# N E W S R E L E A S E <br> BUUREAUOF LABOR STATISTICS 

For release 10:00 a.m. (ET) Thursday, May 25, 2023
USDL-23-1089

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## Productivity and Costs by Industry <br> Wholesale Trade and Retail Trade Industries - 2022

Labor productivity declined 1.2 percent in wholesale trade and 0.4 percent in retail trade in 2022, the U.S. Bureau of Labor Statistics reported today. Unit labor costs, which reflect the total labor costs required to produce a unit of output, rose in both wholesale trade and retail trade.

Annual productivity decreased in retail trade for the first time since 2008, with output declining at a faster rate than hours worked. In wholesale trade, annual productivity decreased for the first time since 2011, with hours worked growing at a higher rate than output. This was the second year in a row of increasing output and hours worked for wholesale trade after declining in 2020.

Chart 1. Largest changes in productivity in four-digit NAICS wholesale and retail trade industries, 2022


All 6 four-digit NAICS industries with the highest productivity growth reported increases in output and five showed declines in hours worked. Productivity growth was greatest in florists ( +22.5 percent) where there was strong growth in output and a significant decline in hours worked.

Among the 6 four-digit NAICS industries with the largest declines in productivity, output decreased in five and hours worked increased in all six. The two industries with the greatest decreases in productivity were furniture stores ( -12.1 percent) and automobile dealers ( -12.0 percent). (See table 1.)

## Labor Productivity Rose in Nearly Half of the Three-Digit NAICS Industries in 2022

Productivity increased in 7 of the 15 three-digit NAICS industries studied in 2022. (See table 1.) The only industry with a double-digit gain was nonstore retailers ( +11.1 percent). The next largest increases occurred in miscellaneous store retailers ( +7.9 percent) and general merchandise stores ( +5.3 percent). Both motor vehicle and parts dealers and furniture and home furnishings stores had the largest productivity decline ( -10.9 percent each). (See chart 2 ).

Chart 2. Productivity change in three-digit NAICS wholesale and retail trade industries, 2022


In wholesale trade, productivity fell 1.2 percent as output growth ( +1.6 percent) was slower than growth in hours worked ( +2.9 percent).

- Productivity increased in only 6 of the 19 four-digit NAICS wholesale trade industries while output rose in 11 industries and hours worked grew in 17.
- Productivity rose 0.1 percent in durable goods wholesalers and fell 1.8 percent in nondurable goods wholesalers.
- The highest increase in productivity occurred in lumber and construction supply merchant wholesalers ( +17.2 percent) as output rose at a much faster rate ( +24.6 percent) than hours worked ( +6.4 percent).

In retail trade, productivity decreased 0.4 percent as output declined ( -1.3 percent) slightly faster than hours worked ( -1.0 percent).

- Productivity increased in only 10 of the 27 four-digit NAICS retail trade industries while output grew in 12 industries and hours worked rose in 14.
- Florists saw the largest productivity increase ( +22.5 percent) as output increased 8.3 percent while hours fell 11.6 percent.
- For the largest 10 industries in retail by employment, productivity increased in 4 , output increased in 3, and worker hours grew in 5 .
- In grocery stores (the largest retail employer) hours worked rose 0.1 percent while output decreased 1.0 percent, leading to a productivity decrease of 1.1 percent.


## Unit Labor Costs Rise in Most Trade Industries in 2022

When hourly compensation outpaces productivity gains, unit labor costs grow.

- Unit labor costs rose in 14 of 15 three-digit NAICS wholesale and retail trade industries in 2022; electronics and appliance stores declined 1.4 percent. (See chart 3.)
- The largest increase in unit labor costs occurred in motor vehicle and parts dealers $(+17.5$ percent) in which hourly compensation grew 4.7 percent while productivity fell 10.9 percent.
- Among four-digit NAICS industries, unit labor costs rose in 18 of 19 wholesale trade industries, and in 23 of 27 retail trade industries.
- Hourly compensation rose in 42 of the 46 four-digit NAICS industries.

Chart 3. Unit labor costs, productivity, and hourly compensation in three-digit NAICS wholesale and retail trade industries, 2022


## 2019 to 2022 Trends

Output increased in 31 of the 46 four-digit trade industries from 2019 to 2022. (See table 3.) Note that the percent changes for periods of more than one year are annual percent changes. The two industries with the highest increases during that period were electronic shopping and mail-order houses $(+18.1$ percent per year) and jewelry, luggage, and leather goods stores ( +11.3 percent). The steepest annual declines in output during this period were shared between vending machine operators and petroleum merchant wholesalers ( -6.8 percent each).

Hours worked decreased in 28 of the 46 four-digit trade industries from 2019 to 2022. The two industries with the largest decreases in hours worked over the 3 years were jewelry, luggage, and leather goods stores ( -8.5 percent per year) and direct selling establishments ( -7.1 percent). The industry with the largest increase in hours worked during this period was electronic shopping and mail-order houses (+4.2 percent).

## Long-term Labor Productivity Increases in All but One Industry

From 1987 to 2022, labor productivity increased 2.5 percent per year in wholesale trade and 3.2 percent per year in retail trade. (See table 2.)

