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## PRODUCTIVITY AND COSTS

First Quarter 2018, Preliminary

Nonfarm business sector labor productivity increased 0.7 percent during the first quarter of 2018, the U.S. Bureau of Labor Statistics reported today, as output increased 2.8 percent and hours worked increased 2.1 percent. (All quarterly percent changes in this release are seasonally adjusted annual rates.) From the first quarter of 2017 to the first quarter of 2018, productivity increased 1.3 percent, reflecting a 3.6-percent increase in output and a 2.2-percent increase in hours worked. (See chart 1 and tables A1 and 2.)

Labor productivity, or output per hour, is calculated by dividing an index of real output by an index of hours worked by all persons, including employees, proprietors, and unpaid family workers.

Chart 1. Labor productivity, nonfarm business, 2014Q1 - 2018Q1

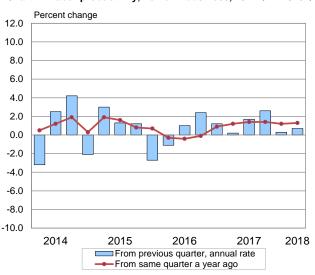
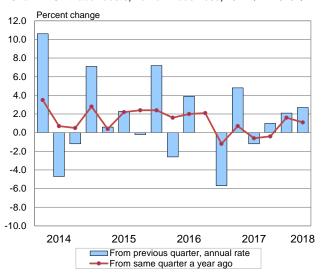


Chart 2. Unit labor costs, nonfarm business, 2014Q1 - 2018Q1



Unit labor costs in the nonfarm business sector increased 2.7 percent in the first quarter of 2018, reflecting a 3.4-percent increase in hourly compensation and a 0.7-percent increase in productivity. BLS calculates unit labor costs as the ratio of hourly compensation to labor productivity. Increases in hourly compensation tend to increase unit labor costs, and increases in output per hour tend to reduce them. When the change in consumer prices was taken into account, real hourly compensation declined 0.1 percent in the first quarter of 2018. Unit labor costs increased 1.1 percent over the last four quarters. (See chart 2 and tables A1 and 2.)

**Manufacturing sector labor productivity** rose 0.5 percent in the first quarter of 2018, as output increased 3.3 percent and hours worked increased 2.8 percent. Productivity increased 1.3 percent in the

durable manufacturing sector, as output grew at a 5.5-percent rate and hours worked increased 4.2 percent. In the non-durable goods manufacturing sector, a 0.6-percent increase in productivity reflected a 1.1-percent increase in output and a 0.5-percent increase in hours worked. Over the last four quarters, total manufacturing sector productivity increased 0.8 percent, as output increased 2.5 percent and hours worked increased 1.6 percent. **Unit labor costs** in manufacturing increased 2.7 percent in the first quarter of 2018 and increased 1.3 percent from the same quarter a year ago. (See tables A1 and 3.)

The concepts, sources, and methods used for the manufacturing output series differ from those used in the business and nonfarm business output series; these output measures are not directly comparable. See the Technical Notes for a more detailed explanation. (See page 6.)

Preliminary fourth quarter and annual 2017 measures were announced today for the **nonfinancial corporate sector.** Productivity increased 0.8 percent in the fourth quarter of 2017 and increased 1.7 percent over the last four quarters. Annual average productivity increased 1.0 percent from 2016 to 2017, following a decline of 0.1 percent in the previous year. The historical average annual rate of productivity growth in the nonfinancial corporate sector between 1947 and 2017 is 2.2 percent. (See tables A2, C1, and 6.)

### **Revised measures**

Hours and related measures, including productivity, were revised back to 2013 for all sectors to incorporate updated ratios of hours worked to hours paid by detailed industry; resulting revisions are small. Measures of real hourly compensation for all sectors were revised from 2010 forward to incorporate new and revised data from the BLS Office of Prices and Living Conditions. Output and related measures—including labor productivity and unit labor costs—for the manufacturing sector incorporate historically revised indexes of industrial production published by the Board of Governors of the Federal Reserve System on March 23, 2018.

In the **fourth quarter of 2017**, nonfarm business sector productivity increased 0.3 percent, rather than unchanged as reported March 7. Unit labor costs were revised down to an increase of 2.1 percent. Total manufacturing sector productivity increased 4.5 percent in the fourth quarter of 2017, a smaller increase than previously reported, reflecting both a downward revision to output and an upward revision to hours worked. Unit labor costs in the manufacturing sector decreased 2.2 percent during the fourth quarter, a smaller decline than previously reported. Fourth-quarter 2017 labor productivity was revised down 3.0 percentage points in the durable goods sector to an increase of 5.1 percent, and was revised up 0.1 percentage point in the nondurable goods sector to an increase of 3.5 percent. (See table B1.)

**Annual average** productivity growth in the nonfarm business sector was revised up for 2017, from 1.2 percent to 1.3 percent. (See table 2.) The annual average rate of manufacturing productivity growth for 2017 was revised down slightly from 0.6 percent to 0.4 percent, and the rate for 2016 was revised down from positive 0.4 percent to negative 0.4 percent. (See table 3.) The average annual rate of productivity growth in the total manufacturing sector from 2007 to 2017—corresponding to the current business cycle—was revised down from 0.8 percent to 0.7 percent.

Quarterly and annual data for all sectors for recent years appear in tables 1-6 and appendix tables 1-6. Full historical annual and quarterly measures can be found on the labor productivity and costs home page at www.bls.gov/lpc/#data.

The revised Productivity and Costs news release for first-quarter 2018 is scheduled to be released on Wednesday, June 6, 2018 at 8:30 a.m. (EDT)

Table A1. Labor productivity growth and related measures - preliminary first-quarter 2018
(percent change from previous guarter at annual rate and from same guarter a year ago)

Sector	Percent change from:	Labor productivity	Output	Hours worked	Hourly compensation	Real hourly compensation	Unit labor costs
Nonfarm busines:	s Previous quarter	0.7	2.8	2.1	3.4	-0.1	2.7
	A year ago	1.3	3.6	2.2	2.5	0.2	1.1
Business	Previous quarter	1.1	2.8	1.6	3.9	0.4	2.8
	A year ago	1.4	3.5	2.1	2.6	0.3	1.2
Manufacturing	Previous quarter	0.5	3.3	2.8	3.2	-0.3	2.7
	A year ago	0.8	2.5	1.6	2.1	-0.1	1.3
Durable	Previous quarter	1.3	5.5	4.2	4.2	0.7	2.9
manufacturing	A year ago	1.5	2.6	1.2	2.9	0.7	1.4
Nondurable	Previous quarter	0.6	1.1	0.5	1.0	-2.4	0.4
manufacturing	A year ago	-0.1	2.3	2.4	0.7	-1.5	0.9

# Table A2. Labor productivity growth and related measures - preliminary fourth-quarter 2017 (percent change from previous quarter at annual rate and from same quarter a year ago)

Sector	Percent change from:	Labor productivity	Output	Hours worked	Hourly compensation	Real hourly compensation	Unit labor costs
Nonfinancial	Previous quarter	0.8	3.5	2.7	2.0	-1.3	1.2
corporate	A year ago	1.7	3.9	2.2	2.6	0.5	0.9

## Table B1. Labor productivity growth and related measures - revised and previously published fourth-quarter 2017 (percent change from previous quarter at annual rate)

Sector		Labor productivity	Output	Hours worked	Hourly compensation	Real hourly compensation	Unit labor costs
Nonfarm business	Revised	0.3	3.7	3.3	2.4	-0.8	2.1
	Previously published	0.0	3.2	3.3	2.4	-1.2	2.5
Business	Revised	-0.4	3.6	4.1	1.7	-1.6	2.1
	Previously published	-0.8	3.1	4.0	1.7	-2.0	2.5
Manufacturing	Revised	4.5	5.6	1.1	2.2	-1.1	-2.2
	Previously published	6.0	6.6	0.5	2.5	-1.2	-3.3
Durable	Revised	5.1	5.5	0.4	2.3	-1.0	-2.6
manufacturing	Previously published	8.1	8.1	0.0	2.4	-1.3	-5.3
Nondurable	Revised	3.5	5.8	2.2	2.3	-1.0	-1.1
manufacturing	Previously published	3.4	4.9	1.5	2.7	-0.9	-0.6

