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### PRODUCTIVITY AND COSTS

First Quarter 2024, Preliminary

Nonfarm business sector labor productivity increased 0.3 percent in the first quarter of 2024, the U.S. Bureau of Labor Statistics reported today, as output increased 1.3 percent and hours worked increased 1.0 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 increased 2.9 percent. (See chart 1 and table A1.)

Chart 1. Labor productivity, nonfarm business, 2020Q1 – 2024Q1

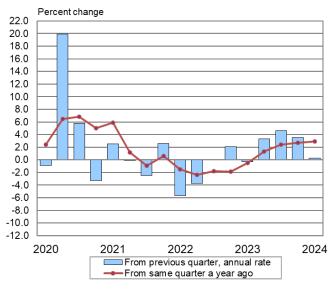
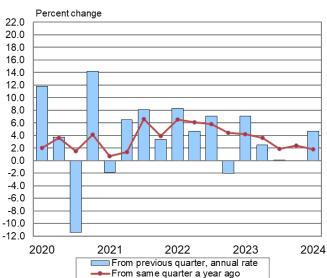


Chart 2. Unit labor costs, nonfarm business, 2020Q1 - 2024Q1



**Unit labor costs** in the nonfarm business sector increased 4.7 percent in the first quarter of 2024, reflecting a 5.0-percent increase in hourly compensation and a 0.3-percent increase in productivity. Unit labor costs increased 1.8 percent over the last four quarters. (See chart 2 and tables A1 and 2.)

## Correction to March 7, 2024 Release

Hours worked and related series, including labor productivity, were incorrect in the Productivity and Costs (R) Fourth Quarter and Annual Averages 2023 news release published March 7, 2024, as well as in the related data tables, charts, and database. Data for all sectors have been corrected from 2019 Q1-2023 Q4 with this release and all references to "previously published" values in this release reflect these corrections. More information can be found at: www.bls.gov/bls/errata/corrected-hours-worked-and-labor-productivity-for-labor-productivity-and-costs.htm.

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. Real hourly compensation, which takes into account consumer prices, increased 1.1 percent in the first quarter of 2024, and increased 1.5 percent over the last four quarters.

Labor productivity, or output per hour, is calculated by dividing an index of real output by an index of hours worked by all workers, including employees, proprietors, and unpaid family workers. During the current business cycle, starting in the fourth quarter of 2019, labor productivity has grown at an annual rate of 1.5 percent, reflecting a 2.2-percent rate of growth in output and a 0.7-percent rate of growth in hours worked during the business cycle. (See chart 3.) The 1.5-percent annual rate of productivity growth in the current business cycle thus far is the same as the 1.5 percent rate of the previous business cycle from the fourth quarter of 2007 through the fourth quarter of 2019, and is below the long-term rate since the first quarter of 1947 (2.1 percent).

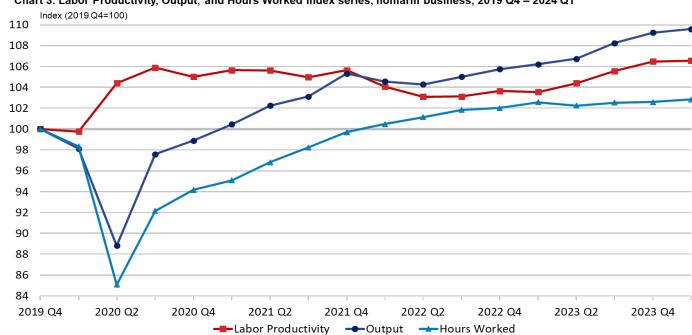


Chart 3. Labor Productivity, Output, and Hours Worked index series, nonfarm business, 2019 Q4 - 2024 Q1

Manufacturing sector labor productivity increased 0.2 percent in the first quarter of 2024, as output was unchanged and hours worked decreased 0.2 percent. In the durable manufacturing sector, productivity increased 1.2 percent, reflecting a 0.4-percent increase in output and a 0.8-percent decrease in hours worked. Nondurable manufacturing sector productivity decreased 1.3 percent as output decreased 0.4 percent and hours worked increased 0.9 percent. Total manufacturing sector productivity increased 1.2 percent from the same quarter a year ago. (See tables A1, 3, 4, and 5.)

**Unit labor costs** in the total manufacturing sector increased 3.2 percent in the first quarter of 2024, reflecting a 3.4-percent increase in hourly compensation and a 0.2-percent increase in productivity. Manufacturing unit labor costs increased 5.0 percent from the same quarter a year ago, reflecting an increase of 1.2 percent in labor productivity and an increase of 6.3 percent in hourly compensation. Real hourly compensation increased 3.0 percent from the same quarter a year ago. (See tables A1 and 3.)

