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PRODUCTIVITY AND COSTS
 Second Quarter 2017, Preliminary

Nonfarm business sector labor productivity increased 0.9 percent during the second quarter of 2017, the U.S. Bureau of Labor Statistics reported today, as output increased 3.4 percent and hours worked increased 2.5 percent. (All quarterly percent changes in this release are seasonally adjusted annual rates.) From the second quarter of 2016 to the second quarter of 2017, productivity increased 1.2 percent, reflecting a 2.7-percent increase in output and a 1.5-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, 2013Q1 – 2017Q2

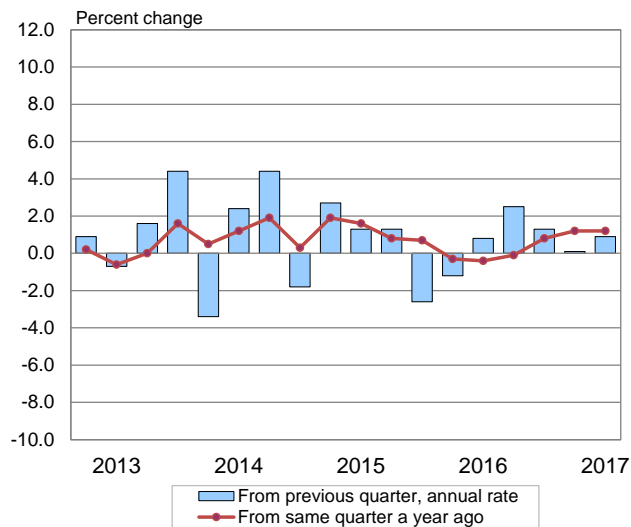
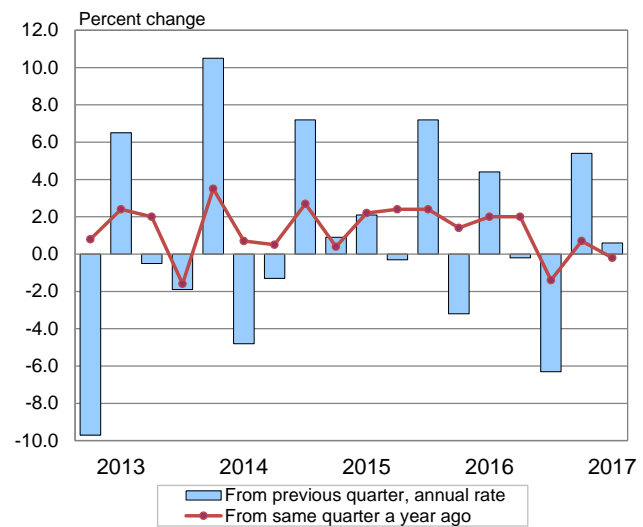


Chart 2. Unit labor costs, nonfarm business, 2013Q1 – 2017Q2



Unit labor costs in the nonfarm business sector increased 0.6 percent in the second quarter of 2017, reflecting a 1.6-percent increase in hourly compensation and a 0.9-percent increase in productivity. Unit labor costs decreased 0.2 percent over the last four quarters. (See chart 2 and tables A1 and 2.)

Historical Revisions to Productivity and Costs Data

Data in this release reflect revisions to the National Income and Product Accounts (NIPA) released by the Bureau of Economic Analysis of the U.S. Department of Commerce on July 28, 2017. See “Revised measures” section (page 2).

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.

Manufacturing sector labor productivity increased 2.5 percent in the second quarter of 2017, as output increased 1.6 percent and hours worked decreased 0.9 percent. Output per hour increased 3.8 percent in the durable goods manufacturing sector and edged down 0.1 percent in the nondurable goods sector. Over the last four quarters, manufacturing sector productivity increased 1.0 percent, as output increased 1.5 percent and hours worked increased 0.4 percent. (See tables A1, 3, 4 and 5.) **Unit labor costs** in manufacturing decreased 0.3 percent in the second quarter of 2017 and rose 0.1 percent from the same quarter a year ago.

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 7.)

Revised measures

Measures of output for the business, nonfarm business, and nonfinancial corporate sectors, and measures of compensation for all sectors incorporate revised National Income and Product Accounts (NIPA) data for first-quarter 2014 through first-quarter 2017 released on July 28 by the Bureau of Economic Analysis, U.S. Department of Commerce. Measures of output for the manufacturing sectors incorporate regular updates of source data for the first quarter of 2017 and the fourth quarter of 2016. Hours and related measures were revised back to 2012 for the business and nonfarm business sectors due to revised NIPA data on government enterprises employment and on the proportion of sector compensation paid to employees of nonprofit institutions. Hours and related measures were revised back to 2007 for the nonfinancial corporate sector due to the incorporation of 2012 Economic Census data on employment and revised NIPA data on the proportion of sector compensation paid to employees of corporations.

Table B1 presents revised and previous labor productivity and related measures for the nonfarm business, business, and manufacturing sectors for the first quarter of 2017, and table C1 presents annual data for the nonfarm business, total manufacturing, and nonfinancial corporate sectors from 2014 to 2016. Revised quarterly and annual series for all sectors in recent years appear in tables 1-6 and appendix tables 1-6. Indexes of all hours-related measures in the nonfinancial corporate sector show historical revisions because hours in the base year of 2009 were revised; resulting revisions to percent changes are small. Complete annual and quarterly data series can be found on the Productivity and Costs home page: www.bls.gov/lpc/#data.

Nonfarm business sector productivity increased 0.1 percent in the **first quarter of 2017**—similar to the previously reported estimate (0.0 percent)—the combined effect of a small upward revision to output and a small downward revision to hours. (See table B1.) A large upward revision to first-quarter unit labor costs—from an increase of 2.2 percent to an increase of 5.4 percent—reflected a 3.3-percentage point upward revision to hourly compensation and a 0.1-percentage point upward revision to productivity. Real hourly compensation increased 2.3 percent after revision, rather than the previously published decrease of 0.9 percent.

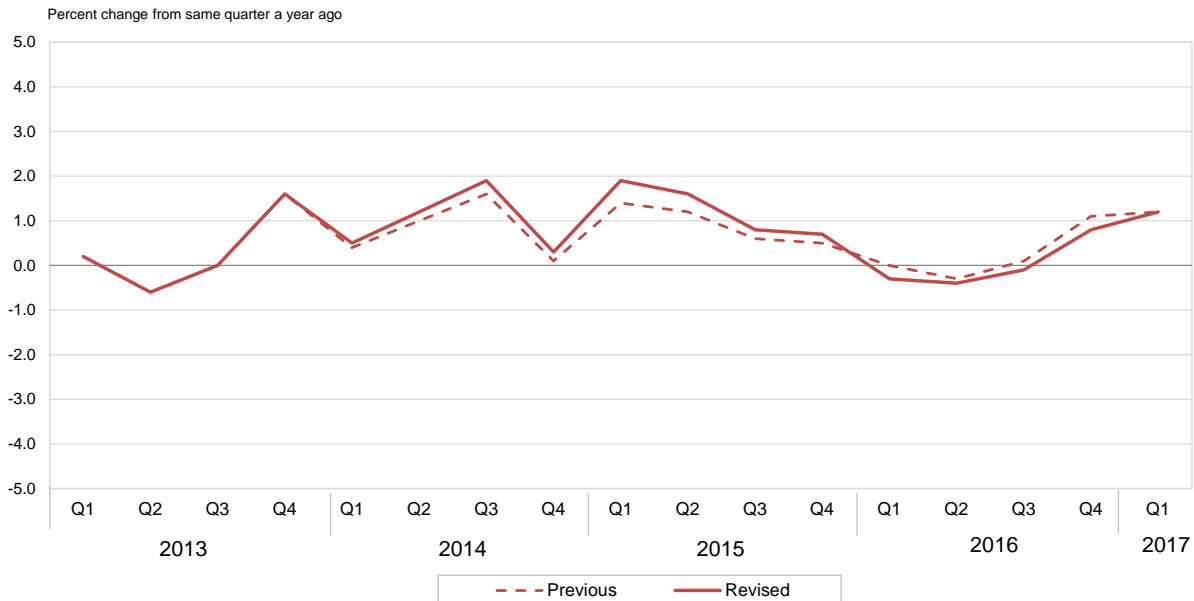
Historical revisions to quarterly labor productivity in the nonfarm business sector are presented in Charts 3 and 4. Chart 3 shows the revised and previous estimates of percent changes from previous quarter for the first quarter of 2013 through the first quarter of 2017. The noteworthy revisions to productivity begin in 2014 and mirror the NIPA revisions to output. The period from the first quarter of 2014 through the second quarter of 2015 was characterized by mostly upward revisions (with the largest being a 1.5-percentage point upward revision in the first quarter of 2015), while third-quarter 2015 through first-quarter 2017 saw mainly downward revisions.

