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## Productivity and Costs by Industry <br> Wholesale Trade and Retail Trade Industries - 2021

Labor productivity rose 5.7 percent in wholesale trade and 6.6 percent in retail trade in 2021, 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 growth for retail trade slowed from its peak growth in 2020, with hours worked and output both increasing at the fastest rates since measurement began in 1987. For wholesale trade, output growth was the second highest since 1987, and productivity and hours rose at the fastest rates since 2010 and 2011, respectively.

Chart 1. Largest changes in productivity in four-digit NAICS wholesale and retail trade industries, 2021


Chart 1 shows the percent changes in output and hours worked for industries with the largest increases and decreases in productivity in 2021. Change in productivity is approximately equal to the change in output minus the change in hours worked. Industries above the diagonal line grew in productivity while industries below the diagonal line declined.

Among the 6 four-digit NAICS industries with the highest productivity growth, all reported growth in output while two showed declines in hours worked. Productivity growth was greatest in shoe stores ( +34.9 percent) where there was a significant growth in output and a small decline in hours worked.

Of the 6 four-digit NAICS industries with the largest declines in productivity, hours worked increased in all six and output decreased in three. The two industries with the greatest decreases in productivity were farm product raw material merchant wholesalers ( -10.5 percent) and lawn and garden equipment and supplies stores ( -10.2 percent).

## Labor Productivity Rose in Nearly Every Industry in 2021

Productivity increased in 14 of the 15 three-digit NAICS industries studied in 2021. (See table 1.) Ten industries had productivity gains of at least 6.8 percent; among these, the largest changes occurred in clothing and clothing accessories stores ( +28.0 percent) and electronics and appliance stores $(+22.5$ percent). The only industry with a productivity decline, building material and garden supply stores, dropped 1.7 percent. (See chart 2).

Chart 2. Productivity change in three-digit NAICS wholesale and retail trade industries, 2021


In wholesale trade, productivity rose 5.7 percent as output growth ( +8.7 percent) surpassed growth in hours worked (+2.8 percent).

- Productivity increased in 14 of the 19 four-digit NAICS wholesale trade industries while output rose in 16 industries and hours worked grew in all 19.
- Productivity rose 9.6 percent in durable goods wholesalers and 0.9 percent in nondurable goods wholesalers.
- The highest increase in productivity occurred in miscellaneous durable goods merchant wholesalers ( +17.3 percent) as output rose at a much faster rate ( +21.2 percent) than hours worked ( +3.4 percent).

In retail trade, productivity increased by 6.6 percent as output growth ( +10.4 percent) exceeded growth in hours worked ( +3.6 percent).

- Productivity increased in 23 of the 27 four-digit NAICS retail trade industries while output grew in 26 industries and hours worked rose in 22.
- Shoe stores saw the largest productivity increase (+34.9 percent) as output increased 32.2 percent while hours fell 2.0 percent.
- Seven of the top ten employers in retail experienced productivity increases in which output growth outpaced growth in hours.
- In the largest retail employer, grocery stores, hours worked fell faster ( -1.4 percent) than output ( -0.3 percent) leading to a productivity increase of 1.2 percent.


## Unit Labor Costs Decline in Half of Four-digit NAICS Industries in 2021

When productivity gains outpace hourly compensation, unit labor costs decline.

- Unit labor costs fell in 8 of 15 three-digit NAICS wholesale and retail trade industries in 2021. Productivity rose in all the industries where unit labor costs declined. (See chart 3).
- The largest decrease in unit labor costs occurred in clothing and clothing accessories stores ( -16.3 percent) in which hourly compensation growth ( +7.1 percent) trailed productivity growth (+28.0 percent).
- Unit labor costs declined in 10 of 19 four-digit NAICS wholesale trade industries. In retail trade, 13 of 27 four-digit NAICS industries had declines in unit labor costs.
- Hourly compensation rose in 39 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, 2021


## 2019 to 2021 Trends

Although 42 of the 46 four-digit trade industries increased output in 2021, not all of these industries saw their output return to pre-pandemic levels. (See table 3.) Six of these 42 industries had levels of output that were lower in 2021 than in 2019. The two industries with the steepest average annual declines in output from 2019 to 2021 were vending machine operators ( -7.7 percent) and book stores and news dealers ( -6.2 percent).

The recovery in hours worked was not as widespread. Of the 41 four-digit trade industries where hours worked increased in 2021, 28 remained below their 2019 levels. The two industries with the largest average annual decreases in hours worked from 2019 to 2021 were office supplies, stationery, and gift stores ( -10.6 percent) and clothing stores ( -6.6 percent).