Index (2019 Q4=100) 106 104 102 100 98 96 94 92 90 88 86 84 2019 Q4 2020 02 2020 O4 2021 Q2 2021 Q4 2022 Q2 2022 Q4 2023 O2 2023 Q4 Labor Productivity Output ---Hours Worked

Chart 4. Labor Productivity, Output, and Hours Worked index series, manufacturing, 2019 Q4 - 2024 Q1

Manufacturing sector labor productivity has grown at an annual rate of 0.3 percent during the current business cycle, as output has grown 0.1 percent and hours have declined 0.2 percent. (See chart 4.) The 0.3-percent annual rate of productivity growth in the current business cycle thus far is above the 0.0-percent rate of the previous business cycle from the fourth quarter of 2007 through the fourth quarter of 2019, and is below the long-term rate since the first quarter of 1987 (2.1 percent).

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 fourth-quarter and annual 2023 measures were announced today for the **nonfinancial corporate sector.** Productivity increased 7.9 percent in the fourth quarter of 2023, as output increased 8.1 percent and hours worked increased 0.2 percent. From the fourth quarter of 2022 to the fourth quarter of 2023, nonfinancial corporate sector productivity increased 3.6 percent.

Table C1 presents **annual average changes** for the most recent 5 years for the nonfinancial corporate sector. **Nonfinancial corporate sector** productivity increased 1.4 percent in 2023, as output increased 2.9 percent and hours worked increased 1.5 percent. (See tables A2, C1, and 6.)

### **Revised measures**

Hours and related measures—including labor productivity and hourly compensation—for all sectors were revised to incorporate updated ratios of hours worked to hours paid by detailed industry, provided by the BLS National Compensation Survey; indexes were subject to revision back to 2015. Measures of real hourly compensation for all sectors were also subject to revision due to the incorporation of the revised Consumer Price Index Retroactive Series. Third quarter, fourth quarter, and annual average data for 2023 were revised to incorporate regular updates of source data on output and compensation published by the Department of Commerce on April 25, 2024, and data on manufacturing output published by the Board of Governors of the Federal Reserve System on April 16, 2024.

Table B1 presents previous and revised productivity and related measures for the business, nonfarm business, and manufacturing sectors for the fourth quarter of 2023.

In the **fourth quarter of 2023**, nonfarm business sector productivity was revised up 0.2 percentage point to an increase of 3.5 percent, reflecting a 0.3-percentage point upward revision to output; hours worked were not revised. Nonfarm business unit labor costs were revised down 0.4 percentage point to 0.0 percent. Total manufacturing sector productivity was revised up 0.9 percentage point to an increase of 2.4 percent in the fourth quarter of 2023, reflecting a 1.0-percentage point upward revision to output and a 0.2-percentage point upward revision to hours worked. Unit labor costs in the manufacturing sector were revised down 1.1 percentage point to an increase of 4.2 percent during the fourth quarter of 2023. Labor productivity was revised up 1.2 percentage point in the durable manufacturing sector to an increase of 0.5 percent. In the nondurable manufacturing sector, labor productivity was revised up 0.7 percentage point to an increase of 4.7 percent. (See table B1.)

The **annual average rate** of productivity growth in the nonfarm business sector in 2023 was revised up 0.1-percentage point to an increase of 1.4 percent. For the manufacturing sector, annual average productivity in 2023 was also revised up 0.1-percentage point, to a decline of 0.6 percent. (See tables 2 and 3.)

Quarterly and annual data for all sectors from 2022 forward appear in tables 1-6. Full historical measures can be found on the Productivity and Costs home page: www.bls.gov/productivity/tables/.

The revised Productivity and Costs news release for first-quarter 2024 is scheduled to be released on Thursday, June 6, 2024, at 8:30 a.m. (ET).