Chart 3. Labor productivity, revised and previous percent change from previous quarter, nonfarm business, all persons, 2013Q1 – 2017Q1



Chart 4 shows the previous and revised percent changes from the same quarter a year ago in nonfarm business labor productivity. After revision, the four-quarter rate of productivity growth was higher than previously reported in every quarter of 2014 and 2015, and was lower than previously reported in each quarter of 2016.

Chart 4. Labor productivity, revised and previous percent changes from same quarter a year ago, nonfarm business, all persons, 2013Q1 – 2017Q1



Annual Average productivity growth in the nonfarm business sector in 2016 was revised down to a decrease of 0.1 percent. (See table C1.) As revised, the decrease in productivity in 2016 is the first annual decrease since a 1.0-percent decrease in 1982. In 2015 and 2014, annual productivity growth was revised up to increases of 1.3 percent and 1.0 percent, respectively. The average annual rate of productivity growth from 2012 to 2016—the period affected by the revisions—was unrevised at 0.6 percent per year. Unit labor costs increased 1.0 percent in the nonfarm business sector in 2016, rather than increasing 2.2 percent, as a 1.6-percentage point downward revision to hourly compensation was partially offset by a 0.3-percentage point downward revision to productivity. As revised, hourly compensation increased 0.9 percent in the nonfarm business sector, the smallest increase in the series which begins in 1947. Real hourly compensation declined 0.4 percent in 2016 rather than increasing 1.2 percent. There were small upward revisions to hourly compensation and real hourly compensation in 2014 and 2015.

Manufacturing sector productivity increased 0.3 percent in the **first quarter of 2017**—slightly less than previously reported. Productivity decreased 0.9 percent in the durable goods sector and increased 2.6 percent in the nondurable goods sector. (See table B1.) Unit labor costs increased 3.9 percent in the manufacturing sector rather than increasing 2.4 percent as reported June 5, reflecting both a small downward revision to productivity and a 1.3-percentage point upward revision to hourly compensation. Real hourly compensation increased 1.0 percent, as revised.

Annual average manufacturing productivity grew 0.2 percent in 2016, unrevised from the previously reported estimate. Productivity was unrevised in the manufacturing sector in 2015 and 2014. Unit labor costs was revised down to an increase of 0.6 percent in 2016, reflecting a 1.9-percentage point downward revision to hourly compensation. After revision, manufacturing real hourly compensation declined 0.5 percent in 2016 rather than increasing 1.3 percent. (See tables C1, 3, 4, and 5.)

Nonfinancial corporate sector productivity growth was revised up in the **first quarter of 2017**, to an increase of 2.0 percent, rather than the previously published decrease of 1.5 percent; this revision was due solely to a 3.5-percentage point upward revision to output; hours were unrevised. (See table A2.)

Annual average productivity in the nonfinancial corporate sector decreased 0.1 percent in 2016, a downward revision from the previously reported 0.4-percent increase. This measure was revised up 0.6 percentage point in 2015 to an increase of 1.4 percent, and was revised up 1.0 percentage point in 2014 to an increase of 1.3 percent. (See tables C1 and 6.)

Methodology change for manufacturing output

Beginning with the *Productivity and Costs* news release scheduled for December 6, 2017, BLS plans to incorporate source data reflecting a change in methodology for estimating manufacturing output. For more information see: www.bls.gov/mfp/sectoraloutputrevisions.htm.

The revised Productivity and Costs news release for second-quarter 2017 is scheduled to be released on Thursday, September 7, 2017 at 8:30 a.m. (EDT).

Table A1. Labor productivity growth and related measures - preliminary second-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
Nonfarm business	Previous quarter	0.9	3.4	2.5	1.6	1.9	0.6
	A year ago	1.2	2.7	1.5	1.0	-0.9	-0.2
Business	Previous quarter	0.6	3.1	2.4	1.6	1.9	0.9
	A year ago	1.1	2.5	1.3	1.1	-0.8	0.0
Manufacturing	Previous quarter	2.5	1.6	-0.9	2.2	2.5	-0.3
	A year ago	1.0	1.5	0.4	1.1	-0.8	0.1
Durable manufacturing	Previous quarter	3.8	0.9	-2.7	3.0	3.3	-0.8
	A year ago	1.3	1.7	0.3	0.8	-1.1	-0.5
Nondurable manufacturing	Previous quarter	-0.1	2.3	2.4	1.1	1.4	1.2
	A year ago	0.6	1.3	0.7	1.7	-0.2	1.1

Table A2. Labor productivity growth and related measures - revised and previously published first-quarter 2017
(percent change from previous quarter at annual rate)

Sector		Labor productivity	Output	Hours worked	Hourly compensation	Real hourly compensation	Unit labor costs
Nonfinancial corporate	Revised	2.0	4.0	2.0	4.2	1.0	2.2
	Previously published	-1.5	0.5	2.0	1.9	-1.2	3.4

Table B1. Labor productivity growth and related measures - revised and previously published first-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	0.1	1.8	1.6	5.5	2.3	5.4
	Previously published	0.0	1.7	1.7	2.2	-0.9	2.2
Business	Revised	-0.8	1.4	2.1	4.9	1.7	5.7
	Previously published	-1.0	1.1	2.2	1.6	-1.5	2.7
Manufacturing	Revised	0.3	2.4	2.1	4.2	1.0	3.9
	Previously published	0.5	2.6	2.1	2.9	-0.3	2.4
Durable manufacturing	Revised	-0.9	2.7	3.6	2.3	-0.9	3.2
	Previously published	-0.7	2.9	3.6	1.7	-1.4	2.4
Nondurable manufacturing	Revised	2.6	2.1	-0.5	7.8	4.5	5.1
	Previously published	2.7	2.3	-0.4	4.9	1.7	2.1

Table C1. Labor productivity growth and related measures - revised and previous annual average changes: 2014-2016

Sector	Year		Labor productivity	Output	Hours worked	Hourly compensation	Real hourly compensation	Unit labor costs
Nonfarm business	2016	Revised	-0.1	1.5	1.6	0.9	-0.4	1.0
		Previously published	0.2	1.7	1.5	2.5	1.2	2.2
	2015	Revised	1.3	3.4	2.1	3.2	3.0	1.9
		Previously published	0.9	3.1	2.1	3.0	2.8	2.0
	2014	Revised	1.0	3.3	2.2	2.9	1.2	1.8
		Previously published	0.8	3.0	2.2	2.8	1.1	2.0
Manufacturing	2016	Revised	0.2	0.2	0.0	0.7	-0.5	0.6
		Previously published	0.2	0.2	0.0	2.6	1.3	2.4
	2015	Revised	-0.6	0.3	1.0	2.5	2.4	3.1
		Previously published	-0.6	0.3	1.0	2.4	2.3	3.0
	2014	Revised	0.1	1.7	1.5	2.8	1.2	2.7
		Previously published	0.1	1.7	1.5	2.8	1.1	2.7
Nonfinancial corporate	2016	Revised	-0.1	1.4	1.5	1.1	-0.2	1.2
		Previously published	0.4	1.9	1.5	1.9	0.6	1.5
	2015	Revised	1.4	3.6	2.2	3.0	2.9	1.6
		Previously published	0.8	3.0	2.2	2.9	2.8	2.2
	2014	Revised	1.3	4.0	2.7	2.6	0.9	1.3
		Previously published	0.3	3.0	2.7	2.5	0.8	2.2

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 75 percent of the value of GDP in 2016. Nonfarm business, which excludes farming, also accounted for about 75 percent of GDP in 2016.

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 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 50 percent of the value of GDP in 2016.

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/lpcmmethods.pdf.

Information in this release will be made available to sensory-impaired individuals upon request. Voice phone: 202-691-5606; Federal Relay Service number: 1-800-877-8339.

