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Technical information: (202) 691-5606 • Productivity@bls.gov • www.bls.gov/lpc
 Media contact: (202) 691-5902 • PressOffice@bls.gov

PRODUCTIVITY AND COSTS
 Third Quarter 2020, Revised

Nonfarm business sector labor productivity increased 4.6 percent in the third quarter of 2020, the U.S. Bureau of Labor Statistics reported today, as output increased 43.4 percent and hours worked increased 37.1 percent. (All quarterly percent changes in this release are seasonally adjusted annual rates, and show what the percent change would be if the quarterly rate continued for four quarters.) The 4.6-percent gain in productivity in the third quarter follows an increase of 10.6 percent during the second quarter. Over the last four quarters, nonfarm business productivity increased 4.0 percent, reflecting a 3.4-percent decline in output and a 7.1-percent decline in hours worked. (See chart 1 and table A1.)

Chart 1. Labor productivity, nonfarm business, 2016Q1 – 2020Q3

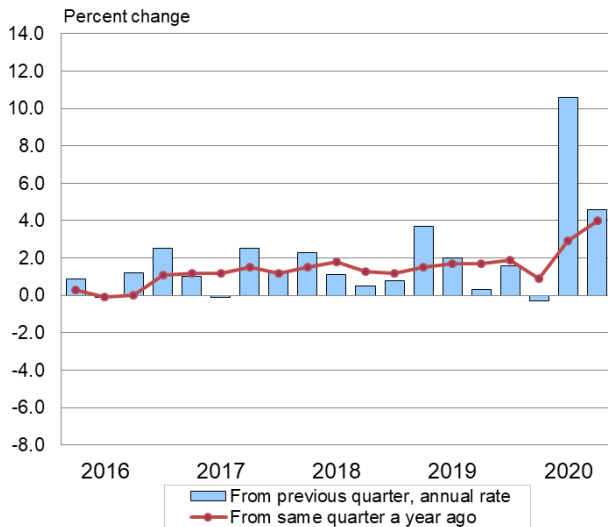
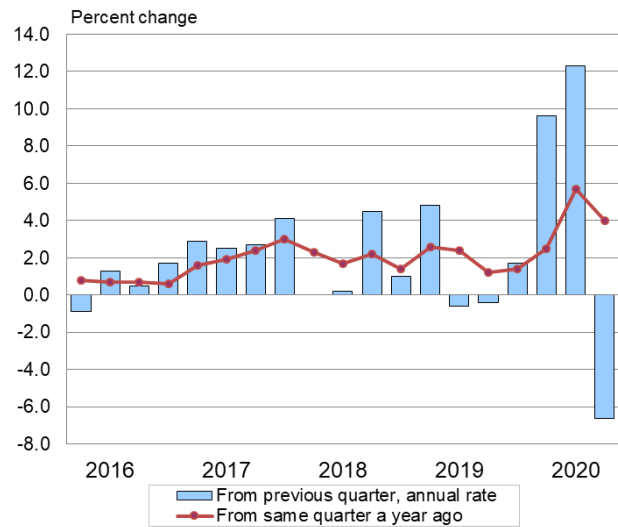