Table A1. Labo	r productivity growth and related measures	- preliminary first-quarter 2024
(percent change from	om previous quarter at annual rate and from same quai	ter a vear ago)

Sector	Percent change from:	Labor productivity	Output	Hours worked	Hourly compensation	Real hourly compensation	Unit labor costs
Nonfarm business	s Previous quarter	0.3	1.3	1.0	5.0	1.1	4.7
	A year ago	2.9	3.2	0.3	4.7	1.5	1.8
Business	Previous quarter	0.3	1.2	0.9	5.0	1.2	4.7
	A year ago	2.8	3.1	0.3	4.7	1.4	1.8
Manufacturing	Previous quarter	0.2	0.0	-0.2	3.4	-0.4	3.2
	A year ago	1.2	-0.1	-1.3	6.3	3.0	5.0
Durable	Previous quarter	1.2	0.4	-0.8	5.5	1.7	4.3
manufacturing	A year ago	1.4	0.6	-0.7	7.7	4.3	6.2
Nondurable	Previous quarter	-1.3	-0.4	0.9	-0.7	-4.3	0.6
manufacturing	A year ago	1.5	-0.9	-2.4	3.5	0.2	1.9

# Table A2. Labor productivity growth and related measures - preliminary fourth-quarter 2023 (percent change from previous quarter at annual rate and from same quarter a year ago)

Sector	Percent change from:	Labor productivity	Output	Hours worked	Hourly compensation	Real hourly compensation	Unit labor costs
Nonfinancial	Previous quarter	7.9	8.1	0.2	3.9	1.2	-3.7
corporate	A year ago	3.6	4.3	0.7	5.6	2.3	1.9

# Table B1. Labor productivity growth and related measures - revised fourth-quarter 2023 (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	3.5	3.8	0.2	3.5	0.8	0.0
	Previously published	3.3	3.5	0.2	3.7	0.9	0.4
Business	Revised	3.6	3.7	0.1	3.7	1.0	0.1
	Previously published	3.4	3.5	0.1	3.9	1.1	0.4
Manufacturing	Revised	2.4	-1.0	-3.3	6.8	4.0	4.2
_	Previously published	1.5	-2.0	-3.5	6.9	4.1	5.3
Durable	Revised	0.5	-2.5	-3.0	9.5	6.6	9.0
manufacturing	Previously published	-0.7	-4.0	-3.3	9.8	6.9	10.6
Nondurable	Revised	4.7	0.6	-4.0	1.5	-1.2	-3.1
manufacturing	Previously published	4.0	0.0	-3.8	1.5	-1.2	-2.5

Table C1. Labor pro	able C1. Labor productivity growth and related measures - annual average changes: 2019-2023										
Sector	Year	Labor productivity	Output	Hours worked	Hourly compensation	Real hourly compensation	Unit labor costs				
Nonfinancial	2023	1.4	2.9	1.5	4.8	0.7	3.4				
corporate	2022	-1.0	3.1	4.2	4.1	-3.7	5.2				
	2021	3.7	9.0	5.1	4.7	-0.1	1.0				
	2020	3.4	-4.2	-7.3	8.0	6.6	4.5				
	2019	1.6	2.5	0.9	3.9	2.1	2.3				

### **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 and hours paid to wage and salary workers in nonfarm establishments, counting a person who is employed by two or more establishments at each place of employment. As of the February 3, 2023 Employment Situation release, the CES program has updated the national nonfarm payroll series to the 2022 North American Industry Classification System (NAICS). The BLS Major Sector Productivity program will be remaining on a NAICS 2017 basis for the time being by converting NAICS 2022 data from CES back to a NAICS 2017 basis using ratios published on the CES website and based on the Quarterly Census of Employment and Wages (QCEW). Hours of paid time off are removed from hours paid 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, hours of paid time off are removed using a combination of NCS and Hours at Work survey data. Off-the-clock hours are added, yielding hours worked, using data from the Current Population Survey (CPS).

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).

## 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 households (including owner-occupied housing). Corresponding exclusions also are made in labor hours worked. Business output accounted for about 77 percent of the value of GDP in 2023. Nonfarm business, which excludes farming, accounted for about 76 percent of GDP in 2023.

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 intrasectoral 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; 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 2023.

## **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 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 2017=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 productivity web site, https://www.bls.gov/productivity/data.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 methods see the Handbook of Methods at www.bls.gov/opub/hom/msp/home.htm.

If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.

