United States Department of Labor

## Bureau of Labor Statistics

Washington, D.C. 20212

Technical
information: (202) 691-5618
Media contact: (202) 691-5902
Internet: http://www.bls.gov/lpc/home.htm

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PRODUCTIVITY AND COSTS BY INDUSTRY, 2001

Labor productivity-defined as output per hour-rose in 2001 in 55 percent of the 164 industries studied by the Bureau of Labor Statistics, U.S. Department of Labor. Output rose in 29 percent of the industries, while hours rose in 20 percent.

The share of industries with productivity increases in 2001 was significantly smaller than the share during the 1987-2001 period. From 1987 to 2001, labor productivity increased in 93 percent of the industries. Output rose in 87 percent of the industries, while hours rose in 52 percent.

The attached tables present industry productivity and related series that are based, for the first time, on the North American Industry Classification System, or NAICS. See technical note for information on NAICS conversion, industry coverage, and concepts.

## 2000-2001 change

More than half of the industries for which BLS maintains data recorded labor productivity gains in 2001, with output per hour increasing in 50 of the 86 manufacturing industries. (See table 1.) Over thirty percent of the industries in manufacturing had productivity gains greater than 2.5 percent. Five of the six largest manufacturing industries, those with more than 500,000 employees, recorded growth in output per hour. Of these, labor productivity rose 1.9 percent in motor vehicle parts manufacturing (NAICS 3363), 0.7 percent in printing and related support activities (NAICS 3231), 1.7 percent in plastics products (NAICS 3261), 0.9 percent in animal slaughtering and processing (NAICS 3116), and 13.7 percent in aerospace products and parts manufacturing (NAICS 3364). Productivity in semiconductors and electronic components (NAICS 3344), in contrast, fell 0.8 percent. Unit labor costs, the ratio of total compensation to output, fell in 20 of the manufacturing industries. (See table 2.) Among the 50 manufacturing industries with increasing productivity, 19 also registered decreasing unit labor costs.

Productivity increased in three of the four mining industries in 2001, with metal ore mining (NAICS 2122) and nonmetallic mineral mining and quarrying (NAICS 2123) registering gains in productivity of 5.9 percent and 3.3 percent, respectively. Unit labor costs in these industries fell. Productivity also increased in oil and gas extraction (NAICS 211), by 1.9 percent, but unit labor costs in this industry increased 3.6 percent. In overall mining (NAICS 21), productivity fell 1.6 percent while unit labor costs grew 6.5 percent.

Labor productivity grew in nine of the 20 industries measured for wholesale trade. Five of the nine nondurable goods wholesalers had productivity increases, while 3 of the durable goods wholesalers did. One of the two industries in electronic markets and agents and brokers (NAICS 425)-business-to-business electronic markets (NAICS 42511)-registered an increase in productivity of 17.9 percent, the largest increase in wholesale trade. Productivity in the wholesale sector as a whole grew 1.7 percent, while both output and hours fell, by 2.3 and 3.9 percent, respectively. Unit labor costs increased 1.4 percent in the wholesale trade sector.

Labor productivity rose in 18 of the 27 retail trade industries in 2001. The increases ranged from 0.9 percent to 12.6 percent. Output per hour rose in five of the six largest retail industries, all of which have $1,000,000$ employees or more. Productivity grew 2.6 percent in grocery stores (NAICS 4451), 1.1 percent in automobile dealers (NAICS 4411), 11.2 percent in other general merchandise stores (NAICS 4529), 1.2 percent in building material and supplies dealers (NAICS 4441), and 3.6 percent in clothing stores (NAICS 4481). Department stores (NAICS 4521) experienced a 2.3 percent productivity decline. Among the 18 retail trade industries with increasing productivity, 16 also experienced decreasing unit labor costs. Reflecting the growth among the individual retail trade industries, productivity in the retail trade sector as a whole (NAICS 44-45) rose 2.6 percent. Output also increased 2.6 percent, while hours were unchanged. Unit labor costs fell 4.5 percent in the retail sector.

