in both the durable and nondurable sectors of manufacturing, 8.2 and 2.4 percent, respectively. In durable goods manufacturing, output growth slowed to a 1.4 percent annual rate in the first quarter; this was accompanied by a substantial decline in hours at work, 6.2 percent. Nondurable goods manufacturing output rose 1.1 percent in the first quarter, and hours declined by 1.3 percent (tables 4 and 5).

Hourly compensation of all manufacturing workers rose 4.9 percent during the first quarter, and real hourly compensation rose 3.3 percent. In durable goods, hourly compensation rose 4.7 percent in the first quarter. In non-durable goods, it rose 5.4 percent.

Unit labor costs in manufacturing fell 0.9 percent in the first quarter of 1999, as unit labor costs of durable-goods producers declined 3.2 percent, and those of nondurable-goods producers grew at a 2.9 percent annual rate. Unit labor costs in total manufacturing have fallen in 23 of the last 31 quarters.

Fourth-quarter and annual measures for nonfinancial corporations

Fourth-quarter and annual 1998 measures of productivity and costs also were announced today for the nonfinancial corporate sector (tables B, C, and 6). Output per all-employee hour rose 3.3 percent from the third to the fourth quarter of 1998, as output increased 5.5 percent and employee hours rose 2.1 percent. This rate of growth was lower than in the third quarter, when productivity increased 4.4 percent, as output climbed 6.1 percent and all-employee hours rose 1.7 percent (seasonally adjusted annual rates). The sector includes all corporations doing business in the United States, except those classified as depository institutions, nondepository institutions, security and commodity brokers, insurance carriers, regulated investment offices, small business investment offices, and real estate investment trusts.

Table B. Nonfinancial corporations: Fourth-quarter 1998 productivity and cost measures
(Seasonally adjusted annual rates)

Period	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs	Unit profits	Implicit price deflator
Percent change from preceding quarter								
1998 IV	3.3	5.5	2.1	4.2	2.4	0.8	-12.9	-0.4
Percent change from same quarter a year ago								
1998 IV	3.4	5.4	2.0	4.1	2.5	0.7	-5.8	-0.2

Hourly compensation increased 4.2 percent in the fourth quarter, and real hourly compensation rose 2.4 percent. Unit labor costs increased 0.8 percent in the fourth quarter, compared with a 0.3 percent decline in the third quarter. Total unit costs rose 1.6 percent during the fourth quarter, after having declined 0.4 percent during the third quarter. In the fourth quarter, unit profits fell 12.9 percent. Unit profits had risen 3.6 percent during the third quarter of 1998. The implicit price deflator for nonfinancial corporate output fell 0.4 percent during the fourth quarter of 1998.

In calendar year 1998, productivity grew 3.0 percent in nonfinancial corporations (table C). This was the largest increase since 1984, when it rose 3.1 percent. Output grew 5.6 percent in 1998, less than it had one year earlier, when it grew 6.1 percent. Hours of employees in nonfinancial corporations grew 2.6 percent during 1998, compared with 3.6 percent one year earlier.

Table C. Nonfinancial corporations: Annual changes in productivity and related measures, 1989-1998

Measure	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Productivity	-1.4	0.6	1.5	2.5	1.1	2.3	1.2	2.8	2.5	3.0
Output	1.6	1.0	-1.3	3.0	3.4	6.3	4.4	4.5	6.1	5.6
Hours	3.0	0.3	-2.7	0.5	2.3	3.9	3.2	1.7	3.6	2.6
Hourly compensation	2.5	5.1	4.5	4.5	2.0	2.0	2.1	3.1	3.5	4.1
Real hourly compensation	-2.2	-0.3	0.3	1.5	-0.9	-0.6	-0.8	0.2	1.1	2.5
Unit labor costs	3.9	4.4	3.0	2.0	0.9	-0.3	0.9	0.3	1.0	1.1
Unit nonlabor costs	7.3	3.0	3.9	-2.9	-0.6	0.3	-0.7	-1.1	-1.3	-1.0
Total unit cost	4.8	4.0	3.2	0.7	0.5	-0.2	0.4	-0.1	0.4	0.6
Unit profits	-7.4	-1.5	-0.8	6.5	13.3	18.7	6.8	7.7	2.1	-4.6
Implicit price deflator	3.5	3.5	2.9	1.2	1.7	1.8	1.2	0.9	0.6	-0.1