- Among the 46 four-digit NAICS industries, productivity rose in all but one industry, metal and mineral merchant wholesalers.
- Of the 45 four-digit NAICS industries with increasing productivity growth, 40 experienced rising output while 20 had increases in hours worked.
- Median productivity among four-digit NAICS industries grew at an annual rate of 2.0 percent.
- Among subperiods, productivity growth in wholesale durable, wholesale nondurable, and retail trade industries was slower from 2007 to 2019 than during the years preceding and following. The productivity growth in retail trade and wholesale nondurable goods industries was fastest in the 2019-22 period. (See chart 4).
- Productivity grew in 43 of the 46 four-digit NAICS industries during the 1987-2007 period. The number of industries fell to 33 from 2007 to 2019 and then rose to 36 from 2019 to 2022.


## Long-term Trends in Unit Labor Costs Vary by Sector

From 1987 to 2022, unit labor costs increased 1.5 percent per year in wholesale trade and 0.3 percent per year in retail trade. (See table 2.)

- Among the 46 four-digit NAICS industries, unit labor costs rose in 17 of 19 wholesale trade and 14 of 27 retail trade industries from 1987 to 2022.
- Across sub-periods, unit labor costs rose in 29 industries in 1987-2007, 34 in 2007-19, and 40 industries in 2019-22.
- In all three periods, unit labor costs remained positive for both wholesale durable and nondurable goods. In retail trade, unit labor costs were slightly positive from 1987 to 2007, were unchanged from 2007 to 2019, and rose 3.3 percent per year from 2019 to 2022.

Chart 4. Long-term changes in productivity and unit labor costs for wholesale trade durable and nondurable goods industry groups and retail trade industry


## Additional Information

The trade measures in this release incorporate 2017 Economic Census data and benchmark data from the Census Bureau's Annual Wholesale Trade Report (December 2022), Monthly Wholesale Trade Survey (May 2023), Annual Retail Trade Survey (December 2022), and Annual Revision of the Monthly Retail and Food Services: Sales and Inventories (April 2023). Accordingly, the labor productivity and output series for all industries have been revised for 2021 and earlier years. Additionally, the unit labor cost measures incorporate preliminary data from the BLS Quarterly Census of Employment and Wages (March 2023).

Measures of hours worked for all industries reflect a change in methods and are revised historically. The new method of determining hours worked uses all-employee hours data from the BLS Current Employment Statistics (CES) survey as the main source of data. This is an improvement upon the prior method which instead used the CES production worker hours data. Another improvement is the use of BLS Current Population Survey (CPS) data to adjust CES all-employee hours paid to account for hours worked but not paid, also known as off-the-clock hours. Hours worked data also now incorporate allemployee based hours-worked-to-hours-paid ratios from the National Compensation Survey, rather than ratios based only on production workers. For more information on the new hours worked method, see www.bls.gov/opub/mlr/2022/article/improving-estimates-of-hours-worked-for-us-productivitymeasurement.htm.

More information about the North American Industry Classification System (NAICS) can be found at www.census.gov/naics/.

Access the productivity data dashboard at www.bls.gov/productivity/tables/labor-productivity-detailedindustries.xlsx for

- Additional industries and sectors
- Detailed data series: indexes of productivity and related measures; rates of change; and levels of industry employment, hours worked, nominal value of production, and labor compensation
- Additional years and long-term data

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## Technical Note

Labor Productivity: Labor productivity describes the relationship between output and the labor hours involved in its production. These measures show the changes from period to period in the amount of goods and services produced per hour worked. Although the labor productivity measures relate real output in an industry to hours worked of all persons in that industry, they do not measure the specific contribution of labor to growth in output. Rather, they reflect the joint effects of many influences, including: changes in technology; capital investment; utilization of capacity, energy, and materials; the use of purchased services inputs, including contract employment services; the organization of production; the characteristics and effort of the workforce; and managerial skill.

Unit Labor Costs: Unit labor costs represent the cost of labor required to produce one unit of output. The unit labor cost indexes are computed by dividing an index of nominal industry labor compensation by an index of real industry output. Unit labor costs also describe the relationship between compensation per hour worked (hourly compensation) and real output per hour worked (labor productivity). When hourly compensation growth outpaces productivity, unit labor costs increase. Alternatively, when productivity growth exceeds hourly compensation, unit labor costs decrease.

Output: Industry output is measured as an annual-weighted index of the changes in the various products (in real terms) provided for sale outside the industry. Real industry output for data in this release is derived by deflating nominal sales or values of production using price indexes. Industry output measures are constructed primarily using data from the economic censuses and annual surveys of the U.S. Census Bureau and U.S. Department of Commerce, together with information on price changes from BLS.

Labor Hours: Labor hours are measured as annual hours worked by all employed persons in an industry. This includes hours worked for pay as well as uncompensated work time. Data on industry employment and hours come primarily from the BLS Current Employment Statistics (CES) survey and Current Population Survey (CPS). CES data on the number of jobs held by wage and salary workers in nonfarm establishments are supplemented with CPS data on self-employed and unpaid family workers to estimate industry employment. Hours worked estimates are derived using CES and CPS employment, CES data on the average weekly hours paid of all employees, CPS data on hours of self-employed and unpaid family workers, and ratios of hours worked to hours paid based on data from both the CPS and the National Compensation Survey (NCS). For some industries, employment and hours data are supplemented or further disaggregated using data from the BLS Quarterly Census of Employment and Wages (QCEW), the Census Bureau, or other sources. Hours worked are estimated separately for different types of workers and then are directly aggregated; no adjustments for labor composition are made.