Table C1. La	able C1. Labor productivity growth and related measures - annual average changes: 2013-2017										
Sector	Year	Labor productivity	Output	Hours worked	Hourly compensation	Real hourly compensation	Unit labor costs				
Nonfinancial	2017	1.0	2.8	1.7	1.5	-0.6	0.5				
corporate	2016	-0.1	1.4	1.5	1.1	-0.2	1.2				
	2015	1.4	3.6	2.2	3.0	2.8	1.6				
	2014	1.3	4.0	2.7	2.6	0.9	1.3				
	2013	0.2	2.3	2.0	1.3	-0.1	1.1				

### **TECHNICAL NOTES**

## **Labor Hours**

Hours data for the labor productivity and cost measures include hours worked 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, counting a person who is employed by two or more establishments at each place of employment. The CES also provides average weekly paid hours of production and nonsupervisory workers in these establishments. Weekly paid hours are adjusted to hours worked using data from the National Compensation Survey (NCS) for 1996 forward and data from the BLS Hours at Work survey, conducted for this purpose, prior to 1990. Between 1990 and 1995, weekly paid hours are adjusted to hours at work using a combination of NCS and Hours at Work survey data. The Office of Productivity and Technology estimates average weekly hours at work for nonproduction and supervisory workers using information from the Current Population Survey (CPS), the CES, and the NCS.

Data from the CPS are used to estimate hours worked for farm labor, nonfarm proprietors, and nonfarm unpaid family workers. Using CPS information on employment and hours worked at primary jobs and all other jobs, separately, the BLS productivity measures assign all hours worked to the appropriate industrial sector. Hours for government enterprises are derived from the CPS, the CES, and the National Income and Product Accounts (NIPA) prepared by the Bureau of Economic Analysis (BEA) of the Department of Commerce.

## Output

Business sector output is a chain-type, current-weighted index constructed after excluding from gross domestic product (GDP) the following outputs: general government, nonprofit institutions, and private households (including owner-occupied housing). Corresponding exclusions also are made in labor hours. Business output accounted for about 76 percent of the value of GDP in 2017. Nonfarm business, which excludes farming, accounted for about 75 percent of GDP in 2017.

Annual indexes for manufacturing and its durable and nondurable goods components are constructed by deflating current-dollar industry value of production data from the U.S. Bureau of the Census with deflators from the BLS. These deflators are based on data from the BLS Producer Price Index 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 indexes 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.

Nonfinancial corporate output is a chain-type, current-weighted index calculated on the basis of the costs incurred and the incomes earned from production. The output measure excludes the following outputs from GDP: general government; nonprofit institutions; private households; unincorporated business; and those corporations classified as offices of bank holding companies, offices of other holding companies, or offices in the finance and insurance sector. Nonfinancial corporations accounted for about 49 percent of the value of GDP in 2017.

## **Labor Productivity**

The measure describes the relationship between real output and the labor time involved in its production. Measures of labor productivity growth show the changes from period to period in the amount of goods and services produced per hour worked. 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.

## **Labor Compensation**

The measure includes accrued wages and salaries, supplements, employer contributions to employee benefit plans, and taxes. Estimates of labor compensation by major sector, required for measures of hourly compensation and unit labor costs, are based primarily on employee compensation data from the NIPA,

prepared by the BEA. The compensation of employees in general government, nonprofit institutions and private households are subtracted from compensation of employees in domestic industries to derive employee compensation for the business sector. The labor compensation of proprietors cannot be explicitly identified and must be estimated. This is done by assuming that proprietors have the same hourly compensation as employees in the same sector. The quarterly labor productivity and cost measures do not contain estimates of compensation for unpaid family workers.

#### **Unit Labor Costs**

These measures describe the relationship between compensation per hour and labor productivity, or real output per hour, and can be used as an indicator of inflationary pressure on producers. Increases in hourly compensation increase unit labor costs; labor productivity increases offset compensation increases and lower unit labor costs.

### Presentation of the data

The quarterly data in this release are presented in three ways: as percent changes from the previous quarter presented at a compound annual rate, as percent changes from the corresponding quarter of the previous year, and as index number series where 2009=100. Annual data are presented both as index number series and percent changes from the previous year.

The index numbers and rates of change reported in the productivity and costs news release are rounded to one decimal place. All percent changes in this release and on the BLS web site are calculated using index numbers to three decimal places. A complete historical series of these index numbers are available at the BLS web site, www.bls.gov/data/home.htm, or by contacting the BLS Division of Major Sector Productivity (Telephone 202-691-5606 or email productivity@bls.gov).

For a more detailed explanation of methodology see "Technical Information About the Major Sector Productivity and Costs Methods" at www.bls.gov/lpc/lpcmethods.pdf.

Information in this release will be made available to sensory-impaired individuals upon request. Voice phone: 202-691-5200; Federal Relay Service number: 1-800-877-8339.

Table 1. Business sector: Labor productivity, hourly compensation, unit labor costs, and prices, seasonally adjusted.

	Labor produc- tivity	Output		(1)	compen- sation (2)	costs	Unit nonlabor payments (3)	(4)
					er at annua			
2018 I	1.1	2.8	1.6	3.9	0.4	2.8	0.2	1.6
2017 ANNUAL	1.2	2.7	1.5	1.7	-0.4 r	0.5	3.0	1.6
2017 IV III II I	-0.4 r 3.2 1.6 -0.7	3.6 r 3.9 3.7 1.4	4.1 r 0.7 2.1 r 2.0 r	1.7 4.2 r 0.6 r 4.4 r	-1.6 r 2.0 r 0.5 r 1.4 r	2.1 r 0.9 -1.0 5.1	2.7 r 3.2 2.8 -3.0	2.4 1.9 0.6 1.5
2016 ANNUAL	0.1	1.6	1.5	1.1	-0.2	1.0	1.0	1.0
2016 IV III II I	1.9 r 2.6 0.8 r -1.0	2.2 3.3 2.6 0.4	0.3 0.7 1.8 r 1.4	2.8 r 4.5 -3.7	-6.3 r 0.9 1.7 r -3.6 r	0.1 3.7 -2.8	2.5 0.0 5.1	2.2 1.1 2.1 0.5
	Pe	rcent change	from corre	esponding qu	arter of pr	evious year		
2018 I	1.4	3.5	2.1	2.6	0.3	1.2	2.2	1.6
2017 ANNUAL	1.2	2.7	1.5	1.7	-0.4 r	0.5	3.0	1.6
2017 IV III II I	0.9 r 1.5 1.4 r 1.1	3.2 r 2.8 2.6 2.4	2.2 1.3 1.3 1.2 r	2.7 1.3 r 0.9 1.9	-0.9 r	-0.2	1.4 r 3.9 3.7 3.0	1.6 1.6 1.4 1.7
2016 ANNUAL	0.1	1.6	1.5	1.1	-0.2	1.0	1.0	1.0
2016 IV III II I	1.1 r -0.1 r -0.4 -0.2	1.6 1.2 1.4	1.8 1.6 1.6	1.9 r 1.4 1.3	-1.9 0.7 0.3 0.2	2.0 1.9 1.5	5.1 -0.6 -0.4 0.0	1.5 0.9 0.9 0.8
			Inde	exes 2009=10	00			
2018 I	109.0	126.1	115.7	119.9	102.8	110.0	118.1	113.4
2017 ANNUAL	108.2 r	123.6 r	114.1 r	117.7 r	102.8 r	108.7 r	116.9 r	112.1 r
2017 IV III II I	108.7 r 108.8 r 107.9 r 107.5 r	125.3 r 124.1 123.0 121.8	115.2 r 114.1 r 113.9 r 113.3 r	118.7 r 118.2 r 117.0 r 116.8 r	102.7 r 103.1 r 102.6 r 102.5 r	109.2 r 108.6 r 108.4 r 108.7 r	117.3 r 116.4 r	112.9 r 112.3 111.7 111.6
2016 ANNUAL	106.9 r	120.3	112.5 r	115.7 r	103.2 r	108.2 r	113.4 r	110.4
	107.7 r 107.2 r 106.5 r 106.3 r		112.7 r 112.7 r 112.5 r 112.0 r	115.6 r 116.7 r 115.9 r 114.6 r	102.2 r 103.8 r 103.6 r 103.2 r	107.3 r 108.9 r 108.8 r 107.8 r		111.2 110.5 110.2 109.7

Table 2. Nonfarm business sector: Labor productivity, hourly compensation, unit labor costs, and prices, seasonally adjusted.

