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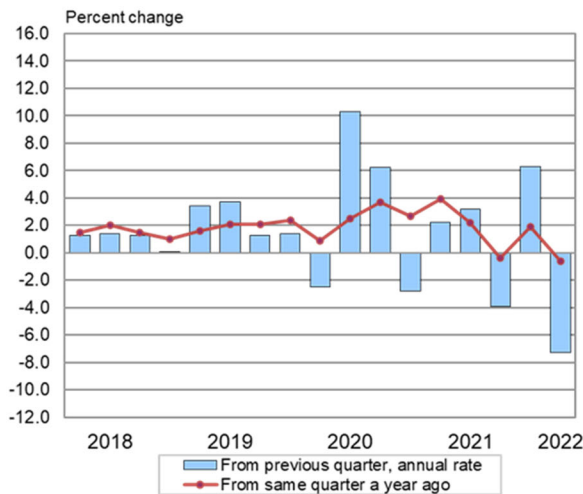
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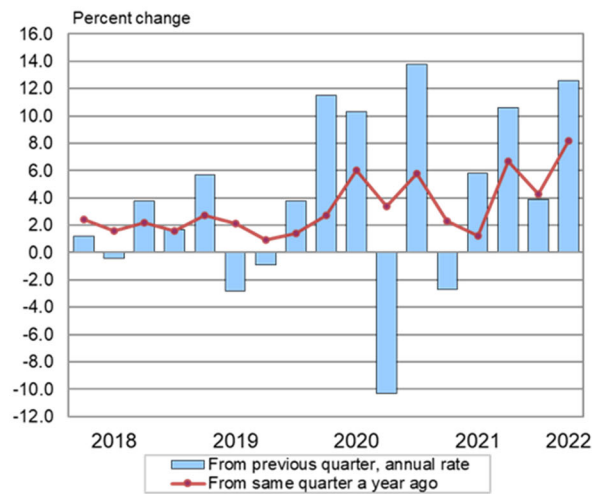
**PRODUCTIVITY AND COSTS**  
 First Quarter 2022, Revised

**Nonfarm business sector labor productivity** decreased 7.3 percent in the first quarter of 2022, the U.S. Bureau of Labor Statistics reported today, as output decreased 2.3 percent and hours worked increased 5.4 percent. This is the largest decline in quarterly productivity since the third quarter of 1947, when the measure decreased 11.7 percent. (All quarterly percent changes in this release are seasonally adjusted annual rates.) From the same quarter a year ago, nonfarm business sector labor productivity decreased 0.6 percent, reflecting a 4.2-percent increase in output that was outpaced by a 4.8-percent increase in hours worked. (See chart 1 and table A1.) This is the largest four-quarter decline since the fourth quarter of 1993, when the measure also declined 0.6 percent.