Labor Compensation: Labor compensation, defined as payroll plus supplemental payments, is a measure of the cost to the employer of securing the services of labor. Payroll includes salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind. Supplemental payments include both legally required expenditures and payments for voluntary programs. The legally required portion consists primarily of federal old age and survivors' insurance, unemployment compensation, and workers' compensation. Payments for voluntary programs include all programs not specifically required by legislation, such as the employer portion of private health insurance and pension plans. Industry compensation measures are constructed primarily using data from the BLS QCEW and the economic censuses of the Census Bureau, U.S. Department of Commerce.

Annual Percent Change: The annual percent change is the compound annual growth rate in an index series over a period of more than one year. The change of an index series varies from year to year. However, the annual percent change is the constant rate that can be applied to each year in a period, from the start to the end, that would give the same total result. It is calculated as (Ending Value/Starting Value) $\wedge^{\wedge}(1 /$ Number of Years) -1 .

Table 1. Recent labor productivity, unit labor costs, and related data

| Industry | 2017 <br> NAICS code | 2022 <br> Employment (thousands) | Percent change, 2021-2022 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Labor productivity | Unit labor costs | Output | Hours worked | $\begin{aligned} & \text { Labor } \\ & \text { compen- } \\ & \text { sation } \end{aligned}$ | Hourly compensation |
| Wholesale trade.. | 42 | 6,060.4 | -1.2 | 10.3 | 1.6 | 2.9 | 12.1 | 9.0 |
| Merchant wholesalers, durable goods. | 423 | 3,328.0 | 0.1 | 8.7 | 4.1 | 4.1 | 13.2 | 8.8 |
| Motor vehicles and parts. | 4231 | 368.1 | 0.6 | 7.7 | 6.3 | 5.7 | 14.4 | 8.3 |
| Furniture and furnishings. | 4232 | 119.0 | 4.4 | 3.8 | 5.8 | 1.3 | 9.8 | 8.3 |
| Lumber and construction supplies.. | 4233 | 259.7 | 17.2 | -7.8 | 24.6 | 6.4 | 14.9 | 8.0 |
| Commercial equipment................. | 4234 | 734.5 | -1.9 | 9.0 | 1.8 | 3.8 | 11.0 | 7.0 |
| Metals and minerals.. | 4235 | 132.4 | -1.1 | 17.8 | 2.8 | 3.9 | 21.1 | 16.5 |
| Appliances and electric goods. | 4236 | 359.3 | -0.2 | 11.2 | 1.9 | 2.1 | 13.3 | 10.9 |
| Hardware and plumbing.... | 4237 | 306.3 | -0.8 | 11.5 | 2.7 | 3.5 | 14.5 | 10.6 |
| Machinery and supplies.. | 4238 | 725.7 | -0.8 | 10.6 | 3.7 | 4.4 | 14.6 | 9.7 |
| Miscellaneous durable goods... | 4239 | 323.0 | -7.2 | 15.4 | -3.7 | 3.7 | 11.1 | 7.1 |
| Merchant wholesalers, nondurable goods.. | 424 | 2,206.5 | -1.8 | 10.7 | -0.4 | 1.4 | 10.2 | 8.6 |
| Paper and paper products.. | 4241 | 121.4 | -6.8 | 18.1 | -0.8 | 6.5 | 17.2 | 10.0 |
| Druggists' goods.............. | 4242 | 259.7 | 7.0 | 0.5 | 9.4 | 2.2 | 9.9 | 7.6 |
| Apparel and piece goods... | 4243 | 151.6 | -6.6 | 11.8 | -1.9 | 5.0 | 9.7 | 4.4 |
| Grocery and related products.. | 4244 | 803.4 | -2.2 | 11.0 | -0.8 | 1.4 | 10.1 | 8.6 |
| Farm product raw materials.. | 4245 | 75.3 | 1.4 | 7.9 | 5.1 | 3.7 | 13.4 | 9.4 |
| Chemicals.. | 4246 | 149.1 | 9.5 | 1.8 | 5.9 | -3.2 | 7.8 | 11.4 |
| Petroleum... | 4247 | 99.6 | -9.5 | 19.5 | -7.6 | 2.1 | 10.4 | 8.1 |
| Alcoholic beverages.. | 4248 | 206.9 | -3.8 | 12.8 | -2.5 | 1.4 | 10.0 | 8.4 |
| Miscellaneous nondurable goods...... | 4249 | 339.5 | -4.8 | 15.9 | -5.6 | -0.8 | 9.4 | 10.3 |
| Electronic markets and agents and brokers... | 425 | 525.9 | -3.3 | 14.9 | -2.0 | 1.4 | 12.6 | 11.0 |
| Electronic markets and agents and brokers.............. | 4251 | 525.9 | -3.3 | 14.9 | -2.0 | 1.4 | 12.6 | 11.0 |
| Retail trade. | 44-45 | 16,197.4 | -0.4 | 7.8 | -1.3 | -1.0 | 6.4 | 7.4 |
| Motor vehicle and parts dealers... | 441 | 2,055.7 | -10.9 | 17.5 | -8.0 | 3.3 | 8.1 | 4.7 |
| Automobile dealers...... | 4411 | 1,292.7 | -12.0 | 21.7 | -8.8 | 3.6 | 11.0 | 7.1 |
| Other motor vehicle dealers.................................. | 4412 | 175.5 | -6.9 | 2.5 | -4.3 | 2.8 | -1.9 | -4.6 |
| Auto parts, accessories, and tire stores.. | 4413 | 587.5 | -4.5 | 2.8 | -1.9 | 2.7 | 0.9 | -1.8 |
| Furniture and home furnishings stores.. | 442 | 479.6 | -10.9 | 16.7 | -9.4 | 1.6 | 5.7 | 4.0 |
| Furniture stores.... | 4421 | 232.8 | -12.1 | 11.0 | -9.9 | 2.6 | 0.0 | -2.5 |
| Home furnishings stores.. | 4422 | 246.8 | -9.3 | 23.3 | -8.9 | 0.5 | 12.4 | 11.8 |
| Electronics and appliance stores.. | 443 | 451.1 | 2.5 | -1.4 | 0.7 | -1.8 | -0.7 | 1.1 |
| Electronics and appliance stores..... | 4431 | 451.1 | 2.5 | -1.4 | 0.7 | -1.8 | -0.7 | 1.1 |
| Building material and garden supply stores.. | 444 | 1,456.7 | -1.4 | 4.9 | -4.2 | -2.8 | 0.5 | 3.4 |
| Building material and supplies dealers..................... | 4441 | 1,252.8 | -1.4 | 4.6 | -4.1 | -2.7 | 0.3 | 3.1 |
| Lawn and garden equipment and supplies stores....... | 4442 | 203.9 | -1.4 | 6.7 | -4.8 | -3.4 | 1.6 | 5.2 |
| Food and beverage stores...................................... | 445 | 3,203.4 | -1.8 | 7.8 | -1.3 | 0.5 | 6.3 | 5.8 |
| Grocery stores... | 4451 | 2,771.9 | -1.1 | 7.7 | -1.0 | 0.1 | 6.6 | 6.5 |
| Specialty food stores.. | 4452 | 236.8 | -5.1 | 10.7 | -7.3 | -2.4 | 2.6 | 5.1 |
| Beer, wine and liquor stores...... | 4453 | 194.7 | -11.8 | 10.2 | -2.6 | 10.5 | 7.3 | -2.9 |
| Health and personal care stores... | 446 | 1,088.9 | 0.3 | 1.5 | 0.3 | 0.0 | 1.8 | 1.7 |
| Health and personal care stores. | 4461 | 1,088.9 | 0.3 | 1.5 | 0.3 | 0.0 | 1.8 | 1.7 |
| Gasoline stations.. | 447 | 974.7 | -1.5 | 11.2 | 1.7 | 3.3 | 13.2 | 9.5 |
| Gasoline stations. | 4471 | 974.7 | -1.5 | 11.2 | 1.7 | 3.3 | 13.2 | 9.5 |
| Clothing and clothing accessories stores................... | 448 | 1,160.8 | 3.6 | 8.8 | 0.9 | -2.6 | 9.8 | 12.7 |
| Clothing stores............. | 4481 | 844.5 | 2.2 | 15.2 | 2.0 | -0.2 | 17.5 | 17.8 |
| Shoe stores...................................................... | 4482 | 175.3 | -6.3 | 11.6 | -4.8 | 1.6 | 6.3 | 4.6 |
| Jewelry, luggage, and leather goods stores.............. | 4483 | 141.0 | 20.4 | -9.6 | 0.8 | -16.3 | -8.8 | 8.9 |
| Sports, hobby, music instruments, book stores........... | 451 | 601.0 | -6.8 | 14.4 | -4.9 | 2.1 | 8.8 | 6.6 |
| Sporting goods and musical instrument stores.......... | 4511 | 524.8 | -6.5 | 11.8 | -5.4 | 1.2 | 5.8 | 4.5 |
| Book stores and news dealers............................... | 4512 | 76.2 | -7.1 | 34.5 | 1.1 | 8.8 | 36.0 | 25.0 |