Chart 2. Unit labor costs, nonfarm business, 2016Q1 – 2020Q3

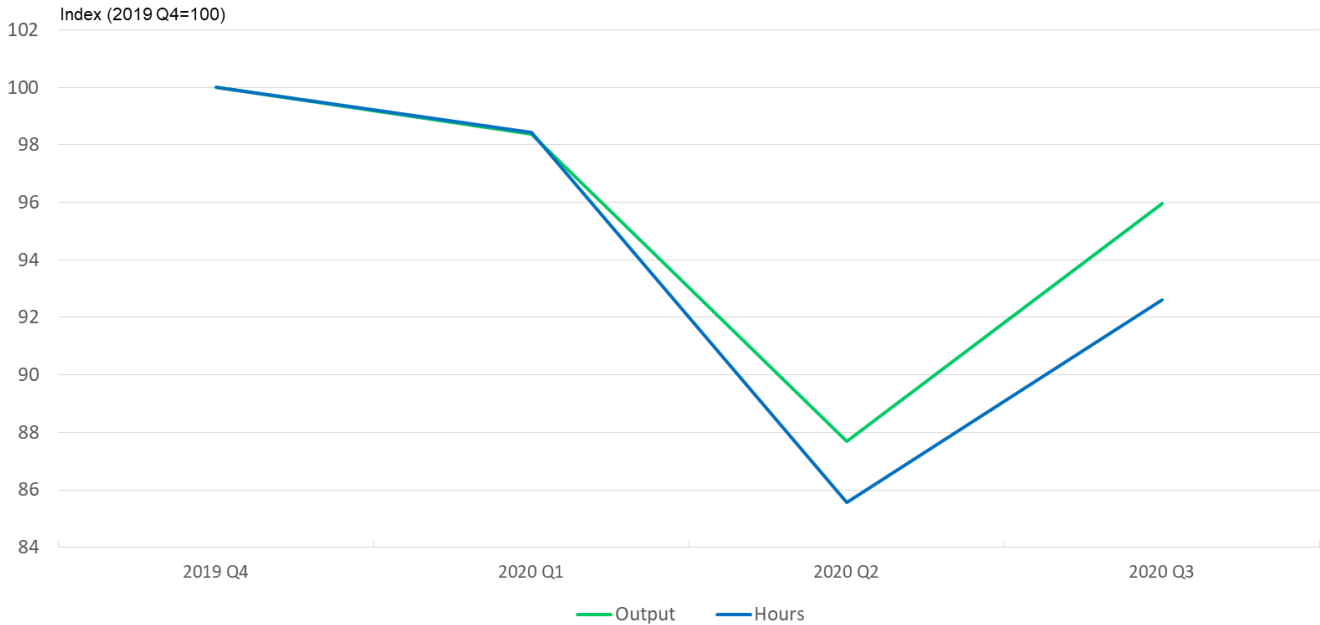


Unit labor costs in the nonfarm business sector decreased at an annual rate of 6.6 percent in the third quarter of 2020, the combined effect of a 2.3-percent decrease in hourly compensation and the 4.6-percent increase in productivity. The third-quarter decline in unit labor costs followed three consecutive quarterly increases, and nonfarm business unit labor costs increased 4.0 percent over the last four quarters. (See chart 2 and table 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. The 4.6-percent increase in productivity in third-quarter 2020 results from the largest gains in both the output (43.4 percent) and the hours worked (37.1 percent) series, which begin in 1947. In contrast, the 10.6-percent gain in nonfarm business labor productivity in second-quarter 2020 reflected a decline in output of 36.8 percent and a decline in hours worked of 42.9 percent—the largest declines in both series.

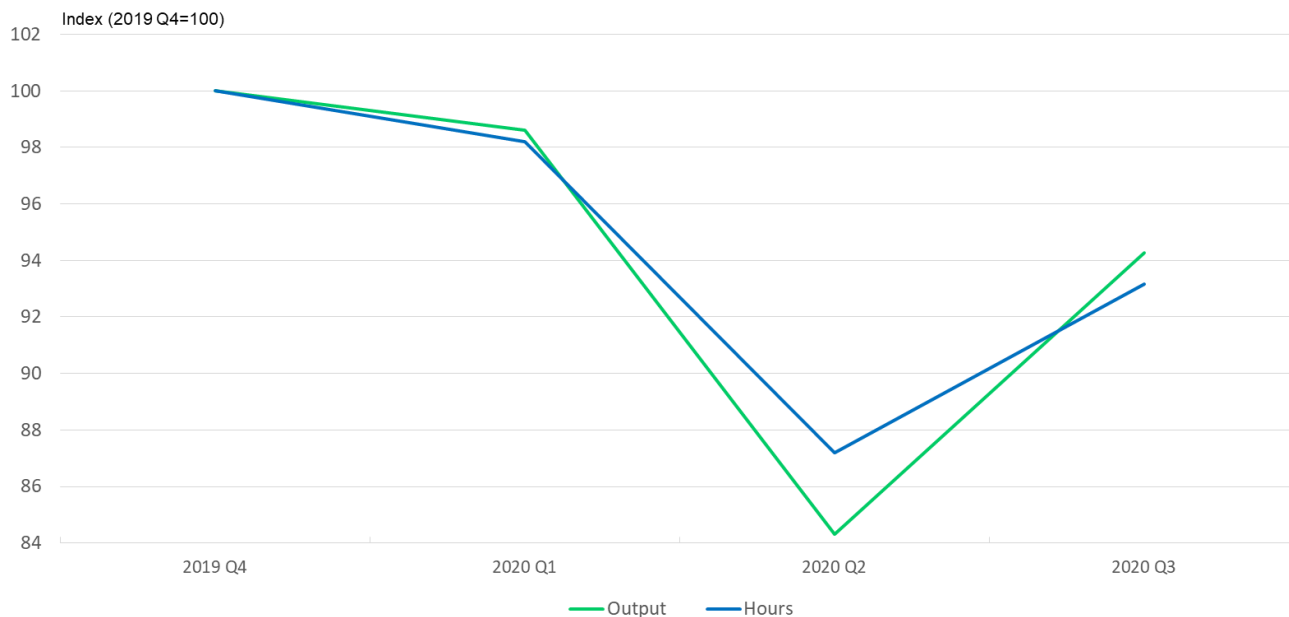
Overall, the output and hours worked index levels remain below their levels in the fourth quarter of 2019, the last quarter before the coronavirus (COVID-19) pandemic began. Output and hours worked remain 4.0 percent and 7.4 percent below their fourth-quarter 2019 levels, respectively. (See chart 3.)

Chart 3. Output and Hours index series, nonfarm business, all persons, 2019 Q4 – 2020 Q3



Manufacturing sector labor productivity increased at a 19.9 percent annual rate in the third quarter of 2020 as output increased at a 56.2 percent annual rate and hours worked increased at a 30.3 percent annual rate. These series-high increases in the third quarter of 2020 follow the largest decreases in these three measures in the second quarter, when total manufacturing productivity fell 14.0 percent, output dropped 46.5 percent, and hours worked fell 37.8 percent. As of the third quarter of 2020, output remains 5.7 percent below its fourth-quarter 2019 index level, while hours worked is 6.8 percent lower. (See chart 4 and table 3.)

Chart 4. Output and Hours index series, manufacturing, all persons, 2019 Q4 – 2020 Q3



Durable goods manufacturing was responsible for the majority of the 19.9-percent total manufacturing productivity increase, as it saw an increase in productivity of 47.0 percent, reflecting a 99.8-percent increase in output and a 35.9-percent increase in hours worked. The sharp increase in durable manufacturing output in the third quarter was driven by motor vehicle production. Nondurable goods manufacturing productivity increased 0.7 percent in the third quarter of 2020, as output increased 22.6 percent and hours worked increased 21.8 percent. (See tables A1, 4, and 5.)