**Chart 1. Labor productivity, nonfarm business, 2018Q1 – 2022Q1**



**Chart 2. Unit labor costs, nonfarm business, 2018Q1 – 2022Q1**

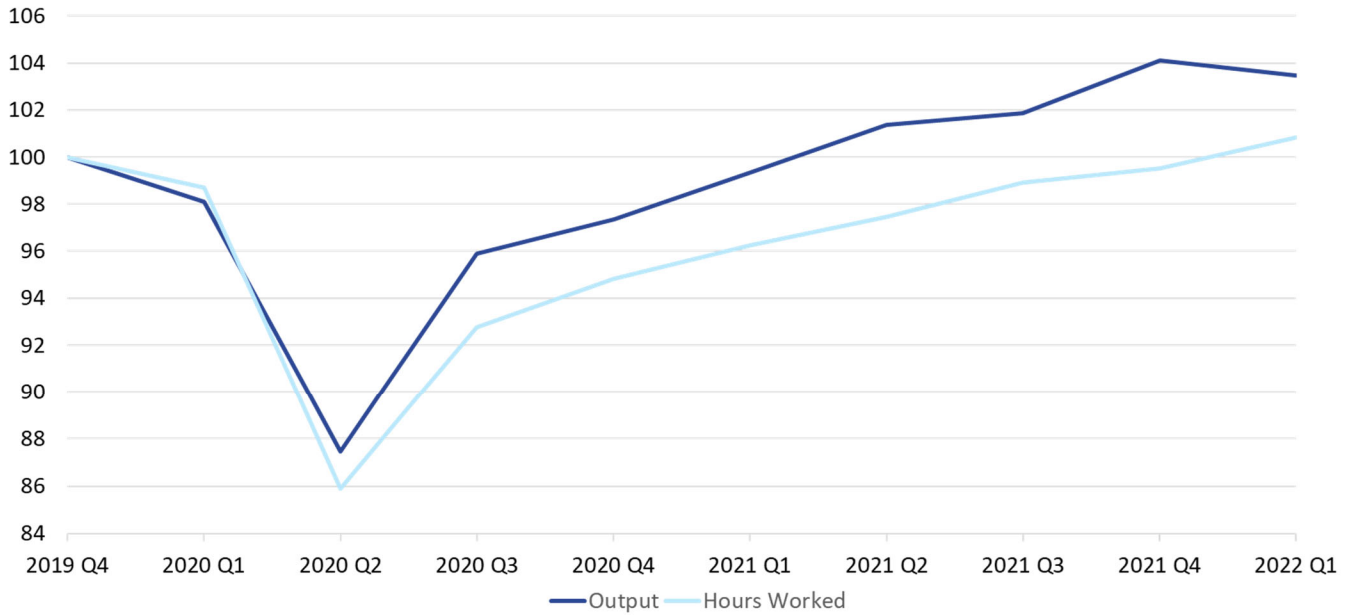


**Unit labor costs** in the nonfarm business sector increased 12.6 percent in the first quarter of 2022, reflecting a 4.4-percent increase in hourly compensation and a 7.3-percent decrease in productivity. Unit labor costs increased 8.2 percent over the last four quarters. (See chart 2 and tables A1 and 2.) This is the largest four-quarter increase in this measure since another 8.2-percent increase in the third quarter of 1982. 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 productivity tend to reduce them.

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. With the 5.4 percent increase to hours worked in the first quarter of 2022, this marks the first quarter that both the output and hours worked measures have surpassed their levels in the fourth quarter of 2019, the last

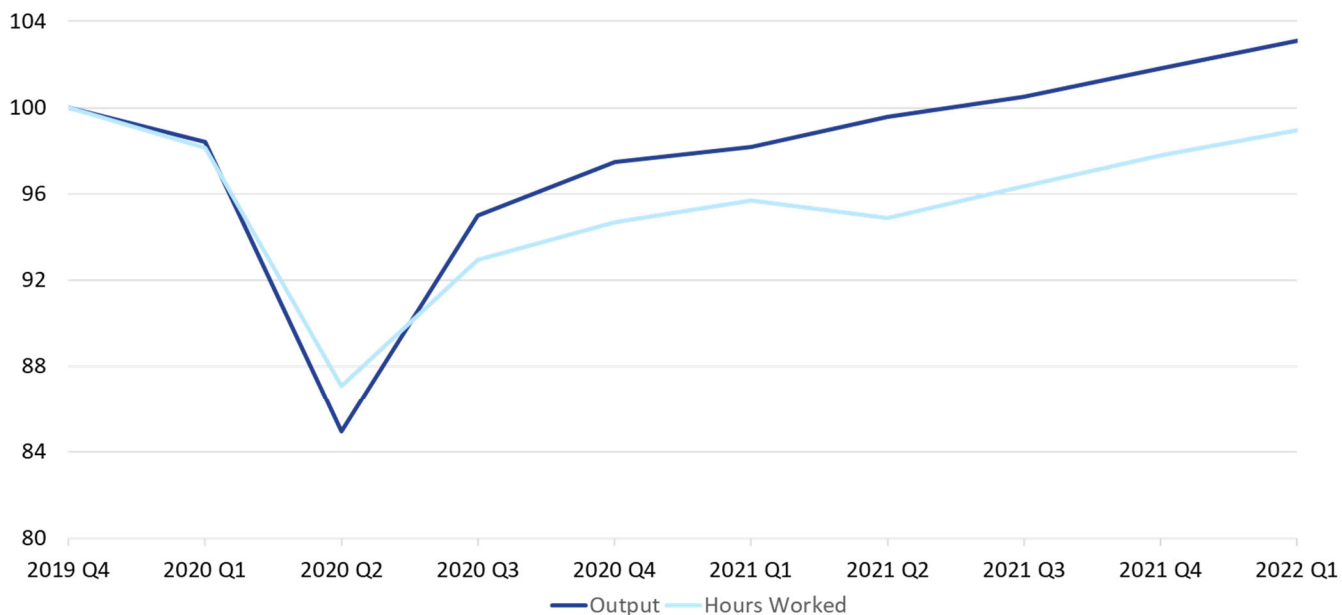
quarter not affected by the COVID-19 pandemic. The first-quarter 2022 output index is 3.5 percent above the level seen in the fourth quarter of 2019, and the hours worked index is now 0.8 percent above its fourth quarter 2019 level. The labor productivity index is 2.6 percent higher in first-quarter 2022 than in fourth-quarter 2019, corresponding to an annual labor productivity growth rate of 1.2 percent during that period. (See chart 3.)

**Chart 3. Output and Hours Worked index series, nonfarm business, 2019 Q4 – 2022 Q1**



**Manufacturing sector labor productivity** increased 0.2 percent in the first quarter of 2022, as output increased 5.1 percent and hours worked increased 4.9 percent. In the durable manufacturing sector, productivity increased 0.9 percent, with a 6.9-percent increase in output and a 6.0-percent increase in hours worked. Nondurable manufacturing sector productivity saw no change, as both output and hours worked increased 3.2 percent. Total manufacturing sector productivity increased 1.5 percent from the same quarter a year ago. (See tables A1, 3, 4, and 5.)