Table 1. Recent labor productivity, unit labor costs, and related data - Continued

| Industry | 2017 <br> NAICS <br> code | $2022$ <br> Employment (thousands) | Percent change, 2021-2022 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Labor productivity | Unit labor costs | Output | Hours worked | Labor compensation | Hourly compensation |
| General merchandise stores.... | 452 | 3,074.6 | 5.3 | 5.7 | -0.9 | -5.8 | 4.8 | 11.2 |
| Department stores. | 4522 | 949.5 | 2.3 | 5.1 | -2.5 | -4.8 | 2.4 | 7.5 |
| Other general merchandise stores............................ | 4523 | 2,125.1 | 6.1 | 6.3 | -0.5 | -6.2 | 5.7 | 12.8 |
| Miscellaneous store retailers. | 453 | 929.2 | 7.9 | 3.1 | 4.1 | -3.5 | 7.3 | 11.2 |
| Florists. | 4531 | 74.1 | 22.5 | -18.0 | 8.3 | -11.6 | -11.1 | 0.5 |
| Office supplies, stationery and gift stores................. | 4532 | 221.3 | -6.2 | 16.7 | -1.7 | 4.8 | 14.8 | 9.5 |
| Used merchandise stores........................................ | 4533 | 235.2 | -1.3 | 4.5 | 3.7 | 5.0 | 8.3 | 3.1 |
| Other miscellaneous store retailers.......................... | 4539 | 398.6 | 17.2 | 0.9 | 5.6 | -9.9 | 6.6 | 18.3 |
| Nonstore retailers.................................................... | 454 | 721.7 | 11.1 | 5.3 | 6.3 | -4.3 | 11.9 | 17.0 |
| Electronic shopping and mail-order houses............... | 4541 | 504.9 | 9.9 | 7.6 | 6.8 | -2.8 | 15.0 | 18.3 |
| Vending machine operators..................................... | 4542 | 43.8 | -11.6 | 23.5 | 8.2 | 22.4 | 33.6 | 9.2 |
| Direct selling establishments................................... | 4543 | 173.0 | 16.2 | -4.7 | 1.0 | -13.1 | -3.7 | 10.8 |