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

From 1987 to 2021, labor productivity increased at an average annual rate of 2.8 percent in wholesale trade and 3.1 percent 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, from 1987 to 2021.
- Of the 45 four-digit NAICS industries with increasing productivity growth, 39 experienced rising output while 21 had an increase in hours worked.
- Median productivity among four-digit NAICS industries grew at an average annual rate of 2.0 percent.
- The 2007 to 2021 productivity growth in durable wholesale, nondurable wholesale, and retail trade industries was slower than during the 1987-2000 and 2000-2007 periods. (See chart 4).
- Productivity grew in 43 of the 46 four-digit NAICS industries during the 1987-2000 period. The number of industries fell to 42 from 2000-2007 and then to 40 from 2007-2021.


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

From 1987 to 2021, unit labor costs increased at an average annual rate of 1.1 percent in wholesale trade and 0.1 percent 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 2021.
- Unit labor costs rose in 27 industries in 1987-2000, 25 in 2000-2007, and 31 industries in 20072021.
- In all three periods, unit labor costs for wholesale nondurable goods remained positive. Unit labor costs were negative for wholesale durable goods in the periods prior to 2007. In retail trade, unit labor costs hovered above zero in the 1987-2000 and 2007-2021 periods yet fell during 2000-2007.

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

Labor Productivity


## Unit Labor Costs





## 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 2021), Monthly Wholesale Trade Survey (May 2022), Annual Retail Trade Survey (January 2022), and Annual Revision of the Monthly Retail and Food Services: Sales and Inventories (April 2022). Accordingly, the labor productivity and output series for all industries have been revised for 2020 and earlier years. Additionally, the unit labor cost measures incorporate preliminary data from the BLS Quarterly Census of Employment and Wages (June 2022).

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 real 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 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, 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. 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 total and production worker 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 production workers, CPS data on hours of nonproduction, self-employed, and unpaid family workers, and ratios of hours worked to hours paid based on data from 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.