Hourly compensation increased 4.1 percent in 1998, the largest increase since a 4.5 percent rise in 1992. Real hourly compensation rose 2.5 percent in 1998, more than in any year since 1986, when it increased 3.1 percent.

Total unit costs rose 0.6 percent in 1998, reflecting an increase of 1.1 percent in unit labor costs and a 1.0 percent drop in unit nonlabor costs. Unit profits for the year declined 4.6 percent in 1998, the first decrease since a 0.8 percent drop in 1991.

REVISED MEASURES

Current and previous measures for the fourth quarter of 1998 for the business, nonfarm business, and manufacturing sectors are compared in table D. Some of the quarterly movements differ from those reported on March 9, based on information then available.

Table D. Previous and revised productivity and related measures
Quarterly percent change at seasonally adjusted annual rate

Sector	Productivity	Output	Hours	Hourly compensation	Real hourly compensation	Unit labor costs
Fourth quarter 1998						
Business:						
Previous	4.8	7.4	2.4	4.0	2.2	-0.8
Current	4.6	7.3	2.6	4.4	2.7	-0.1
Nonfarm business:						
Previous	4.6	7.5	2.8	3.5	1.7	-1.1
Current	4.3	7.4	2.9	4.0	2.2	-0.4
Manufacturing:						
Previous	5.2	4.7	-0.5	3.3	1.5	-1.8
Current	5.3	4.8	-0.5	3.3	1.5	-1.9

Next release date

The next release of Productivity and Costs is scheduled for 10:00 AM EDT, Tuesday, June 8, 1999. First-quarter measures for nonfinancial corporations and revised measures for business, nonfarm business, and manufacturing will be released at that time.

TECHNICAL NOTES

Labor Hours: Hours data for the labor productivity and costs measures include hours for all persons working in the sector--wage and salary workers, the self-employed, and unpaid family workers. The primary source of hours and employment data is the BLS Current Employment Statistics (CES) program, which provides monthly survey data on the number of jobs held by wage and salary workers in nonfarm establishments. The CES also provides average weekly paid hours of production and nonsupervisory workers in these establishments. Average weekly paid hours of nonproduction and supervisory workers are estimated by the Office of Productivity and Technology. Weekly paid hours are adjusted to hours at work using the BLS Hours at Work survey, conducted for this purpose.

Data from the BLS Current Population Survey (CPS) are used for farm labor; in the nonfarm sector, the National Income and Product Accounts (NIPA) prepared by the Bureau of Economic Analysis (BEA) of the Department of Commerce and the CPS are used to measure labor input for government enterprises, proprietors, and unpaid family workers.

Output: Business sector output is an annual-weighted index constructed after excluding from gross domestic product (GDP) the following outputs: General government, nonprofit institutions, paid employees of private households, and the rental value of owner-occupied dwellings. Corresponding exclusions also are made in labor inputs. Business output accounted for about 76 percent of the value of GDP in 1992. Nonfarm business, which also excludes farming, accounted for about 75 percent of GDP in 1992.