Year and quart	ter	tivity	Output	worked	sation (1)	compen- sation (2)	labor costs	(3)	deflator
			Percent chan						
2018	I	0.7	2.8	2.1	3.4	-0.1	2.7	0.5	1.7
2017	ANNUAL	1.3 r	2.9	1.6	1.7 r	-0.5	0.3 r	3.0	1.5
2017	IV III I	0.3 r 2.6 1.7 0.2	4.0		3.6	-0.8 r 1.5 0.4 r 2.0 r	1.0	3.5	2.4 2.0 0.6 0.9
2016	ANNUAL	0.0	1.5	1.5	1.1	-0.2	1.1	1.4	1.2
2016	III II	1.2 r 2.4 1.0 r -1.1	3.3 2.5 0.2	0.9 1.5 r 1.3	2.5 r 4.9 -3.7	-7.1 r 0.6 2.1 r -3.6 r	0.0 3.9 -2.6	3.1 0.0 5.8	2.3 1.3 2.2 0.9
		Pei	rcent change						
2018	I	1.3	3.6	2.2	2.5	0.2	1.1	2.4	1.7
2017	ANNUAL	1.3 r				-0.5	0.3 r	3.0	1.5
2017	IV III I	1.2 r 1.4 1.4 r 1.2 r	3.0 2.8	1.5 r	1.1 r	0.8 r -0.9 -1.1 -0.7		1.3 r 3.9 3.8 3.1	1.5 1.5 1.3 1.7
2016	ANNUAL	0.0	1.5	1.5	1.1	-0.2	1.1	1.4	1.2
2016	III I	-0.1 r -0.4 -0.3	1.1	1.7 1.5 1.6	1.9 1.6 r 1.3 r	0.8 r 0.5 0.2	2.1 2.0 1.6	-0.1 -0.2 0.2	1.7 1.1 1.1 1.0
					exes 2009=10				
2018	I	109.1	126.3	115.8	120.0	103.0	110.0	118.3	113.4
2017	ANNUAL	108.4 r	123.7 r	114.1 r	117.9 r	103.0 r	108.8 r	116.8 r	112.1 r
2017	III I	108.9 r 108.8 r 108.1 r 107.7 r	123.1 122.0	113.9 r 113.3 r	117.3 r 117.1 r	103.2 r 102.9 r 102.7 r	108.4 r 108.7 r	116.3 r 115.5 r	111.7 111.5
2016	ANNUAL	107.0 r	120.2	112.4 r	116.0 r	103.5 r	108.4 r	113.4 r	110.5
2016	IV III I	107.6 r 107.3 r 106.7 r 106.4 r	121.4 120.8 119.8 119.0	112.8 r 112.5 r 112.3 r 111.9 r	115.7 r 117.0 r 116.3 r 114.9 r	102.2 r 104.1 r 104.0 r 103.4 r	107.5 r 109.1 r 109.1 r 108.0 r	116.6 r 112.9 r 112.0 r 112.0 r	111.3 110.7 110.3 109.7

Table 3. Manufacturing sector: Labor productivity, hourly compensation, and unit labor costs, seasonally adjusted.

Year and quart			Output	Hours worked	Hourly compensa- tion (1)		Unit labor costs
		Percen			at annual rate		
2018	I	0.5	3.3	2.8	3.2	-0.3	2.7
2017	ANNUAL	0.4 r	1.5 r	1.0	1.6	-0.6 r	1.1 r
2017	TV	4.5 r	5.6 r	1.1 r	2.2 r	-1.1 r	-2.2 r
201,	III	-5.0 r	-1.9 r	3.3 r	0.7	-1.4 r	6.0 r
	II	3.5 r	2.9	-0.6	2.3	2.3 r	-1.1 r
	I	-0.4 r	2.2 r	2.5	4.0	1.0 r	4.4 r
	-	0.1 1	2.2 1	2.5	1.0	1.0 1	1.1 1
2016	ANNUAL	-0.4 r	-0.4 r	0.0	0.7	-0.5	1.1 1
2016	TV	2.2 r	1.9 r	-0.3	-4.2 r	-6.7 r	-6.2 r
2010	III	-0.3 r	0.8 r	1.1	2.2	0.3 r	2.4 r
	II	-2.1 r	-2.4 r	-0.2	7.3 r	4.4 r	9.6 r
	I	0.7 r	0.1 r	-0.6	-9.8	-9.8 r	-10.4 r
					_		
2018	I	0.8	2.5	1.6	2.1	-0.1	1.3
2017	ANNUAL	0.4 r	1.5 r	1.0	1.6	-0.6 r	1.1 r
2017	IV	0.6 r	2.2 r	1.5 r	2.3 r	0.2 r	1.7 r
	III	0.0 r	1.2 r	1.2	0.7	-1.3 r	0.6
	II	1.3 r	1.9 r	0.7	1.0 r	-0.8	-0.2 r
	I	-0.2 r	0.6 r	0.8	2.2	-0.3	2.4 r
2016	ANNUAL	-0.4 r	-0.4 r	0.0	0.7	-0.5	1.1 r
2016	IV	0.1 r	0.1 r	0.0	-1.3	-3.1	-1.4 r
	III	-1.3 r	-0.8 r	0.4 r	1.8 r	0.6	3.1 r
	II	-0.6 r	-0.7 r	-0.2	1.7	0.6	2.3 r
	I	0.2 r	0.0 r	-0.1	0.8	-0.3	0.7 r
			Ir	ndexes 2009=100			
2018	I	107.9	119.0	110.4	114.9	98.6	106.5
2017	ANNUAL	107.3 r	116.9 r	109.0 r	113.3 r	98.9 r	105.6 r
2017	IV	107.7 r	118.1 r	109.6 r	114.0 r	98.7 r	105.8 r
	III	106.6 r	116.5 r	109.3 r	113.4 r	98.9 r	106.4 r
	II	107.9 r	117.0 r	108.4 r	113.1 r	99.3 r	104.9 r
	I	107.0 r	116.2 r	108.6 r	112.5 r	98.7 r	105.2 r
2016	ANNUAL	106.8 r	115.2 r	107.9 r	111.5 r	99.5 r	104.4 r
2016		107.1 r	115.6 r	107.9 r	111.4 r	98.5 r	104.0 r
	III	106.5 r	115.0 r	108.0 r	112.6 r	100.2 r	105.7 r
	II	106.6 r	114.8 r	107.7 r	112.0 r	100.1 r	105.1 r
	I	107.2 r	115.5 r	107.8 r	110.0 r	99.0 r	102.7 r

Table 4. Durable manufacturing sector: Labor productivity, hourly compensation, and unit labor costs, seasonally adjusted.