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

Year and quarter	Labor productivity	Output	Hours worked	Hourly compensation (1)	Real hourly compensation (2)	Unit labor costs	Unit nonlabor payments (3)	Implicit price deflator (4)
Percent change from previous quarter at annual rate (5)								
2017 II	0.6	3.1	2.4	1.6	1.9	0.9	0.2	0.6
I	-0.8 r	1.4 r	2.1 r	4.9 r	1.7 r	5.7 r	-3.7 r	1.5 r
2016 ANNUAL	0.0 r	1.6 r	1.6 r	0.9 r	-0.4 r	0.9 r	1.2 r	1.0
2016 IV	2.0 r	2.2 r	0.2	-4.2 r	-7.1 r	-6.1 r	14.1 r	2.2 r
III	2.7 r	3.3 r	0.6	2.6 r	0.8 r	-0.1 r	2.8 r	1.1 r
II	0.6 r	2.6 r	2.0	4.9 r	2.5 r	4.2 r	-0.7 r	2.1
I	-1.1 r	0.4 r	1.5	-4.4 r	-4.5 r	-3.4 r	6.0 r	0.5 r
2015 ANNUAL	1.2 r	3.5 r	2.3	3.0 r	2.8 r	1.8 r	-0.8 r	0.6 r
2015 IV	-2.7 r	0.2 r	3.0	4.3 r	3.9 r	7.2 r	-9.3 r	-0.2 r
III	1.6 r	1.6 r	0.0 r	1.1 r	-0.4 r	-0.5 r	3.3 r	1.1 r
II	1.6 r	3.3 r	1.7	3.7 r	1.3 r	2.1 r	1.8 r	2.0 r
I	2.4 r	4.0 r	1.5	3.2 r	5.9 r	0.8 r	-2.7 r	-0.7 r
Percent change from corresponding quarter of previous year								
2017 II	1.1	2.5	1.3	1.1	-0.8	0.0	3.2	1.4
I	1.1 r	2.4	1.2	2.0 r	-0.6 r	0.8 r	2.9 r	1.7
2016 ANNUAL	0.0 r	1.6 r	1.6 r	0.9 r	-0.4 r	0.9 r	1.2 r	1.0
2016 IV	1.0 r	2.1 r	1.1	-0.4 r	-2.1 r	-1.4 r	5.4 r	1.5 r
III	-0.1 r	1.6 r	1.8	1.8 r	0.6 r	1.9 r	-0.4 r	0.9
II	-0.4 r	1.2 r	1.6	1.4 r	0.3 r	1.8 r	-0.3 r	0.9
I	-0.2 r	1.4 r	1.5	1.1 r	0.0 r	1.3 r	0.3 r	0.8 r
2015 ANNUAL	1.2 r	3.5 r	2.3	3.0 r	2.8 r	1.8 r	-0.8 r	0.6 r
2015 IV	0.7 r	2.3 r	1.6 r	3.1 r	2.6 r	2.4 r	-1.9	0.5 r
III	0.9 r	2.8 r	1.9	3.2	3.1	2.3 r	-1.6 r	0.6
II	1.4 r	4.1 r	2.7 r	3.5 r	3.5 r	2.1 r	-1.1 r	0.7
I	1.6 r	4.8 r	3.1	1.9 r	2.0 r	0.3 r	1.5 r	0.8
Indexes 2009=100								
2017 II	107.7	122.8	114.0	117.1	103.0	108.8	115.8	111.7
I	107.5 r	121.8 r	113.3 r	116.7 r	102.5 r	108.5 r	115.8 r	111.6 r
2016 ANNUAL	106.9 r	120.3 r	112.5 r	115.5 r	103.3 r	108.1 r	113.7 r	110.4 r
2016 IV	107.7 r	121.4 r	112.7 r	115.3 r	102.1 r	107.1 r	116.9 r	111.2 r
III	107.2 r	120.8 r	112.7 r	116.6 r	104.0 r	108.7 r	113.1 r	110.5 r
II	106.5 r	119.8 r	112.5 r	115.8 r	103.8 r	108.8 r	112.3 r	110.2 r
I	106.3 r	119.0 r	112.0 r	114.4 r	103.2 r	107.7 r	112.5 r	109.7 r
2015 ANNUAL	106.9 r	118.4 r	110.7 r	114.5 r	103.6 r	107.1 r	112.3 r	109.3 r
2015 IV	106.6 r	118.9 r	111.5 r	115.7 r	104.3 r	108.6 r	110.8 r	109.5 r
III	107.3 r	118.8 r	110.7 r	114.5 r	103.4 r	106.7 r	113.6 r	109.6 r
II	106.9 r	118.4 r	110.7 r	114.2 r	103.5 r	106.8 r	112.6 r	109.3 r
I	106.5 r	117.4 r	110.3 r	113.2 r	103.1 r	106.3 r	112.2 r	108.7

See footnotes following Table 6.
r=revised

August 9, 2017
Source: Bureau of Labor Statistics

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

Year and quarter	Labor productivity	Output	Hours worked	Hourly compensation (1)	Real hourly compensation (2)	Unit labor costs	Unit nonlabor payments (3)	Implicit price deflator (4)

Percent change from previous quarter at annual rate (5)								
2017 II	0.9	3.4	2.5	1.6	1.9	0.6	0.5	0.6
I	0.1 r	1.8 r	1.6 r	5.5 r	2.3 r	5.4 r	-4.6 r	0.9 r
2016 ANNUAL	-0.1 r	1.5 r	1.6 r	0.9 r	-0.4 r	1.0 r	1.6 r	1.2
2016 IV	1.3 r	2.2 r	1.0	-5.1 r	-7.9 r	-6.3 r	14.8 r	2.3 r
III	2.5 r	3.3 r	0.8	2.3 r	0.5 r	-0.2 r	3.5 r	1.3 r
II	0.8 r	2.5 r	1.7	5.3 r	2.9 r	4.4 r	-0.7 r	2.2 r
I	-1.2 r	0.2 r	1.4	-4.4 r	-4.5 r	-3.2 r	6.7 r	0.9 r
2015 ANNUAL	1.3 r	3.4 r	2.1	3.2 r	3.0 r	1.9 r	-0.4	0.9 r
2015 IV	-2.6 r	0.3 r	2.9	4.5 r	4.1 r	7.2 r	-8.8 r	0.1 r
III	1.3 r	1.3 r	0.0	1.0 r	-0.5 r	-0.3 r	3.1 r	1.2 r
II	1.3 r	3.3 r	2.0	3.4 r	1.1 r	2.1 r	1.7 r	1.9 r
I	2.7 r	4.0 r	1.2	3.6 r	6.3 r	0.9 r	-1.2 r	0.0 r

Percent change from corresponding quarter of previous year								
2017 II	1.2	2.7	1.5	1.0	-0.9	-0.2	3.3	1.3
I	1.2	2.5	1.3	1.9 r	-0.7 r	0.7 r	3.0 r	1.7
2016 ANNUAL	-0.1 r	1.5 r	1.6 r	0.9 r	-0.4 r	1.0 r	1.6 r	1.2
2016 IV	0.8 r	2.1 r	1.2	-0.6 r	-2.3 r	-1.4 r	5.9 r	1.7 r
III	-0.1 r	1.6 r	1.7	1.8 r	0.7 r	2.0 r	0.0 r	1.1
II	-0.4 r	1.1 r	1.5	1.5 r	0.4 r	2.0 r	-0.1 r	1.1
I	-0.3 r	1.3 r	1.6	1.1 r	0.0 r	1.4 r	0.5 r	1.0
2015 ANNUAL	1.3 r	3.4 r	2.1	3.2 r	3.0 r	1.9 r	-0.4	0.9 r
2015 IV	0.7 r	2.2 r	1.5	3.1 r	2.7 r	2.4 r	-1.4	0.8 r
III	0.8 r	2.7 r	1.9 r	3.3 r	3.2 r	2.4 r	-1.3 r	0.8
II	1.6 r	4.1 r	2.5 r	3.8 r	3.8 r	2.2 r	-0.5 r	1.0
I	1.9 r	4.7 r	2.8	2.3 r	2.4 r	0.4 r	1.9 r	1.1 r

Indexes 2009=100								
2017 II	107.9	123.0	114.0	117.4	103.2	108.8	115.8	111.7
I	107.7 r	122.0 r	113.3 r	116.9 r	102.8 r	108.6 r	115.6 r	111.5 r
2016 ANNUAL	107.0 r	120.2 r	112.4 r	115.8 r	103.5 r	108.2 r	113.6 r	110.5 r
2016 IV	107.6 r	121.4 r	112.8 r	115.4 r	102.2 r	107.2 r	117.0 r	111.3 r
III	107.3 r	120.8 r	112.5 r	116.9 r	104.3 r	108.9 r	113.1 r	110.7 r
II	106.6 r	119.8 r	112.3 r	116.2 r	104.2 r	109.0 r	112.1 r	110.3 r
I	106.4 r	119.0 r	111.9 r	114.7 r	103.4 r	107.8 r	112.3 r	109.7 r
2015 ANNUAL	107.1 r	118.5 r	110.7 r	114.8 r	103.9 r	107.2 r	111.8 r	109.1 r
2015 IV	106.7 r	119.0 r	111.5 r	116.0 r	104.6 r	108.7 r	110.5 r	109.5 r
III	107.4 r	118.9 r	110.7 r	114.8 r	103.6 r	106.8 r	113.1 r	109.4 r
II	107.1 r	118.5 r	110.7 r	114.5 r	103.7 r	106.9 r	112.2 r	109.1 r
I	106.7 r	117.6 r	110.1 r	113.5 r	103.4 r	106.4 r	111.7 r	108.6 r

See footnotes following Table 6.
r=revised

August 9, 2017
Source: Bureau of Labor Statistics

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

Year and quarter	Labor productivity	Output	Hours worked	Hourly compensation (1)	Real hourly compensation (2)	Unit labor costs