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

season	iairy a	ajustea.							Value-
Year and quarte			Output		sation (1)	compen- sation (2)	labor costs	Unit nonlabor payments (3)	added output price deflator (4)
				nge from pre					
2024 I	Ξ	0.3	1.2	0.9	5.0	1.2	4.7	0.5	2.8
2023 A	ANNUAL	1.4	2.6	1.2	4.4	0.3 r	2.9	3.6	3.2
2023 I	v	3.6 r		0.1				1.9 r	0.9
I	II	4.4	5.6	1.1 r	4.6	1.1	0.2	6.3	2.8
I	ΙΙ	3.1 r	2.0	-1.0	5.5 r	2.4 r	2.4	-0.6	1.1
I	Ī	-0.1 r	2.1	2.2 r	6.7 r	2.8 r	6.9 r	-0.9	3.3
2022 A	ANNUAL	-1.9	1.9	3.9	3.8	-4.0	5.8	10.4	7.8
2022 I	v	2.5 r	2.9	0.4	0.4	-3.5 r	-2.0	10.9	3.5
I	III	0.0	2.7	2.7	7.1 r	1.7 r	7.0	0.3	4.0
I	ΙI	-3.6	-1.3	2.4	1.2	-8.1 r		17.8	10.5
	Γ	-6.2		3.4	1.8	-6.9	8.5	11.0	9.6
				e from corre					
2024 I	[	2.8	3.1	0.3	4.7	1.4	1.8	2.0	1.9
2023 A	ANNUAL	1.4	2.6	1.2	4.4	0.3 r	2.9	3.6	3.2
2023 I	ľV	2.7 r	3.3	0.6	5.1	1.8	2.3 r	1.6 r	2.0
I	II	2.4	3.1	0.7	4.3 r		1.8	3.8	2.7
I	ΙΙ	1.3	2.4	1.1	4.9 r	0.8 r	3.5	2.3	3.0
I	Ε	-0.3 r	1.6	1.9 r	4.9 r 3.8	0.8 r -1.9	4.1	6.8	5.3
2022 A	ANNUAL	-1.9	1.9	3.9	3.8	-4.0	5.8	10.4	7.8
2022 I	ΙV	-1.9	0.3	2.2	2.6	-4.3	4.5	9.8	6.9
I	III	-1.8	1.7	3.6	4.0	-4.0	6.0	10.6	8.0
I	ΙI	-2.4	1.8	4.3	3.7	-4.5	6.3	11.8	8.6
I	[	-1.4	4.0	5.5	5.1	-2.8	6.7	9.4	7.8
				Inde	exes 2017=10	00			
2024 I		112.0	118.1	105.5	135.9	106.8	121.3	125.1	123.0
2023 A	ANNUAL	110.3 r	116.0 r	105.2 r	132.1 r	105.9 r	119.7 r	123.6 r	121.4 r
2023 I	ľ	111.9 r	117.8 r	105.2 r	134.3 r	106.5 r	119.9 r	125.0 r	122.1 r
I	III	110.9 r	116.7	105.2 r	133.0 r	106.2 r	119.9 r	124.4 r	121.9
I	ΙI	109.7 r	115.1	104.9 r	131.5 r	105.9 r	119.9 r	122.5 r	121.0
I	Ī	108.9 r	114.6	105.2 r	129.8 r	105.3 r	119.2 r	122.7 r	120.7
2022 A	ANNUAL	108.7 r	113.1	104.0 r	126.5 r	105.6 r	116.3 r	119.3 r	117.6
2022 I	ΙV	109.0 r	114.0	104.6 r	127.7 r	104.6 r	117.2 r	122.9 r	119.7
I	III	108.3 r	113.2	104.5 r	127.6 r	105.5 r	117.8 r	119.8 r	118.7
	ΙI	108.3 r	112.4	103.8 r	125.4 r	105.1 r	115.8 r	119.7 r	117.5
I	[	109.3 r	112.8	103.2 r	125.1 r	107.3 r	114.4 r	114.9 r	114.6