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

| Industry | 2017 <br> NAICS code | 2021 <br> Employment (thousands) | Percent change, 2020-2021 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Labor productivity | Unit labor costs | Output | Hours worked | $\begin{aligned} & \text { Labor } \\ & \text { compen- } \\ & \text { sation } \\ & \hline \end{aligned}$ | Hourly compensation |
| Wholesale trade.. | 42 | 5,832.5 | 5.7 | 0.3 | 8.7 | 2.8 | 9.0 | 6.1 |
| Merchant wholesalers, durable goods.. | 423 | 3,190.0 | 9.6 | -1.8 | 11.8 | 2.0 | 9.8 | 7.6 |
| Motor vehicles and parts. | 4231 | 347.1 | 9.0 | -0.7 | 10.1 | 1.0 | 9.3 | 8.3 |
| Furniture and furnishings.. | 4232 | 115.2 | 2.2 | -1.0 | 11.1 | 8.6 | 9.9 | 1.2 |
| Lumber and construction supplies. | 4233 | 249.2 | 4.3 | 8.2 | 5.5 | 1.2 | 14.2 | 12.8 |
| Commercial equipment................ | 4234 | 695.7 | 9.5 | -3.2 | 11.6 | 1.9 | 8.0 | 5.9 |
| Metals and minerals...... | 4235 | 126.8 | 6.7 | 4.4 | 7.7 | 1.0 | 12.5 | 11.4 |
| Appliances and electric goods... | 4236 | 352.6 | 14.1 | -4.9 | 17.5 | 3.0 | 11.8 | 8.6 |
| Hardware and plumbing... | 4237 | 293.5 | 2.7 | 6.8 | 4.7 | 1.9 | 11.8 | 9.6 |
| Machinery and supplies. | 4238 | 700.7 | 9.7 | -4.0 | 11.0 | 1.2 | 6.5 | 5.3 |
| Miscellaneous durable goods.. | 4239 | 309.2 | 17.3 | -3.8 | 21.2 | 3.4 | 16.6 | 12.8 |
| Merchant wholesalers, nondurable goods.. | 424 | 2,155.3 | 0.9 | 2.5 | 5.4 | 4.4 | 8.0 | 3.4 |
| Paper and paper products. | 4241 | 117.5 | -1.9 | -1.9 | 5.3 | 7.3 | 3.3 | -3.7 |
| Druggists' goods... | 4242 | 246.5 | -1.0 | 1.0 | 7.5 | 8.6 | 8.6 | 0.0 |
| Apparel and piece goods.... | 4243 | 144.1 | 7.9 | -3.4 | 25.5 | 16.3 | 21.2 | 4.2 |
| Grocery and related products.. | 4244 | 783.9 | 5.0 | -1.3 | 8.5 | 3.3 | 7.0 | 3.6 |
| Farm product raw materials.. | 4245 | 71.2 | -10.5 | 11.4 | -8.3 | 2.5 | 2.3 | -0.3 |
| Chemicals. | 4246 | 150.0 | 4.1 | 3.7 | 5.3 | 1.1 | 9.2 | 8.0 |
| Petroleum... | 4247 | 101.2 | -4.8 | 0.4 | -0.1 | 5.0 | 0.3 | -4.4 |
| Alcoholic beverages... | 4248 | 199.7 | 9.1 | -4.3 | 9.4 | 0.2 | 4.6 | 4.4 |
| Miscellaneous nondurable goods... | 4249 | 341.2 | -3.5 | 12.5 | -0.5 | 3.1 | 11.9 | 8.6 |
| Electronic markets and agents and brokers.. | 425 | 487.2 | 6.8 | 0.0 | 8.0 | 1.1 | 8.0 | 6.8 |
| Electronic markets and agents and brokers............... | 4251 | 487.2 | 6.8 | 0.0 | 8.0 | 1.1 | 8.0 | 6.8 |
| Retail trade. | 44-45 | 16,208.4 | 6.6 | 2.2 | 10.4 | 3.6 | 12.8 | 8.9 |
| Motor vehicle and parts dealers... | 441 | 1,998.8 | 7.6 | 12.1 | 10.4 | 2.6 | 23.7 | 20.6 |
| Automobile dealers..... | 4411 | 1,255.9 | 5.7 | 15.8 | 9.9 | 3.9 | 27.3 | 22.4 |
| Other motor vehicle dealers..................................... | 4412 | 174.3 | 13.3 | 2.4 | 16.6 | 2.9 | 19.4 | 16.0 |
| Auto parts, accessories, and tire stores.. | 4413 | 568.6 | 10.7 | 2.0 | 10.2 | -0.4 | 12.4 | 12.9 |
| Furniture and home furnishings stores... | 442 | 469.3 | 11.7 | -3.2 | 18.3 | 5.9 | 14.6 | 8.2 |
| Furniture stores...... | 4421 | 224.6 | 8.9 | 1.3 | 16.2 | 6.7 | 17.7 | 10.3 |
| Home furnishings stores. | 4422 | 244.7 | 15.2 | -8.3 | 21.0 | 5.1 | 11.0 | 5.6 |
| Electronics and appliance stores... | 443 | 447.2 | 22.5 | -9.5 | 22.8 | 0.3 | 11.2 | 10.8 |
| Electronics and appliance stores.... | 4431 | 447.2 | 22.5 | -9.5 | 22.8 | 0.3 | 11.2 | 10.8 |
| Building material and garden supply stores..... | 444 | 1,453.3 | -1.7 | 5.7 | 2.1 | 3.9 | 7.9 | 3.9 |
| Building material and supplies dealers..................... | 4441 | 1,251.6 | -0.5 | 5.1 | 1.6 | 2.0 | 6.8 | 4.7 |
| Lawn and garden equipment and supplies stores...... | 4442 | 201.7 | -10.2 | 10.3 | 5.6 | 17.7 | 16.5 | -1.0 |
| Food and beverage stores................................. | 445 | 3,214.0 | 1.1 | 2.7 | 0.2 | -0.9 | 2.9 | 3.9 |
| Grocery stores... | 4451 | 2,794.1 | 1.2 | 2.2 | -0.3 | -1.4 | 1.9 | 3.4 |
| Specialty food stores.. | 4452 | 240.7 | -2.3 | 7.1 | 6.7 | 9.3 | 14.4 | 4.6 |
| Beer, wine and liquor stores........... | 4453 | 179.2 | 8.3 | 2.4 | 3.1 | -4.8 | 5.6 | 10.9 |
| Health and personal care stores.. | 446 | 1,070.3 | 2.5 | -3.1 | 11.0 | 8.4 | 7.6 | -0.8 |
| Health and personal care stores.. | 4461 | 1,070.3 | 2.5 | -3.1 | 11.0 | 8.4 | 7.6 | -0.8 |
| Gasoline stations... | 447 | 949.0 | 6.8 | -0.3 | 8.5 | 1.6 | 8.2 | 6.5 |
| Gasoline stations. | 4471 | 949.0 | 6.8 | -0.3 | 8.5 | 1.6 | 8.2 | 6.5 |
| Clothing and clothing accessories stores................... | 448 | 1,135.9 | 28.0 | -16.3 | 41.9 | 10.9 | 18.8 | 7.1 |
| Clothing stores................................................... | 4481 | 805.2 | 26.2 | -20.7 | 41.1 | 11.7 | 11.9 | 0.2 |
| Shoe stores.......................................................... | 4482 | 164.8 | 34.9 | -12.9 | 32.2 | -2.0 | 15.1 | 17.5 |
| Jewelry, luggage, and leather goods stores........ | 4483 | 165.9 | 26.9 | -5.8 | 53.5 | 21.0 | 44.6 | 19.5 |
| Sports, hobby, music instruments, book stores........... | 451 | 574.3 | 14.3 | -6.5 | 23.5 | 8.1 | 15.5 | 6.9 |
| Sporting goods and musical instrument stores.......... | 4511 | 505.9 | 16.3 | -6.0 | 23.2 | 6.0 | 15.8 | 9.3 |
| Book stores and news dealers............................... | 4512 | 68.4 | -1.5 | -11.3 | 27.6 | 29.6 | 13.2 | -12.7 |