						Real	
Year		Labor			Hourly	hourly	Unit
and		produc-		Hours	compensa-	compensa-	labor
quar	ter		Output		tion (1)		costs
		Percent			at annual rate		
2018	I	1.3	5.5	4.2	4.2	0.7	2.9
2017	ANNUAL	0.9 r	1.6 r	0.6	1.9	-0.2	1.0 r
2017	IV	5.1 r	5.5 r	0.4 r	2.3 r	-1.0 r	-2.6 r
	III	-4.8 r	-2.3 r	2.6	-0.1	-2.2 r	4.9 r
	II	4.7 r	2.1 r	-2.4 r	5.4	5.3 r	0.7 r
	I	-0.9 r	2.8 r	3.7	2.5	-0.5 r	3.4 r
2016	ANNUAL	-1.3 r	-1.6 r	-0.4 r	1.1 r	-0.2	2.4 r
2016	IV	2.8 r	2.2 r	-0.6 r	-3.5 r	-6.1 r	-6.1 r
	III	1.3 r	1.6 r	0.3 r	2.4	0.6	1.1 r
	II	-1.3 r	-2.8 r	-1.5 r	9.4 r	6.5 r	10.8 r
	I	-2.4 r	-2.3 r	0.1 r	-10.9 r	-10.9 r	-8.8 r
					ter of previous		
2018	I	1.5	2.6	1.2	2.9	0.7	1.4
2017	ANNUAL	0.9 r	1.6 r	0.6	1.9	-0.2	1.0 r
0015		0 0	0.0	1 0	0.5	0.4	1 (
2017		0.9 r	2.0 r	1.0 r	2.5	0.4	1.6 r
	III	0.4	1.2	0.8	1.0	-0.9 r	0.6
	II	1.9 r	2.2 r	0.2	1.6	-0.3	-0.3 r
	I	0.5 r	0.9 r	0.5	2.6 r	0.0	2.1 r
2016	ANNUAL	-1.3 r	-1.6 r	-0.4 r	1.1 r	-0.2	2.4 r
2016	T17	0.1 r	-0.3 r	-0.4 r	-0.9 r	-2.7 r	-1.0 r
2010	III	-2.1 r			2.5 r	1.3 r	
			-2.1 r	0.0 r			4.7 r
	II	-1.8 r	-2.4 r	-0.7 r	2.3 r	1.1	4.1 r
	I	-1.3 r	-1.7 r	-0.4	0.7 r	-0.4	2.0 r
			Ir	dexes 2009=100			
2018	I	112.4	126.2	112.3	115.3	98.9	102.6
2017	ANNUAL	111.4 r	123.5 r	110.9 r	113.2 r	98.9 r	101.7 r
2017	IV	112.0 r	124.6 r	111.2 r	114.1 r	98.7 r	101.8 r
	III	110.7 r	122.9 r	111.1 r	113.4 r	99.0 r	102.5 r
	II	110.7 r	123.6 r	110.4 r	113.5 r	99.5 r	101.3 r
	I	112.0 r	123.0 r	111.0 r	112.0 r	98.2 r	101.3 r
	1	110.6 1	123.0 1	111.0 1	112.0 1	90.2 1	101.1 1
2016	ANNUAL	110.3 r	121.6 r	110.2 r	111.1 r	99.1 r	100.7 r
2016	IV	111.0 r	122.1 r	110.0 r	111.3 r	98.4 r	100.3 r
	III	110.2 r	121.5 r	110.2 r	112.3 r	99.9 r	101.9 r
	II	109.9 r	121.0 r		111.6 r		101.6 r
	I	110.2 r	121.9 r	110.5 r	109.1 r	98.2 r	99.0 r
0		6-11	6			3.6	2 2010

Table 5. Nondurable manufacturing sector: Labor productivity, hourly compensation, and unit labor costs, seasonally adjusted.

Year and quart		Labor produc- tivity	Output	Hours worked	Hourly compensa- tion (1)	Real hourly compensa- tion (2)	Unit labor costs
		Percen	 t change from p		at annual rate		
2018	I	0.6	1.1	0.5	1.0	-2.4	0.4
2017	ANNUAL	-0.3	1.4 r	1.8 r	1.0 r	-1.1	1.3 r
2017	IV	3.5 r	5.8 r	2.2 r	2.3 r	-1.0 r	-1.1 r
	III	-5.5 r	-1.4 r	4.3	2.5	0.4 r	8.5 r
	II	1.1 r	3.7 r	2.5 r	-2.9 r	-3.0 r	-4.0 r
	I	0.9 r	1.5 r	0.6	6.8	3.7 r	5.8 r
2016	ANNUAL	0.4 r	1.1 r	0.7	0.1 r	-1.2 r	-0.3 r
2016	TV	1.5 r	1.6 r	0.2 r	-5.2	-7.8 r	-6.6 r
2010	III	-2.4 r	0.0 r	2.4 r	1.8 r	0.0 r	4.3 r
	II	-3.9 r	-2.0 r	2.0 r	3.5 r	0.8 r	7.7 r
	I	4.7 r	2.7 r	-1.9 r	-7.6 r	-7.6	-11.8 r
					ter of previous		
2018	I	-0.1	2.3	2.4	0.7	-1.5	0.9
2017	ANNUAL	-0.3	1.4 r	1.8 r	1.0 r	-1.1	1.3 r
2017	T17	-0.1 r	2.4 r	2.4 r	2.1 r	0.0 r	2.2
2017	III	-0.1 r	1.3 r	1.9 r	0.2	-1.8 r	0.7 r
	II	0.2	1.7 r	1.4 r	0.2 0.0 r	-1.8 r	-0.2 r
	I	-1.0 r	0.3 r	1.4 r	1.6 r	-0.9 r	2.7 r
2016	ANNUAL	0.4 r	1.1 r	0.7	0.1 r	-1.2 r	-0.3 r
2016	IV	-0.1 r	0.6 r	0.7 r	-2.0 r	-3.7 r	-1.9 r
	III	-0.6 r	0.6 r	1.2 r	0.5 r	-0.6 r	1.2 r
	II	0.6 r	1.2 r	0.7 r	0.8 r	-0.3 r	0.2 r
	I	1.7 r	2.0 r	0.4 r	1.1 r	0.0 r	-0.5 r
				idexes 2009=100			
2018	I	105.5	113.1	107.2	113.8	97.6	107.8
2017	ANNUAL	105.4 r	111.6 r	105.9 r	112.8 r	98.5 r	107.1 r
2017	IV	105.4 r	112.8 r	107.1 r	113.5 r	98.2 r	107.7 r
	III	104.5 r	111.3 r	106.5 r	112.8 r	98.4 r	108.0 r
	II	106.0 r	111.6 r	105.4 r	112.1 r	98.3 r	105.8 r
	I	105.7 r	110.6 r	104.7 r	112.9 r	99.1 r	106.9 r
2016	ANNUAL	105.7 r	110.0 r	104.1 r	111.7 r	99.7 r	105.7 r
2016	IV	105.5 r	110.2 r	104.5 r	111.1 r	98.2 r	105.4 r
	III	105.1 r	109.8 r	104.5 r	112.6 r	100.2 r	107.2 r
	II	105.7 r	109.8 r	103.9 r	112.1 r	100.2 r	106.1 r
	I	106.8 r	110.3 r	103.3 r	111.1 r	100.2 r	104.1 r
	<del>-</del>						

May 3, 2018 Source: Bureau of Labor Statistics See footnotes following Table 6.

r=revised

Table 6. Nonfinancial corporate sector: Labor productivity, hourly compensation, unit labor costs, unit profits, and prices, seasonally adjusted.