Chart 4. Output and Hours Worked index series, manufacturing, 2019 Q4 – 2022 Q1



Manufacturing sector output is now 3.1 percent above its level in the fourth quarter of 2019, the last quarter not affected by the COVID-19 pandemic. Hours worked in manufacturing remain 1.0 percent below the fourth-quarter 2019 level. The manufacturing labor productivity index is 4.2 percent higher in first-quarter 2022 than in fourth-quarter 2019, corresponding to an annual labor productivity growth rate of 1.8 percent during that period. (See chart 4.)

**Unit labor costs** in the total manufacturing sector increased 5.7 percent in the first quarter of 2022, reflecting a 5.9-percent increase in hourly compensation and a 0.2-percent increase in productivity. Manufacturing unit labor costs increased 4.8 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 7.)

Preliminary first-quarter 2022 measures were announced today for the **nonfinancial corporate sector**. Productivity decreased 5.0 percent in the first quarter of 2022 as output increased 0.7 percent and hours worked increased 6.0 percent. Productivity decreased 0.2 percent over the last four quarters. Though unit profits of nonfinancial corporations decreased at a 5.1 percent annual rate in the first quarter of 2022, the measure increased 9.9 percent over the last four quarters. (See table 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 fourth quarter of 2021 and the first quarter of 2022.

Table B1 presents previous and revised productivity and related measures for the business, nonfarm business, and manufacturing sectors for the first quarter of 2022.

In the **first quarter of 2022**, nonfarm business sector productivity decreased 7.3 percent, a slightly smaller decline than the previously reported decrease of 7.5 percent. Output was revised up 0.1 percentage point and hours worked was revised down 0.1 percentage point. Unit labor costs increased 12.6 percent rather than increasing 11.6 percent as previously reported, reflecting a 1.2-percentage point upward revision to hourly compensation and a 0.2-percentage point upward revision to labor productivity. In the manufacturing sector, productivity was revised down from a 0.7-percent increase to a 0.2-percent increase, reflecting a 0.6-percentage point downward revision to output and a 0.2-percentage point downward revision to hours worked. Manufacturing unit labor costs increased 5.7 percent rather than the preliminary estimate of 2.1 percent, the combined effect of a 3.1-percentage point upward revision to hourly compensation and a 0.5-percentage point downward revision to productivity.

Table B2 shows previous and revised productivity and related measures for the business, nonfarm business, manufacturing, and nonfinancial corporate sectors for the fourth quarter of 2021.

In the **fourth quarter of 2021**, labor productivity in the nonfarm business sector increased at the same 6.3-percent rate reported last month. Hourly compensation was revised up from the previously reported increase of 7.4 percent to an increase of 10.5 percent. As a result, unit labor costs increased 3.9 percent in the fourth quarter of 2021, rather than increasing 1.0 percent. Total manufacturing sector productivity, output, and hours worked were all unrevised in the fourth quarter of 2021. Hourly compensation was revised up 8.5 percentage points to a 9.6-percent increase; this led to an 8.6-percentage point upward revision to unit labor costs, from an increase of 1.7 percent to an increase of 10.3 percent.

In the nonfinancial corporate sector, productivity rose 1.1 percent in the fourth quarter of 2021 rather than 0.0 percent as previously reported, due to a 1.1-percentage point upward revision to output. Hours worked were unrevised. Annual average productivity in the nonfinancial corporate sector increased 4.6 percent in 2021, rather than the preliminary estimate of 4.5 percent.

Complete quarterly and annual data series can be found on the Productivity and Costs home page: [www.bls.gov/productivity/data-overview.htm](http://www.bls.gov/productivity/data-overview.htm).

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**The preliminary Productivity and Costs news release for second-quarter 2022 is scheduled to be released on Tuesday, August 9, 2022 at 8:30 a.m. (ET).**

**Table A1. Labor productivity growth and related measures - revised first-quarter 2022**

(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	<b>Previous quarter</b>	<b>-7.3</b>	<b>-2.3</b>	<b>5.4</b>	<b>4.4</b>	<b>-4.4</b>	<b>12.6</b>
	A year ago	-0.6	4.2	4.8	7.6	-0.4	8.2
Business	<b>Previous quarter</b>	<b>-7.6</b>	<b>-2.4</b>	<b>5.6</b>	<b>4.1</b>	<b>-4.6</b>	<b>12.7</b>
	A year ago	-0.6	4.0	4.6	7.7	-0.2	8.4
Manufacturing	<b>Previous quarter</b>	<b>0.2</b>	<b>5.1</b>	<b>4.9</b>	<b>5.9</b>	<b>-3.0</b>	<b>5.7</b>
	A year ago	1.5	5.0	3.4	6.4	-1.5	4.8
Durable manufacturing	<b>Previous quarter</b>	<b>0.9</b>	<b>6.9</b>	<b>6.0</b>	<b>6.0</b>	<b>-2.9</b>	<b>5.1</b>
	A year ago	2.0	5.0	2.9	5.1	-2.6	3.1
Nondurable manufacturing	<b>Previous quarter</b>	<b>0.0</b>	<b>3.2</b>	<b>3.2</b>	<b>5.5</b>	<b>-3.3</b>	<b>5.5</b>
	A year ago	0.8	5.1	4.3	8.8	0.8	8.0