Table 2. Long run labor productivity, unit labor costs, and related data

| Industry | 2017 <br> NAICS code | 2022 <br> Employment (thousands) | Annual percent change, 1987-2022 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Labor productivity | Unit labor costs | Output | Hours worked | Labor compensation | Hourly compensation |
| Wholesale trade... | 42 | 6,060.4 | 2.5 | 1.5 | 2.8 | 0.3 | 4.3 | 4.0 |
| Merchant wholesalers, durable goods... | 423 | 3,328.0 | 3.9 | 0.2 | 4.1 | 0.2 | 4.3 | 4.1 |
| Motor vehicles and parts. | 4231 | 368.1 | 2.9 | 1.0 | 2.9 | 0.0 | 3.9 | 4.0 |
| Furniture and furnishings. | 4232 | 119.0 | 2.0 | 2.1 | 1.9 | -0.1 | 4.0 | 4.1 |
| Lumber and construction supplies.. | 4233 | 259.7 | 1.0 | 2.0 | 1.9 | 0.9 | 3.9 | 3.0 |
| Commercial equipment. | 4234 | 734.5 | 10.3 | -5.5 | 10.7 | 0.3 | 4.6 | 4.3 |
| Metals and minerals.. | 4235 | 132.4 | -0.5 | 4.5 | -0.4 | 0.1 | 4.1 | 3.9 |
| Appliances and electric goods.. | 4236 | 359.3 | 6.7 | -2.0 | 6.4 | -0.3 | 4.3 | 4.6 |
| Hardware and plumbing... | 4237 | 306.3 | 1.6 | 2.2 | 2.6 | 1.0 | 4.9 | 3.8 |
| Machinery and supplies... | 4238 | 725.7 | 1.6 | 2.4 | 1.7 | 0.1 | 4.2 | 4.1 |
| Miscellaneous durable goods.. | 4239 | 323.0 | 1.6 | 2.5 | 2.1 | 0.5 | 4.6 | 4.1 |
| Merchant wholesalers, nondurable goods.... | 424 | 2,206.5 | 1.1 | 3.0 | 1.2 | 0.1 | 4.2 | 4.1 |
| Paper and paper products... | 4241 | 121.4 | 1.2 | 2.7 | 0.2 | -1.0 | 2.9 | 3.9 |
| Druggists' goods.. | 4242 | 259.7 | 2.0 | 3.8 | 3.3 | 1.3 | 7.3 | 5.9 |
| Apparel and piece goods. | 4243 | 151.6 | 1.4 | 2.1 | 1.0 | -0.4 | 3.2 | 3.6 |
| Grocery and related products.. | 4244 | 803.4 | 1.0 | 2.6 | 1.5 | 0.5 | 4.2 | 3.6 |
| Farm product raw materials.. | 4245 | 75.3 | 1.1 | 3.8 | -0.5 | -1.6 | 3.3 | 5.0 |
| Chemicals.. | 4246 | 149.1 | 0.5 | 3.3 | 0.8 | 0.3 | 4.2 | 3.9 |
| Petroleum... | 4247 | 99.6 | 1.6 | 3.0 | 0.4 | -1.2 | 3.3 | 4.6 |
| Alcoholic beverages. | 4248 | 206.9 | 0.9 | 2.6 | 2.3 | 1.4 | 5.0 | 3.5 |
| Miscellaneous nondurable goods.. | 4249 | 339.5 | 0.3 | 3.4 | -0.1 | -0.4 | 3.3 | 3.7 |
| Electronic markets and agents and brokers... | 425 | 525.9 | 1.4 | 1.4 | 2.6 | 1.2 | 4.0 | 2.8 |
| Electronic markets and agents and brokers........ | 4251 | 525.9 | 1.4 | 1.4 | 2.6 | 1.2 | 4.0 | 2.8 |
| Retail trade.. | 44-45 | 16,197.4 | 3.2 | 0.3 | 3.3 | 0.1 | 3.6 | 3.5 |
| Motor vehicle and parts dealers... | 441 | 2,055.7 | 2.0 | 1.5 | 2.7 | 0.6 | 4.2 | 3.6 |
| Automobile dealers.. | 4411 | 1,292.7 | 2.1 | 1.7 | 2.7 | 0.6 | 4.4 | 3.8 |
| Other motor vehicle dealers... | 4412 | 175.5 | 2.5 | 1.3 | 3.8 | 1.2 | 5.1 | 3.8 |
| Auto parts, accessories, and tire stores. | 4413 | 587.5 | 1.3 | 1.4 | 1.9 | 0.6 | 3.3 | 2.7 |
| Furniture and home furnishings stores. | 442 | 479.6 | 3.6 | -0.3 | 3.3 | -0.3 | 3.0 | 3.3 |
| Furniture stores... | 4421 | 232.8 | 3.3 | -0.2 | 3.0 | -0.3 | 2.7 | 3.0 |
| Home furnishings stores.. | 4422 | 246.8 | 4.1 | -0.5 | 3.8 | -0.3 | 3.3 | 3.6 |
| Electronics and appliance stores.... | 443 | 451.1 | 10.3 | -6.3 | 9.9 | -0.4 | 2.9 | 3.3 |
| Electronics and appliance stores. | 4431 | 451.1 | 10.3 | -6.3 | 9.9 | -0.4 | 2.9 | 3.3 |
| Building material and garden supply stores................ | 444 | 1,456.7 | 2.5 | 0.5 | 3.0 | 0.6 | 3.6 | 3.0 |
| Building material and supplies dealers..... | 4441 | 1,252.8 | 2.4 | 0.6 | 3.0 | 0.6 | 3.6 | 3.0 |
| Lawn and garden equipment and supplies stores.. | 4442 | 203.9 | 2.9 | -0.2 | 3.2 | 0.2 | 3.0 | 2.7 |
| Food and beverage stores.. | 445 | 3,203.4 | 0.9 | 2.3 | 0.8 | 0.0 | 3.1 | 3.2 |
| Grocery stores...... | 4451 | 2,771.9 | 0.7 | 2.5 | 0.8 | 0.0 | 3.3 | 3.3 |
| Specialty food stores.... | 4452 | 236.8 | 0.5 | 2.1 | -0.3 | -0.8 | 1.8 | 2.6 |
| Beer, wine and liquor stores......... | 4453 | 194.7 | 2.1 | 0.9 | 1.7 | -0.4 | 2.6 | 3.0 |
| Health and personal care stores............................... | 446 | 1,088.9 | 2.1 | 1.3 | 2.8 | 0.7 | 4.1 | 3.4 |
| Health and personal care stores... | 4461 | 1,088.9 | 2.1 | 1.3 | 2.8 | 0.7 | 4.1 | 3.4 |
| Gasoline stations.. | 447 | 974.7 | 1.2 | 2.2 | 1.1 | -0.1 | 3.3 | 3.4 |
| Gasoline stations. | 4471 | 974.7 | 1.2 | 2.2 | 1.1 | -0.1 | 3.3 | 3.4 |
| Clothing and clothing accessories stores................... | 448 | 1,160.8 | 4.5 | -1.1 | 3.6 | -0.9 | 2.5 | 3.4 |
| Clothing stores....... | 4481 | 844.5 | 4.7 | -1.3 | 4.0 | -0.7 | 2.6 | 3.4 |
| Shoe stores.. | 4482 | 175.3 | 3.2 | -0.3 | 2.2 | -0.9 | 1.9 | 2.8 |
| Jewelry, luggage, and leather goods stores...... | 4483 | 141.0 | 4.7 | -0.6 | 3.2 | -1.4 | 2.5 | 4.0 |
| Sports, hobby, music instruments, book stores........... | 451 | 601.0 | 3.9 | -0.4 | 3.8 | -0.1 | 3.3 | 3.5 |
| Sporting goods and musical instrument stores.......... | 4511 | 524.8 | 4.7 | -1.0 | 4.7 | 0.0 | 3.7 | 3.6 |
| Book stores and news dealers............................... | 4512 | 76.2 | 0.7 | 2.3 | -0.6 | -1.3 | 1.7 | 3.0 |