Unit labor costs in the total manufacturing sector decreased 12.1 percent in the third quarter of 2020, the largest decline since the first quarter of 2010, when the measure fell 13.0 percent. The third-quarter decrease followed a 44.8-percent increase in unit labor costs in the second quarter of 2020, the largest increase in the series. Unit labor costs increased 8.9 percent from the same quarter a year ago. Total manufacturing sector productivity increased 1.0 percent over the last four quarters, as output decreased 5.8 percent and hours worked decreased 6.7 percent. (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 8.)

Preliminary third-quarter 2020 measures were announced today for the **nonfinancial corporate sector**. Productivity increased 0.8 percent in the third quarter of 2020 as output and hours worked increased 33.3 percent and 32.3 percent, respectively. These were the largest increases in both output and hours worked since the series began in the first quarter of 1947. In contrast, the 4.8-percent increase in second quarter 2020 productivity reflected the largest declines in the output and hours series, with output decreasing 38.3 percent and hours worked decreasing 41.1 percent. Output remains 5.7 percent below the fourth quarter 2019 level, while hours worked remains 7.1 percent lower. Productivity increased 1.7 percent in the nonfinancial corporate sector over the last four quarters. Unit profits of nonfinancial corporations increased at a 220.5 percent annual rate in the third quarter of 2020—the largest increase in the series starting in the first quarter of 1947—and increased 17.1 percent over the last four quarters. (See tables A2 and 6.)

Revised measures

Measures released today are based on more recent source data than were available for the preliminary report. Regular updates of source data from the BLS, the Bureau of Economic Analysis (BEA), and the Board of Governors of the Federal Reserve System are reflected in data for the second and third quarters of 2020. Measures of output for the manufacturing sectors incorporate revised annual benchmark data from 1987 to 2018 released November 19 by BLS; resulting revisions to percent changes are small.

Table B1 presents revised and previously published productivity and related measures for the nonfarm business, business, and manufacturing sectors for the third quarter of 2020.

In the **third quarter of 2020**, nonfarm business labor productivity increased 4.6 percent rather than the preliminary estimate of an increase of 4.9 percent, reflecting a 0.1-percentage point downward revision to output and a 0.3-percentage point upward revision to hours worked. Unit labor costs were revised up 2.3 percentage points due primarily to a 2.1-percentage point upward revision to hourly compensation.

In the manufacturing sector, productivity increased 19.9 percent rather than 19.0 percent as previously reported, reflecting a 1.4-percentage point upward revision to output and a 0.2-percentage point upward revision to hours worked. Durable manufacturing productivity increased 47.0 percent rather than increasing 44.2 percent as previously reported, reflecting a 3.8-percentage point upward revision to output; hours worked were unrevised. Nondurable manufacturing productivity was revised down to an increase of 0.7 percent rather than an increase of 1.2 percent as previously reported, due to a 0.1-percentage point downward revision to output and a 0.6-percentage point upward revision to hours worked. Total manufacturing unit labor costs were revised up 6.1 percentage points to a decrease of 12.1 percent, as a 7.9-percentage point upward revision to hourly compensation was partially offset by the 0.9-percentage point upward revision to 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 labor productivity tend to reduce unit labor costs.

Table B2 shows revised and previously published productivity and related measures for the nonfarm business, business, manufacturing, and nonfinancial corporate sectors for the second quarter of 2020.

In the **second quarter of 2020**, labor productivity, output, and hours worked were unrevised for the nonfarm business sector. Unit labor costs increased 12.3 percent, rather than increasing 8.5 percent as previously reported, due to a 4.3-percentage point upward revision to hourly compensation.

In the manufacturing sector, productivity was revised up 0.3 percentage point to a decrease of 14.0 percent, due to an upward revision to output; hours worked were unrevised. Unit labor costs were revised up to an increase of 44.8 percent rather than the previously reported increase of 28.4 percent. This large revision is mainly due to a 14.4-percentage point upward revision to hourly compensation.

In the nonfinancial corporate sector, productivity increased 4.8 percent rather than 2.9 percent as previously reported, due solely to a 1.1-percentage point upward revision to output; hours worked were unrevised. Unit labor costs were revised up 1.2 percentage points to an increase of 24.7 percent, reflecting a 1.9-percentage point upward revision to labor productivity and a 3.6-percentage point upward revision to hourly compensation.

Complete annual and quarterly data series can be found on the Productivity and Costs home page: www.bls.gov/lpc/#data.

The preliminary Productivity and Costs news release for fourth-quarter and annual averages 2020 is scheduled to be released on Thursday, February 4, 2021 at 8:30 a.m. (ET).

Calendar year 2021 release dates for Productivity and Costs news releases are now available at www.bls.gov/schedule/news_release/prod2.htm.

Upcoming Methodology Change

Beginning with the *Productivity and Costs* news release scheduled for March 4, 2021, BLS will extend methodology improvements made since release of first-quarter 2020 data to the remaining seasonally adjusted CPS series used by the major sector labor productivity program. Several prior years of hours worked data and related measures will be revised.