**Table A2. Labor productivity growth and related measures - preliminary first-quarter 2022**

(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	<b>Previous quarter</b>	<b>-5.0</b>	<b>0.7</b>	<b>6.0</b>	<b>4.2</b>	<b>-4.6</b>	<b>9.7</b>
	A year ago	-0.2	4.5	4.7	8.1	0.1	8.3

**Table B1. Labor productivity growth and related measures - revised and previously published first-quarter 2022**

(percent change from previous quarter at annual rate)

Sector		Labor productivity	Output	Hours worked	Hourly compensation	Real hourly compensation	Unit labor costs
Nonfarm business	<b>Revised</b>	<b>-7.3</b>	<b>-2.3</b>	<b>5.4</b>	<b>4.4</b>	<b>-4.4</b>	<b>12.6</b>
	Previously published	-7.5	-2.4	5.5	3.2	-5.5	11.6
Business	<b>Revised</b>	<b>-7.6</b>	<b>-2.4</b>	<b>5.6</b>	<b>4.1</b>	<b>-4.6</b>	<b>12.7</b>
	Previously published	-7.7	-2.3	5.8	3.0	-5.7	11.6
Manufacturing	<b>Revised</b>	<b>0.2</b>	<b>5.1</b>	<b>4.9</b>	<b>5.9</b>	<b>-3.0</b>	<b>5.7</b>
	Previously published	0.7	5.7	5.1	2.8	-5.9	2.1
Durable manufacturing	<b>Revised</b>	<b>0.9</b>	<b>6.9</b>	<b>6.0</b>	<b>6.0</b>	<b>-2.9</b>	<b>5.1</b>
	Previously published	1.4	7.9	6.4	1.9	-6.7	0.5
Nondurable manufacturing	<b>Revised</b>	<b>0.0</b>	<b>3.2</b>	<b>3.2</b>	<b>5.5</b>	<b>-3.3</b>	<b>5.5</b>
	Previously published	0.5	3.4	2.9	4.2	-4.5	3.7

**Table B2. Labor productivity growth and related measures - revised and previously published fourth-quarter 2021**  
(percent change from previous quarter at annual rate)

Sector		Labor productivity	Output	Hours worked	Hourly compensation	Real hourly compensation	Unit labor costs
Nonfarm business	<b>Revised</b>	<b>6.3</b>	<b>9.0</b>	<b>2.5</b>	<b>10.5</b>	<b>2.4</b>	<b>3.9</b>
	Previously published	6.3	9.0	2.5	7.4	-0.5	1.0
Business	<b>Revised</b>	<b>6.3</b>	<b>8.9</b>	<b>2.4</b>	<b>10.7</b>	<b>2.6</b>	<b>4.1</b>
	Previously published	6.3	8.9	2.4	7.6	-0.3	1.2
Manufacturing	<b>Revised</b>	<b>-0.6</b>	<b>5.4</b>	<b>6.1</b>	<b>9.6</b>	<b>1.6</b>	<b>10.3</b>
	Previously published	-0.6	5.4	6.1	1.1	-6.4	1.7
Durable manufacturing	<b>Revised</b>	<b>1.8</b>	<b>6.2</b>	<b>4.3</b>	<b>10.3</b>	<b>2.2</b>	<b>8.3</b>
	Previously published	1.8	6.2	4.3	-0.9	-8.2	-2.7
Nondurable manufacturing	<b>Revised</b>	<b>-4.1</b>	<b>4.5</b>	<b>9.0</b>	<b>8.7</b>	<b>0.7</b>	<b>13.4</b>
	Previously published	-4.1	4.5	9.0	5.0	-2.7	9.5
Nonfinancial corporate	<b>Revised</b>	<b>1.1</b>	<b>5.0</b>	<b>3.9</b>	<b>9.8</b>	<b>1.8</b>	<b>8.7</b>
	Previously published	0.0	3.9	3.9	8.0	0.1	8.0

## 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 ([www.bls.gov/productivity/tables/total-economy-hours-employment.xlsx](http://www.bls.gov/productivity/tables/total-economy-hours-employment.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 76 percent of the value of GDP in 2021. Nonfarm business, which excludes farming, accounted for about 75 percent of GDP in 2021.

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 51 percent of the value of GDP in 2021.

## **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](http://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](mailto:productivity@bls.gov)).

For a more detailed explanation of methodology see the Handbook of Methods at [www.bls.gov/pub/hom/msp/home.htm](http://www.bls.gov/pub/hom/msp/home.htm).