Table 2. Long run labor productivity, unit labor costs, and related data - Continued

| Industry |  | $2022$ <br> Employment (thousands) | Annual percent change, 1987-2022 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Labor productivity | Unit labor costs | Output | Hours worked | Labor compensation | Hourly compensation |
| General merchandise stores..................................... | 452 | 3,074.6 | 3.5 | -0.3 | 4.0 | 0.4 | 3.6 | 3.2 |
| Department stores.. | 4522 | 949.5 | 1.4 | 1.1 | 0.2 | -1.2 | 1.2 | 2.5 |
| Other general merchandise stores. | 4523 | 2,125.1 | 5.1 | -1.2 | 6.9 | 1.7 | 5.6 | 3.9 |
| Miscellaneous store retailers. | 453 | 929.2 | 3.7 | -0.6 | 3.3 | -0.4 | 2.7 | 3.1 |
| Florists. | 4531 | 74.1 | 3.1 | 0.2 | 0.2 | -2.8 | 0.5 | 3.3 |
| Office supplies, stationery and gift stores................. | 4532 | 221.3 | 5.3 | -1.9 | 3.2 | -2.0 | 1.2 | 3.3 |
| Used merchandise stores........................................ | 4533 | 235.2 | 4.5 | -1.7 | 5.9 | 1.4 | 4.1 | 2.7 |
| Other miscellaneous store retailers.. | 4539 | 398.6 | 2.0 | 0.7 | 2.9 | 0.9 | 3.6 | 2.7 |
| Nonstore retailers.. | 454 | 721.7 | 9.1 | -3.8 | 9.6 | 0.5 | 5.4 | 5.0 |
| Electronic shopping and mail-order houses............... | 4541 | 504.9 | 10.5 | -4.6 | 14.3 | 3.4 | 9.1 | 5.5 |
| Vending machine operators.................................... | 4542 | 43.8 | 0.6 | 3.2 | -2.0 | -2.5 | 1.1 | 3.8 |
| Direct selling establishments................................... | 4543 | 173.0 | 3.5 | -0.1 | 1.5 | -2.0 | 1.4 | 3.4 |