Year and quar		Labor productivity	Output	Hours worked	Hourly compensation	sation	labor costs	Unit nonlabor costs (6)	costs (7)	profits (8)	Implicit price deflator (4)
			Percen	t change f	from previo	us quarter	at annua	al rate (5	)		
2017	ANNUAL	1.0	2.8	1.7	1.5	-0.6	0.5	0.7	0.6	0.3	0.5
2017		0.8	3.5	2.7	2.0	-1.3	1.2	-1.3	0.4	2.6	0.7
	III II	0.3 r 3.6	1.7 6.4	1.5 2.7 r	3.6 0.5 r	1.4 r 0.4 r	3.3 -3.0	1.8 -1.8	2.8 -2.6	1.6 13.7	2.7 -0.6
	I	2.2 r	4.1	1.8 r		1.5 r		-1.0	1.2	-2.7	0.7
2016	ANNUAL	-0.1 r	1.4	1.5	1.1	-0.2	1.2	-0.5	0.7	-5.3	-0.2
2016		-4.6	-3.9	0.7 r	-3.7	-6.3 r	0.9	9.2	3.5	-2.8	2.7
	III II	5.8 -1.9	7.4 -0.6	1.5 r 1.3	1.9 r 3.9 r	0.0 1.1 r	-3.7 5.9	-4.5 1.7	-4.0 4.5	7.3 -28.8	-2.6 -0.8
	I	0.7 r	1.1	0.4 r	-1.6 r	-1.6 r		-13.0	-5.9	47.7	0.0
2015	ANNUAL	1.4	3.6	2.2	3.0	2.8 r	1.6	0.4	1.2	-5.1	0.3
2015		-1.7	1.5	3.3	3.1	3.0 r			7.7	-41.5	-0.9
	III II	0.6 -1.9	2.5 -0.9	1.9 1.0	0.4 2.8	-1.2 r 0.1 r	-0.2 4.8	-0.1 4.0	-0.2 4.5	5.3 -1.3	0.6 3.7
	I	3.6	4.6	1.0 r	7.5	10.3	3.7	-2.2	1.8	-23.7	-2.5
					om correspo						
2017	ANNUAL	1.0	2.8	1.7	1.5	-0.6	0.5	0.7	0.6	0.3	0.5
2017		1.7	3.9	2.2	2.6	0.5	0.9	-0.6	0.4	3.6	0.9
	III II	0.3 1.7 r	2.0 3.4	1.7 1.7 r	1.2 r 0.7	-0.8 -1.1 r	0.8 -0.9	2.0 0.4	1.2 -0.5	2.3 3.7	1.3
	I	0.3	1.7	1.3 r	1.6 r	-1.0		1.2	1.3	-7.8	0.0
2016	ANNUAL	-0.1 r	1.4	1.5	1.1	-0.2	1.2	-0.5	0.7	-5.3	-0.2
2016		-0.1	0.9	1.0	0.1 r	-1.7 r	0.1	-2.0	-0.6	2.3	-0.2
	III II	0.7 r -0.6	2.3 1.1	1.6 r 1.7	1.8 r 1.4	0.6 0.3	1.1 2.0	-1.0 0.1	0.4 1.4	-9.9 -10.3	-1.1 -0.3
	I	-0.6	1.1	1.7	1.2 r	0.1	1.7	0.7	1.4	-2.6	0.8
2015	ANNUAL	1.4	3.6	2.2	3.0	2.8 r	1.6	0.4	1.2	-5.1	0.3
2015	IV	0.1	1.9	1.8	3.4	2.9 r	3.3	3.7	3.4	-17.5	0.2
	III	1.0	2.8	1.8	3.3 3.5	3.0 r	2.3	0.1	1.6	-6.1 -2.1	0.4
	I	2.7	6.0	3.2 r	1.9	2.0	-0.8	-1.8	-1.1	7.6	0.3
					Indexes						
2017	ANNUAL	108.8	126.9	116.6	117.2	102.3	107.6	100.7	105.3	138.4	108.8
2017	IV	109.3	128.5	117.6	118.1	102.2			105.6	140.5	109.2
	III	109.1 r	127.4	116.8 r	117.6 r	102.6 r	107.8	100.9	105.5	139.6	109.1
	I	109.0 r 108.0 r		116.4 r 115.6 r	116.5 r 116.4 r	102.2 r 102.1 r		100.4	104.8		108.3 108.5
2016	ANNUAL	107.7 r	123.5	114.6 r	115.4 r	102.9 r	107.1	99.9	104.7	138.0	108.2
2016	IV	107.4 r			115.1 r				105.1	135.5	108.3
	III	108.7 r	124.9	114.9 r	116.2 r	103.4 r	106.9	98.9	104.2	136.5	107.6
	II I			114.4 r 114.1 r	115.7 r 114.6 r	103.4 r 103.1 r		100.1 99.7	105.3 104.1	134.1 146.0	108.3 108.5
2015		107.9							104.0		
2015	TV	107.5 r	122 5	114 0 ~	115.0 r	103 5 2	107 0	103 2	105.7	132.4	108.5
2013				113.0	114.2	102.8 r	105.7	99.9			
					114.2 114.0 r						
	I 				113.3 r			98.9			107.6

r=revised

May 3, 2018 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. Hours and compensation 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 -1.5 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 2017.

## **Table Footnotes**

- (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) The change for recent quarters is based on the Consumer Price Index for all urban consumers (CPI-U). The trend from 1978-2017 is based on the Consumer Price Index research series (CPI-U-RS).
- (3) Unit nonlabor payments include profits, consumption of fixed capital, taxes on production and imports less subsidies, net interest and miscellaneous payments, business current transfer payments, rental income of persons, and the current surplus of government enterprises.
- (4) Current dollar output divided by the output index.
- (5) Quarterly changes: Percent change compounded at annual rate is calculated using index numbers to three decimal places. Indexes published in the news release are rounded to one decimal place for convenience. Annual changes: Percent change is calculated using annual indexes to three decimal places.
- (6) Unit nonlabor costs include consumption of fixed capital, taxes on production and imports less subsidies, net interest and miscellaneous payments, and business current transfer payments.
- (7) Total unit costs are the sum of unit labor and nonlabor costs.
- (8) Unit profits include corporate profits before tax with inventory valuation and capital consumption adjustments.

Appendix table 1.

Business sector: Revised labor productivity, hourly compensation, unit labor costs, and prices, seasonally adjusted.

					1	Real			
Year		Labor			Hourly compen-	hourly compen-	Unit	Unit nonlabor	Implicit price
and		produc-		Hours		sation	labor	payments	deflator
quar	ter	_	Output		(1)	(2)	costs	(3)	(4)
		 I		 nge from pre					
2015	ANNUAL	1.1	3.5	2.3	2.9	2.7 r	1.7	-0.8	0.6
2015		-2.9	0.2	3.2	4.1	3.9 r	7.2 r	-9.2	-0.2
2013	III	1.5	1.6	0.1	1.1	-0.5	-0.4	3.2	1.1
	II	1.6	3.3	1.6	3.9	1.2 r	2.3	1.6	2.0
	I	2.7	4.0	1.3	3.3	6.0	0.6	-2.4	-0.7
2014	ANNUAL	0.8	3.2	2.4	2.7	1.0	1.9	1.3	1.6
2014		-2.2	2.5	4.8	4.5				-0.1
	III	3.5	6.8	3.1	2.2	1.1	-1.3	5.3	1.6
	II	2.3	5.8	3.4	-2.4	-4.4 r	-4.6	12.6	2.5
	I	-3.1	-1.7	1.5	7.4	4.6	10.9	-9.7	1.4
	ANNUAL	0.7	2.2	1.5	1.3		0.6	2.7	1.5
2013		3.8	5.4		1.9	0.4		6.5	1.7
	III	1.5	4.1	2.6	0.6	-1.5	-0.9	5.5	1.9
	II	-0.1 2.3	1.1 3.7	$1.1 \\ 1.4$	5.9 -8.3	6.3 r -9.9 r		-6.2 19.8	0.5 1.5
			_	e from corre		_	-		
2015	ANNUAL	1.1	3.5	2.3	2.9	2.7 r	1.7	-0.8	0.6
2015		0.7	2.3	1.5	3.1	2.6 r	2.4	-1.9	0.5
	III	0.9	2.8	1.9	3.2	3.0	2.3	-1.6	0.6
	II	1.4	4.1	2.7	3.5	3.4	2.1	-1.1	0.7
	I	1.6	4.8	3.1	1.9			1.5	0.8
	ANNUAL	0.8	3.2	2.4	2.7			1.3	1.6
2014		0.1	3.3	3.2	2.9	1.6	2.8	-0.5	1.3
	III	1.6	4.0	2.4	2.2	0.4	0.6	3.3	1.8
	II I	1.1 0.5	3.4 2.2	2.2 1.7	1.8 3.9	-0.3 r 2.4	0.7 3.4	3.4 -1.2	1.9
2012		0.5			1.3				1.4
	ANNUAL		2.2				0.6	2.7	1.5
2013	III	1.9 0.6	3.6 2.3	1.6 1.7	-0.1 2.2	-1.4 r 0.6 r	-2.0 1.6	6.0 1.0	1.4 1.3
	II	-0.1	1.4	1.5	2.2	0.6 r		0.5	1.4
	I	0.5	1.7	1.3	1.3	-0.5	0.8	3.3	1.9
				 Tnde	exes 2009=10				
2015	ANNUAL	106.8	118.4	110.8			107.1	112.3	109.3
		106.6 r						110.8 r	
2015	III	106.6 r 107.3 r	118.9	111.6 F	114.6	104.1 r 103.1 r	108.6 1	110.8 r 113.5	109.5
	II	107.3 r 106.9 r	118.4	110.7 110.7 r	114.3 r		106.7 106.9 r	112.6	109.3
	I	106.5 r	117.4	110.7 I 110.2 r	114.3 r	103.3 r	106.3	112.0 112.2 r	108.7
2014	ANNUAL		114.4	108.3	111.2	100.6 r	105.3	113.2	108.6
2014	IV	105.8 r	116.3	109.9 r	112.3 r	101.5 r	106.1	112.9 r	108.9
	III	106.4 r	115.5	108.6 r	111.0 r	100.2 r	104.4	115.4	109.0
	II	105.5	113.7	107.8	110.4	99.9 r	104.7	113.9	108.5
	I	104.9 r	112.1	106.9 r	111.1 r	101.0 r	106.0	110.6	107.9
2013	ANNUAL	104.8	110.8	105.8	108.3	99.7 r	103.4	111.8	106.9
2013	IV	105.7	112.6	106.5 r	109.1 r	99.9 r	103.3	113.4	107.5
	III	104.7	111.1	106.1	108.6	99.8 r	103.7	111.6	107.1
	II	104.3	110.0	105.4	108.5	100.2 r 98.7 r	104.0	110.1	106.6
	I	104.3	109.7	105.1	106.9 r	98.7 r	102.5	111.9	106.4
		es following							av 3 2018

r=revised

May 3, 2018 Source: Bureau of Labor Statistics

Appendix table 2. Nonfarm business sector: Revised labor productivity, hourly compensation, unit labor costs, and prices, seasonally adjusted.