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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)
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Percent change from previous quarter at annual rate (5)								
2022 I	-7.6 r	-2.4 r	5.6 r	4.1 r	-4.6 r	12.7 r	3.7 r	8.9
2021 ANNUAL	1.9	7.2	5.2	5.8 r	1.1 r	3.8 r	5.5 r	4.5
2021 IV	6.3	8.9	2.4	10.7 r	2.6 r	4.1 r	12.5 r	7.5
III	-3.7	1.8	5.7	6.7	0.0	10.8	-0.1	6.2
II	3.4	8.2	4.6	9.6	1.4	6.0	9.1	7.3
I	2.1	8.2	5.9	-0.4	-4.3	-2.5	17.2	5.1
2020 ANNUAL	2.5	-4.2	-6.6	6.9	5.6	4.3	-4.8	0.4
2020 IV	-3.4	6.1	9.8	9.9	7.5	13.8	-13.7	1.6
III	7.3	44.7	34.9	-3.8	-8.2	-10.4	32.5	5.1
II	9.3	-36.8	-42.2	20.8	25.0	10.6	-23.1	-4.6
I	-1.8	-6.8	-5.1	8.6	7.2	10.6	-12.8	0.0
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Percent change from corresponding quarter of previous year								
2022 I	-0.6	4.0	4.6	7.7 r	-0.2 r	8.4 r	6.2 r	7.5
2021 ANNUAL	1.9	7.2	5.2	5.8 r	1.1 r	3.8 r	5.5 r	4.5
2021 IV	2.0	6.7	4.7	6.6 r	-0.1 r	4.5 r	9.5 r	6.5
III	-0.5	6.0	6.5	6.4	1.1	6.8	2.5	5.0
II	2.3	15.8	13.2	3.6	-1.1	1.3	10.0	4.7
I	3.7	1.2	-2.4	6.2	4.2	2.4	0.7	1.7
2020 ANNUAL	2.5	-4.2	-6.6	6.9	5.6	4.3	-4.8	0.4
2020 IV	2.7	-2.5	-5.0	8.5	7.2	5.7	-6.4	0.5
III	3.9	-3.5	-7.1	7.3	6.0	3.3	-3.3	0.4
II	2.4	-11.3	-13.4	8.4	7.9	5.9	-9.2	-0.6
I	1.0	0.3	-0.7	3.6	1.5	2.6	-0.6	1.2
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Indexes 2012=100								
2022 I	111.3 r	126.5 r	113.7 r	141.9 r	114.3 r	127.6 r	112.7 r	121.1 r
2021 ANNUAL	112.5	124.4	110.6	136.0 r	115.1 r	120.9 r	108.7 r	115.6
2021 IV	113.5	127.3	112.2	140.5 r	115.7 r	123.8 r	111.7 r	118.5
III	111.8	124.6	111.5	137.0	115.0	122.6	108.4	116.4
II	112.8	124.1	110.0	134.8	115.0	119.5	108.5	114.6
I	111.9	121.6	108.7	131.7	114.6	117.7	106.1	112.6
2020 ANNUAL	110.4	116.0	105.1	128.6	113.9	116.5	103.1	110.6
2020 IV	111.3	119.3	107.2	131.9	115.8	118.5	102.0	111.3
III	112.3	117.5	104.7	128.8	113.8	114.7	105.8	110.8
II	110.3	107.2	97.2	130.1	116.2	117.9	98.6	109.5
I	107.9	120.2	111.4	124.1	109.9	115.0	105.3	110.8
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See footnotes following Table 6.  
r=revised

June 2, 2022  
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)								
2022 I	-7.3 r	-2.3 r	5.4 r	4.4 r	-4.4 r	12.6 r	1.9 r	8.2
2021 ANNUAL	1.9	7.4	5.4	5.6 r	0.9 r	3.7 r	4.6 r	4.0
2021 IV	6.3	9.0	2.5	10.5 r	2.4 r	3.9 r	13.7 r	7.8
III	-3.9	2.0	6.2	6.3	-0.4	10.6	-0.4	6.0
II	3.2	8.5	5.1	9.2	1.1	5.8	6.6	6.1
I	2.2	8.4	6.1	-0.6	-4.5	-2.7	16.5	4.6
2020 ANNUAL	2.4	-4.4	-6.7	7.0	5.7	4.5	-4.9	0.4
2020 IV	-2.8	6.2	9.2	10.6	8.2	13.8	-15.3	0.9
III	6.2	44.6	36.2	-4.7	-9.1	-10.3	31.3	4.7
II	10.3	-36.9	-42.7	21.6	25.8	10.3	-21.6	-3.9
I	-2.5	-7.4	-5.0	8.7	7.3	11.5	-13.4	0.2
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Percent change from corresponding quarter of previous year								
2022 I	-0.6	4.2	4.8	7.6 r	-0.4 r	8.2 r	5.3 r	7.0
2021 ANNUAL	1.9	7.4	5.4	5.6 r	0.9 r	3.7 r	4.6 r	4.0
2021 IV	1.9	6.9	4.9	6.3 r	-0.4 r	4.3 r	8.9 r	6.1
III	-0.4	6.2	6.6	6.3	1.0	6.7	1.2	4.4
II	2.2	15.9	13.5	3.4	-1.3	1.2	8.4	4.1
I	3.9	1.3	-2.5	6.2	4.3	2.3	0.4	1.5
2020 ANNUAL	2.4	-4.4	-6.7	7.0	5.7	4.5	-4.9	0.4
2020 IV	2.7	-2.7	-5.2	8.6	7.3	5.8	-6.8	0.4
III	3.7	-3.7	-7.1	7.3	6.0	3.4	-3.3	0.5
II	2.5	-11.5	-13.6	8.7	8.2	6.0	-9.0	-0.4
I	0.9	0.2	-0.7	3.7	1.6	2.7	-0.8	1.2
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Indexes 2012=100								
2022 I	111.0 r	126.4 r	113.9 r	142.1 r	114.4 r	127.9 r	112.1 r	121.0 r
2021 ANNUAL	112.2	124.2	110.7	136.2 r	115.2 r	121.4 r	108.6 r	115.8
2021 IV	113.2	127.2	112.4	140.6 r	115.7 r	124.2 r	111.5 r	118.7
III	111.4	124.5	111.7	137.1	115.0	123.0	108.0	116.5
II	112.6	123.9	110.0	135.0	115.2	119.9	108.1	114.8
I	111.7	121.4	108.7	132.1	114.8	118.3	106.4	113.1
2020 ANNUAL	110.1	115.7	105.1	128.9	114.1	117.1	103.8	111.3
2020 IV	111.1	118.9	107.1	132.2	116.2	119.1	102.4	111.8
III	111.8	117.2	104.8	129.0	113.9	115.3	106.8	111.6
II	110.2	106.9	97.0	130.5	116.7	118.5	99.8	110.3
I	107.5	119.9	111.5	124.3	110.2	115.6	106.0	111.4
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See footnotes following Table 6.  
r=revised