Table 3. Labor productivity, unit labor costs, and related data, 2019-2022

| Industry | 2017 <br> NAICS code | 2022 <br> Employment (thousands) | Annual percent change, 2019-2022 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Labor productivity | Unit labor costs | Output | Hours worked | Labor compensation | Hourly compensation |
| Wholesale trade... | 42 | 6,060.4 | 1.2 | 5.9 | 1.1 | -0.1 | 7.1 | 7.2 |
| Merchant wholesalers, durable goods. | 423 | 3,328.0 | 2.4 | 4.7 | 2.8 | 0.5 | 7.6 | 7.1 |
| Motor vehicles and parts... | 4231 | 368.1 | -0.3 | 7.0 | 0.3 | 0.6 | 7.3 | 6.7 |
| Furniture and furnishings.. | 4232 | 119.0 | 4.4 | 0.9 | 3.4 | -1.0 | 4.4 | 5.4 |
| Lumber and construction supplies.. | 4233 | 259.7 | 4.8 | 2.3 | 6.7 | 1.8 | 9.1 | 7.2 |
| Commercial equipment. | 4234 | 734.5 | 3.2 | 3.3 | 4.5 | 1.2 | 8.0 | 6.7 |
| Metals and minerals. | 4235 | 132.4 | -2.5 | 12.8 | -4.1 | -1.6 | 8.2 | 10.0 |
| Appliances and electric goods. | 4236 | 359.3 | 5.8 | 1.6 | 5.3 | -0.5 | 7.0 | 7.5 |
| Hardware and plumbing... | 4237 | 306.3 | 3.1 | 4.8 | 4.4 | 1.3 | 9.4 | 8.0 |
| Machinery and supplies... | 4238 | 725.7 | 0.6 | 5.6 | 0.7 | 0.1 | 6.3 | 6.2 |
| Miscellaneous durable goods.... | 4239 | 323.0 | 7.8 | 1.3 | 7.9 | 0.1 | 9.2 | 9.2 |
| Merchant wholesalers, nondurable goods. | 424 | 2,206.5 | 1.2 | 6.2 | 0.1 | -1.0 | 6.3 | 7.4 |
| Paper and paper products.. | 4241 | 121.4 | 1.1 | 6.6 | -1.7 | -2.8 | 4.8 | 7.8 |
| Druggists' goods.... | 4242 | 259.7 | 4.5 | 1.8 | 6.8 | 2.2 | 8.7 | 6.3 |
| Apparel and piece goods.. | 4243 | 151.6 | -2.1 | 7.8 | -2.4 | -0.3 | 5.2 | 5.5 |
| Grocery and related products. | 4244 | 803.4 | 1.8 | 5.5 | 0.5 | -1.3 | 6.1 | 7.5 |
| Farm product raw materials.. | 4245 | 75.3 | -3.4 | 7.5 | -1.0 | 2.4 | 6.4 | 3.9 |
| Chemicals. | 4246 | 149.1 | 4.3 | 3.6 | 1.3 | -2.9 | 4.9 | 8.0 |
| Petroleum... | 4247 | 99.6 | -5.9 | 10.0 | -6.8 | -0.9 | 2.5 | 3.5 |
| Alcoholic beverages. | 4248 | 206.9 | 6.3 | 1.1 | 4.3 | -1.9 | 5.5 | 7.5 |
| Miscellaneous nondurable goods. | 4249 | 339.5 | 1.2 | 8.3 | -0.4 | -1.6 | 7.8 | 9.6 |
| Electronic markets and agents and brokers... | 425 | 525.9 | -3.8 | 11.1 | -4.1 | -0.3 | 6.5 | 6.9 |
| Electronic markets and agents and brokers....... | 4251 | 525.9 | -3.8 | 11.1 | -4.1 | -0.3 | 6.5 | 6.9 |
| Retail trade. | 44-45 | 16,197.4 | 4.8 | 3.3 | 3.9 | -0.9 | 7.4 | 8.3 |
| Motor vehicle and parts dealers... | 441 | 2,055.7 | -0.1 | 11.1 | -0.7 | -0.6 | 10.4 | 11.1 |
| Automobile dealers.. | 4411 | 1,292.7 | -0.4 | 13.8 | -1.6 | -1.2 | 12.0 | 13.4 |
| Other motor vehicle dealers.. | 4412 | 175.5 | 6.3 | 2.1 | 6.6 | 0.3 | 8.9 | 8.5 |
| Auto parts, accessories, and tire stores. | 4413 | 587.5 | 2.5 | 1.5 | 2.8 | 0.3 | 4.3 | 4.0 |
| Furniture and home furnishings stores........ | 442 | 479.6 | 1.1 | 7.1 | 0.0 | -1.1 | 7.1 | 8.2 |
| Furniture stores.. | 4421 | 232.8 | 1.3 | 4.7 | 0.9 | -0.4 | 5.7 | 6.1 |
| Home furnishings stores. | 4422 | 246.8 | 0.7 | 9.8 | -1.1 | -1.8 | 8.6 | 10.6 |
| Electronics and appliance stores... | 443 | 451.1 | 5.6 | 1.2 | 1.8 | -3.6 | 3.1 | 6.9 |
| Electronics and appliance stores.. | 4431 | 451.1 | 5.6 | 1.2 | 1.8 | -3.6 | 3.1 | 6.9 |
| Building material and garden supply stores......... | 444 | 1,456.7 | 1.5 | 4.5 | 2.7 | 1.2 | 7.4 | 6.1 |
| Building material and supplies dealers.... | 4441 | 1,252.8 | 1.8 | 4.8 | 2.2 | 0.4 | 7.1 | 6.7 |
| Lawn and garden equipment and supplies stores....... | 4442 | 203.9 | 0.3 | 2.9 | 6.2 | 5.9 | 9.3 | 3.2 |
| Food and beverage stores..... | 445 | 3,203.4 | 1.6 | 4.3 | 2.1 | 0.5 | 6.5 | 6.0 |
| Grocery stores... | 4451 | 2,771.9 | 1.5 | 4.4 | 2.0 | 0.5 | 6.6 | 6.0 |
| Specialty food stores... | 4452 | 236.8 | 0.3 | 6.5 | -0.9 | -1.3 | 5.5 | 6.9 |
| Beer, wine and liquor stores.................................. | 4453 | 194.7 | 2.6 | 1.8 | 4.8 | 2.1 | 6.7 | 4.5 |
| Health and personal care stores... | 446 | 1,088.9 | 5.0 | -1.5 | 4.4 | -0.6 | 2.8 | 3.5 |
| Health and personal care stores.. | 4461 | 1,088.9 | 5.0 | -1.5 | 4.4 | -0.6 | 2.8 | 3.5 |
| Gasoline stations....... | 447 | 974.7 | -0.3 | 8.6 | 0.4 | 0.7 | 9.0 | 8.2 |
| Gasoline stations... | 4471 | 974.7 | -0.3 | 8.6 | 0.4 | 0.7 | 9.0 | 8.2 |
| Clothing and clothing accessories stores................... | 448 | 1,160.8 | 10.0 | -1.3 | 3.7 | -5.7 | 2.3 | 8.6 |
| Clothing stores................................................... | 4481 | 844.5 | 8.4 | -0.9 | 3.1 | -4.9 | 2.2 | 7.4 |
| Shoe stores..... | 4482 | 175.3 | 6.5 | 2.8 | -0.7 | -6.8 | 2.1 | 9.5 |
| Jewerry, luggage, and leather goods stores............... | 4483 | 141.0 | 21.6 | -7.4 | 11.3 | -8.5 | 3.1 | 12.6 |
| Sports, hobby, music instruments, book stores........... | 451 | 601.0 | 7.3 | 0.9 | 6.2 | -1.0 | 7.2 | 8.3 |
| Sporting goods and musical instrument stores.......... | 4511 | 524.8 | 8.3 | -0.1 | 7.4 | -0.8 | 7.3 | 8.2 |
| Book stores and news dealers................................ | 4512 | 76.2 | -1.7 | 10.5 | -3.6 | -2.0 | 6.5 | 8.7 |