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

| Industry | 2017 <br> NAICS code | 2021 <br> Employment (thousands) | Percent change, 2020-2021 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Labor productivity | Unit labor costs | Output | Hours worked | Labor compensation | Hourly compensation |
| General merchandise stores... | 452 | 3,099.8 | 4.4 | 2.6 | 7.2 | 2.7 | 10.0 | 7.1 |
| Department stores.. | 4522 | 937.0 | 14.3 | -1.3 | 16.1 | 1.6 | 14.6 | 12.7 |
| Other general merchandise stores.. | 4523 | 2,162.8 | 2.4 | 2.6 | 5.6 | 3.1 | 8.3 | 5.1 |
| Miscellaneous store retailers.. | 453 | 959.5 | 10.8 | -3.9 | 23.0 | 11.1 | 18.2 | 6.4 |
| Florists.. | 4531 | 79.0 | 1.7 | 22.7 | 22.4 | 20.4 | 50.3 | 24.8 |
| Office supplies, stationery and gift stores... | 4532 | 207.8 | 17.6 | -10.0 | 21.3 | 3.1 | 9.2 | 5.9 |
| Used merchandise stores.. | 4533 | 231.8 | 1.7 | 0.5 | 25.3 | 23.3 | 25.9 | 2.2 |
| Other miscellaneous store retailers. | 4539 | 440.9 | 14.3 | -5.8 | 23.1 | 7.7 | 15.9 | 7.6 |
| Nonstore retailers. | 454 | 837.0 | 9.0 | 1.8 | 15.2 | 5.6 | 17.3 | 11.0 |
| Electronic shopping and mail-order houses.......... | 4541 | 588.7 | 6.9 | 2.2 | 15.8 | 8.3 | 18.3 | 9.3 |
| Vending machine operators.. | 4542 | 33.4 | 29.9 | -10.5 | 15.5 | -11.1 | 3.4 | 16.3 |
| Direct selling establishments................................. | 4543 | 214.9 | 7.8 | 4.7 | 8.9 | 1.0 | 14.0 | 12.9 |