In 2001, productivity fell in four of the six industries in the transportation and warehousing, and utilities industries for which measures were constructed. The largest productivity gain was 6.7 percent in line-haul railroads (NAICS 482111). Similarly, productivity fell in the majority of the measured industries in the information sector, with the largest gain (24.2 percent) posted by wireless telecommunications carriers (NAICS 5172).

Among all other service providers, which includes industries in the finance and insurance, real estate and rental leasing, professional and technical services, accommodation and food services, and other services sectors, gains in output per hour were posted in 2001 in seven of the fourteen industries for which the BLS maintains measures. Productivity in full-service restaurants (NAICS 7221), the largest industry in this group in terms of employment, was unchanged. Among other large industries, productivity rose 2.0 percent in limited-service eating places (NAICS 7222), but fell 3.6 percent in traveler accommodations (NAICS 7211). Productivity also declined 2.7
percent in commercial banking (NAICS 52211). Unit labor costs declined in five of the industries in these sectors.

## Long-term trends

From 1987 to 2001, nearly all industries posted productivity gains. (See table 1.) In the manufacturing sector output per hour increased in 85 of the 86 industries. Productivity advanced 5.0 percent per year or more in 6 manufacturing industries; another 21 industries experienced annual productivity growth in the 2.5-4.9 percent range. Unit labor costs fell in 13 industries in the manufacturing sector.

All of the mining industries posted productivity gains during the 1987-2001 period. The two industries with the fastest growth in labor productivity also reduced unit labor costs. In coal mining (NAICS 2121), output per hour rose 4.9 percent per year and unit labor costs fell 2.5 percent per year. In metal ore mining, productivity increased 4.5 percent per year and unit labor costs decreased 0.4 percent per year. In overall mining, productivity increased 1.7 percent per year and unit labor costs increased 2.8 percent per year.

Labor productivity increased in 16 of the 20 industries in the wholesale trade sector between 1987 and 2001. Three of the wholesale trade industries registered gains in excess of 5.0 percent per year. Productivity in an additional four industries increased between 2.5 and 4.9 percent per year. Productivity in the wholesale trade sector rose 3.3 percent per year. Output, employment and unit labor costs also increased-by 4.1 percent per year, 0.8 percent per year, and 1.1 percent per year, respectively.

Output per hour increased in most of the retail trade industries between 1987 and 2001. Labor productivity advanced 5.0 percent per year or more in four of the retail industries, and eleven registered annual growth rates in output per hour in the 2.5-4.9 percent range. Unit labor costs declined in 11 of the 27 retail trade industries. Productivity in the overall retail sector grew 2.7 percent per year during the 1987-2001 period. Output increased 3.8 percent per year, while hours rose 1.1 percent per year. Unit labor costs grew 0.8 percent per year for the retail sector as a whole.

All of the measured industries in the transportation and warehousing, and utilities sectors posted gains in output per hour during the 1987-2001 period. Productivity grew 5.4 percent per year in line-haul railroads and 3.6 percent per year in both the utilities industries (NAICS 2211 and NAICS 2212). Of the measured industries in these sectors, only line-haul railroads registered a decline in unit labor costs.

Productivity grew, between 1987 and 2001, in six of the seven industries in the information sector for which the BLS maintains measures. Output per hour rose 15.7 percent per year among software publishers (NAICS 5112). Productivity growth in the telecommunications industries was also strong, with an increase of 9.9 percent per year posted by the wireless telecommunications industry and an increase of 6.2 percent per
year registered by the wired telecommunications industry (NAICS 5171). These same industries posted declines in unit labor costs.

Among other service providers, productivity increased in eleven of the fourteen measured industries. Productivity advances among these industries were rather modest. Just two, advertising agencies (NAICS 54181) and truck, trailer and RV rental and leasing (NAICS 53212) registered increases in excess of 2.5 percent. Unit labor costs increased in all these industries.