Annual manufacturing indexes are constructed by deflating current-dollar industry value of production data from the U.S. Bureau of the Census with deflators from the BEA. These deflators are based on data from the BLS producer price program and other sources. The industry shipments are aggregated using annual weights, and intrasector transactions are removed. Quarterly manufacturing output measures are based on the index of industrial production prepared monthly by the Board of Governors of the Federal Reserve System adjusted to be consistent with annual indexes of manufacturing sector output prepared by BLS. Durables include the following 2-digit SIC industries: Primary metal industries; fabricated metal products; non-electrical machinery; industrial and commercial machinery and computer equipment; electronic and other electrical equipment; transportation equipment; instruments; lumber and lumber products; furniture and fixtures; stone, clay, and glass and concrete products; and miscellaneous manufactures. Nondurables include: Food and kindred products, tobacco products, textile mill products, apparel products, paper and allied products, printing and publishing, chemicals and chemical products, petroleum refining and related industries, rubber and plastic products, and leather and leather products.

Nonfinancial corporate output is an annual-weighted index constructed by excluding from GDP the following outputs: General government; nonprofit institutions; employees of private households; the rental value of owner-occupied dwellings; unincorporated business; and those corporations which are depository institutions, nondepository institutions, security and commodity brokers, insurance carriers, regulated investment offices, small business investment offices, and real estate investment trusts. Nonfinancial corporations accounted for about 52 percent of the value of GDP in 1992.

Productivity: These productivity measures describe the relationship between real output and the labor time involved in its production. They show the changes from period to period in the amount of goods and services produced per hour. Although these measures relate output to hours at work of all persons engaged in a sector, they do not measure the specific contribution of labor, capital, or any other factor of production. Rather, they reflect the joint effects of many influences, including changes in technology; capital investment; level of output; utilization of capacity, energy, and materials; the organization of production; managerial skill; and the characteristics and effort of the work force.

Information in this release will be made available to sensory-impaired individuals upon request. Voice phone: 202-606-STAT; TDD phone: 202-606-5897; TDD message referral phone number: 1-800-326-2577.

Table 1. Business sector: Productivity, hourly compensation, unit labor costs, 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 costs	Unit non-labor payments (3)	Implicit price deflator (4)
Indexes 1992=100								
1997	I	104.4	117.8	112.9	113.2	99.5	108.5	112.4
	II	104.8	119.1	113.6	113.9	99.8	108.7	113.2
	III	105.8	120.6	114.0	115.0	100.3	108.8	113.8
	IV	106.0	121.7	114.8	116.5	101.1	109.9	112.4
	ANNUAL	105.2	119.8	113.8	114.7	100.3	109.0	112.9
1998	I	107.1	123.7	115.6	117.9	102.1	110.2	112.2
	II	107.1	124.3	116.1	119.1	102.7	111.2	110.5
	III	107.8	125.5	116.4	120.2	103.2	111.5	110.4
	IV	r109.0	r127.7	r117.2	r121.5	r103.9	r111.5	r110.7
	ANNUAL	r107.7	125.3	116.3	119.7	103.0	111.1	r110.9
1999	I	110.3	129.3	117.3	123.1	104.8	111.6	111.0
Percent change from previous quarter at annual rate(5)								
1997	I	0.7	4.9	4.2	3.5	1.0	2.8	2.1
	II	1.8	4.7	2.8	2.4	1.2	0.6	2.8
	III	3.6	4.9	1.3	4.0	2.0	0.4	2.3
	IV	0.8	3.6	2.7	5.2	3.3	4.4	-4.8
	ANNUAL	1.5	4.6	3.1	3.6	1.2	2.1	1.0
1998	I	4.1	7.1	2.8	5.0	3.9	0.8	-0.7
	II	0.1	1.7	1.6	4.1	2.3	4.0	-6.0
	III	2.6	4.0	1.4	3.7	2.0	1.0	-0.4
	IV	r4.6	r7.3	r2.6	r4.4	r2.7	r-0.1	r1.1
	ANNUAL	2.4	4.6	2.2	r4.4	r2.8	r2.0	r-1.8
1999	I	4.7	5.1	0.4	5.2	3.7	0.4	1.1
Percent change from corresponding quarter of previous year								
1997	I	1.4	4.7	3.3	4.0	1.0	2.6	0.5
	II	1.0	4.3	3.3	3.2	0.9	2.2	0.9
	III	1.8	4.9	3.0	3.3	1.0	1.4	2.0
	IV	1.7	4.5	2.8	3.8	1.9	2.0	0.6
	ANNUAL	1.5	4.6	3.1	3.6	1.2	2.1	1.0
1998	I	2.6	5.1	2.4	4.1	2.6	1.5	-0.2
	II	2.1	4.3	2.1	4.6	2.9	2.4	-2.4
	III	1.9	4.1	2.1	4.5	2.9	2.5	-3.0
	IV	2.9	5.0	2.1	r4.3	r2.7	r1.4	r-1.5
	ANNUAL	2.4	4.6	2.2	r4.4	r2.8	r2.0	r-1.8
1999	I	3.0	4.5	1.5	4.4	2.6	1.3	-1.1