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

| Industry | 2017 <br> NAICS code | 2021 <br> Employment (thousands) | Average annual percent change, 1987-2021 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Labor productivity | Unit labor costs | Output | Hours worked | Labor compensation | Hourly compensation |
| Wholesale trade... | 42 | 5,832.5 | 2.8 | 1.1 | 2.9 | 0.2 | 4.1 | 3.9 |
| Merchant wholesalers, durable goods.... | 423 | 3,190.0 | 4.1 | -0.1 | 4.2 | 0.1 | 4.1 | 4.0 |
| Motor vehicles and parts. | 4231 | 347.1 | 3.2 | 0.7 | 2.9 | -0.3 | 3.6 | 3.9 |
| Furniture and furnishings.. | 4232 | 115.2 | 1.9 | 2.0 | 1.8 | 0.0 | 3.8 | 3.8 |
| Lumber and construction supplies.. | 4233 | 249.2 | 0.7 | 2.2 | 1.4 | 0.7 | 3.6 | 2.9 |
| Commercial equipment. | 4234 | 695.7 | 10.8 | -6.0 | 11.1 | 0.2 | 4.4 | 4.2 |
| Metals and minerals.. | 4235 | 126.8 | -0.2 | 3.9 | -0.2 | -0.1 | 3.6 | 3.7 |
| Appliances and electric goods.. | 4236 | 352.6 | 6.8 | -2.4 | 6.5 | -0.3 | 4.0 | 4.3 |
| Hardware and plumbing... | 4237 | 293.5 | 1.6 | 2.1 | 2.5 | 0.9 | 4.6 | 3.7 |
| Machinery and supplies.. | 4238 | 700.7 | 1.8 | 2.1 | 1.8 | 0.0 | 3.9 | 3.9 |
| Miscellaneous durable goods... | 4239 | 309.2 | 1.8 | 2.2 | 2.2 | 0.3 | 4.4 | 4.0 |
| Merchant wholesalers, nondurable goods..... | 424 | 2,155.3 | 1.2 | 2.7 | 1.3 | 0.1 | 4.1 | 4.0 |
| Paper and paper products... | 4241 | 117.5 | 1.4 | 2.0 | 0.5 | -0.9 | 2.5 | 3.4 |
| Druggists' goods. | 4242 | 246.5 | 1.8 | 4.0 | 3.0 | 1.2 | 7.2 | 5.9 |
| Apparel and piece goods. | 4243 | 144.1 | 1.8 | 1.7 | 1.2 | -0.6 | 3.0 | 3.6 |
| Grocery and related products. | 4244 | 783.9 | 1.3 | 2.2 | 1.8 | 0.5 | 4.0 | 3.5 |
| Farm product raw materials. | 4245 | 71.2 | 0.8 | 3.7 | -0.6 | -1.5 | 3.0 | 4.6 |
| Chemicals.. | 4246 | 150.0 | 0.5 | 3.2 | 0.8 | 0.3 | 4.0 | 3.7 |
| Petroleum.. | 4247 | 101.2 | 2.2 | 2.2 | 0.9 | -1.3 | 3.1 | 4.4 |
| Alcoholic beverages. | 4248 | 199.7 | 1.0 | 2.3 | 2.5 | 1.5 | 4.8 | 3.3 |
| Miscellaneous nondurable goods. | 4249 | 341.2 | 0.4 | 3.2 | -0.1 | -0.5 | 3.1 | 3.6 |
| Electronic markets and agents and brokers... | 425 | 487.2 | 2.0 | 0.4 | 3.3 | 1.3 | 3.8 | 2.5 |
| Electronic markets and agents and brokers........ | 4251 | 487.2 | 2.0 | 0.4 | 3.3 | 1.3 | 3.8 | 2.5 |
| Retail trade.. | 44-45 | 16,208.4 | 3.1 | 0.1 | 3.5 | 0.4 | 3.6 | 3.2 |
| Motor vehicle and parts dealers.. | 441 | 1,998.8 | 2.4 | 1.1 | 3.0 | 0.6 | 4.1 | 3.5 |
| Automobile dealers.. | 4411 | 1,255.9 | 2.5 | 1.1 | 3.0 | 0.5 | 4.2 | 3.6 |
| Other motor vehicle dealers.. | 4412 | 174.3 | 3.0 | 1.1 | 4.1 | 1.2 | 5.3 | 4.1 |
| Auto parts, accessories, and tire stores. | 4413 | 568.6 | 1.4 | 1.3 | 2.0 | 0.5 | 3.3 | 2.8 |
| Furniture and home furnishings stores. | 442 | 469.3 | 4.0 | -0.8 | 3.8 | -0.2 | 2.9 | 3.1 |
| Furniture stores... | 4421 | 224.6 | 3.6 | -0.5 | 3.3 | -0.2 | 2.8 | 3.0 |
| Home furnishings stores.. | 4422 | 244.7 | 4.5 | -1.2 | 4.3 | -0.2 | 3.1 | 3.3 |
| Electronics and appliance stores.... | 443 | 447.2 | 10.4 | -6.5 | 10.2 | -0.2 | 3.0 | 3.3 |
| Electronics and appliance stores.. | 4431 | 447.2 | 10.4 | -6.5 | 10.2 | -0.2 | 3.0 | 3.3 |
| Building material and garden supply stores................. | 444 | 1,453.3 | 2.1 | 0.4 | 3.3 | 1.1 | 3.6 | 2.5 |
| Building material and supplies dealers.... | 4441 | 1,251.6 | 2.0 | 0.4 | 3.3 | 1.3 | 3.7 | 2.5 |
| Lawn and garden equipment and supplies stores....... | 4442 | 201.7 | 2.9 | -0.2 | 3.3 | 0.4 | 3.0 | 2.6 |
| Food and beverage stores... | 445 | 3,214.0 | 0.9 | 2.2 | 0.8 | 0.0 | 3.0 | 3.1 |
| Grocery stores... | 4451 | 2,794.1 | 0.7 | 2.4 | 0.8 | 0.1 | 3.2 | 3.1 |
| Specialty food stores... | 4452 | 240.7 | 0.7 | 1.8 | 0.0 | -0.7 | 1.8 | 2.6 |
| Beer, wine and liquor stores......... | 4453 | 179.2 | 2.5 | 0.7 | 1.8 | -0.6 | 2.5 | 3.1 |
| Health and personal care stores......................... | 446 | 1,070.3 | 2.0 | 1.3 | 2.8 | 0.8 | 4.2 | 3.3 |
| Health and personal care stores... | 4461 | 1,070.3 | 2.0 | 1.3 | 2.8 | 0.8 | 4.2 | 3.3 |
| Gasoline stations... | 447 | 949.0 | 1.3 | 1.8 | 1.1 | -0.2 | 3.0 | 3.2 |
| Gasoline stations. | 4471 | 949.0 | 1.3 | 1.8 | 1.1 | -0.2 | 3.0 | 3.2 |
| Clothing and clothing accessories stores................... | 448 | 1,135.9 | 4.6 | -1.4 | 3.7 | -0.8 | 2.3 | 3.1 |
| Clothing stores............. | 4481 | 805.2 | 4.7 | -1.7 | 4.0 | -0.7 | 2.2 | 2.9 |
| Shoe stores.. | 4482 | 164.8 | 3.7 | -0.7 | 2.5 | -1.2 | 1.8 | 3.0 |
| Jewelry, luggage, and leather goods stores...... | 4483 | 165.9 | 4.5 | -0.6 | 3.6 | -0.9 | 2.9 | 3.8 |
| Sports, hobby, music instruments, book stores........... | 451 | 574.3 | 4.2 | -1.0 | 4.2 | 0.0 | 3.1 | 3.1 |
| Sporting goods and musical instrument stores.......... | 4511 | 505.9 | 4.9 | -1.6 | 5.2 | 0.3 | 3.5 | 3.2 |
| Book stores and news dealers............................... | 4512 | 68.4 | 1.0 | 1.5 | -0.7 | -1.6 | 0.9 | 2.5 |