June 2, 2022  
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)						
2022 I	0.2 r	5.1 r	4.9 r	5.9 r	-3.0 r	5.7 r
2021 ANNUAL	3.2	6.5	3.2	4.5 r	-0.1 r	1.3 r
2021 IV	-0.6	5.4	6.1	9.6 r	1.6 r	10.3 r
III	-2.5	3.8	6.4	-0.8	-7.0	1.7
II	9.5	5.8	-3.3	11.3	2.9	1.6
I	-1.2	2.9	4.2	0.2	-3.8	1.4
2020 ANNUAL	0.2	-6.7	-6.8	7.0	5.7	6.8
2020 IV	2.9	11.0	7.8	10.3	7.9	7.2
III	20.3	56.2	29.9	-11.4	-15.4	-26.3
II	-10.4	-44.5	-38.0	27.2	31.5	41.9
I	1.2	-6.2	-7.3	8.0	6.6	6.7
-----						
Percent change from corresponding quarter of previous year						
2022 I	1.5 r	5.0 r	3.4 r	6.4 r	-1.5 r	4.8 r
2021 ANNUAL	3.2	6.5	3.2	4.5 r	-0.1 r	1.3 r
2021 IV	1.2	4.5	3.3	4.9 r	-1.7 r	3.7 r
III	2.1	5.8	3.7	5.1	-0.2	2.9
II	7.6	17.2	9.0	2.2	-2.5	-5.0
I	2.3	-0.2	-2.5	5.6	3.7	3.2
2020 ANNUAL	0.2	-6.7	-6.8	7.0	5.7	6.8
2020 IV	2.9	-2.5	-5.3	7.6	6.3	4.6
III	1.9	-5.4	-7.2	6.9	5.6	5.0
II	-3.0	-15.5	-12.9	10.0	9.5	13.4
I	-1.3	-3.1	-1.9	3.7	1.6	5.1
-----						
Indexes 2012=100						
2022 I	98.7 r	103.7 r	105.1 r	133.9 r	107.9 r	135.7 r
2021 ANNUAL	98.5	100.6	102.1	129.1 r	109.2 r	131.0 r
2021 IV	98.6 r	102.4 r	103.8	132.0 r	108.7 r	133.8 r
III	98.8	101.0	102.3	129.0	108.3	130.6
II	99.4	100.1	100.7	129.3	110.3	130.1
I	97.2	98.7	101.6	125.9	109.5	129.5
2020 ANNUAL	95.4	94.5	99.0	123.5	109.3	129.4
2020 IV	97.5	98.0	100.5	125.8	110.5	129.1
III	96.8	95.5	98.7	122.8	108.5	126.9
II	92.4	85.4	92.4	126.6	113.1	136.9
I	95.0	98.9	104.2	119.2	105.6	125.5
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See footnotes following Table 6.  
r=revised