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

and quarter	Labor produc- tivity	Output	Hours worked	Hourly compen- sation (1)	Real hourly compen- sation (2)	Unit labor costs	Unit nonlabor payments (3)	price deflator (4)
					ter at annua			
2024 I	0.3	1.3	1.0	5.0	1.1	4.7	0.5	2.8
2023 ANNUAL	1.4 r	2.6	1.2 r	4.4 r	0.2	3.0	4.0	3.4
2023 IV		3.8 r			0.8 r			1.2
III	4.6 r	5.8	1.1 r	4.6	1.1 2.8 r	0.1	6.8	3.0
II	3.3 r	2.0	-1.3 r	5.9 r	2.8 r	2.5	0.0	1.4
I	-0.3 r	1.8	2.1 r	6.8 r	2.9 r	7.1	0.0	3.9
2022 ANNUAL	-1.9	2.1	4.0	3.7	-4.1	5.7	10.0	7.5
2022 IV	2.1 r	2.8	0.8	0.0 r	-3.9 r 1.7 r	-2.0	11.0	3.5
III	0.0	2.8	2.8	7.1	1.7 r	7.1	0.1	3.9
II	-3.7	-1.1	2.7	0.8	-8.5 r	4.7	16.9	9.9
I	-5.7	-2.8	3.1 r	2.0 r	-6.6	8.3	9.9	9.0
					uarter of pr			
2024 I	2.9	3.2	0.3	4.7	1.5	1.8	2.4	2.1
2023 ANNUAL	1.4 r	2.6	1.2 r	4.4 r	0.2	3.0	4.0	3.4
2023 IV	27 m	3 3 ~	0.6	5.2	1 0	2.4 r	2.3 r	2.4
III	2.4 r				0.7 r			2.9
II	1.3 r		1.1	4.9 r				3.2
I	1.3 F	1.4	2.1	4.9 E	0.6 F	4.2 r	6.8	
1	-0.5	1.6	2.1	3.6	-2.0 F	4.2 F	0.8	5.5
2022 ANNUAL	-1.9	2.1	4.0	3.7	-4.1	5.7	10.0	7.5
2022 IV	-1.9	0.4	2.3	2.5	-4.4	4.4	9.3	6.5
III	-1.8	1.8	3.7	4.0	-4.0	5.8	10.4	7.8
II	-2.4	2.0	4.5	3.6	-4.7 r	6.1	11.5	8.4
I	-1.5	4.1	5.6		-3.0		8.8	7.5
				exes 2017=1				
2024 I	111.9	118.4	105.8	135.7	106.6	121.2	124.9	122.8
2023 ANNUAL	110.2 r	116.2 r	105.5 r	131.8 r	105.7 r	119.7 r	123.2 r	121.2 r
2023 IV	111.8 r	118.0 r	105.5 r	134.0 r	106.3 r	119.9 r	124.8 r	122.0 r
III	110.9 r	116.9	105.4 r		106.1 r	119.9 r		121.6
II	109.6 r 108.8 r							120.8
I	108.8 r	115.3 114.7	105.5 r	129.5 r		119.1 r	122.0 r	120.3
2022 ANNUAL	108.7 r	113.3	104.2 r	126.3 r	105.5 r	116.2 r	118.5 r	117.2
2022 IV	108.8 r	114.2	104.9 r	127.4 r	104.3 r	117.1 r	122.0 r	119.2
II	108.3 r 108.3 r	112.6	104.0 r	127.4 r 125.3 r	104.9 r			
I	109.3 r		103.3 r					
See footnote								 av 2. 2024

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

					Real	
Year	Labor			Hourly	hourly	Unit
and	produc-		Hours	compensa-	compensa-	labor
quarter	tivity	Output	worked	tion (1)		costs
	Percer			at annual rate		
2024 I	0.2	0.0	-0.2	3.4	-0.4	3.2
2023 ANNUAL	-0.6 r	-0.5 r	0.1	5.2	1.0	5.9
2023 IV	2.4 r	-1.0 r	-3.3 r	6.8 r	4.0 r	4.2 r
III	-1.2 r	-0.6 r	0.6	7.5	3.9 r	8.9 r
II	3.5 r	1.1	-2.4	7.6	4.4	3.9
I	-1.2 r	-0.4	0.8 r	7.0 5.0 r	1.2	6.3
-	1.2 1	0.4	0.0 1	3.0 1	1.2	0.3
2022 ANNUAL	-1.2	2.8	4.0	3.6	-4.2	4.8
2022 IV	-2.7	-3.6	-0.9	1.2	-2.8 r	4.0
III	-3.2	0.4	3.7	7.6	2.2 r	11.1
II	0.9	3.0	2.1	2.3 r	-7.1 r	1.4
I	-2.3	3.1	5.6	1.9	-6.7 r	4.3
	Percent	change from cor	responding quar	ter of previous	year	
		, , , , , , , , , , , , , , , , , , ,	3 1···		1	
2024 I	1.2	-0.1	-1.3	6.3	3.0	5.0
2023 ANNUAL	-0.6 r	-0.5 r	0.1	5.2	1.0	5.9
2023 IV	0.9 r	-0.2 r	-1.1	6.7 r	3.4	5.8 r
III	-0.4 r	-0.9	-0.5	5.3	1.7 r	5.7 r
II	-0.9	-0.7	0.3 r	5.3	1.2 r	6.3
I	-1.6 r	-0.2	1.4	4.0	-1.7	5.7
	1.0			2.6		
2022 ANNUAL	-1.2	2.8	4.0	3.6	-4.2	4.8
2022 IV	-1.8	0.7	2.6	3.2	-3.7	5.2
III	-1.6	2.8	4.5	4.9	-3.2	6.6
II	-1.2	3.6	4.8	2.6	-5.6 r	3.8
I	-0.2	4.3	4.5	3.4	-4.4	3.6
		Ir	ndexes 2017=100			
2024 I	98.8	99.6	100.8	129.0	101.4	130.6
2023 ANNUAL	98.3 r	99.8 r	101.6 r	124.7 r	100.0 r	126.9 r
		00.6	100.0	107.0	101 -	100.6
2023 IV	98.8 r	99.6 r	100.9 r	127.9 r	101.5 r	129.6 r
III	98.2 r	99.9 r	101.7 r	125.9 r	100.5 r	128.2 r
II	98.5 r	100.0	101.6 r	123.6 r	99.5 r	125.5 r
I	97.6 r	99.7	102.2 r	121.4 r	98.5 r	124.3 r
2022 ANNUAL	98.9 r	100.3	101.4 r	118.5 r	99.0 r	119.9 r
2022 IV	97.9 r	99.8	102.0 r	119.9 r	98.2 r	122.4 r
III		100.8	102.0 r	119.5 r	98.9 r	121.2 r
II	99.4 r	100.7	101 3 ~	117.4 r	98.3 r	118.1 r
I	99.4 r 99.2 r	99.9	101.3 r 100.8 r	117.4 F 116.7 r	100.1 r	110.1 r
See footpotes	following Tabl	۱۵ 6			,	Marr 2 2024