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

| Industry | 2017 <br> NAICS <br> code | $2021$ <br> Employment (thousands) | Average annual percent change, 1987-2021 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Labor productivity | Unit labor costs | Output | Hours worked | Labor compensation | Hourly compensation |
| General merchandise stores.. | 452 | 3,099.8 | 3.0 | -0.5 | 4.2 | 1.1 | 3.6 | 2.5 |
| Department stores. | 4522 | 937.0 | 1.0 | 1.0 | 0.3 | -0.8 | 1.2 | 2.0 |
| Other general merchandise stores.. | 4523 | 2,162.8 | 4.7 | -1.4 | 7.1 | 2.3 | 5.6 | 3.2 |
| Miscellaneous store retailers. | 453 | 959.5 | 3.5 | -0.7 | 3.3 | -0.2 | 2.6 | 2.7 |
| Florists.. | 4531 | 79.0 | 2.7 | 1.0 | -0.1 | -2.6 | 1.0 | 3.7 |
| Office supplies, stationery and gift stores................. | 4532 | 207.8 | 5.7 | -2.4 | 3.3 | -2.3 | 0.9 | 3.2 |
| Used merchandise stores........................................ | 4533 | 231.8 | 4.4 | -1.7 | 5.8 | 1.3 | 4.0 | 2.6 |
| Other miscellaneous store retailers. | 4539 | 440.9 | 1.4 | 0.5 | 2.9 | 1.5 | 3.5 | 2.0 |
| Nonstore retailers.. | 454 | 837.0 | 8.6 | -3.9 | 9.7 | 1.0 | 5.5 | 4.5 |
| Electronic shopping and mail-order houses............... | 4541 | 588.7 | 9.9 | -4.6 | 14.6 | 4.2 | 9.3 | 4.9 |
| Vending machine operators..................................... | 4542 | 33.4 | 1.7 | 2.1 | -1.8 | -3.5 | 0.3 | 3.9 |
| Direct selling establishments................................... | 4543 | 214.9 | 3.2 | -0.2 | 1.6 | -1.6 | 1.4 | 3.0 |