June 2, 2022  
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)						
2022 I	0.9 r	6.9 r	6.0 r	6.0 r	-2.9 r	5.1 r
2021 ANNUAL	5.6	8.6	2.9	4.1 r	-0.5 r	-1.4 r
2021 IV	1.8	6.2	4.3	10.3 r	2.2 r	8.3 r
III	-0.8	7.1	8.0	-8.2	-14.0	-7.5
II	6.3	-0.2	-6.1	13.9	5.4	7.2
I	0.5	6.6	6.1	1.2	-2.8	0.7
2020 ANNUAL	0.1	-8.0	-8.2	7.0	5.7	6.9
2020 IV	5.1	11.4	5.9	12.3	9.9	6.9
III	46.7	99.1	35.7	-15.4	-19.3	-42.3
II	-20.0	-54.0	-42.5	28.9	33.4	61.2
I	-2.2	-10.1	-8.0	7.4	6.0	9.8
-----						
Percent change from corresponding quarter of previous year						
2022 I	2.0 r	5.0 r	2.9 r	5.1 r	-2.6 r	3.1 r
2021 ANNUAL	5.6	8.6	2.9	4.1 r	-0.5 r	-1.4 r
2021 IV	1.9	4.9	2.9	3.9 r	-2.6 r	2.0 r
III	2.7	6.2	3.3	4.4	-0.8	1.6
II	13.3	23.9	9.4	2.3	-2.4	-9.7
I	5.5	2.1	-3.2	5.5	3.6	0.0
2020 ANNUAL	0.1	-8.0	-8.2	7.0	5.7	6.9
2020 IV	4.8	-2.1	-6.6	7.1	5.8	2.2
III	3.4	-5.2	-8.3	6.7	5.4	3.2
II	-6.2	-20.4	-15.1	10.8	10.3	18.2
I	-1.8	-4.5	-2.8	4.0	1.8	5.9
-----						
Indexes 2012=100						
2022 I	103.1 r	106.6 r	103.4 r	133.2 r	107.3 r	129.2 r
2021 ANNUAL	102.2 r	102.8 r	100.5	129.3 r	109.3 r	126.4 r
2021 IV	102.9 r	104.8 r	101.9	131.3 r	108.1 r	127.6 r
III	102.4	103.3	100.8	128.1	107.5	125.1
II	102.6	101.5	98.9	130.9	111.6	127.5
I	101.1	101.5	100.5	126.7	110.2	125.4
2020 ANNUAL	96.8	94.6	97.7	124.1	109.9	128.2
2020 IV	100.9	99.9	99.0	126.3	111.0	125.1
III	99.7	97.3	97.6	122.7	108.4	123.1
II	90.6	81.9	90.4	128.0	114.3	141.3
I	95.8	99.4	103.8	120.1	106.4	125.4
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See footnotes following Table 6.  
r=revised

June 2, 2022  
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)						
2022 I	0.0 r	3.2 r	3.2 r	5.5 r	-3.3 r	5.5 r
2021 ANNUAL	0.5	4.1	3.6	5.3 r	0.6 r	4.8 r
2021 IV	-4.1	4.5	9.0	8.7 r	0.7 r	13.4 r
III	-3.5	0.3	3.8	14.1	6.9	18.2
II	11.4	12.9	1.3	7.2	-0.8	-3.8
I	-2.2	-1.1	1.1	-2.2	-6.0	0.0
2020 ANNUAL	-0.4	-4.9	-4.5	7.3	6.0	7.7
2020 IV	-0.3	10.6	10.9	7.0	4.7	7.3
III	-0.2	20.8	21.0	-4.4	-8.8	-4.3
II	-3.2	-32.2	-30.0	26.3	30.6	30.5
I	4.9	-1.5	-6.1	9.5	8.1	4.4
-----						
Percent change from corresponding quarter of previous year						
2022 I	0.8 r	5.1 r	4.3 r	8.8 r	0.8 r	8.0 r
2021 ANNUAL	0.5	4.1	3.6	5.3 r	0.6 r	4.8 r
2021 IV	0.2	4.0	3.8	6.8 r	0.1 r	6.6 r
III	1.2	5.5	4.2	6.4	1.1	5.1
II	2.1	10.5	8.3	1.8	-2.9	-0.3
I	-1.5	-2.7	-1.3	6.0	4.1	7.6
2020 ANNUAL	-0.4	-4.9	-4.5	7.3	6.0	7.7
2020 IV	0.3	-2.8	-3.1	9.1	7.8	8.8
III	-0.3	-5.6	-5.3	7.6	6.3	8.0
II	-0.7	-9.9	-9.2	9.1	8.6	9.9
I	-0.9	-1.3	-0.4	3.6	1.4	4.5
-----						
Indexes 2012=100						
2022 I	97.2 r	104.8 r	107.9 r	135.7 r	109.3 r	139.6 r
2021 ANNUAL	97.7	102.4	104.8	129.1 r	109.2 r	132.2 r
2021 IV	97.2 r	104.0 r	107.0	133.9 r	110.2 r	137.8 r
III	98.2	102.9	104.8	131.1	110.0	133.5
II	99.1	102.8	103.8	126.9	108.2	128.1
I	96.4	99.7	103.4	124.7	108.4	129.3
2020 ANNUAL	97.2	98.3	101.1	122.6	108.6	126.1
2020 IV	97.0	100.0	103.2	125.4	110.1	129.3
III	97.0	97.5	100.5	123.2	108.9	127.0
II	97.1	93.0	95.8	124.7	111.4	128.4
I	97.9	102.5	104.8	117.6	104.2	120.1
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See footnotes following Table 6.  
r=revised