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

Year and quarte	er		Output	Hours worked	Hourly compensa- tion (1)		Unit labor costs
		Percen			at annual rate	(5)	
2024 1	I	1.2	0.4	-0.8	5.5	1.7	4.3
2023 <i>I</i>	ANNUAL	-1.0	0.3 r	1.3 r	5.3	1.1	6.3 r
2023 1	IV	0.5 r	-2.5 r	-3.0 r	9.5 r	6.6 r	9.0 r
3	III	-2.6 r	0.8	3.5 r	7.9	4.3	10.8 r
3	II	6.5 r	3.9	-2.5	7.8	4.6	1.2
3	I	-3.8	-1.8	2.1	5.9	2.1 r	10.1
2022 F	ANNUAL	-1.0	3.6	4.7	2.5	-5.2 r	3.6
2022 1	IV	-2.5	-2.7	-0.1	-0.6 r	-4.5 r	1.9
	III	-3.0	2.0	5.1	7.3	1.9 r	10.6
	II	2.1	5.4	3.2	2.7	-6.7 r	0.6
	 I	-1.8	5.6	7.6 r	-0.5	-9.0	1.3
		Percent	change from cor	responding quar	ter of previous	year	
2024 1	I	1.4	0.6	-0.7	7.7	4.3	6.2
2023 A	ANNUAL	-1.0	0.3 r	1.3 r	5.3	1.1	6.3 r
2023 1	IV	0.1 r	0.1 r	0.0 r	7.8	4.4	7.7 r
3	III	-0.7	0.0	0.7	5.2	1.6 r	5.9
3	II	-0.8	0.3	1.1	5.0	1.0 r	5.9
3	I	-1.8	0.7	2.5 r	3.8	-1.9	5.7
2022 F	ANNUAL	-1.0	3.6	4.7	2.5	-5.2 r	3.6
2022 1	IV	-1.3	2.5	3.9	2.2	-4.7	3.5
	III	-0.7	4.5	5.3 r	4.6	-3.5 r	5.3
	II	-0.5	4.7	5.2	0.9	-7.2 r	1.4
	I	-1.9 r	2.6	4.5	2.2 r	-5.5	4.2
			In	dexes 2017=100			
2024 1	I	96.7	98.2	101.5	130.1	102.3	134.6
2023 I	ANNUAL	96.2 r	98.2 r	102.1 r	124.4 r	99.8 r	129.3 r
2023 1	IV	96.4 r	98.1 r	101.8 r	128.4 r	101.8 r	133.2 r
3	III	96.3 r	98.7 r	102.5 r	125.5 r	100.2 r	130.4 r
3	II	96.9 r	98.5	101.6 r	123.2 r	99.2 r	127.1 r
	I	95.4 r	97.6	102.3 r		98.1	126.7 r
2022 #	ANNUAL	97.2 r	97.9	100.8 r	118.2 r	98.7 r	121.7 r
2022 1	IV	96.3 r	98.0 r	101.7 r	119.1 r	97.6 r	123.7
	III	96.9 r	98.0 r 98.7	101.8 r	119.3 r	98.7 r	123.1 r
	II	97.7 r		100.5 r	117.2 r	98.2 r	120.0 r
	I.	97.2 r	96.9	99.7 r	116.4 r		119.9 r