See footnotes following Table 6.
r=revised

May 11, 1999
Source: Bureau of Labor Statistics

Table 2. Nonfarm business sector:
and prices, seasonally adjusted

Productivity, hourly compensation, unit labor costs,

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 costs	Unit non- labor pay- ments (3)	Implicit price deflator (4)
Indexes 1992=100								
1997	I	104.1	117.9	113.3	112.9	99.2	108.5	112.9
	II	104.5	119.2	114.1	113.6	99.5	108.7	113.7
	III	105.4	120.6	114.5	114.6	99.9	108.8	114.6
	IV	105.6	121.8	115.3	116.0	100.7	109.8	113.3
	ANNUAL	104.9	119.9	114.3	114.3	99.9	108.9	113.6
1998	I	106.6	123.9	116.3	117.4	101.6	110.1	113.2
	II	106.6	124.4	116.7	118.5	102.1	111.1	111.6
	III	107.3	125.6	117.1	119.7	102.7	111.5	111.4
	IV	108.5	127.9	117.9	r120.9	r103.3	r111.4	r111.7
	ANNUAL	r107.2	125.5	117.0	119.1	102.5	r111.1	112.0
1999	I	109.5	129.4	118.2	122.1	104.0	111.5	112.4
Percent change from previous quarter at annual rate(5)								
1997	I	0.1	4.5	4.4	3.7	1.1	3.5	2.3
	II	1.6	4.5	2.8	2.4	1.2	0.7	2.8
	III	3.4	4.8	1.3	3.8	1.8	0.3	3.1
	IV	0.9	4.0	3.0	4.9	3.0	4.0	-4.3
	ANNUAL	1.2	4.5	3.2	3.5	1.2	2.3	1.3
1998	I	3.6	7.0	3.3	4.7	3.7	1.1	-0.3
	II	0.3	1.7	1.4	4.1	2.2	3.7	-5.7
	III	2.5	4.0	1.4	3.9	2.3	1.4	-0.5
	IV	r4.3	r7.4	r2.9	r4.0	r2.2	r-0.4	r1.2
	ANNUAL	2.2	4.6	2.4	4.2	2.6	r2.0	-1.4
1999	I	4.0	5.0	0.9	4.3	2.8	0.3	2.2
Percent change from corresponding quarter of previous year								
1997	I	1.0	4.6	3.5	3.9	0.9	2.9	0.5
	II	0.7	4.1	3.4	3.2	0.8	2.5	1.3
	III	1.5	4.7	3.1	3.2	1.0	1.7	2.6
	IV	1.5	4.4	2.9	3.7	1.8	2.1	0.9
	ANNUAL	1.2	4.5	3.2	3.5	1.2	2.3	1.3
1998	I	2.4	5.1	2.6	3.9	2.4	1.5	0.3
	II	2.0	4.4	2.3	4.4	2.7	2.3	-1.9
	III	1.8	4.1	2.3	4.4	2.8	2.6	-2.7
	IV	2.7	5.0	r2.3	r4.2	r2.6	r1.5	r-1.4
	ANNUAL	2.2	4.6	2.4	4.2	2.6	r2.0	-1.4
1999	I	2.8	4.5	1.7	4.1	2.4	1.3	-0.7