		Labor produc- tivity	Output	Hours worked	compen- sation	Real hourly compen- sation (2)	Unit labor costs	Unit nonlabor payments (3)	Implicit price deflator (4)			
quarter tivity Output worked (1) (2) costs (3) (4)  Percent change from previous quarter at annual rate(5)												
2015	ANNUAL	1.2	3.4	2.2	3.1	2.9 r	1.8	-0.3	0.9			
2015		-2.7		3.0 r	4.3	4.1 r	7.2	-8.8				
	III	1.2	1.3	0.1 2.0	1.0	-0.6 r 0.9 r	-0.2 2.3	3.0 1.5	1.2 1.9			
			4.0	0.9								
2014	ANNUAL	1.0	3.3	2.3	2.9	1.1 r	1.9	1.6	1.8			
2014	IV		2.3	4.5								
	III II	4.2 2.5	6.9 5.8	2.6 r	3.0	1.8 r -4.3 r	-1.2 -4.7	6.5 11.9	2.1 2.1			
				1.9								
2013	ANNUAL	0.3	2.0	1.7	1.2	-0.3	0.9	2.4	1.5			
2013		4.1	5.6	1.4	2.1	0.6	-1.9	8.0				
	III II	1.6 -0.6	3.8	2.2 1.2	1.1	-1.1	-0.5	6.2	2.3 1.1			
	I	0.9	2.8	1.9	-8.9	-10.4	-9.7	17.7	1.1			
I 0.9 2.8 1.9 -8.9 -10.4 -9.7 17.7 1.1  Percent change from corresponding quarter of previous year												
2015	ANNUAL	1.2	3.4	2.2	3.1	2.9 r	1.8	-0.3	0.9			
2015	IV	0.7		1.5	3.1				0.8			
	III	0.8	2.7		3.3			-1.3	0.8			
	II I	1.6 1.9	4.1 4.7	2.5 2.8	3.8 2.3	3.7 r 2.3 r		-0.5 2.0	1.0 1.1			
2014	ANNUAL	1.0	3.3	2.3	2.9	1.1 r	1.9	1.6	1.8			
2014	IV	0.3	3.4			1.8 r		-0.4	1.4			
	III II	1.9 1.2	4.2 3.4	2.3	2.4 1.9	0.6 -0.2 r		3.8 3.7	1.9 2.0			
	I	0.5	2.1	1.7	4.0	2.5	3.5	-0.6	1.7			
2013	ANNUAL	0.3	2.0	1.7	1.2	-0.3	0.9	2.4	1.5			
2013	IV	1.5	3.2	1.7	-0.1	-1.3	-1.6		1.7			
	III II	0.1 -0.5	1.9 1.2	1.8 1.7	2.1 1.9	0.5 r 0.4		0.6 -0.1	1.4 1.3			
	I		1.7	1.5	1.0	-0.8	0.8	2.7	1.6			
				 Inde	xes 2009=10	 )0						
2015	ANNUAL	107.0	118.5	110.7	114.7	103.6 r	107.2	111.8	109.1			
2015	IV	106.7 r	119.0	111.5 r	116.0 r	104.4 r	108.7	110.4 r	109.5			
	III	107.4	118.9	110.7	114.8 r	103.4 r	106.9	113.0	109.4			
	I	107.1 r 106.8 r	118.5 117.6	110.6 r 110.1 r	114.5 r 113.5 r	103.5 r 103.3 r	106.9 r 106.3	112.2 111.8 r	109.1 108.6			
2014	ANNUAL	105.7	114.6	108.4	111.3	100.7 r	105.3	112.2	108.2			
2014	IV	106.0 r	116.4	109.8 r	112.5 r	101.7 r	106.1	112.0	108.6			
	III	106.5	115.7	108.7	111.2	100.3 r	104.4	114.5	108.6			
	II I	105.4 r 104.8 r	113.8 112.2	108.0 r 107.1 r	110.4 r 111.0 r	99.8 r 100.9 r	104.7 105.9	112.7 109.6	108.0 107.5			
2013	ANNUAL	104.7	110.9	106.0	108.2	99.5 r	103.3	110.5	106.3			
2013		105.6	112.6	106.6	100.2	99.9 r	103.3	112.5	107.1			
2013	III	103.6 104.6 r	111.1	106.2	109.1	99.7 r	103.8	110.3	106.5			
	II -	104.1 r	110.1	105.7 r	108.3 r	100.0 r	103.9	108.7	105.9			
	I 	104.3	109.9	105.4 r	106.7 r	98.5 r	102.3 	110.3	105.6 			

r=revised

May 3, 2018 Source: Bureau of Labor Statistics

Appendix table 3.

Manufacturing sector: Revised labor productivity, hourly compensation, and unit labor costs, seasonally adjusted.

Year and quar	ter	Labor produc- tivity	Output	Hours worked	Hourly compensa- tion (1)	Real hourly compensa- tion (2)	Unit labor costs
					at annual rate(		
2015	ANNUAL	0.3	1.2	1.0	2.5	2.3 r	2.2
2015	IV	-3.3 r	-1.8 r	1.5	8.5	8.3 r	12.2 r
	III	2.7 r	1.3 r	-1.3	1.9	0.3 r	-0.7 r
	II	0.7 r	0.6 r	-0.1 r	3.6	0.8 r	2.8 r
	I	0.3 r	-0.4 r	-0.8	0.4	3.0	0.0 r
2014	ANNUAL	0.0	1.6	1.6	2.8	1.1	2.8
2014		-1.4 r	2.9 r	4.3	4.9	5.7 r	6.3 r
	III	1.0 r	2.7 r	1.7	2.2	1.1	1.2 r
	II	0.9 r	4.8	3.8	-3.2	-5.2 r	-4.1
	I	0.5 r	-1.1 r	-1.6	11.3	8.4	10.8 r
2013	ANNUAL	0.9	1.8	0.8	0.2	-1.3	-0.8
2013		-1.6 r	2.1 r	3.8	-1.1	-2.6	0.5 r
	III	-1.8 r	0.0 r	1.8	0.9	-1.3 r	2.8 r
	II I	3.0 r 2.8 r	1.0 r 4.9 r	-2.0 2.1	3.1 -4.6	3.5 r -6.2 r	0.1 r -7.2 r
		Percent	change from cor	responding quar	ter of previous	year	
2015	ANNUAL	0.3	1.2	1.0	2.5	2.3 r	2.2
2015		0.1 r	-0.1 r	-0.2	3.6 r	3.1	3.5 r
	III	0.6	1.1	0.5	2.7	2.4 r	2.1 r
	II I	0.2 r	1.4 r	1.3	2.7	2.6 r 1.1	2.6 r
0014		0.2 r	2.5 r	2.2	1.0		0.8 r
	ANNUAL	0.0	1.6	1.6	2.8	1.1	2.8
2014		0.3 r	2.3 r	2.0	3.7	2.4	3.4 r
	III II	0.2 -0.5 r	2.1 1.4 r	1.9 1.9	2.2 1.8	0.3 r -0.3 r	1.9 2.3 r
	I	0.0	0.5	0.5	3.4	1.9 r	3.4
2013	ANNUAL	0.9	1.8	0.8	0.2	-1.3	-0.8
2013		0.6 r	2.0 r	1.4	-0.5	-1.7 r	-1.0 r
2013	III	1.5 r	2.0 r	0.5	0.9	-0.6	-0.6 r
	II	1.5 r	1.7	0.2	0.4	-1.0	-1.1
	I	0.2 r	1.4 r	1.2	-0.2	-1.9	-0.4 r
			 In	dexes 2009=100			
2015	ANNUAL	107.2	115.6	107.8	110.7	100.0 r	103.2
2015	IV	107.0 r	115.5 r	107.9 r	112.9 r	101.6 r	105.6 r
	III	107.9 r	116.0 r	107.5	110.6	99.6 r	102.6 r
	II	107.2 r	115.6 r	107.9	110.1	99.5 r	102.7 r
	I	107.0 r	115.4 r	107.9 r	109.1 r	99.3 r	102.0 r
2014	ANNUAL	107.0	114.2	106.8	108.0	97.7 r	101.0
2014		106.9 r	115.6 r	108.1	109.0	98.6 r	102.0 r
	III	107.3 r	114.8 r	107.0	107.7	97.2 r	100.5 r
	II	107.0 r 106.7 r	114.0 r 112.7 r	106.5 105.6	107.2 108.0	96.9 r 98.3 r	100.2 r 101.2 r
2012	ANNUAL						
		107.0	112.5	105.1	105.1	96.7 r	98.2
2013		106.6 r	113.0 r	106.0	105.2	96.3 r	98.7 r
	III	107.0 r	112.4 r	105.0	105.5	96.9 r	98.5 r
	II I	107.5 r 106.7 r	112.4 r 112.1 r	104.5 105.1	105.2 104.4	97.2 r 96.4 r	97.9 r 97.9 r