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

Year and quart	er	Labor produc- tivity	Output	Hours worked	Hourly compensa- tion (1)	Real hourly compensa- tion (2)	Unit labor costs
		Percen	t change from p		r at annual rate		
2024	I	-1.3	-0.4	0.9	-0.7	-4.3	0.6
2023	ANNUAL	0.4	-1.3 r	-1.7	4.7 r	0.6	4.3 r
2023	IV	4.7 r	0.6 r	-4.0 r	1.5	-1.2	-3.1 r
	III	2.1 r	-2.1 r	-4.1 r	6.0 r	2.5 r	3.8 r
	II	0.6	-1.7	-2.3 r	7.3	4.1	6.6 r
	I	2.4 r	0.9	-1.5	3.0	-0.8	0.5
2022	ANNUAL	-1.3	1.7	3.0	5.4	-2.4 r	6.8
2022	IV	-2.4	-4.6	-2.3	4.5	0.5 r	7.1
	III	-2.5	-1.2	1.3	7.8	2.4 r	10.6
	II	0.3	0.6	0.3	1.4	-8.0 r	1.1
	I	-1.7	0.6	2.4	6.2	-2.8 r	8.0
			 change from cor		 rter of previous		
2024	<del>-</del>		-		-	-	1 0
2024	1	1.5	-0.9	-2.4	3.5	0.2	1.9
2023	ANNUAL	0.4	-1.3 r	-1.7	4.7 r	0.6	4.3 r
2023	IV	2.5 r	-0.6 r	-3.0	4.4	1.1	1.9 r
	III	0.7	-1.9	-2.5 r	5.2	1.6 r	4.5
	II	-0.5	-1.7	-1.2	5.6	1.5 r	6.1
	I	-0.6	-1.1	-0.5	4.1 r	-1.6	4.7
2022	ANNUAL	-1.3	1.7	3.0	5.4	-2.4 r	6.8
2022	IV	-1.6	-1.2	0.4	4.9	-2.1	6.6
	III	-2.3	0.9	3.3	5.2	-2.9	7.7
	II	-2.1	1.9	4.0	5.9	-2.5	8.1
	I	0.7	5.2	4.5	5.5 r	-2.4	4.8
			Ir	dexes 2017=100			
2024	I	100.3	99.9	99.6	126.6	99.4	126.2
2023	ANNUAL	99.5 r	100.2 r	100.7 r	125.0 r	100.3 r	125.6 r
2023	IV	100.6 r	100.0 r	99.3 r	126.8 r	100.5 r	126.0 r
	III	99.5 r	99.8 r	100.3 r	126.3 r	100.8 r	127.0 r
	II	98.9 r	100.3	101.4 r	124.5 r	100.2 r	125.8 r
	I	98.8 r	100.8		122.3 r	99.2 r	
2022	ANNUAL	99.1 r	101.5	102.5 r	119.4 r	99.7 r	120.4 r
2022	IV	98.2 r	100.5	102.4 r	121.4 r	99.4 r	123.6 r
	III	98.8 r	101.7	103.0 r	120.1 r	99.3 r	121.5 r
	II	99.4 r	102.0	102.6 r		98.7 r	118.5
	I	99.4 r	101.9	102.5 r	117.4 r		118.2 r