Percent change from previous quarter at annual rate (5)						
2017 II	2.5	1.6	-0.9	2.2	2.5	-0.3
I	0.3 r	2.4 r	2.1	4.2 r	1.0 r	3.9 r
2016 ANNUAL	0.2	0.2	0.0	0.7 r	-0.5 r	0.6 r
2016 IV	2.0	1.8	-0.2	-4.2 r	-7.1 r	-6.1 r
III	-0.5	0.2	0.7	2.6 r	0.8 r	3.1 r
II	-0.8	-0.9	-0.1	7.1 r	4.7 r	8.0 r
I	1.3	1.0	-0.3	-10.1 r	-10.2 r	-11.3 r
2015 ANNUAL	-0.6	0.3	1.0	2.5 r	2.4 r	3.1 r
2015 IV	-1.6	-0.6	1.0	9.1 r	8.7 r	10.9 r
III	2.3	1.1	-1.2	1.8 r	0.3 r	-0.5 r
II	-0.4	-0.3	0.0	3.5 r	1.1 r	3.9 r
I	-1.9	-2.3	-0.4	0.0 r	2.6 r	1.9 r

Percent change from corresponding quarter of previous year						
2017 II	1.0	1.5	0.4	1.1	-0.8	0.1
I	0.2 r	0.9	0.6	2.3 r	-0.2 r	2.1 r
2016 ANNUAL	0.2	0.2	0.0	0.7 r	-0.5 r	0.6 r
2016 IV	0.5	0.5	0.0	-1.4 r	-3.1 r	-1.9 r
III	-0.4	-0.1	0.3	1.9 r	0.7 r	2.3 r
II	0.3	0.1	-0.2	1.7 r	0.6 r	1.4 r
I	0.4	0.3	-0.1	0.8 r	-0.3 r	0.4 r
2015 ANNUAL	-0.6	0.3	1.0	2.5 r	2.4 r	3.1 r
2015 IV	-0.4	-0.5	-0.2	3.5 r	3.1 r	3.9 r
III	-0.5	0.1	0.6	2.6	2.4 r	3.1 r
II	-1.0	0.2	1.3	2.7 r	2.7 r	3.8 r
I	-0.6	1.6	2.2	1.0 r	1.1 r	1.7 r

Indexes 2009=100						
2017 II	119.9	129.7	108.2	113.2	99.5	94.4
I	119.1 r	129.2 r	108.5 r	112.6 r	98.9 r	94.5 r
2016 ANNUAL	118.7	128.1	107.8	111.5 r	99.7 r	93.9 r
2016 IV	119.0 r	128.4 r	107.9	111.4 r	98.7 r	93.6 r
III	118.5	127.9	107.9	112.6 r	100.5 r	95.1 r
II	118.6	127.8	107.8	111.9 r	100.3 r	94.4 r
I	118.9	128.1	107.8	110.0 r	99.2 r	92.6 r
2015 ANNUAL	118.5	127.8	107.8	110.7 r	100.2 r	93.4 r
2015 IV	118.5	127.8	107.9	113.0 r	101.9 r	95.4 r
III	118.9	128.0	107.6	110.6 r	99.8 r	92.9 r
II	118.3	127.6	107.9	110.1 r	99.7 r	93.1 r
I	118.4	127.7	107.9	109.1 r	99.4 r	92.2 r

See footnotes following Table 6.
r=revised

August 9, 2017
Source: Bureau of Labor Statistics

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

Year and quarter	Labor productivity	Output	Hours worked	Hourly compensation (1)	Real hourly compensation (2)	Unit labor costs

Percent change from previous quarter at annual rate (5)						
2017 II	3.8	0.9	-2.7	3.0	3.3	-0.8
I	-0.9 r	2.7 r	3.6	2.3 r	-0.9 r	3.2 r
2016 ANNUAL	0.1	-0.2	-0.3	1.0 r	-0.3 r	0.9 r
2016 IV	1.8	2.0	0.2	-4.3 r	-7.1 r	-6.0 r
III	0.7	1.0	0.3	2.5 r	0.7 r	1.7 r
II	1.9	0.2	-1.6	9.5 r	7.0 r	7.5 r
I	-0.6	0.1	0.7	-11.4 r	-11.5 r	-10.9 r
2015 ANNUAL	-1.3	-0.8	0.6	3.0 r	2.9 r	4.4 r
2015 IV	-3.1	-2.5	0.7	10.8 r	10.4 r	14.4 r
III	2.6	0.5	-2.0	1.4 r	-0.2 r	-1.2 r
II	-0.8	-1.3	-0.5	2.8 r	0.5 r	3.6 r
I	-3.9	-4.9	-1.1	2.0 r	4.6 r	6.1 r

Percent change from corresponding quarter of previous year						
2017 II	1.3	1.7	0.3	0.8	-1.1	-0.5
I	0.9	1.5	0.6	2.4 r	-0.2 r	1.5 r
2016 ANNUAL	0.1	-0.2	-0.3	1.0 r	-0.3 r	0.9 r
2016 IV	1.0	0.8	-0.1	-1.2 r	-3.0 r	-2.2 r
III	-0.3	-0.3	0.0	2.4 r	1.3 r	2.8 r
II	0.2	-0.4	-0.6	2.2 r	1.1 r	2.0 r
I	-0.5	-0.8	-0.3	0.6 r	-0.5 r	1.1 r
2015 ANNUAL	-1.3	-0.8	0.6	3.0 r	2.9 r	4.4 r
2015 IV	-1.3	-2.0	-0.7	4.2 r	3.7 r	5.6 r
III	-0.9	-1.2	-0.3	3.0	2.9	4.0
II	-1.7	-0.8	0.9	3.3 r	3.3 r	5.1 r
I	-1.3	1.1	2.4	1.6 r	1.7 r	2.9 r

Indexes 2009=100						
2017 II	121.0	133.8	110.6	112.4	98.8	92.9
I	119.9 r	133.5 r	111.4	111.6 r	98.0 r	93.1 r
2016 ANNUAL	119.5 r	131.9 r	110.4	110.9 r	99.1 r	92.8 r
2016 IV	120.1 r	132.6 r	110.4	111.0 r	98.3 r	92.4 r
III	119.6	131.9	110.3	112.2 r	100.1 r	93.8 r
II	119.4	131.6	110.2	111.5 r	99.9 r	93.4 r
I	118.8	131.5	110.7	109.0 r	98.2 r	91.7 r
2015 ANNUAL	119.4	132.1	110.7	109.8 r	99.4 r	92.0 r
2015 IV	119.0	131.5	110.5	112.3 r	101.3 r	94.4 r
III	119.9	132.3	110.3	109.5 r	98.8 r	91.3 r
II	119.2	132.2	110.9	109.1 r	98.9 r	91.6 r
I	119.4	132.6	111.0	108.4 r	98.7 r	90.7 r

See footnotes following Table 6.
r=revised

August 9, 2017
Source: Bureau of Labor Statistics

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

Year and quarter	Labor productivity	Output	Hours worked	Hourly compensation (1)	Real hourly compensation (2)	Unit labor costs

Percent change from previous quarter at annual rate (5)						
2017 II	-0.1	2.3	2.4	1.1	1.4	1.2
I	2.6 r	2.1 r	-0.5 r	7.8 r	4.5 r	5.1 r
2016 ANNUAL	0.2	0.6	0.5	0.4 r	-0.9 r	0.2 r
2016 IV	2.3	1.5	-0.8	-4.3 r	-7.2 r	-6.5 r
III	-2.2	-0.8	1.5	2.8 r	1.0 r	5.2 r
II	-4.5	-2.2	2.5	3.0 r	0.7 r	7.9 r
I	4.0	2.1	-1.8	-7.7 r	-7.8 r	-11.3 r
2015 ANNUAL	-0.1	1.6	1.7	1.5	1.4	1.6
2015 IV	0.0	1.5	1.4	6.1 r	5.7 r	6.0 r
III	1.6	1.8	0.2	2.8 r	1.2 r	1.2 r
II	-0.2	0.7	1.0	4.8 r	2.4 r	5.0 r
I	0.2	0.9	0.7	-3.5 r	-1.0 r	-3.7 r

Percent change from corresponding quarter of previous year						
2017 II	0.6	1.3	0.7	1.7	-0.2	1.1
I	-0.5	0.1 r	0.7	2.2 r	-0.3 r	2.8 r
2016 ANNUAL	0.2	0.6	0.5	0.4 r	-0.9 r	0.2 r
2016 IV	-0.2	0.2 r	0.3	-1.7 r	-3.4 r	-1.5 r
III	-0.7	0.1	0.9	0.9 r	-0.2 r	1.6 r
II	0.2	0.8	0.6	0.9 r	-0.2 r	0.7 r
I	1.3	1.5	0.2	1.3 r	0.2 r	0.0 r
2015 ANNUAL	-0.1	1.6	1.7	1.5	1.4	1.6
2015 IV	0.4	1.2	0.8	2.5 r	2.0 r	2.1 r
III	-0.6	1.6	2.2	1.9 r	1.8 r	2.5 r
II	-0.4	1.5	1.9	1.7 r	1.7 r	2.1 r
I	0.3	2.1	1.9	-0.2 r	-0.1 r	-0.4 r