Table 3. Labor productivity, unit labor costs, and related data, 2019-2022 - Continued

| Industry | 2017 <br> NAICS code | $2022$ <br> Employment (thousands) | Annual percent change, 2019-2022 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Labor productivity | Unit labor costs | Output | Hours worked | Labor compensation | Hourly compensation |
| General merchandise stores.. | 452 | 3,074.6 | 4.1 | 3.6 | 2.6 | -1.5 | 6.3 | 7.8 |
| Department stores................................................. | 4522 | 949.5 | 5.1 | 1.6 | -0.5 | -5.3 | 1.2 | 6.8 |
| Other general merchandise stores............................ | 4523 | 2,125.1 | 2.8 | 5.1 | 3.2 | 0.4 | 8.5 | 8.0 |
| Miscellaneous store retailers. | 453 | 929.2 | 8.9 | 0.6 | 6.2 | -2.5 | 6.8 | 9.5 |
| Florists. | 4531 | 74.1 | 7.2 | 0.6 | 6.0 | -1.0 | 6.6 | 7.8 |
| Office supplies, stationery and gift stores................. | 4532 | 221.3 | 4.7 | 3.0 | -1.5 | -5.9 | 1.5 | 7.8 |
| Used merchandise stores........................................ | 4533 | 235.2 | 5.0 | 0.2 | 7.9 | 2.7 | 8.1 | 5.2 |
| Other miscellaneous store retailers. | 4539 | 398.6 | 12.5 | 0.4 | 8.4 | -3.6 | 8.9 | 13.0 |
| Nonstore retailers.. | 454 | 721.7 | 16.1 | -3.1 | 16.4 | 0.3 | 12.7 | 12.4 |
| Electronic shopping and mail-order houses............... | 4541 | 504.9 | 13.4 | -1.6 | 18.1 | 4.2 | 16.2 | 11.6 |
| Vending machine operators.................................... | 4542 | 43.8 | 0.0 | 6.3 | -6.8 | -6.8 | -0.9 | 6.3 |
| Direct selling establishments................................... | 4543 | 173.0 | 11.0 | -1.5 | 3.0 | -7.1 | 1.5 | 9.3 |