Previously, BLS improved seasonal adjustment of CPS data on hours worked by the nonfarm self-employed and all farm workers to account for extreme values in March and April due to the impact of the COVID-19 pandemic. Seasonal adjustment software was updated from X12ARIMA to X13ARIMA-SEATS from the U.S. Census Bureau. This same methodology change will be used for the remaining seasonally adjusted CPS series beginning with the revised fourth-quarter 2020 data.

Table A1. Labor productivity growth and related measures - revised third-quarter 2020
(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	4.6	43.4	37.1	-2.3	-7.1	-6.6
	A year ago	4.0	-3.4	-7.1	8.2	6.8	4.0
Business	Previous quarter	6.0	43.6	35.5	-1.2	-6.1	-6.8
	A year ago	4.2	-3.2	-7.1	8.2	6.9	3.9
Manufacturing	Previous quarter	19.9	56.2	30.3	5.3	0.2	-12.1
	A year ago	1.0	-5.8	-6.7	10.0	8.6	8.9
Durable manufacturing	Previous quarter	47.0	99.8	35.9	7.4	2.2	-26.9
	A year ago	0.8	-7.0	-7.8	11.1	9.7	10.2
Nondurable manufacturing	Previous quarter	0.7	22.6	21.8	0.3	-4.7	-0.4
	A year ago	0.5	-4.5	-4.9	8.1	6.8	7.6

Table A2. Labor productivity growth and related measures - preliminary third-quarter 2020
(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 corporate	Previous quarter	0.8	33.3	32.3	-3.0	-7.8	-3.8
	A year ago	1.7	-5.1	-6.8	8.9	7.5	7.0

Table B1. Labor productivity growth and related measures - revised and previously published third-quarter 2020
(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	4.6	43.4	37.1	-2.3	-7.1	-6.6
	Previously published	4.9	43.5	36.8	-4.4	-9.1	-8.9
Business	Revised	6.0	43.6	35.5	-1.2	-6.1	-6.8
	Previously published	6.4	43.7	35.1	-3.3	-8.1	-9.1
Manufacturing	Revised	19.9	56.2	30.3	5.3	0.2	-12.1
	Previously published	19.0	54.8	30.1	-2.6	-7.4	-18.2
Durable manufacturing	Revised	47.0	99.8	35.9	7.4	2.2	-26.9
	Previously published	44.2	96.0	35.9	-3.0	-7.8	-32.8
Nondurable manufacturing	Revised	0.7	22.6	21.8	0.3	-4.7	-0.4
	Previously published	1.2	22.7	21.2	-2.8	-7.5	-4.0

Table B2. Labor productivity growth and related measures - revised and previously published second-quarter 2020
(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	10.6	-36.8	-42.9	24.3	28.8	12.3
	Previously published	10.6	-36.8	-42.9	20.0	24.4	8.5
Business	Revised	9.6	-36.8	-42.4	23.5	28.1	12.7
	Previously published	9.6	-36.8	-42.4	19.4	23.7	8.9
Manufacturing	Revised	-14.0	-46.5	-37.8	24.5	29.0	44.8
	Previously published	-14.3	-46.7	-37.8	10.1	14.1	28.4
Durable manufacturing	Revised	-26.9	-57.8	-42.3	25.6	30.2	71.9
	Previously published	-26.9	-57.8	-42.3	8.8	12.8	48.8
Nondurable manufacturing	Revised	-3.8	-32.5	-29.8	24.7	29.2	29.6
	Previously published	-4.4	-32.9	-29.8	14.6	18.8	19.9
Nonfinancial corporate	Revised	4.8	-38.3	-41.1	30.7	35.4	24.7
	Previously published	2.9	-39.4	-41.1	27.1	31.8	23.5

TECHNICAL NOTES

Labor Hours

Hours worked 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.

Detailed hours data are presented in the table “Hours Worked in Total U.S. Economy and Subsectors” on the BLS website (https://www.bls.gov/lpc/special_requests/us_total_hrs_emp.xlsx).

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 worked. Business output accounted for about 78 percent of the value of GDP in 2019. Nonfarm business, which excludes farming, accounted for about 77 percent of GDP in 2019.

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 50 percent of the value of GDP in 2019.

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 2012=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.

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)								
2020 III	6.0 r	43.6 r	35.5 r	-1.2 r	-6.1 r	-6.8 r	24.0 r	4.7
II	9.6	-36.8	-42.4	23.5 r	28.1 r	12.7 r	-24.3 r	-4.3
I	0.0	-6.0	-6.0	9.0	7.7	9.0	-9.2	0.8
2019 ANNUAL	1.7	2.4	0.7	3.6	1.8	1.9	0.9	1.5
2019 IV	1.4	2.8	1.4	3.1	0.7	1.7	0.6	1.2
III	0.2	2.9	2.7	-0.1	-1.9	-0.3	2.9	1.1
II	2.2	1.3	-0.9	1.7	-1.3	-0.5	7.8	3.0
I	3.6	3.6	0.0	8.8	7.9	5.0	-5.4	0.4
2018 ANNUAL	1.6	3.5	1.9	3.4	0.9	1.8	2.7	2.2
2018 IV	0.7	1.5	0.8	1.5	0.3	0.9	2.2	1.4
III	0.1	2.3	2.1	4.7	2.5	4.5	-3.0	1.1
II	1.7	3.0	1.3	1.7	-0.5	-0.1	8.4	3.6
I	2.9	4.5	1.6	2.7	-0.6	-0.2	5.0	2.0