Indexes 2009=100						
2017 II	113.3	118.4	104.4	114.2	100.4	100.7
I	113.4 r	117.7 r	103.8 r	113.9 r	100.1 r	100.5 r
2016 ANNUAL	112.8 r	117.0 r	103.7	112.1 r	100.2 r	99.4 r
2016 IV	112.7 r	117.1 r	103.9	111.8 r	99.0 r	99.2 r
III	112.0	116.6	104.1	113.0 r	100.8 r	100.9 r
II	112.6	116.9	103.8	112.2 r	100.6 r	99.6 r
I	114.0	117.5	103.1	111.4 r	100.4 r	97.7 r
2015 ANNUAL	112.6	116.3	103.2	111.7 r	101.1 r	99.2 r
2015 IV	112.8	116.9	103.6	113.6 r	102.5 r	100.7 r
III	112.8	116.5	103.2	112.0 r	101.1 r	99.2 r
II	112.4	116.0	103.2	111.2 r	100.8 r	99.0 r
I	112.5	115.8	102.9	109.9 r	100.2 r	97.7 r

See footnotes following Table 6.
r=revised

August 9, 2017
Source: Bureau of Labor Statistics

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

Year and quarter	Labor productivity	Output	Hours worked	Hourly compensation (1)	Real hourly compensation (2)	Unit labor costs	Unit nonlabor costs (6)	Total unit costs (7)	Unit profits (8)	Implicit price deflator (4)

Percent change from previous quarter at annual rate (5)										
2017 I	2.0 r	4.0 r	2.0	4.2 r	1.0 r	2.2 r	-0.9 r	1.2 r	-2.6 r	0.7 r
2016 ANNUAL	-0.1 r	1.4 r	1.5	1.1 r	-0.2 r	1.2 r	-0.5 r	0.7 r	-5.3 r	-0.2 r
2016 IV	-4.5 r	-3.9 r	0.6	-3.6 r	-6.5 r	0.9 r	9.2 r	3.5 r	-2.8 r	2.7 r
III	5.9 r	7.4 r	1.5	1.9 r	0.1 r	-3.7 r	-4.5 r	-4.0 r	7.3 r	-2.6 r
II	-2.0 r	-0.6 r	1.4	3.7 r	1.4 r	5.9 r	1.7 r	4.5 r	-28.8 r	-0.8 r
I	0.5 r	1.1 r	0.6	-1.8 r	-1.9 r	-2.3 r	-13.0 r	-5.9 r	47.7 r	0.0 r
2015 ANNUAL	1.4 r	3.6 r	2.2	3.0 r	2.9 r	1.6 r	0.4 r	1.2 r	-5.1 r	0.3 r
2015 IV	-1.4	1.5 r	3.0	3.4 r	3.0 r	4.9 r	13.8 r	7.7 r	-41.5 r	-0.9 r
III	0.7 r	2.5 r	1.8	0.5 r	-1.0 r	-0.2 r	-0.1 r	-0.2 r	5.3 r	0.6 r
II	-2.0 r	-0.9 r	1.1	2.7 r	0.4 r	4.8 r	4.0 r	4.5 r	-1.3 r	3.7 r
I	3.3 r	4.6 r	1.3	7.1 r	9.9 r	3.7 r	-2.2 r	1.8	-23.7 r	-2.5 r

Percent change from corresponding quarter of previous year										
2017 I	0.3 r	1.6 r	1.4	1.5 r	-1.0 r	1.3 r	1.2	1.3 r	-7.8 r	0.0 r
2016 ANNUAL	-0.1 r	1.4 r	1.5	1.1 r	-0.2 r	1.2 r	-0.5 r	0.7 r	-5.3 r	-0.2 r
2016 IV	-0.1 r	0.9 r	1.0	0.0 r	-1.8 r	0.1 r	-2.0	-0.6 r	2.3 r	-0.2 r
III	0.7 r	2.3 r	1.6	1.8 r	0.6 r	1.1 r	-1.0 r	0.4 r	-9.9 r	-1.1 r
II	-0.6 r	1.1 r	1.7	1.4 r	0.3 r	2.0	0.1 r	1.4 r	-10.3 r	-0.3 r
I	-0.6 r	1.1 r	1.6	1.2 r	0.1 r	1.7 r	0.7 r	1.4 r	-2.6 r	0.8 r
2015 ANNUAL	1.4 r	3.6 r	2.2	3.0 r	2.9 r	1.6 r	0.4 r	1.2 r	-5.1 r	0.3 r
2015 IV	0.1 r	1.9 r	1.8	3.4	3.0	3.3 r	3.7 r	3.4 r	-17.5 r	0.2 r
III	1.0 r	2.8 r	1.8	3.3	3.1	2.3 r	0.1 r	1.6 r	-6.1 r	0.4 r
II	1.8 r	3.9 r	2.1	3.5 r	3.5 r	1.6 r	-0.4 r	1.0 r	-2.1 r	0.5 r
I	2.7 r	6.0 r	3.2	1.9 r	2.0 r	-0.8 r	-1.8 r	-1.1 r	7.6 r	0.1 r

Indexes 2009=100										
2017 I	108.0 r	124.9 r	115.7 r	116.3 r	102.2 r	107.7 r	100.9 r	105.4 r	134.6 r	108.5 r
2016 ANNUAL	107.7 r	123.5 r	114.6 r	115.4 r	103.1 r	107.1 r	99.9 r	104.7 r	138.0 r	108.2 r
2016 IV	107.4 r	123.6 r	115.1 r	115.1 r	101.9 r	107.1 r	101.1 r	105.1 r	135.5 r	108.3 r
III	108.7 r	124.9 r	114.9 r	116.2 r	103.7 r	106.9 r	98.9 r	104.2 r	136.5 r	107.6 r
II	107.1 r	122.6 r	114.5 r	115.6 r	103.6 r	107.9 r	100.1 r	105.3 r	134.1 r	108.3 r
I	107.7 r	122.8 r	114.1 r	114.6 r	103.3 r	106.4 r	99.7 r	104.1 r	146.0 r	108.5 r
2015 ANNUAL	107.9 r	121.8 r	112.9 r	114.1 r	103.3 r	105.8 r	100.5 r	104.0 r	145.8 r	108.4 r
2015 IV	107.5 r	122.5 r	113.9 r	115.1 r	103.8 r	107.0 r	103.2 r	105.7 r	132.4 r	108.5 r
III	107.9 r	122.0 r	113.1 r	114.1 r	103.0 r	105.7 r	99.9 r	103.8 r	151.4 r	108.8 r
II	107.8 r	121.3 r	112.6 r	114.0 r	103.3 r	105.8 r	99.9 r	103.8 r	149.5 r	108.6 r
I	108.3 r	121.6 r	112.2 r	113.2 r	103.2 r	104.6 r	98.9 r	102.7 r	150.0 r	107.6 r

See footnotes following Table 6.
r=revised

August 9, 2017
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 first 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 1978-2016 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.

Year and quarter	Labor productivity	Output	Hours worked	Hourly compensation (1)	Real hourly compensation (2)	Unit labor costs	Unit nonlabor payments (3)	Implicit price deflator (4)

Percent change from previous quarter at annual rate(5)								
2014 ANNUAL	0.9 r	3.2 r	2.3	2.7 r	1.1 r	1.8 r	1.3 r	1.6
2014 IV	-1.9 r	2.5 r	4.5	4.8 r	5.6 r	6.9 r	-8.4 r	-0.1
III	3.7 r	6.8 r	2.9	2.4 r	1.3 r	-1.3 r	5.4 r	1.6 r
II	2.2 r	5.8 r	3.6 r	-2.7 r	-4.5 r	-4.8 r	12.9 r	2.5 r
I	-3.3 r	-1.7 r	1.7	7.2 r	4.4 r	10.8 r	-9.7 r	1.4 r
2013 ANNUAL	0.7	2.2	1.5	1.3	-0.1	0.6	2.7	1.5
2013 IV	4.1 r	5.4	1.2 r	2.2	0.7	-1.9	6.4	1.7
III	1.5	4.1	2.6	0.6 r	-1.5	-0.9 r	5.5	1.9
II	-0.1	1.1	1.2	5.8	6.4	5.9	-6.2	0.5
I	2.2	3.7	1.4 r	-8.4	-9.9	-10.4	19.8	1.5
2012 ANNUAL	0.7	2.9	2.2	2.7	0.7	2.0	1.7	1.9
2012 IV	-1.5	0.2	1.7	11.5	8.6	13.2	-12.3 r	1.4
III	-1.0	0.6	1.6	0.6	-1.3	1.6	3.4	2.4
II	2.2	2.6	0.3	2.4	1.5	0.2	4.7	2.1
I	0.0	3.4	3.4	9.6	7.1	9.6	-7.5	1.7