Table 3. Labor productivity, unit labor costs, and related data, 2019-2021

| Industry | 2017 <br> NAICS code | 2021 <br> Employment (thousands) | Average annual percent change, 2019-2021 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Labor productivity | Unit labor costs | Output | Hours worked | Labor compensation | Hourly compensation |
| Wholesale trade... | 42 | 5,832.5 | 4.6 | 1.8 | 2.8 | -1.7 | 4.6 | 6.5 |
| Merchant wholesalers, durable goods. | 423 | 3,190.0 | 5.0 | 1.5 | 3.4 | -1.5 | 4.9 | 6.5 |
| Motor vehicles and parts... | 4231 | 347.1 | 3.8 | 4.4 | -0.4 | -4.0 | 4.0 | 8.3 |
| Furniture and furnishings.. | 4232 | 115.2 | 5.2 | -1.7 | 3.4 | -1.6 | 1.7 | 3.4 |
| Lumber and construction supplies.. | 4233 | 249.2 | 1.2 | 5.1 | 1.0 | -0.2 | 6.2 | 6.4 |
| Commercial equipment. | 4234 | 695.7 | 5.0 | 0.7 | 5.7 | 0.7 | 6.4 | 5.8 |
| Metals and minerals.. | 4235 | 126.8 | 1.7 | 6.6 | -4.1 | -5.7 | 2.2 | 8.4 |
| Appliances and electric goods. | 4236 | 352.6 | 10.7 | -4.3 | 8.7 | -1.8 | 4.0 | 5.9 |
| Hardware and plumbing... | 4237 | 293.5 | 2.7 | 4.7 | 2.2 | -0.5 | 7.0 | 7.5 |
| Machinery and supplies... | 4238 | 700.7 | 3.7 | 0.9 | 1.5 | -2.1 | 2.4 | 4.6 |
| Miscellaneous durable goods....... | 4239 | 309.2 | 14.5 | -3.8 | 12.6 | -1.7 | 8.4 | 10.2 |
| Merchant wholesalers, nondurable goods. | 424 | 2,155.3 | 4.2 | 2.5 | 1.8 | -2.3 | 4.4 | 6.8 |
| Paper and paper products... | 4241 | 117.5 | 6.7 | -1.8 | 0.9 | -5.4 | -0.9 | 4.8 |
| Druggists' goods.... | 4242 | 246.5 | 4.3 | 2.3 | 5.6 | 1.3 | 8.0 | 6.6 |
| Apparel and piece goods... | 4243 | 144.1 | 3.1 | 3.4 | -0.4 | -3.4 | 3.0 | 6.6 |
| Grocery and related products. | 4244 | 783.9 | 6.3 | 0.8 | 3.4 | -2.8 | 4.2 | 7.2 |
| Farm product raw materials.. | 4245 | 71.2 | -4.6 | 6.9 | -3.6 | 1.0 | 3.0 | 1.9 |
| Chemicals. | 4246 | 150.0 | 4.7 | 2.8 | 0.7 | -3.8 | 3.5 | 7.6 |
| Petroleum... | 4247 | 101.2 | -1.5 | 1.7 | -2.9 | -1.5 | -1.3 | 0.2 |
| Alcoholic beverages.. | 4248 | 199.7 | 11.8 | -4.1 | 7.6 | -3.7 | 3.2 | 7.2 |
| Miscellaneous nondurable goods. | 4249 | 341.2 | 1.2 | 7.0 | 0.0 | -1.2 | 7.0 | 8.3 |
| Electronic markets and agents and brokers... | 425 | 487.2 | 5.6 | -0.9 | 4.5 | -1.0 | 3.6 | 4.7 |
| Electronic markets and agents and brokers............... | 4251 | 487.2 | 5.6 | -0.9 | 4.5 | -1.0 | 3.6 | 4.7 |
| Retail trade. | 44-45 | 16,208.4 | 7.0 | 0.9 | 7.0 | 0.0 | 7.9 | 7.9 |
| Motor vehicle and parts dealers... | 441 | 1,998.8 | 6.1 | 8.3 | 3.0 | -2.9 | 11.5 | 14.9 |
| Automobile dealers.. | 4411 | 1,255.9 | 5.8 | 10.4 | 2.0 | -3.6 | 12.5 | 16.7 |
| Other motor vehicle dealers.. | 4412 | 174.3 | 17.1 | -0.3 | 15.0 | -1.8 | 14.6 | 16.7 |
| Auto parts, accessories, and tire stores. | 4413 | 568.6 | 6.5 | 1.5 | 4.6 | -1.8 | 6.1 | 8.1 |
| Furniture and home furnishings stores........................ | 442 | 469.3 | 6.1 | 2.3 | 5.2 | -0.8 | 7.7 | 8.6 |
| Furniture stores... | 4421 | 224.6 | 7.6 | 2.7 | 5.8 | -1.6 | 8.6 | 10.4 |
| Home furnishings stores. | 4422 | 244.7 | 4.5 | 1.9 | 4.5 | 0.0 | 6.5 | 6.5 |
| Electronics and appliance stores... | 443 | 447.2 | 9.0 | 2.3 | 2.7 | -5.7 | 5.1 | 11.5 |
| Electronics and appliance stores.. | 4431 | 447.2 | 9.0 | 2.3 | 2.7 | -5.7 | 5.1 | 11.5 |
| Building material and garden supply stores... | 444 | 1,453.3 | -2.1 | 4.5 | 6.0 | 8.4 | 10.8 | 2.3 |
| Building material and supplies dealers... | 4441 | 1,251.6 | -2.3 | 4.7 | 5.5 | 8.0 | 10.5 | 2.3 |
| Lawn and garden equipment and supplies stores....... | 4442 | 201.7 | -0.8 | 3.1 | 10.1 | 11.0 | 13.4 | 2.2 |
| Food and beverage stores..................................... | 445 | 3,214.0 | 3.9 | 3.0 | 3.4 | -0.4 | 6.6 | 7.0 |
| Grocery stores... | 4451 | 2,794.1 | 3.3 | 3.4 | 3.0 | -0.3 | 6.6 | 6.9 |
| Specialty food stores.... | 4452 | 240.7 | 2.6 | 4.4 | 2.5 | -0.1 | 7.0 | 7.1 |
| Beer, wine and liquor stores.... | 4453 | 179.2 | 12.3 | -2.3 | 8.8 | -3.1 | 6.4 | 9.8 |
| Health and personal care stores... | 446 | 1,070.3 | 7.6 | -2.6 | 6.2 | -1.4 | 3.4 | 4.9 |
| Health and personal care stores.. | 4461 | 1,070.3 | 7.6 | -2.6 | 6.2 | -1.4 | 3.4 | 4.9 |
| Gasoline stations..... | 447 | 949.0 | 0.5 | 6.0 | 0.9 | 0.4 | 7.0 | 6.6 |
| Gasoline stations. | 4471 | 949.0 | 0.5 | 6.0 | 0.9 | 0.4 | 7.0 | 6.6 |
| Clothing and clothing accessories stores................... | 448 | 1,135.9 | 14.0 | -6.4 | 5.6 | -7.4 | -1.1 | 6.8 |
| Clothing stores............................................ | 4481 | 805.2 | 10.2 | -7.4 | 2.9 | -6.6 | -4.8 | 2.0 |
| Shoe stores...... | 4482 | 164.8 | 19.9 | -2.6 | 3.0 | -14.1 | 0.3 | 16.8 |
| Jewerry, luggage, and leather goods stores............... | 4483 | 165.9 | 25.9 | -9.5 | 21.3 | -3.7 | 9.8 | 14.0 |
| Sports, hobby, music instruments, book stores..... | 451 | 574.3 | 14.9 | -7.7 | 14.9 | 0.0 | 6.0 | 6.0 |
| Sporting goods and musical instrument stores.......... | 4511 | 505.9 | 17.1 | -8.3 | 17.5 | 0.3 | 7.8 | 7.5 |
| Book stores and news dealers................................ | 4512 | 68.4 | -3.9 | -0.5 | -6.2 | -2.4 | -6.6 | -4.3 |