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

Year and		Labor produc-		Hours	Hourly compen- sation	Real hourly compen- sation	Unit labor	Value- added output price deflator	Unit nonlabor	Unit combine input costs	Unit
quart		tivity	-	worked	(1)	(2)	costs	(4)	(6)	(7)	(8)
								al rate (5)			
2023	ANNUAL	1.4	2.9	1.5	4.8	0.7	3.4	2.1	0.5	2.4	0.1
2023	IV	7.9	8.1	0.2	3.9	1.2	-3.7	-0.4	-2.9	-3.4	16.4
	III	3.1 r	3.9	0.8	4.8 r	1.3	1.6	1.9	-3.8	-0.1	13.0
	II	1.8	1.2	-0.5	6.8	3.7 r	4.9	3.1	-2.4	2.6	6.0
	I	1.8 r	4.3	2.4 r	6.9 r	3.0 r	5.0	0.0	2.3	4.1	-18.8
2022	ANNUAL	-1.0	3.1	4.2	4.1	-3.7	5.2	7.5	11.8	7.2	9.1
2022		-0.7	-0.1	0.6	1.0 r	-2.9 r	1.7	1.1	2.2	1.8	-2.3
	III	1.3	5.0	3.7	6.6	1.2 r	5.2	3.1	1.1	3.9	-0.6
	II	-2.2 -2.2 r	0.6 0.8	2.9 3.0	2.0 2.6 r	-7.4 r -6.1	4.3 4.9	11.2 10.4	9.1 22.8	5.8 10.2	42.8 11.7
	-	2.2 1	0.0	3.0	2.0 1	0.1	4.3	10.4	22.0	10.2	11.7
2021	ANNUAL	3.7	9.0	5.1	4.7	-0.1	1.0	4.8	3.8	1.8	23.3
2021	IV	-2.4	5.2	7.8	4.3	-4.1	6.9	7.7	18.6	10.3	-4.7
	III	2.4	7.0	4.5	8.5	1.8 r	5.9	3.6	15.2	8.6	-17.9
	II	-0.1 4.4	6.4 7.7	6.5 3.2	6.2 0.5 r	-1.8 r -3.6 r	6.3 -3.8	8.5 5.7	-12.0 5.6	0.4	59.6 53.3
								5. <i>1</i>		-1.0 	
			Percent o	change fro	om correspo	onding quar	ter of p	revious yea	ır		
2023	ANNUAL	1.4	2.9	1.5	4.8	0.7	3.4	2.1	0.5	2.4	0.1
2023	IV	3.6	4.3	0.7	5.6	2.3	1.9	1.2	-1.8	0.8	3.2
	III	1.5 r	2.3	0.8 r	4.8	1.2 r	3.3	1.5	-0.5	2.1	-1.3
	I	1.1 r 0.0	2.6 2.4	1.5 r 2.4	5.3 4.1	1.2 r -1.6 r	4.2 4.1	1.8 3.8	0.7 3.6	3.1 3.9	-4.4 3.0
	ANNUAL	-1.0	3.1	4.2	4.1	-3.7	5.2	7.5	11.8	7.2	9.1
2022		-1.0	1.6	2.5	3.0	-3.9	4.0	6.4	8.5	5.4	11.5
	III	-1.4	2.9	4.3	3.9	-4.1	5.3	8.1	12.6	7.5	10.8
	II	-1.1	3.4	4.5	4.3	-4.0	5.5	8.2	16.3	8.7	5.7
	I	-0.6	4.8	5.4	5.4	-2.6	6.0	7.5	10.2	7.3	8.7
2021	ANNUAL	3.7	9.0	5.1	4.7	-0.1	1.0	4.8	3.8	1.8	23.3
2021	IV	1.1 r	6.6	5.5	4.8	-1.9 r	3.7	6.4	6.1	4.4	17.6
	III	4.6	10.9	6.0	5.7	0.3	1.1	4.0	14.3	4.7	0.5
	II	3.7	17.1	12.9 r	1.7	-3.1	-1.9	5.6 3.3	3.1	-0.5	48.8
	I 	5.8 r	2.4 	-3.2 	6.5 	4.4 	0.7	3.3 	-5.6 	-1.3	37.5 
					Indexes	2017=100					
2023	ANNUAL	111.3	117.9	105.9	132.9	106.6	119.4	121.3	110.5	116.5	153.3
2023	IV	113.5	120.3	106.0	135.3	107.3	119.2	121.7	109.2	115.9	160.6
	III	111.4 r			134.0 r					116.9	154.6
	II	110.5 r			132.4 r					117.0	150.0
	I	110.0 r	116.5	105.9 r				120.3		116.2	147.8
2022	ANNUAL	109.7 r	114.6	104.4 r	126.7 r	105.8 r	115.5	118.8	110.0	113.7	153.2
	IV			105.2 r		104.9 r				115.0	155.7
	III	109.7 r		105.1 r				120.0		114.5	156.6
	II T	109.4 r	113.9	104.1 r				119.0		113.4	156.9
	I	110.0 r	113.7	103.4 r		107.4 r	113.8			111.8	143.5
		110.8 r		100.2 r	121.7 r		109.8	110.5		106.1	140.4
2021	IV III	110.6 r						113.1		109.2	
		ттт.э r	112.1	100./ T	1∠3.U T	11U.∠ T	110.5	<b>⊥</b> ⊥⊥.∪	<b>90.</b> ∠	106.5	141.3
	II	110.6 r	110 2	99 6 -	120 5 ~	109 7 ∽	109 0	111.0 110.0	94 8	104.3	

See footnotes following Table 6. r=revised

May 2, 2024 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 2023. For more about revisions to labor productivity growth see "Revisions to BLS quarterly labor productivity estimates: How large are they?" at www.bls.gov/opub/mlr/2022/article/revisions-to-bls-quarterly-labor-productivity-estimates-how-large-are-they.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 1978-2023 is based on the Consumer Price Index Retroactive 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.