Percent change from corresponding quarter of previous year								
2014 ANNUAL	0.9 r	3.2 r	2.3	2.7 r	1.1 r	1.8 r	1.3 r	1.6
2014 IV	0.1 r	3.3 r	3.2 r	2.8 r	1.6 r	2.7 r	-0.4 r	1.3
III	1.6 r	4.0 r	2.3	2.2 r	0.4 r	0.5 r	3.4 r	1.8 r
II	1.1 r	3.4 r	2.3 r	1.8 r	-0.3	0.7 r	3.4 r	1.9 r
I	0.5	2.2 r	1.7 r	3.9 r	2.4 r	3.4 r	-1.2 r	1.4
2013 ANNUAL	0.7	2.2	1.5	1.3	-0.1	0.6	2.7	1.5
2013 IV	1.9	3.6	1.6	-0.1	-1.3	-2.0	6.0	1.4
III	0.5	2.3	1.7	2.1	0.6	1.6	1.0	1.3
II	-0.1	1.4	1.5	2.1	0.7	2.2	0.5	1.4
I	0.5	1.7	1.3	1.3 r	-0.5	0.8	3.3	1.9
2012 ANNUAL	0.7	2.9	2.2	2.7	0.7	2.0	1.7	1.9
2012 IV	-0.1	1.7	1.8	5.9	3.9	6.0	-3.2	1.9
III	1.0	3.1	2.1	1.8	0.1	0.7	3.2	1.8
II	1.1	3.3	2.2	2.2	0.3	1.1	2.8	1.8
I	0.8	3.6	2.8	1.1	-1.7	0.3	4.5	2.1

Indexes 2009=100								
2014 ANNUAL	105.7 r	114.4 r	108.3	111.2 r	100.8 r	105.3 r	113.2 r	108.6 r
2014 IV	105.9 r	116.3 r	109.8 r	112.3 r	101.7 r	106.1 r	112.9 r	108.9 r
III	106.4 r	115.5 r	108.6 r	111.0 r	100.3 r	104.3 r	115.4 r	109.0 r
II	105.4 r	113.7 r	107.8 r	110.3 r	100.0 r	104.7 r	113.9 r	108.5 r
I	104.8 r	112.1 r	106.9 r	111.1 r	101.1 r	106.0 r	110.5 r	107.9 r
2013 ANNUAL	104.8	110.8	105.8	108.3	99.7	103.4	111.8	106.9
2013 IV	105.7 r	112.6	106.4 r	109.2 r	100.0 r	103.3 r	113.4 r	107.5
III	104.7	111.1	106.1	108.6 r	99.9 r	103.7	111.6	107.1
II	104.3 r	110.0	105.5 r	108.4 r	100.3 r	104.0 r	110.2	106.6
I	104.3 r	109.7	105.1 r	106.9 r	98.7 r	102.5 r	111.9	106.4
2012 ANNUAL	104.0	108.4	104.2	106.8	99.8	102.7	108.9	105.3
2012 IV	103.7 r	108.7	104.8 r	109.3 r	101.3 r	105.3	107.0	106.0
III	104.1	108.6	104.3 r	106.3	99.3 r	102.1	110.6 r	105.7
II	104.4 r	108.5	103.9	106.2	99.6 r	101.7	109.6	105.0
I	103.8 r	107.8	103.8 r	105.6 r	99.2 r	101.7	108.4	104.5

See footnotes following Table 6.
r=revisedAugust 9, 2017
Source: Bureau of Labor Statistics

Appendix table 2.

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

Year and quarter	Labor productivity	Output	Hours worked	Hourly compensation (1)	Real hourly compensation (2)	Unit labor costs	Unit nonlabor payments (3)	Implicit price deflator (4)

Percent change from previous quarter at annual rate(5)								
2014 ANNUAL	1.0 r	3.3 r	2.2	2.9 r	1.2 r	1.8 r	1.6 r	1.8 r
2014 IV	-1.8 r	2.3 r	4.2	5.2 r	6.0 r	7.2 r	-8.5 r	0.0 r
III	4.4 r	6.9 r	2.4 r	3.1 r	2.0 r	-1.3 r	6.5 r	2.1 r
II	2.4 r	5.8 r	3.4 r	-2.6 r	-4.4 r	-4.8 r	12.1 r	2.1 r
I	-3.4 r	-1.4 r	2.1 r	6.8 r	4.1 r	10.5 r	-9.9 r	1.2 r
2013 ANNUAL	0.3	2.0	1.7	1.2	-0.3	0.9	2.4	1.5
2013 IV	4.4 r	5.6	1.1	2.4 r	0.9	-1.9	8.0 r	2.3
III	1.6 r	3.8	2.1	1.1	-1.1 r	-0.5	6.2	2.3
II	-0.7	0.6	1.3	5.8	6.3	6.5	-5.6	1.1
I	0.9	2.8	1.9 r	-9.0	-10.4	-9.7	17.7	1.1
2012 ANNUAL	0.9	3.1	2.2	2.6	0.6	1.7	2.1	1.9
2012 IV	-1.8	0.2	2.0	11.2	8.3	13.2	-13.2	1.1
III	-0.7	1.0	1.7	0.4	-1.4	1.1	3.4	2.1
II	2.3	2.7	0.4	2.2	1.4	-0.1	5.3	2.2
I	0.6	3.9	3.3	9.5	7.1	8.9	-6.9	1.7

Percent change from corresponding quarter of previous year								
2014 ANNUAL	1.0 r	3.3 r	2.2	2.9 r	1.2 r	1.8 r	1.6 r	1.8 r
2014 IV	0.3 r	3.4 r	3.0	3.1 r	1.8 r	2.7	-0.4 r	1.4 r
III	1.9 r	4.2 r	2.2	2.4 r	0.6 r	0.5 r	3.8 r	1.9 r
II	1.2 r	3.4 r	2.2 r	1.9	-0.2	0.7 r	3.8 r	2.0
I	0.5 r	2.1 r	1.7 r	4.0 r	2.5 r	3.5 r	-0.6 r	1.7 r
2013 ANNUAL	0.3	2.0	1.7	1.2	-0.3	0.9	2.4	1.5
2013 IV	1.6	3.2	1.6	-0.1	-1.3 r	-1.6	6.3	1.7
III	0.0	1.9	1.8	2.0	0.5	2.0	0.6	1.4
II	-0.6	1.2	1.7 r	1.8	0.4	2.4	-0.1	1.3
I	0.2	1.7	1.5	1.0	-0.8	0.8	2.7	1.6
2012 ANNUAL	0.9	3.1	2.2	2.6	0.6	1.7	2.1	1.9
2012 IV	0.1	2.0	1.9	5.7	3.8	5.6	-3.1	1.8
III	1.2	3.4	2.1	1.6	-0.1	0.4	3.8	1.8
II	1.2	3.4	2.1	2.2	0.3	0.9	3.3	1.9
I	1.0	3.8	2.8	1.0	-1.7	0.0	4.9	2.1

Indexes 2009=100								
2014 ANNUAL	105.7 r	114.6 r	108.4 r	111.3 r	100.8 r	105.2 r	112.3 r	108.2 r
2014 IV	106.0 r	116.4 r	109.8 r	112.5 r	101.9 r	106.1 r	112.1 r	108.6 r
III	106.5 r	115.7 r	108.7 r	111.1 r	100.4 r	104.3 r	114.6 r	108.6 r
II	105.4 r	113.8 r	108.0 r	110.3 r	99.9 r	104.6 r	112.8 r	108.0 r
I	104.8 r	112.2 r	107.1 r	111.0 r	101.0 r	105.9 r	109.6 r	107.5 r
2013 ANNUAL	104.7	110.9	106.0	108.2	99.6	103.3	110.5	106.3
2013 IV	105.7 r	112.6	106.6 r	109.2 r	100.0 r	103.3 r	112.5 r	107.1
III	104.5	111.1	106.3	108.5	99.8 r	103.8	110.3	106.5
II	104.1 r	110.1	105.7 r	108.2 r	100.1 r	103.9	108.7	105.9
I	104.3 r	109.9	105.4 r	106.7 r	98.6 r	102.3	110.3	105.6
2012 ANNUAL	104.3	108.8	104.2	106.9	99.9	102.5	107.9	104.7
2012 IV	104.1 r	109.1	104.9 r	109.2 r	101.3 r	105.0	105.9 r	105.3
III	104.5 r	109.1	104.3 r	106.4	99.3 r	101.8	109.7	105.1
II	104.7 r	108.8	103.9 r	106.3 r	99.7 r	101.5	108.8	104.5
I	104.1 r	108.1	103.8 r	105.7 r	99.3 r	101.5	107.4	104.0

See footnotes following Table 6.
r=revised

August 9, 2017
Source: Bureau of Labor Statistics

Appendix table 3.