Table 3. Labor productivity, unit labor costs, and related data, 2019-2021 - Continued

| Industry | $\begin{gathered} 2017 \\ \text { NAICS } \\ \text { code } \end{gathered}$ | $2021$ <br> Employment (thousands) | Average annual percent change, 2019-2021 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Labor productivity | Unit <br> labor <br> costs | Output | Hours worked | Labor compensation | Hourly compensation |
| General merchandise stores.. | 452 | 3,099.8 | 2.7 | 2.2 | 4.7 | 2.0 | 7.0 | 5.0 |
| Department stores.. | 4522 | 937.0 | 5.9 | 0.2 | 0.3 | -5.3 | 0.5 | 6.1 |
| Other general merchandise stores. | 4523 | 2,162.8 | 0.5 | 4.0 | 5.7 | 5.2 | 10.0 | 4.5 |
| Miscellaneous store retailers. | 453 | 959.5 | 9.5 | -2.0 | 8.6 | -0.8 | 6.4 | 7.2 |
| Florists. | 4531 | 79.0 | 1.1 | 13.2 | 5.0 | 3.8 | 18.8 | 14.4 |
| Office supplies, stationery and gift stores................. | 4532 | 207.8 | 11.5 | -4.5 | -0.3 | -10.6 | -4.8 | 6.5 |
| Used merchandise stores.. | 4533 | 231.8 | 5.6 | -0.4 | 8.1 | 2.4 | 7.7 | 5.1 |
| Other miscellaneous store retailers. | 4539 | 440.9 | 10.4 | -2.2 | 12.1 | 1.6 | 9.7 | 8.0 |
| Nonstore retailers. | 454 | 837.0 | 18.1 | -8.1 | 23.1 | 4.2 | 13.1 | 8.5 |
| Electronic shopping and mail-order houses............... | 4541 | 588.7 | 14.0 | -7.4 | 25.6 | 10.2 | 16.3 | 5.6 |
| Vending machine operators..................................... | 4542 | 33.4 | 19.0 | -7.9 | -7.7 | -22.4 | -14.9 | 9.6 |
| Direct selling establishments................................... | 4543 | 214.9 | 10.7 | -1.1 | 5.5 | -4.7 | 4.3 | 9.5 |