See footnotes following Table 6.
r=revised

May 11, 1999
Source: Bureau of Labor Statistics

Table 3. Manufacturing sector: Productivity, hourly compensation, and unit labor costs, 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 costs

Indexes 1992=100							
1997	I	116.7	122.5	105.0	113.1	99.4	97.0
	II	118.1	124.5	105.4	114.2	100.0	96.7
	III	120.7	126.8	105.1	115.7	100.9	95.9
	IV	121.9	129.1	105.9	118.0	102.4	96.8
	ANNUAL	119.4	125.7	105.3	115.3	100.8	96.6
1998	I	122.4	129.9	106.1	119.2	103.2	97.3
	II	123.6	130.7	105.7	119.9	103.3	97.0
	III	125.0	130.8	104.6	120.9	103.7	96.7
	IV	r126.7	r132.4	104.5	121.8	104.1	96.2
	ANNUAL	124.4	130.9	105.2	120.4	103.7	96.8
1999	I	128.5	132.8	103.4	123.3	105.0	96.0

Percent change from previous quarter at annual rate(5)							
1997	I	4.1	7.2	3.0	4.4	1.8	0.4
	II	5.0	6.6	1.5	3.7	2.4	-1.3
	III	9.0	7.7	-1.2	5.7	3.7	-3.1
	IV	4.3	7.5	3.1	8.0	6.1	3.6
	ANNUAL	4.9	6.5	1.6	4.2	1.8	-0.7
1998	I	1.6	2.4	0.8	4.0	3.0	2.4
	II	3.9	2.5	-1.4	2.6	0.8	-1.3
	III	4.7	0.4	-4.1	3.2	1.5	-1.5
	IV	r5.3	r4.8	-0.5	3.3	1.5	r-1.9
	ANNUAL	4.2	r4.2	-0.1	4.5	2.9	0.2
1999	I	5.8	1.3	-4.3	4.9	3.3	-0.9

Percent change from corresponding quarter of previous year							
1997	I	4.2	6.7	2.3	3.6	0.6	-0.6
	II	4.4	5.9	1.5	3.5	1.1	-0.8
	III	5.3	6.3	1.0	4.1	1.8	-1.1
	IV	5.6	7.3	1.6	5.4	3.5	-0.1
	ANNUAL	4.9	6.5	1.6	4.2	1.8	-0.7
1998	I	4.9	6.0	1.1	5.3	3.8	0.4
	II	4.7	5.0	0.3	5.1	3.4	0.4
	III	3.6	3.2	-0.4	4.4	2.8	0.8
	IV	r3.9	2.5	-1.3	3.3	1.7	-0.6
	ANNUAL	4.2	r4.2	-0.1	4.5	2.9	0.2
1999	I	4.9	2.2	-2.6	3.5	1.8	-1.4

See footnotes following Table 6.
r=revised

May 11, 1999
Source: Bureau of Labor Statistics

Table 4. Durable manufacturing sector: Productivity, hourly compensation, and unit labor costs, 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 costs

Indexes 1992=100							
1997	I	125.1	136.9	109.4	110.7	97.2	88.5
	II	127.5	140.3	110.1	111.6	97.8	87.6
	III	131.5	144.6	110.0	113.2	98.7	86.1
	IV	134.0	148.3	110.7	115.9	100.6	86.5
	ANNUAL	129.5	142.5	110.0	112.9	98.7	87.1
1998	I	134.6	149.6	111.1	116.7	101.0	86.7
	II	136.8	151.3	110.6	117.1	100.9	85.6
	III	139.6	153.1	109.7	117.6	100.9	84.2
	IV	142.5	r156.3	109.7	118.5	101.3	83.2
	ANNUAL	138.3	152.6	110.3	117.5	101.1	84.9
1999	I	145.3	156.8	107.9	119.9	102.1	82.5