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

Year and quarter	Labor productivity	Output	Hours worked	Hourly compensation (1)	Real hourly compensation (2)	Unit labor costs

Percent change from previous quarter at annual rate(5)						
2014 ANNUAL	0.1	1.7	1.5	2.8	1.2 r	2.7
2014 IV	-2.1	1.8	4.0	5.1 r	5.9 r	7.4 r
III	0.3	1.7	1.4	2.5 r	1.4 r	2.2 r
II	1.2	5.1	3.9	-3.3 r	-5.1 r	-4.4 r
I	1.7	0.2	-1.5	11.2 r	8.4 r	9.3 r
2013 ANNUAL	0.1	1.0	0.8	0.2	-1.3	0.0
2013 IV	-0.9	2.6	3.5	-0.9	-2.4	0.0
III	-2.7	-0.9	1.9	0.8	-1.3	3.6
II	1.3	-0.7	-2.0	3.1	3.6	1.8
I	0.4	2.6	2.1	-4.6	-6.2	-5.0
2012 ANNUAL	1.7	4.1	2.3	1.7	-0.3	0.0
2012 IV	1.8	1.8	0.0	4.3	1.6	2.5
III	-0.9	-0.3	0.6	-0.9	-2.7	0.0
II	-0.1	1.9	2.0	0.7	-0.1	0.9
I	3.2	6.6	3.2	9.4	7.0	6.0

Percent change from corresponding quarter of previous year						
2014 ANNUAL	0.1	1.7	1.5	2.8	1.2 r	2.7
2014 IV	0.3	2.2	1.9	3.7 r	2.5 r	3.5 r
III	0.6	2.4	1.8	2.2 r	0.4 r	1.7 r
II	-0.2	1.7	2.0	1.8	-0.2 r	2.0
I	-0.2	0.3	0.5	3.5 r	2.0 r	3.6 r
2013 ANNUAL	0.1	1.0	0.8	0.2	-1.3	0.0
2013 IV	-0.5	0.9	1.4	-0.4	-1.6	0.1
III	0.2	0.7	0.5	0.8	-0.6	0.7
II	0.6	0.8	0.2	0.4	-1.0	-0.2
I	0.3	1.5	1.2	-0.2	-1.9	-0.5
2012 ANNUAL	1.7	4.1	2.3	1.7	-0.3	0.0
2012 IV	1.0	2.4	1.5	3.3	1.4	2.3
III	0.6	3.3	2.7	1.0	-0.7	0.3
II	2.5	5.1	2.5	1.7	-0.2	-0.9
I	2.8	5.5	2.6	0.9	-1.8	-1.8

Indexes 2009=100						
2014 ANNUAL	119.3	127.4	106.8	108.0 r	97.9 r	90.6 r
2014 IV	118.9	128.5	108.0	109.1 r	98.8 r	91.8 r
III	119.6	127.9	107.0	107.8 r	97.4 r	90.1 r
II	119.5	127.3	106.6	107.1 r	97.1 r	89.7 r
I	119.1	125.8	105.6	108.0 r	98.4 r	90.7 r
2013 ANNUAL	119.1	125.3	105.2	105.1	96.8	88.2
2013 IV	118.6	125.7	106.0	105.2	96.4	88.7
III	118.9	124.9	105.0	105.4	97.0	88.7
II	119.7	125.2	104.5	105.2	97.3	87.9
I	119.3	125.4	105.1	104.4	96.4	87.5
2012 ANNUAL	119.0	124.1	104.3	104.9	98.0	88.2
2012 IV	119.2	124.6	104.5	105.7	98.0	88.6
III	118.7	124.0	104.5	104.6	97.6	88.1
II	119.0	124.1	104.4	104.8	98.3	88.1
I	119.0	123.6	103.8	104.6	98.3	87.9

See footnotes following Table 6.
r=revised

August 9, 2017
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 productivity	Output	Hours worked	Hourly compensation (1)	Real hourly compensation (2)	Unit labor costs

Percent change from previous quarter at annual rate(5)						
2014 ANNUAL	0.6	2.8	2.1	2.3	0.7	1.7
2014 IV	-1.5	0.7	2.3	6.0 r	6.8 r	7.7 r
III	-0.7	2.2	3.0	2.5 r	1.4 r	3.2 r
II	1.1	6.8	5.7	-3.7 r	-5.5 r	-4.8 r
I	2.8	1.3	-1.5	11.4 r	8.5 r	8.3 r
2013 ANNUAL	0.0	1.2	1.2	-0.6	-2.0	-0.6
2013 IV	0.4	5.0	4.7	-3.7	-5.2	-4.1
III	-2.1	-0.1	2.0	1.6	-0.5	3.7
II	1.6	-0.7	-2.2	2.5	3.1	1.0
I	-0.4	3.1	3.5	-6.2	-7.8	-5.8
2012 ANNUAL	2.4	5.5	3.0	1.4	-0.6	-1.0
2012 IV	1.7	2.0	0.2	5.0	2.3	3.2
III	-2.5	-2.4	0.1	-2.3	-4.1	0.2
II	0.6	3.3	2.7	-1.2	-2.0	-1.7
I	6.3	9.8	3.4	11.2	8.7	4.6

Percent change from corresponding quarter of previous year						
2014 ANNUAL	0.6	2.8	2.1	2.3	0.7	1.7
2014 IV	0.4	2.7	2.3	3.9 r	2.6 r	3.5 r
III	0.9	3.8	2.9	1.4 r	-0.3 r	0.5 r
II	0.5	3.2	2.7	1.2	-0.8	0.6 r
I	0.7	1.4	0.7	2.8 r	1.3	2.1
2013 ANNUAL	0.0	1.2	1.2	-0.6	-2.0	-0.6
2013 IV	-0.1	1.8	1.9	-1.5	-2.7	-1.4
III	0.2	1.0	0.9	0.6	-0.8	0.5
II	0.1	0.5	0.4	-0.3	-1.7	-0.4
I	-0.2	1.5	1.6	-1.2	-2.9	-1.1
2012 ANNUAL	2.4	5.5	3.0	1.4	-0.6	-1.0
2012 IV	1.5	3.1	1.6	3.0	1.1	1.5
III	1.1	4.6	3.4	0.2	-1.4	-0.9
II	3.9	7.3	3.2	1.6	-0.3	-2.3
I	3.1	7.0	3.8	0.8	-2.0	-2.3

Indexes 2009=100						
2014 ANNUAL	121.0	133.1	110.1	106.6 r	96.6 r	88.1 r
2014 IV	120.6	134.3	111.3	107.8 r	97.6 r	89.4 r
III	121.1	134.0	110.7	106.3 r	96.0 r	87.8 r
II	121.3	133.3	109.9	105.6 r	95.7 r	87.1 r
I	120.9	131.1	108.4	106.6 r	97.1 r	88.2 r
2013 ANNUAL	120.2	129.5	107.8	104.2	95.9	86.7
2013 IV	120.1	130.7	108.8	103.8	95.1	86.4
III	120.0	129.1	107.6	104.8	96.4	87.3
II	120.6	129.1	107.0	104.4	96.5	86.5
I	120.1	129.3	107.6	103.7	95.8	86.3
2012 ANNUAL	120.2	128.0	106.5	104.8	98.0	87.2
2012 IV	120.3	128.4	106.7	105.4	97.7	87.6
III	119.8	127.7	106.7	104.1	97.2	86.9
II	120.5	128.5	106.6	104.7	98.2	86.9
I	120.3	127.5	105.9	105.0	98.7	87.3

See footnotes following Table 6.
r=revisedAugust 9, 2017
Source: Bureau of Labor Statistics

Appendix table 5.