## New Multifactor Productivity Series

Multifactor productivity and related measures for air transportation, NAICS 481, will be available on the BLS web site (http://www.bls.gov/mfp/home.htm) by September 30, 2003. An article discussing these new measures will appear in a forthcoming issue of the Monthly Labor Review.

## Technical Note

Data in this news release reflect the conversion of the industry labor productivity data to the North American Industry Classification System (NAICS), which replaces the Standard Industrial Classification (SIC) system as the basis for assigning and tabulating data by industry. The data in this news release replace the SIC-based series published in Table 46 of the Monthly Labor Review and in the news releases Productivity and Costs by Industry, 2000 (released April 23, 2002), BLS Releases New Series on Productivity and Costs in Wholesale Trade Industries, 1990-2000 (released June 20, 2002), and New Transportation and Service Productivity Measures (released January, 2003). Due to differences in NAICS and SIC structures, NAICS-based industry productivity data are not comparable to the SIC-based data. All of the measures for 2001 in this news release are preliminary and subject to revision.

Data are provided for all 4-digit NAICS industries within manufacturing, wholesale trade, and retail trade. Additional industry series, though not complete coverage, are provided for utilities, transportation and warehousing, information, finance and insurance, professional and technical services, accommodation and food services, and other services; these series are primarily at the 4-digit NAICS level, but include measures for various 5- and 6-digit service-producing industries where measures are not available at the 4-digit level. Also included in this news release are productivity and related data for some 3-digit NAICS subsectors in mining, wholesale trade, and retail trade, as well as measures for the mining, wholesale trade, and retail trade sectors as a whole.

Overall, the industry productivity series account for over 60 percent of the 4-digit NAICS industries in the nonfarm business sector of the economy. Series for additional 5-
and 6-digit industries within sectors covered in this report are being developed. Expansion of industry coverage within the service-producing sector will continue.

## Conversion to North American Industry Classification System (NAICS)

The NAICS classification system is the product of a cooperative effort on the part of the statistical agencies of the United States, Canada, and Mexico. The NAICS differs from the SIC in that it uses a production-oriented approach to categorize economic units, focusing on how products and services are created in contrast to the SIC focus on what is produced. The structure of the NAICS system is also different from that of the SIC, with a greater emphasis on emerging industries and service-producing industries. Under NAICS, some detailed industries that existed under the SIC were collapsed or combined with other industries, while other new industries were added. Treatment of auxiliaries also changed under NAICS: NAICS classifies auxiliary units involved in activities such as transportation and warehousing; accounting, bookkeeping, and payroll services; and general management into specialized industries rather than including them in the manufacturing, trade, or service industries they support (as in the SIC). As a result of these changes, many of the NAICS industries are significantly different from those in the SIC system.

Industry output indexes are prepared from basic data published by various public and private agencies, using the greatest level of detail available. Data from the Bureau of the Census, U.S. Department of Commerce, are used extensively in developing output series for manufacturing, trade, and service-producing industries, as well as in developing compensation and unit labor cost series for manufacturing industries. Census Bureau data for years prior to 1997 were classified according to the Standard Industrial Classification (SIC) system. The 1997 Economic Censuses provided data on a NAICS basis, and data classified according to NAICS began to be provided in subsequent Annual Survey reports beginning in 1998 or 1999. Some data for wholesale and retail trade industries have been made available by the Census Bureau on a NAICS basis back to 1992.

The 1997 Economic Census questionnaires were designed to permit the classification of each establishment according to both NAICS and SIC. As a result, the Census Bureau tabulated and published 1997 Census data on both a NAICS and SIC basis. The Bureau of Labor Statistics used these dual-coded data to calculate conversion ratios relating NAICS values to SIC values, and the ratios were used to convert data on receipts, value of shipments, inventories and labor compensation for SIC-based industries to estimates for NAICS-based industries for years prior to 1997.