Percent change from corresponding quarter of previous year								
2020 III	4.2 r	-3.2	-7.1 r	8.2 r	6.9 r	3.9 r	-3.8 r	0.5 r
II	2.7	-11.0	-13.3	8.5 r	8.0 r	5.7 r	-8.1 r	-0.3
I	0.9	0.2	-0.8	3.3	1.2	2.4	0.3	1.5
2019 ANNUAL	1.7	2.4	0.7	3.6	1.8	1.9	0.9	1.5
2019 IV	1.8	2.6	0.8	3.3	1.3	1.4	1.4	1.4
III	1.7	2.3	0.6	2.9	1.1	1.2	1.8	1.5
II	1.7	2.2	0.5	4.1	2.3	2.4	0.2	1.5
I	1.5	2.6	1.0	4.1	2.5	2.6	0.4	1.6
2018 ANNUAL	1.6	3.5	1.9	3.4	0.9	1.8	2.7	2.2
2018 IV	1.3	2.8	1.4	2.6	0.4	1.3	3.1	2.0
III	1.3	3.6	2.2	3.4	0.7	2.1	2.7	2.3
II	2.0	3.9	1.9	3.7	1.0	1.6	3.7	2.5
I	1.6	3.7	2.1	3.9	1.6	2.3	1.3	1.9

Indexes 2012=100								
2020 III	112.8 r	118.0 r	104.5 r	129.9 r	114.7 r	115.2 r	105.7 r	111.1 r
II	111.2	107.7	96.9	130.3 r	116.6 r	117.2 r	100.2 r	109.8
I	108.7	120.8	111.2	123.6	109.6	113.8	107.4	111.0
2019 ANNUAL	108.2	121.6	112.3	120.2	107.8	111.1	109.0	110.2
2019 IV	108.7	122.7	113.0	121.0	107.6	111.4	110.1	110.8
III	108.3	121.9	112.6	120.1	107.4	110.9	109.9	110.4
II	108.3	121.0	111.8	120.1	107.9	111.0	109.1	110.2
I	107.7	120.6	112.1	119.6	108.3	111.1	107.1	109.4
2018 ANNUAL	106.4	118.7	111.5	116.0	105.9	109.0	108.0	108.6
2018 IV	106.7	119.6	112.1	117.1	106.2	109.8	108.6	109.3
III	106.5	119.1	111.8	116.7	106.2	109.5	108.0	108.9
II	106.5	118.5	111.3	115.4	105.5	108.3	108.8	108.5
I	106.0	117.6	110.9	114.9	105.6	108.3	106.7	107.6

See footnotes following Table 6.
r=revised

December 8, 2020
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)								
2020 III	4.6 r	43.4 r	37.1 r	-2.3 r	-7.1 r	-6.6 r	22.9 r	4.4
II	10.6	-36.8	-42.9	24.3 r	28.8 r	12.3 r	-22.7 r	-3.6
I	-0.3	-6.4	-6.1	9.2	7.9	9.6	-9.8	0.8
2019 ANNUAL	1.7	2.5	0.7	3.6	1.8	1.9	1.1	1.5
2019 IV	1.6	2.8	1.2	3.3	0.9	1.7	0.6	1.2
III	0.3	2.9	2.6	-0.2	-2.0	-0.4	2.9	1.0
II	2.0	1.2	-0.7	1.4	-1.6	-0.6	8.0	3.0
I	3.7	3.8	0.1	8.7	7.7	4.8	-5.2	0.4
2018 ANNUAL	1.4	3.5	2.0	3.4	0.9	1.9	2.7	2.2
2018 IV	0.8	1.4	0.7	1.8	0.5	1.0	1.9	1.4
III	0.5	2.3	1.8	5.1	2.9	4.5	-2.4	1.4
II	1.1	3.0	1.8	1.3	-0.9	0.2	8.3	3.6
I	2.3	4.3	2.0	2.2	-1.0	0.0	4.9	2.1

Percent change from corresponding quarter of previous year								
2020 III	4.0 r	-3.4	-7.1 r	8.2 r	6.8 r	4.0 r	-3.6 r	0.7
II	2.9	-11.1	-13.6	8.8 r	8.3 r	5.7 r	-7.8 r	-0.2
I	0.9	0.1	-0.8	3.4	1.2	2.5	0.2	1.5
2019 ANNUAL	1.7	2.5	0.7	3.6	1.8	1.9	1.1	1.5
2019 IV	1.9	2.7	0.8	3.3	1.2	1.4	1.4	1.4
III	1.7	2.3	0.6	2.9	1.1	1.2	1.8	1.4
II	1.7	2.2	0.4	4.2	2.3	2.4	0.5	1.6
I	1.5	2.6	1.1	4.2	2.5	2.6	0.5	1.7
2018 ANNUAL	1.4	3.5	2.0	3.4	0.9	1.9	2.7	2.2
2018 IV	1.2	2.7	1.6	2.6	0.4	1.4	3.1	2.1
III	1.3	3.6	2.2	3.5	0.8	2.2	2.7	2.4
II	1.8	3.9	2.1	3.5	0.8	1.7	3.7	2.6
I	1.5	3.7	2.2	3.8	1.6	2.3	1.4	1.9