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r=revised

Source: Bureau of Labor Statistics

Appendix table 4.

Durable manufacturing sector: Revised labor productivity, hourly compensation, and unit labor costs, seasonally adjusted.

Year and quarter	Labor produc- tivity	Output	Hours worked	Hourly compensa- tion (1)	Real hourly compensa- tion (2)	Unit labor costs
	Percen			at annual rate(		
2015 ANNUAL	0.3	0.8	0.5	3.1	2.9 r	2.8
2015 IV	-5.8 r	-4.9 r	1.0 r	10.5 r	10.3 r	17.3 r
III	2.5 r	0.3 r	-2.2	1.6 r	0.0	-0.9 r
II I	0.7 r -0.4 r	0.2 r -1.7 r	-0.5 -1.3	2.9 2.2	0.1 r 4.8 r	2.1 r 2.6 r
2014 ANNUAL	0.6	2.8	2.2	2.3	0.6	1.7
2014 IV	0.9 r	3.1 r	2.2	6.1	7.0 r	5.2 r
III	0.8 r	4.0 r	3.2	2.3	1.1 r	1.4 r
II	0.6 r	6.4 r	5.8	-3.8 r	-5.8 r	-4.4 r
I	1.1 r	-0.3 r	-1.4	11.2	8.4	10.0 r
2013 ANNUAL	0.9	2.1	1.2	-0.6	-2.0	-1.5
2013 IV	-0.1 r	4.3 r	4.5	-3.5	-5.0	-3.4 r
III II	-1.1 r 3.2 r	0.7 r 1.1 r	1.9 -2.0 r	1.7 2.3 r	-0.5 2.7 r	2.9 r -0.9 r
I	2.1 r	5.5 r	3.3	-6.0	-7.6	-8.0 r
	Percent	change from cor	responding quar	ter of previous	year	
2015 ANNUAL	0.3	0.8	0.5	3.1	2.9 r	2.8
2015 IV	-0.8 r	-1.6 r	-0.8 r	4.2	3.7 r	5.0 r
III	0.9 r	0.5	-0.5	3.2	2.9 r	2.2 r
II	0.5 r	1.4 r	0.9	3.3 r	3.2 r	2.8 r
I	0.5 r	2.9 r	2.4	1.6	1.7	1.2 r
2014 ANNUAL	0.6	2.8	2.2	2.3	0.6	1.7
2014 IV III	0.8 r 0.6	3.3 r 3.6	2.4 3.0	3.8 1.3	2.5 -0.5 r	2.9 r 0.8 r
II	0.1 r	2.7 r	2.7	1.2	-0.9 r	1.1 r
I	0.7 r	1.5	0.7	2.8	1.3	2.0
2013 ANNUAL	0.9	2.1	1.2	-0.6	-2.0	-1.5
2013 IV	1.0 r	2.9 r	1.9	-1.4	-2.7 r	-2.4 r
III II	1.5 1.2	2.3 1.6 r	0.8 0.4	0.7 -0.3	-0.9 r -1.8 r	-0.8
I	0.1 r	1.6 r	1.6	-1.2	-2.9	-1.5 -1.3 r
		In	dexes 2009=100			
2015 ANNUAL	111.8	123.7	110.6	109.9	99.3 r	98.3
2015 IV	110.9 r	122.6 r	110.5 r	112.4 r	101.1 r	101.3 r
III	112.6 r	124.1 r	110.2	109.6	98.7 r	97.3 r
II I	111.9 r 111.7 r	124.0 r 124.0 r	110.8 r 111.0 r	109.2 r 108.4 r	98.7 r 98.6 r	97.6 r 97.1 r
2014 ANNUAL	111.5	122.7	110.1	106.6	96.5 r	95.6
2014 IV	111.8 r	124.5 r	111.3 r	107.8 r	97.5 r	96.4 r
III	111.6 r	123.5 r	110.7	106.2	95.8 r	95.2 r
II	111.3 r	122.3 r	109.9 r	105.6 r	95.6 r	94.9 r
I	111.2 r	120.5 r	108.3	106.7	97.0 r	95.9 r
2013 ANNUAL	110.8	119.4	107.7	104.2	95.9 r	94.0
2013 IV	110.9 r	120.5 r 119.3 r	108.7	103.9 104.8	95.1 r 96.3 r	93.7 r 94.5 r
III II	110.9 r 111.2 r	119.3 r 119.1 r	107.5 107.0 r	104.8 104.4 r	96.3 r 96.4 r	94.5 r 93.8 r
I	110.4 r	118.7 r	107.6	103.8	95.8 r	94.0 r

May 3, 2018 Source: Bureau of Labor Statistics

r=revised

bource: Bureau or habor bracistics

Appendix table 5.

Nondurable manufacturing sector: Revised labor productivity, hourly compensation, and unit labor costs, seasonally adjusted.