Percent change from previous quarter at annual rate(5)							
1997	I	4.6	10.4	5.5	4.0	1.5	-0.6
	II	7.9	10.4	2.3	3.5	2.3	-4.1
	III	13.0	12.8	-0.2	5.5	3.5	-6.6
	IV	7.8	10.7	2.7	10.2	8.2	2.2
	ANNUAL	6.6	9.4	2.7	3.9	1.5	-2.6
1998	I	2.0	3.5	1.5	2.6	1.6	0.6
	II	6.6	4.6	-1.8	1.5	-0.3	-4.7
	III	8.5	4.8	-3.5	1.6	-0.1	-6.4
	IV	r8.5	r8.6	0.1	3.2	r1.5	r-4.9
	ANNUAL	6.8	7.0	0.2	4.1	2.5	-2.5
1999	I	8.2	1.4	-6.2	4.7	3.2	-3.2

Percent change from corresponding quarter of previous year							
1997	I	5.4	9.3	3.7	3.0	0.1	-2.3
	II	5.5	8.1	2.4	2.9	0.6	-2.4
	III	7.2	9.3	2.0	3.6	1.4	-3.3
	IV	8.3	11.1	2.5	5.8	3.9	-2.3
	ANNUAL	6.6	9.4	2.7	3.9	1.5	-2.6
1998	I	7.6	9.3	1.5	5.4	3.9	-2.0
	II	7.3	7.8	0.5	4.9	3.2	-2.2
	III	6.2	5.9	-0.3	3.9	2.3	-2.1
	IV	r6.4	r5.4	-0.9	2.2	0.7	-3.9
	ANNUAL	6.8	7.0	0.2	4.1	2.5	-2.5
1999	I	7.9	4.8	-2.9	2.8	1.1	-4.8

See footnotes following Table 6.
r=revised

May 11, 1999
Source: Bureau of Labor Statistics

Table 5. Nondurable manufacturing sector: Productivity, hourly compensation, and unit labor costs, 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 costs

Indexes 1992=100							
1997	I	109.8	108.8	99.1	116.2	102.1	105.9
	II	110.2	109.3	99.2	117.3	102.7	106.4
	III	111.4	109.7	98.5	118.9	103.7	106.8
	IV	111.3	110.7	99.4	120.3	104.4	108.0
	ANNUAL	110.7	109.6	99.1	118.2	103.3	106.8
1998	I	111.7	111.0	99.4	122.1	105.7	109.3
	II	111.9	111.0	99.2	123.5	106.4	110.4
	III	111.9	109.6	97.9	125.2	107.4	111.8
	IV	r112.4	109.7	97.6	126.2	107.8	112.3
	ANNUAL	112.0	110.3	98.5	124.2	106.9	111.0
1999	I	113.0	110.0	97.3	127.9	108.9	113.1

Percent change from previous quarter at annual rate(5)							
1997	I	3.9	3.4	-0.5	4.6	2.0	0.7
	II	1.5	1.9	0.4	3.8	2.6	2.2
	III	4.3	1.7	-2.5	5.7	3.7	1.3
	IV	-0.1	3.6	3.7	4.6	2.7	4.7
	ANNUAL	3.0	3.1	0.1	4.5	2.1	1.4
1998	I	1.3	1.1	-0.2	6.3	5.3	5.0
	II	0.6	-0.2	-0.8	4.4	2.5	3.8
	III	0.3	-4.7	-5.0	5.7	4.0	5.4
	IV	r1.5	r0.2	-1.3	3.3	1.6	r1.8
	ANNUAL	1.2	0.6	-0.5	5.1	3.5	3.9
1999	I	2.4	1.1	-1.3	5.4	3.9	2.9