Indexes 2012=100								
2020 III	112.3 r	117.6 r	104.6 r	130.0 r	114.8 r	115.7 r	106.8 r	111.9 r
II	111.1	107.4	96.7	130.8 r	116.9 r	117.7 r	101.4 r	110.6
I	108.3	120.5	111.2	123.9	109.8	114.4	108.2	111.7
2019 ANNUAL	107.9	121.3	112.4	120.4	107.9	111.5	110.0	110.8
2019 IV	108.4	122.5	113.0	121.2	107.7	111.8	111.0	111.4
III	108.0	121.6	112.7	120.2	107.5	111.3	110.8	111.1
II	107.9	120.8	111.9	120.2	108.0	111.4	110.1	110.8
I	107.4	120.4	112.1	119.8	108.4	111.6	108.0	110.0
2018 ANNUAL	106.1	118.4	111.6	116.2	106.0	109.5	108.8	109.2
2018 IV	106.4	119.3	112.1	117.3	106.4	110.3	109.4	109.9
III	106.2	118.9	111.9	116.8	106.3	110.0	108.9	109.5
II	106.1	118.2	111.4	115.4	105.5	108.8	109.6	109.1
I	105.8	117.3	110.9	115.0	105.8	108.8	107.4	108.2

See footnotes following Table 6.
r=revised

December 8, 2020
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)						
2020 III	19.9 r	56.2 r	30.3 r	5.3 r	0.2 r	-12.1 r
II	-14.0 r	-46.5 r	-37.8	24.5 r	29.0 r	44.8 r
I	1.6	-5.5	-7.0	6.0	4.7	4.3 r
2019 ANNUAL	0.1	0.0	-0.1	2.9	1.1	2.8
2019 IV	-0.7	-0.2	0.5	5.2	2.8	6.0
III	-0.5	0.9	1.4	-1.9	-3.7	-1.4
II	-2.3	-3.1	-0.9	1.4	-1.6	3.8
I	1.3	-1.7	-3.1	6.9	6.0	5.5
2018 ANNUAL	0.4 r	2.3 r	1.9	2.1	-0.3	1.7 r
2018 IV	0.9	1.6	0.6	3.4	2.1	2.4
III	0.3	4.0	3.7	3.6	1.5	3.3
II	1.3	2.6	1.3	-3.4	-5.5	-4.7
I	0.0 r	1.9 r	1.9	2.5	-0.8	2.5 r

Percent change from corresponding quarter of previous year						
2020 III	1.0 r	-5.8 r	-6.7 r	10.0 r	8.6 r	8.9 r
II	-3.6 r	-15.5 r	-12.4	8.0 r	7.5 r	12.1 r
I	-0.5	-2.0	-1.5	2.6	0.5	3.1
2019 ANNUAL	0.1	0.0	-0.1	2.9	1.1	2.8
2019 IV	-0.6	-1.1	-0.5	2.9	0.8	3.4
III	-0.1	-0.6	-0.5	2.4	0.6	2.5 r
II	0.1	0.1	0.1	3.8	2.0	3.7 r
I	1.0	1.6	0.6	2.6	0.9	1.6
2018 ANNUAL	0.4 r	2.3 r	1.9	2.1	-0.3	1.7 r
2018 IV	0.6	2.5	1.9	1.5	-0.7	0.8 r
III	1.2 r	3.4 r	2.2	1.9	-0.8	0.6 r
II	-0.2 r	1.7	2.0	1.6	-1.1	1.8 r
I	-0.1 r	1.5 r	1.6	3.6	1.4	3.7 r

Indexes 2012=100						
2020 III	99.6 r	98.9 r	99.3 r	126.4 r	111.6 r	127.0 r
II	95.2 r	88.5 r	93.0	124.8 r	111.6 r	131.1 r
I	98.8 r	103.5 r	104.7	118.1	104.7	119.5 r
2019 ANNUAL	98.8 r	105.1 r	106.4	115.5	103.5	117.0 r
2019 IV	98.4 r	104.9 r	106.6	116.4	103.5	118.3 r
III	98.6 r	105.0 r	106.5	115.0	102.8	116.6 r
II	98.7 r	104.7 r	106.1	115.5	103.8	117.0 r
I	99.3 r	105.6 r	106.3	115.1	104.2	115.9 r
2018 ANNUAL	98.7 r	105.0 r	106.4	112.2	102.4	113.8 r
2018 IV	99.0 r	106.0 r	107.1	113.2	102.7	114.4 r
III	98.7 r	105.6 r	107.0	112.3	102.1	113.7 r
II	98.7 r	104.6 r	106.0	111.3	101.8	112.8 r
I	98.3 r	103.9 r	105.7	112.2	103.2	114.2 r

See footnotes following Table 6.
r=revised

December 8, 2020
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)						
2020 III	47.0 r	99.8 r	35.9	7.4 r	2.2 r	-26.9 r
II	-26.9	-57.8	-42.3	25.6 r	30.2 r	71.9 r
I	-2.6	-9.8	-7.4	4.5	3.2	7.3
2019 ANNUAL	0.6 r	0.8	0.2	2.4	0.5	1.7
2019 IV	-1.1	-1.5	-0.4	8.0	5.5	9.2
III	0.4	1.5	1.1	-3.2	-4.9	-3.6
II	-0.7	-2.3	-1.6	0.4	-2.5	1.1
I	0.3	-2.7	-3.0	6.9	5.9	6.6
2018 ANNUAL	1.2 r	3.5 r	2.2	2.7	0.2	1.4 r
2018 IV	1.8	4.9 r	3.1	1.5	0.3	-0.3
III	2.5 r	6.2 r	3.6	3.3	1.2	0.8 r
II	0.7 r	2.7 r	2.0	-2.8	-4.9	-3.5 r
I	1.4 r	4.6 r	3.1	2.7	-0.6	1.3 r