Year		Labor			Hourly	Real hourly	Unit
and		produc-		Hours	compensa-	compensa-	labor
quart			Output		tion (1)		costs
		Percen	t change from p	revious quarter	at annual rate	(5)	
2015	ANNUAL	0.2	1.9	1.7	1.5	1.3 r	1.3
2015	IV	-0.7 r	1.7 r	2.5 r	4.9 r	4.8 r	5.7 r
	III	2.4 r	2.5 r	0.1	2.9	1.2 r	0.5 r
	II I	0.4 r 1.1 r	1.2 r 1.2 r	0.8 r 0.1	5.0 -2.9	2.2 r -0.4	4.5 r -3.9 r
2014	ANNUAL	0.1	0.7	0.6	3.6	1.9	3.5
2014	III	-4.8 r 2.5 r	2.8 r 1.6 r	8.0 r -0.9 r	2.9 r 1.9 r	3.7 r 0.7	8.1 r -0.6 r
	II	3.0 r	3.5 r	0.5 r	-2.3	-4.3 r	-5.1 r
	I	0.5 r	-1.4 r	-1.9	11.4	8.6	10.8 r
2013	ANNUAL	1.3	1.5	0.2	1.5	0.1	0.2
2013	IV	-2.3 r	0.2 r	2.6	3.6	2.1	6.1 r
	III	-2.2 r	-0.6 r	1.6	-0.5	-2.7 r	1.7 r
	II	2.8 r	0.9 r	-1.9	4.6	5.0 r	1.7 r
	I	4.1 r	4.2 r	0.0	-2.0	-3.7 r	-5.9 r
					ter of previous		
2015	ANNUAL	0.2	1.9	1.7	1.5	1.3 r	1.3
2015	IV	0.8 r	1.7 r	0.9 r	2.4	1.9 r	1.6 r
2025	III	-0.3 r	1.9	2.2	1.9	1.7 r	2.2
	II	-0.2	1.7 r	1.9 r	1.7	1.6	1.9 r
	I	0.4	2.3	1.9	-0.2	-0.1	-0.5 r
2014	ANNUAL	0.1	0.7	0.6	3.6	1.9	3.5
2014	IV	0.2 r	1.6 r	1.4	3.3	2.1	3.1 r
	III	0.9	1.0 r	0.1	3.5	1.7	2.6
	II	-0.3	0.4	0.7	2.9	0.8 r	3.2
	I	-0.3 r	-0.2 r	0.1	4.7	3.1 r	5.0 r
2013	ANNUAL	1.3	1.5	0.2	1.5	0.1	0.2
2013		0.6 r	1.1 r	0.6	1.4	0.1 r	0.8 r
	III	1.8 r	1.6 r	-0.1	1.2	-0.3	-0.5 r
	II I	2.2 r 0.9 r	2.0 r 1.4 r	-0.2 0.5	1.8 1.8	0.3 r 0.0	-0.4 0.9 r
		0.9 1	1.4 1	0.5	1.0		
			Ir	dexes 2009=100			
2015	ANNUAL	105.4	108.8	103.3	111.6	100.8 r	106.0
2015		105.5 r	109.6 r	103.8 r	113.4 r	102.0 r	107.4 r
	III	105.7 r	109.1 r	103.2	112.0	100.8 r	105.9 r
	II	105.1 r 105.0 r	108.5 r 108.1 r	103.2 103.0 r	111.2 r 109.9 r	100.5 r 100.0 r	105.8 r 104.6 r
0014							
	ANNUAL	105.2	106.8	101.6	110.0	99.6 r	104.6
2014		104.7 r	107.8 r				105.7 r
	III II	106.0 r 105.4 r	107.1 r 106.6 r	101.0 101.2 r	109.9 109.4 r	99.2 r 99.0 r	103.7 r 103.8 r
	I	105.4 r 104.6 r	106.6 r 105.7 r	101.2 r 101.1	109.4 r 110.1	99.0 r 100.1 r	103.8 r 105.2 r
2013		105.0	106.1	101.0	106.2	97.7 r	101.1
∠∪⊥3	III	104.5 °C 105 1 ~	106.1 r	101.6	107.1 106.2	98.0 r 97.5 r	102.5 r 101.0 r
	II	105.1 1 105.7 r	106.1 r 106.2 r 106.0 r	100.5	106.2	98.2 r	101.0 r
	I	104 9 2	106.2 I	101.0	105.1	97.0 r	100.0 r

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r=revised

Source: Bureau of Labor Statistics

Appendix table 6. Nonfinancial corporate sector: Revised labor productivity, hourly compensation, unit labor costs, unit profits, and prices, seasonally adjusted.

Year and quart	ter	Labor produc- tivity	Output	Hours worked	Hourly compensation (1)	Real hourly compen- sation (2)	Unit labor costs	Unit nonlabor costs (6)	Total unit costs (7)	Unit profits (8)	Implicit price deflator (4)
			Percen	t change f	rom previo						
2015	ANNUAL	1.4	3.6	2.2	3.0	2.8 r	1.6	0.4	1.2	-5.1	0.3
2015	IV	-1.7	1.5	3.3	3.1	3.0 r	4.9	13.8	7.7	-41.5	-0.9
	III	0.6	2.5	1.9	0.4	-1.2 r	-0.2	-0.1	-0.2	5.3	0.6
	I	-1.9 3.6	-0.9 4.6	1.0 1.0 r	2.8 7.5	0.1 r 10.3	4.8 3.7	4.0 -2.2	4.5 1.8	-1.3 -23.7	3.7 -2.5
2014	ANNUAL	1.3	4.0	2.7	2.6	0.9	1.3	-0.2	0.8	1.4	0.9
2014		1.8	5.3	3.5	2.5	3.4 r	0.8	-1.1	0.2	-1.8	-0.2
2011	III	3.8	6.9	3.0	1.2	0.1	-2.5	-2.2	-2.4	24.0	1.2
	II	1.7	7.1	5.3	-3.3	-5.3 r	-4.9	-1.7	-3.9	44.2	1.8
	I	3.1	4.5	1.4	10.4	7.6	7.1	-0.5	4.6	-28.5	-0.9
2013	ANNUAL	0.2	2.3	2.0	1.3	-0.1	1.1	0.2	0.8	4.6	1.4
2013		-0.6	1.5	2.1	0.9	-0.6	1.5	2.0	1.7	2.7	1.8
	III II	-3.5 2.4	-0.9 3.8	2.7 1.4	-0.3 3.9	-2.4 4.3 r	3.4 1.4	3.2 -2.0	3.3 0.3	-1.9 -3.0	2.5 -0.2
	I	-0.8	2.7	3.4	-4.0	-5.6	-3.3	0.4	-2.1	-3.0 19.6	0.9
			Percent	 change fro	om correspo	nding quar	ter of p	 revious yea	 ar		
2015	ANNUAL	1.4	3.6	2.2	3.0	2.8 r	1.6	0.4	1.2	-5.1	0.3
2015		0.1	1.9	1.8	3.4	2.9 r	3.3	3.7	3.4	-17.5	0.2
2013	III	1.0	2.8	1.8	3.3	3.0 r	2.3	0.1	1.6	-6.1	0.4
	II	1.8	3.9	2.1	3.5	3.4	1.6	-0.4	1.0	-2.1	0.5
	I	2.7	6.0	3.2 r	1.9	2.0	-0.8	-1.8	-1.1	7.6	0.1
2014	ANNUAL	1.3	4.0	2.7	2.6	0.9	1.3	-0.2	0.8	1.4	0.9
2014		2.6	5.9	3.3	2.6	1.3 r	0.0	-1.4	-0.4	5.8	0.5
	III	2.0	5.0	2.9	2.2	0.4	0.2	-0.6	-0.1	7.0	1.0
	II I	0.2 r 0.3	3.0 2.2	2.8 1.9	1.8 3.7	-0.3 r 2.1 r	1.7 3.3	0.7 0.7	$\frac{1.4}{2.4}$	0.9 -8.6	1.3 0.8
2013	ANNUAL	0.2	2.3	2.0	1.3	-0.1	1.1	0.2	0.8	4.6	1.4
2013	TV	-0.6	1.7	2.4	0.1	-1.1	0.7	0.9	0.8	4.0	1.2
2013	III	1.1	3.3	2.2	1.9	0.4	0.8	-0.5	0.4	4.4	1.0
	II	0.6	2.4	1.9	2.0	0.5 r	1.4	-0.1	0.9	3.4	1.3
	I 	-0.1	1.6	1.7	1.4	-0.4 r	1.5	0.7	1.2	6.6	2.0
					Indexes	2009=100					
2015	ANNUAL	107.9	121.8	112.9	114.1	103.1 r	105.8	100.5	104.0	145.8	108.4
2015	IV	107.5 r	122.5	114.0 r	115.0 r	103.5 r	107.0	103.2	105.7	132.4	108.5
	III	108.0	122.0	113.0	114.2	102.8 r	105.7	99.9	103.8	151.4	108.8
	II	107.8 r	121.3	112.5 r	114.0 r	103.1 r	105.8	99.9	103.8	149.5	108.6
2014	I	108.3 r	121.6	112.2 r	113.3 r	103.1 r	104.6	98.9	102.7	150.0	107.6
	ANNUAL	106.4	117.6	110.5	110.8	100.2 r	104.1	100.1	102.8	153.6	108.1
2014	IV	107.4 r 106.9	120.2 118.7	112.0 r 111.0	111.2 r 110.5	100.6 r 99.7 r	103.6 103.4	99.5 99.8	102.2 102.2	160.5 161.2	108.3 108.4
	II	106.9 105.9 r	116.7	111.0 110.2 r		99.7 r 99.7 r	103.4	100.3	102.2	152.7	108.4
	I	105.4 r	114.7	108.8 r	111.1 r	101.1 r	105.4	100.8	103.8	139.4	107.6
2013	ANNUAL	105.1	113.0	107.6	108.0	99.4 r	102.8	100.2	101.9	151.5	107.1
2013	IV	104.6	113.5	108.4	108.4	99.2 r	103.6	100.9	102.7	151.6	107.8
	III	104.8		107.9	108.2	99.4 r	103.2		102.3	150.6	107.3
	II I			107.2 r		100.0 r	102.4	99.6	101.4	151.3	106.7
				106.8 r		98.9 r	102.0	100.1 	101.4	152.5 	106.7

r=revised

May 3, 2018 Source: Bureau of Labor Statistics