Percent change from corresponding quarter of previous year							
1997	I	3.3	3.7	0.4	4.3	1.3	1.0
	II	3.2	3.4	0.2	4.2	1.9	1.0
	III	3.1	2.6	-0.6	4.6	2.4	1.5
	IV	2.4	2.6	0.2	4.7	2.8	2.2
	ANNUAL	3.0	3.1	0.1	4.5	2.1	1.4
	II	1.5	1.5	0.0	5.3	3.6	3.7
	III	0.5	-0.1	-0.6	5.2	3.6	4.7
	IV	0.9	r-0.9	-1.8	4.9	3.3	4.0
	ANNUAL	1.2	0.6	-0.5	5.1	3.5	3.9
1999	I	1.2	-0.9	-2.1	4.7	3.0	3.5

See footnotes following Table 6.
r=revised

May 11, 1999
Source: Bureau of Labor Statistics

Table 6. Nonfinancial corporations: Productivity, hourly compensation, unit labor costs, 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 costs	Unit non-labor costs (6)	Total unit costs (7)	Unit profits (8)	Implicit price deflator (4)	
Indexes 1992=100											
1996	I	106.4	117.3	110.2	107.7	97.4	101.2	98.7	100.6	153.7	105.4
	II	107.3	119.3	111.2	109.0	97.7	101.7	97.9	100.7	154.1	105.5
	III	108.0	120.9	111.9	110.1	98.1	101.9	97.5	100.8	155.3	105.7
	IV	108.6	122.5	112.8	110.8	98.0	102.1	97.4	100.9	155.4	105.8
	ANNUAL	107.6	120.0	111.5	109.5	97.9	101.7	97.9	100.7	154.6	105.6
1997	I	108.9	124.3	114.1	111.8	98.2	102.6	97.3	101.2	156.6	106.2
	II	109.6	126.2	115.2	112.5	98.5	102.6	97.1	101.2	157.3	106.3
	III	111.1	128.7	115.9	113.6	99.0	102.3	96.4	100.7	161.7	106.3
	IV	111.3	130.2	117.0	115.0	99.8	103.3	95.7	101.3	155.7	106.3
	ANNUAL	110.3	127.3	115.4	113.3	99.0	102.7	96.6	101.1	157.8	106.3
1998	I	112.1	132.1	117.9	116.0	100.4	103.5	95.4	101.4	153.5	106.2
	II	112.9	133.4	118.1	117.3	101.1	103.9	95.5	101.7	150.4	106.1
	III	114.1	135.4	118.6	118.5	101.7	103.8	95.2	101.6	151.8	106.1
	IV	115.1	137.2	119.3	119.7	102.3	104.1	96.2	102.0	146.6	106.0
	ANNUAL	113.6	134.5	118.4	118.0	101.6	103.8	95.6	101.7	150.5	106.1
Percent change from previous quarter at annual rate(5)											
1996	I	1.3	1.4	0.1	1.7	-1.6	0.4	-0.7	0.1	13.1	1.7
	II	3.3	6.9	3.5	5.0	1.3	1.7	-2.9	0.5	1.1	0.6
	III	2.9	5.6	2.6	3.8	1.5	0.9	-1.7	0.3	3.0	0.6
	IV	2.0	5.5	3.4	2.8	-0.5	0.7	-0.5	0.4	0.3	0.4
	ANNUAL	2.8	4.5	1.7	3.1	0.2	0.3	-1.1	-0.1	7.7	0.9
1997	I	1.3	5.9	4.5	3.4	0.8	2.0	-0.6	1.4	3.2	1.6
	II	2.3	6.3	3.9	2.5	1.3	0.2	-0.6	0.0	1.7	0.2
	III	5.6	8.2	2.5	4.1	2.2	-1.3	-3.1	-1.8	11.8	0.0
	IV	1.0	4.8	3.8	5.0	3.1	4.0	-2.7	2.3	-14.1	-0.1
	ANNUAL	2.5	6.1	3.6	3.5	1.1	1.0	-1.3	0.4	2.1	0.6
1998	I	2.7	5.9	3.2	3.6	2.6	0.9	-1.1	0.4	-5.6	-0.4
	II	3.1	4.0	0.9	4.6	2.7	1.5	0.1	1.1	-7.7	-0.1
	III	4.4	6.1	1.7	4.0	2.4	-0.3	-0.9	-0.4	3.6	0.1
	IV	3.3	5.5	2.1	4.2	2.4	0.8	4.0	1.6	-12.9	-0.4
	ANNUAL	3.0	5.6	2.6	4.1	2.5	1.1	-1.0	0.6	-4.6	-0.1
Percent change from corresponding quarter of previous year											
1996	I	3.0	3.9	0.9	2.5	-0.2	-0.4	-0.6	-0.5	11.5	0.9
	II	3.2	4.9	1.6	3.1	0.2	-0.1	-1.6	-0.5	11.1	0.9
	III	2.6	4.4	1.8	3.4	0.5	0.8	-0.9	0.3	4.5	0.9
	IV	2.4	4.8	2.4	3.3	0.2	0.9	-1.4	0.3	4.3	0.8
	ANNUAL	2.8	4.5	1.7	3.1	0.2	0.3	-1.1	-0.1	7.7	0.9
1997	I	2.4	5.9	3.5	3.7	0.8	1.3	-1.4	0.6	1.9	0.8
	II	2.1	5.8	3.6	3.1	0.8	1.0	-0.8	0.5	2.0	0.7
	III	2.8	6.4	3.5	3.2	1.0	0.4	-1.2	0.0	4.2	0.5
	IV	2.5	6.3	3.6	3.8	1.9	1.2	-1.8	0.5	0.2	0.4
	ANNUAL	2.5	6.1	3.6	3.5	1.1	1.0	-1.3	0.4	2.1	0.6
1998	I	2.9	6.3	3.3	3.8	2.3	0.9	-1.9	0.2	-2.0	-0.1
	II	3.1	5.7	2.6	4.3	2.7	1.2	-1.7	0.5	-4.3	-0.1
	III	2.8	5.2	2.4	4.3	2.7	1.5	-1.1	0.8	-6.2	-0.1
	IV	3.4	5.4	2.0	4.1	2.5	0.7	0.5	0.7	-5.8	-0.2
	ANNUAL	3.0	5.6	2.6	4.1	2.5	1.1	-1.0	0.6	-4.6	-0.1