Percent change from corresponding quarter of previous year						
2020 III	0.8 r	-7.0 r	-7.8	11.1 r	9.7 r	10.2 r
II	-8.3	-21.5	-14.3	8.2 r	7.8 r	18.1 r
I	-1.0	-3.1	-2.1	2.4	0.2	3.4
2019 ANNUAL	0.6 r	0.8	0.2	2.4	0.5	1.7
2019 IV	-0.3	-1.3	-1.0	2.9	0.9	3.2
III	0.5	0.3	-0.1	1.4	-0.4	0.9
II	1.0	1.4 r	0.5	3.0	1.2	2.0
I	1.3 r	2.7 r	1.4	2.2	0.5	0.8 r
2018 ANNUAL	1.2 r	3.5 r	2.2	2.7	0.2	1.4 r
2018 IV	1.6 r	4.6 r	2.9	1.1	-1.0	-0.4 r
III	2.1 r	4.6 r	2.5	2.4	-0.2	0.3 r
II	0.3 r	2.5 r	2.2	2.2	-0.4	1.9 r
I	0.9 r	2.1 r	1.2	4.9	2.6	4.0 r

Indexes 2012=100						
2020 III	101.6 r	99.9 r	98.4 r	127.8 r	112.9 r	125.8 r
II	92.2 r	84.1 r	91.1	125.5 r	112.3 r	136.1 r
I	99.8 r	104.3 r	104.5	118.6	105.1	118.9 r
2019 ANNUAL	100.6 r	107.3 r	106.6	116.0	104.0	115.3 r
2019 IV	100.4 r	107.0 r	106.6	117.3	104.3	116.8 r
III	100.7 r	107.4 r	106.7	115.1	102.9	114.2 r
II	100.6 r	107.0 r	106.4	116.0	104.2	115.3 r
I	100.8 r	107.7 r	106.8	115.9	104.8	115.0 r
2018 ANNUAL	100.0 r	106.5 r	106.4	113.4	103.5	113.3 r
2018 IV	100.7 r	108.4 r	107.6	113.9	103.3	113.2 r
III	100.3 r	107.1 r	106.8	113.5	103.3	113.2 r
II	99.6 r	105.5 r	105.9	112.6	103.0	113.0 r
I	99.5 r	104.8 r	105.4	113.4	104.3	114.0 r

See footnotes following Table 6.
r=revised

December 8, 2020
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)						
2020 III	0.7 r	22.6 r	21.8 r	0.3 r	-4.7 r	-0.4 r
II	-3.8 r	-32.5 r	-29.8	24.7 r	29.2 r	29.6 r
I	6.1	-0.7	-6.4	9.0	7.7	2.7
2019 ANNUAL	-0.4	-0.9	-0.5	3.9	2.1	4.3 r
2019 IV	-0.8	1.2	2.1	0.2	-2.1	1.1
III	-1.8	0.2	2.0	0.7	-1.1	2.4
II	-4.4	-4.0	0.5	3.7	0.6	8.5
I	2.5	-0.7	-3.2	7.0	6.0	4.3
2018 ANNUAL	-0.6 r	0.8 r	1.4	1.0	-1.4	1.6 r
2018 IV	1.5 r	-1.9 r	-3.3	6.4	5.1	4.8 r
III	-2.2 r	1.6 r	3.9	4.3	2.2	6.7 r
II	2.1 r	2.3 r	0.1	-4.8	-6.8	-6.8 r
I	-1.2 r	-1.2 r	0.0	1.7	-1.5	3.0 r

Percent change from corresponding quarter of previous year						
2020 III	0.5	-4.5 r	-4.9 r	8.1 r	6.8 r	7.6 r
II	-0.1 r	-9.2 r	-9.0	8.2 r	7.7 r	8.4 r
I	-0.3	-0.8	-0.5	3.3	1.2	3.6
2019 ANNUAL	-0.4	-0.9	-0.5	3.9	2.1	4.3 r
2019 IV	-1.2	-0.8	0.3	2.8	0.8	4.0
III	-0.6	-1.6	-1.0	4.4	2.6	5.0
II	-0.7 r	-1.3	-0.6	5.3	3.4	6.1
I	1.0 r	0.3 r	-0.7	3.1	1.5	2.1 r
2018 ANNUAL	-0.6 r	0.8 r	1.4	1.0	-1.4	1.6 r
2018 IV	0.0 r	0.2 r	0.1	1.8	-0.4	1.8 r
III	0.2 r	1.8 r	1.6	0.7	-1.9	0.5 r
II	-1.0 r	0.6 r	1.6	0.3	-2.4	1.3 r
I	-1.7 r	0.6 r	2.3	1.2	-1.0	2.9 r

Indexes 2012=100						
2020 III	97.8 r	98.7 r	100.9 r	124.0 r	109.5 r	126.8 r
II	97.7 r	93.8 r	96.0	124.0 r	110.8 r	126.9 r
I	98.6 r	103.5 r	104.9	117.3	104.0	118.9 r
2019 ANNUAL	97.8 r	103.6 r	106.0	114.4	102.6	117.0 r
2019 IV	97.2 r	103.7 r	106.7	114.8	102.0	118.1 r
III	97.4 r	103.3 r	106.1	114.7	102.6	117.8 r
II	97.8 r	103.3 r	105.6	114.6	102.9	117.1 r
I	98.9 r	104.3 r	105.5	113.5	102.7	114.8 r
2018 ANNUAL	98.2 r	104.5 r	106.5	110.1	100.5	112.1 r
2018 IV	98.3 r	104.5 r	106.3	111.6	101.2	113.5 r
III	98.0 r	105.0 r	107.2	109.9	100.0	112.2 r
II	98.5 r	104.6 r	106.2	108.8	99.5	110.4 r
I	98.0 r	104.0 r	106.2	110.1	101.2	112.4 r