June 2, 2022  
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)										
2022 I	-5.0	0.7	6.0	4.2	-4.6	9.7	27.5	14.7	-5.1	11.6
2021 ANNUAL	4.6 r	9.7 r	4.9	5.3 r	0.6 r	0.7	4.7 r	1.9 r	23.0	4.6
2021 IV	1.1 r	5.0 r	3.9	9.8 r	1.8 r	8.7 r	24.0 r	13.0 r	-3.7 r	10.2
III	1.8	6.7	4.8	9.2	2.3	7.2	14.4	9.3	0.4	7.8
II	1.6	5.7	4.1	9.3	1.1	7.6	-14.4	0.7	58.8	7.9
I	3.2	8.9	5.6	-1.8	-5.6	-4.8	18.7	1.6	30.0	5.1
2020 ANNUAL	2.2	-4.2	-6.2	6.9	5.5	4.6	-10.6	-0.2	2.4	0.1
2020 IV	17.1	28.4	9.6	8.4	6.1	-7.4	53.3	6.3	-31.4	-0.2
III	-0.3	31.7	32.1	-5.2	-9.5	-4.9	-21.4	-9.6	206.1	6.2
II	2.7	-39.0	-40.6	23.7	28.0	20.5	-49.3	-6.5	-9.1	-6.8
I	0.7	-3.3	-4.0	7.4	6.0	6.6	4.2	5.8	-35.4	-0.4
Percent change from corresponding quarter of previous year										
2022 I	-0.2	4.5	4.7	8.1	0.1	8.3	11.5	9.3	9.9	9.4
2021 ANNUAL	4.6 r	9.7 r	4.9	5.3 r	0.6 r	0.7	4.7 r	1.9 r	23.0	4.6
2021 IV	1.9 r	6.6 r	4.6	6.5 r	-0.2 r	4.5 r	9.6 r	6.0 r	18.9 r	7.7
III	5.7	12.1	6.0	6.2	0.9	0.4	15.5	4.4	9.2	5.1
II	5.2	18.1	12.3	2.5	-2.2	-2.5	5.2	-0.4	44.3	4.7
I	5.5	3.0	-2.4	5.7	3.8	0.2	-7.7	-2.3	25.5	1.0
2020 ANNUAL	2.2	-4.2	-6.2	6.9	5.5	4.6	-10.6	-0.2	2.4	0.1
2020 IV	4.8	-0.1	-4.7	8.1	6.8	3.1	-10.7	-1.2	5.4	-0.4
III	1.3	-5.6	-6.8	7.1	5.8	5.8	-20.3	-2.5	18.3	0.1
II	1.5	-11.6	-12.9	8.8	8.4	7.3	-14.2	0.4	-10.0	-0.9
I	1.0	0.4	-0.6	3.7	1.5	2.6	2.1	2.4	-4.9	1.5
Indexes 2012=100										
2022 I	112.3	127.5	113.5	143.9	115.9	128.1	112.3	122.9	125.1	123.2
2021 ANNUAL	113.3 r	124.7 r	110.1	137.8 r	116.5 r	121.6 r	100.9 r	114.7 r	124.1 r	116.1
2021 IV	113.8 r	127.2 r	111.8	142.5 r	117.3 r	125.2 r	105.7 r	118.7 r	126.7 r	119.9
III	113.5	125.7	110.8	139.2	116.8	122.6	100.2	115.1	127.9	117.0
II	113.0	123.7	109.5	136.1	116.1	120.5	96.9	112.6	127.8	114.8
I	112.6	122.0	108.4	133.1	115.8	118.3	100.7	112.4	113.8	112.6
2020 ANNUAL	108.3	113.7	105.0	130.8	115.8	120.8	96.3	112.6	100.9	111.0
2020 IV	111.7	119.4	106.9	133.7	117.5	119.8	96.5	112.0	106.6	111.2
III	107.4	112.2	104.5	131.1	115.8	122.1	86.7	110.3	117.2	111.3
II	107.4	104.7	97.5	132.8	118.7	123.6	92.1	113.1	88.6	109.6
I	106.7	118.5	111.0	125.9	111.6	118.0	109.1	115.0	90.7	111.6

See footnotes following Table 6.  
r=revised

June 2, 2022  
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.

**SIZE OF REVISIONS:** Productivity and cost measures are revised on a regular schedule as more complete data become available. The first estimate is published within 40 days of the close of the reference quarter, the second estimate approximately 30 days later, and the third estimate approximately 60 days after the second estimate. Based on past revisions, the third estimate of nonfarm business sector quarterly labor productivity growth has differed from the first estimate by -1.1 to +1.4 percentage point about 80 percent of the time. This interval is based on estimates for reference quarters from the first quarter of 2001 to the fourth quarter of 2021. For more about revisions to labor productivity growth see “How large are revisions to estimates of quarterly labor productivity growth?” at [www.bls.gov/osmr/research-papers/2021/ec210040.htm](http://www.bls.gov/osmr/research-papers/2021/ec210040.htm).

### **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 1978-2021 is based on the Consumer Price Index Retroactive series (CPI-URS).
- (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.