See footnotes following Table 6.
r=revised

May 11, 1999
Source: Bureau of Labor Statistics

SOURCES: Output data are from the Bureau of Economic Analysis and the Census Bureau of the U.S. Department of Commerce; the Bureau of Labor Statistics, U.S. Department of Labor; and the Federal Reserve Board. Compensation and hours data are from the Bureau of Labor Statistics 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 within 40 days of the close of the reference period; revisions appear 30 days later, and second revisions after an additional 60 days. In the business sector, the third publication (second revision) of a quarterly index of output per hour of all persons has differed from the initial value by between -1.2 and +1.4 index points approximately 95 percent of the time. This interval is based on the performance of this measure between the fourth quarter of 1995 and the fourth quarter of 1998.

Footnotes, Tables 1-6

- (1) Wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. Except for nonfinancial corporations, where there are no self-employed, data also include an estimate of wages, salaries, and supplemental payments for the self-employed.
- (2) Compensation per hour adjusted for changes in the Consumer Price Index for All Urban Consumers.
- (3) Unit nonlabor payments include profits, capital consumption allowances, interest, rental income of persons, and indirect taxes.
- (4) Current dollar output divided by the output index.
- (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) Unit nonlabor costs include capital consumption allowances, interest, rental income of persons, and indirect taxes. For nonfinancial corporations, rental income of persons is zero by definition.
- (7) Total unit costs are the sum of unit labor and nonlabor costs.
- (8) Unit profits include corporate profits with inventory valuation and capital consumption adjustments.