See footnotes following Table 6.
r=revised

December 8, 2020
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)										
2020 III	0.8	33.3	32.3	-3.0	-7.8	-3.8	-27.1	-10.5	220.5	4.8
II	4.8 r	-38.3 r	-41.1	30.7 r	35.4 r	24.7 r	-49.2 r	-4.0 r	-6.7 r	-4.3
I	0.2	-4.0	-4.2	8.1	6.8	7.9	10.3	8.7	-44.1	0.6
2019 ANNUAL	0.6	1.6	0.9	3.7	1.9	3.1	1.9	2.7	-3.3	1.9
2019 IV	1.3	2.6	1.2	2.5	0.1	1.2	-2.3	0.1	12.4	1.5
III	-0.8	-0.1	0.7	0.0	-1.7	0.9	6.6	2.6	-5.3	1.6
II	1.0	1.0	0.1	1.3	-1.7	0.3	1.5	0.7	16.1	2.4
I	1.4	2.9	1.5	11.1	10.1	9.5	3.3	7.5	-30.8	1.7
2018 ANNUAL	0.6	2.6	1.9	3.5	1.0	2.8	-1.0	1.6	6.2	2.2
2018 IV	-0.3	0.2	0.5	1.3	0.0	1.7	2.4	1.9	2.2	1.9
III	2.5	3.7	1.1	3.2	1.0	0.6	-1.9	-0.2	15.1	1.7
II	-2.2	0.2	2.5	0.1	-2.0	2.4	-0.2	1.6	15.2	3.2
I	4.7	6.7	1.8	8.6	5.1	3.7	-4.2	1.1	8.0	1.9

Percent change from corresponding quarter of previous year										
2020 III	1.7	-5.1	-6.8	8.9	7.5	7.0	-20.5	-1.7	17.1	0.6
II	1.3 r	-11.8 r	-12.9	9.7 r	9.2 r	8.3 r	-12.6 r	1.7	-13.7 r	-0.2
I	0.4	-0.2	-0.6	2.9	0.8	2.5	3.9	3.0	-8.9	1.5
2019 ANNUAL	0.6	1.6	0.9	3.7	1.9	3.1	1.9	2.7	-3.3	1.9
2019 IV	0.7	1.6	0.9	3.6	1.6	2.9	2.2	2.7	-3.9	1.8
III	0.3	1.0	0.7	3.3	1.6	3.0	3.4	3.1	-6.1	1.9
II	1.1	1.9	0.8	4.1	2.3	2.9	1.3	2.4	-1.4	1.9
I	0.3	1.7	1.4	3.8	2.2	3.5	0.9	2.7	-1.6	2.1
2018 ANNUAL	0.6	2.6	1.9	3.5	1.0	2.8	-1.0	1.6	6.2	2.2
2018 IV	1.1	2.6	1.5	3.2	1.0	2.1	-1.0	1.1	10.0	2.2
III	1.0	3.0	2.0	3.6	0.9	2.6	-1.8	1.2	10.1	2.3
II	-0.2	1.9	2.1	3.5	0.8	3.7	-0.8	2.2	3.2	2.4
I	0.7	2.9	2.2	3.7	1.4	3.0	-0.3	1.9	1.4	1.9

Indexes 2012=100										
2020 III	104.3	110.6	106.0	130.8	115.5	125.4	86.0	112.3	111.2	112.1
II	104.1 r	102.9 r	98.9	131.8 r	117.8 r	126.6 r	93.1 r	115.5 r	83.1 r	110.8 r
I	102.9	116.1	112.9	123.3	109.2	119.8	110.3	116.7	84.5	112.1
2019 ANNUAL	102.6	116.7	113.7	120.2	107.8	117.2	107.1	113.8	95.4	111.2
2019 IV	102.8	117.3	114.1	120.9	107.4	117.6	107.6	114.3	97.8	111.9
III	102.5	116.6	113.7	120.1	107.4	117.2	108.2	114.2	95.0	111.5
II	102.7	116.6	113.6	120.1	107.9	117.0	106.5	113.5	96.3	111.0
I	102.4	116.3	113.5	119.7	108.4	116.9	106.1	113.3	92.7	110.4
2018 ANNUAL	102.0	114.9	112.7	115.9	105.8	113.7	105.1	110.8	98.7	109.1
2018 IV	102.1	115.5	113.1	116.6	105.8	114.3	105.3	111.3	101.7	109.9
III	102.2	115.4	113.0	116.3	105.8	113.8	104.7	110.8	101.1	109.4
II	101.5	114.4	112.7	115.4	105.5	113.6	105.2	110.8	97.6	108.9
I	102.1	114.3	112.0	115.3	106.0	112.9	105.2	110.4	94.2	108.1

See footnotes following Table 6.
r=revised

December 8, 2020
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 -1.4 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 second quarter of 2020.

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 1978-2019 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 adjustment.