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

Year and quarter	Labor productivity	Output	Hours worked	Hourly compensation (1)	Real hourly compensation (2)	Unit labor costs

Percent change from previous quarter at annual rate(5)						
2014 ANNUAL	0.1	0.6	0.5	3.6	2.0 r	3.6 r
2014 IV	-3.7	3.2	7.1	3.7 r	4.5 r	7.7 r
III	2.4	1.2	-1.1	2.1 r	1.0 r	-0.2 r
II	2.3	3.3	1.0	-2.8	-4.6	-5.0
I	0.6	-0.9	-1.6	11.0 r	8.2 r	10.3 r
2013 ANNUAL	1.0	1.2	0.2	1.6	0.1	0.6
2013 IV	-1.5	0.2	1.7	4.5	2.9	6.1
III	-3.0	-1.2	1.8	-0.7	-2.8	2.3
II	1.4	-0.1	-1.5	4.1	4.7	2.7
I	3.1	2.8	-0.3	-1.7	-3.3	-4.7
2012 ANNUAL	0.6	1.8	1.2	2.1	0.1	1.5
2012 IV	2.4	2.1	-0.3	3.0	0.3	0.6
III	0.5	2.1	1.5	1.9	0.0	1.3
II	-0.8	0.0	0.8	4.4	3.5	5.2
I	-0.5	2.5	3.0	6.1	3.7	6.6

Percent change from corresponding quarter of previous year						
2014 ANNUAL	0.1	0.6	0.5	3.6	2.0 r	3.6 r
2014 IV	0.4	1.7	1.3	3.4 r	2.2 r	3.0 r
III	0.9	0.9	0.0	3.6 r	1.8 r	2.6 r
II	-0.4	0.3	0.7	2.9 r	0.8 r	3.3 r
I	-0.6	-0.5	0.1	4.7 r	3.2 r	5.3 r
2013 ANNUAL	1.0	1.2	0.2	1.6	0.1	0.6
2013 IV	0.0	0.4	0.4	1.5	0.3	1.5
III	0.9	0.9	-0.1	1.1	-0.3	0.2
II	1.8	1.7	-0.1	1.8	0.4	-0.1
I	1.3	1.7	0.4	1.8	0.1	0.5
2012 ANNUAL	0.6	1.8	1.2	2.1	0.1	1.5
2012 IV	0.4	1.7	1.2	3.8	1.9	3.4
III	0.0	1.5	1.5	2.2	0.5	2.2
II	0.5	1.9	1.4	1.6	-0.2	1.2
I	1.5	2.4	0.8	0.9	-1.8	-0.6

Indexes 2009=100						
2014 ANNUAL	112.7	114.4	101.5	110.1 r	99.8 r	97.6 r
2014 IV	112.4	115.5	102.8	110.9 r	100.4 r	98.7 r
III	113.5	114.6	101.0	109.9 r	99.3 r	96.8 r
II	112.8	114.3	101.3	109.3 r	99.1 r	96.9 r
I	112.2	113.3	101.0	110.1 r	100.2 r	98.2 r
2013 ANNUAL	112.6	113.7	101.0	106.2	97.8	94.3
2013 IV	112.0	113.6	101.4	107.3	98.3	95.8
III	112.4	113.6	101.0	106.1	97.6	94.4
II	113.3	113.9	100.5	106.3	98.3	93.8
I	112.9	113.9	100.9	105.2	97.2	93.2
2012 ANNUAL	111.5	112.4	100.8	104.6	97.7	93.8
2012 IV	112.0	113.1	101.0	105.7	98.0	94.3
III	111.4	112.6	101.1	104.9	97.9	94.2
II	111.2	112.0	100.7	104.4	97.9	93.9
I	111.4	112.0	100.5	103.3	97.1	92.7

See footnotes following Table 6.
r=revised

August 9, 2017
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 quarter	Labor productivity	Output	Hours worked	Hourly compensation (1)	Real hourly compensation (2)	Unit labor costs	Unit nonlabor costs (6)	Total unit costs (7)	Unit profits (8)	Implicit price deflator (4)

Percent change from previous quarter at annual rate(5)										
2014 ANNUAL	1.3 r	4.0 r	2.7	2.6 r	0.9 r	1.3 r	-0.2 r	0.8 r	1.4 r	0.9 r
2014 IV	2.1 r	5.3 r	3.2	2.8 r	3.5 r	0.8	-1.1 r	0.2 r	-1.8 r	-0.2 r
III	4.0 r	6.9 r	2.8	1.4 r	0.3 r	-2.5 r	-2.2 r	-2.4 r	24.0 r	1.2 r
II	1.6 r	7.1 r	5.4 r	-3.4 r	-5.2 r	-4.9 r	-1.7 r	-3.9 r	44.2 r	1.8 r
I	2.8 r	4.5 r	1.6	10.2 r	7.3 r	7.1 r	-0.5 r	4.6 r	-28.5 r	-0.9 r
2013 ANNUAL	0.2	2.3	2.0	1.3	-0.1	1.1	0.2	0.8	4.6	1.4
2013 IV	-0.3	1.5	1.7	1.2	-0.3	1.5	2.0	1.7	2.7	1.8
III	-3.5	-0.9	2.7	-0.2	-2.3 r	3.4	3.2	3.3	-1.9	2.5
II	2.4	3.8	1.4	3.8	4.3	1.4	-2.0	0.3	-3.0	-0.2
I	-0.8	2.7	3.5	-4.1	-5.6	-3.3	0.4	-2.1	19.6	0.9
2012 ANNUAL	1.0	3.4	2.4	2.8	0.7	1.8	0.2	1.3	7.0	2.1
2012 IV	6.4	7.7	1.3	8.4	5.6	1.9	-3.7	0.1	4.5	0.7
III	-5.3	-4.0	1.3	0.1	-1.7	5.8	4.9	5.5	-5.5	3.8
II	-0.2	0.5	0.7	1.5	0.6	1.7	1.4	1.6	9.2	2.7
I	6.2	9.9	3.5	12.2	9.7	5.6	-3.2	2.6	-2.5	1.8

Percent change from corresponding quarter of previous year										
2014 ANNUAL	1.3 r	4.0 r	2.7	2.6 r	0.9 r	1.3 r	-0.2 r	0.8 r	1.4 r	0.9 r
2014 IV	2.6 r	5.9 r	3.2	2.6 r	1.4 r	0.0 r	-1.4 r	-0.4 r	5.8 r	0.5 r
III	2.0 r	5.0 r	2.9	2.2 r	0.4 r	0.2 r	-0.6 r	-0.1 r	7.0 r	1.0 r
II	0.1 r	3.0 r	2.9	1.8 r	-0.2 r	1.7 r	0.7 r	1.4 r	0.9 r	1.3 r
I	0.3 r	2.2 r	1.9	3.7 r	2.2 r	3.3 r	0.7 r	2.4 r	-8.6 r	0.8 r
2013 ANNUAL	0.2	2.3	2.0	1.3	-0.1	1.1	0.2	0.8	4.6	1.4
2013 IV	-0.6	1.7	2.3	0.1	-1.0	0.7	0.9	0.8	4.0	1.2
III	1.0	3.3	2.2	1.9	0.4	0.8	-0.5	0.4	4.4	1.0
II	0.5 r	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	1.5	0.7	1.2	6.6	2.0
2012 ANNUAL	1.0	3.4	2.4	2.8	0.7	1.8	0.2	1.3	7.0	2.1
2012 IV	1.6	3.4	1.7	5.4	3.5	3.7	-0.2	2.4	1.3	2.2
III	-0.2	1.9	2.1	2.1	0.4	2.3	1.1	1.9	3.5	2.1
II	0.9	3.4	2.5	2.4	0.5	1.5	0.3	1.1	7.6	2.0
I	1.5	4.9	3.3	1.3	-1.4 r	-0.2	-0.3	-0.2	17.6	2.0

Indexes 2009=100										
2014 ANNUAL	106.4 r	117.6 r	110.5 r	110.8 r	100.4 r	104.1 r	100.1 r	102.8 r	153.6 r	108.1 r
2014 IV	107.4 r	120.2 r	111.9 r	111.3 r	100.8 r	103.6 r	99.5 r	102.2 r	160.5 r	108.3 r
III	106.9 r	118.7 r	111.0 r	110.5 r	99.9 r	103.4 r	99.8 r	102.2 r	161.2 r	108.4 r
II	105.8 r	116.7 r	110.3 r	110.2 r	99.8 r	104.1 r	100.3 r	102.8 r	152.7 r	108.0 r
I	105.4 r	114.7 r	108.8 r	111.1 r	101.2 r	105.4 r	100.8 r	103.8 r	139.4 r	107.6 r
2013 ANNUAL	105.1 r	113.0	107.6 r	108.0 r	99.5 r	102.8	100.2	101.9	151.5	107.1
2013 IV	104.7 r	113.5	108.4 r	108.5 r	99.4 r	103.6	100.9	102.7	151.6	107.8
III	104.8 r	113.0	107.9 r	108.1 r	99.5 r	103.2	100.4	102.3	150.6	107.3
II	105.7 r	113.3	107.2 r	108.2 r	100.0 r	102.4	99.6	101.4	151.3	106.7
I	105.1 r	112.2	106.8 r	107.2 r	99.0 r	102.0	100.1	101.4	152.5	106.7
2012 ANNUAL	104.8 r	110.5	105.4 r	106.6 r	99.6 r	101.7	100.0	101.1	144.9	105.7
2012 IV	105.3 r	111.5	105.9 r	108.3 r	100.4 r	102.9	100.0	101.9	145.8	106.5
III	103.7 r	109.5	105.6 r	106.1 r	99.1 r	102.4	100.9	101.9	144.2	106.3
II	105.1 r	110.6	105.2 r	106.1 r	99.5 r	100.9	99.7	100.5	146.3	105.3
I	105.2 r	110.5	105.0 r	105.7 r	99.3 r	100.5	99.4	100.1	143.1	104.6

See footnotes following Table 6.
r=revised

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Source: Bureau of Labor Statistics