The labor series used in the industry productivity measures are based primarily on employment and average weekly hours data from the Bureau's Current Employment Statistics (CES) survey and the Current Population Survey (CPS). Other sources are the Association of American Railroads, the Department of Transportation, and the U.S. Postal Service. The CES data were published on a 2002 NAICS basis with the release of May 2003 data in June 2003. Historical NAICS data back to 1990 were provided for all
of the CES series; data for years prior to 1990 were provided for some industries. CES NAICS industry series not available back to 1987 were extended back using conversion ratios derived from dual-coded first-quarter 2001 data from the Covered Employment and Wages Program (ES-202). These ratios were also used to convert historical ES-202 wage data from SIC to NAICS for use in the compensation and unit labor cost measures for non-manufacturing industries.

## Productivity measurement

The industry labor productivity measures describe the relationship between output and the labor time involved in its production. They show the changes from period to period in the amount of goods and services produced per hour. Although these measures relate output to hours of employees or all persons engaged in an industry, they do not measure the specific contribution of labor, capital, or any other factor of production. Rather, 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 workforce.

The indexes of industry output used in measuring labor productivity and unit labor costs are, wherever possible, calculated with a Tornqvist formula. This formula aggregates the growth rates of the various industry products between two periods using the products' shares in industry value of production, averaged over the two periods, as weights.

Year-to-year movements in productivity measures for some industries might be erratic, particularly in the smaller industries. The annual changes in an industry's output and use of labor may reflect cyclical changes in the economy rather than long-term trends. Also, annual productivity indexes are based on sample data, which are likely to differ from data generated by a census of establishments in the industry. As a result, long-term trends tend to be more reliable indicators of the performance of an industry than are the year-to-year changes.

## Unit labor cost measurement

The unit labor cost series in this release describe the cost of labor input required to produce one unit of output. Unit labor costs are calculated as the ratio of current dollar labor compensation to constant dollar output. The indexes of unit labor costs for each industry are computed by dividing an index of current dollar compensation by an index of constant dollar output.

Compensation is a measure of the cost to the employer of securing the services of labor. It is defined as payroll plus supplemental payments. Payroll includes salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind. Supplemental payments are divided into legally required expenditures and payments for voluntary programs. The legally required expenditures include employers' contributions to Social Security, unemployment insurance taxes, 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.

Productivity and unit labor cost data for the NAICS industries in this news release can be obtained in several ways: by visiting the Labor Productivity and Costs web site (http://www.bls.gov/lpc/home.htm); by calling the Division of Industry Productivity Studies (202-691-5618); or by sending a request by e-mail (dipsweb@bls.gov). Historical productivity and related series for 3- and 4-digit SIC industries through 2000 will continue to be maintained, but will no longer be updated. SIC-based industry data are available on the BLS web site or by request.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: 202-691-5200; TDD message referral phone number: 1-800-877-8339.

Table 1. Annual percent change in output per hour and related series: mining, manufacturing, and service-producing industries, 1987-01 and 2000-01

| NAICS code | Industry | 2001 <br> Employment <br> (thousands) | Annual percent change, 1987-01 |  |  | Annual percent change, 2000-2001 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Output per hour | Output | Hours | Output per hour | Output | Hours |
|  | Mining |  |  |  |  |  |  |  |
| 21 | Mining | 533 | 1.7 | 0.0 | -1.6 | -1.6 | 0.8 | 2.5 |
| 211 | Oil and gas extraction | 124 | 2.7 | -0.8 | -3.4 | 1.9 | 0.9 | -0.9 |
| 212 | Mining, except oil and gas | 219 | 3.3 | 1.3 | -1.9 | 2.1 | 0.6 | -1.5 |
| 2121 | Coal mining | 74 | 4.9 | 0.4 | -4.3 | -1.2 | 4.8 | 6.1 |
| 2122 | Metal ore mining | 33 | 4.5 | 3.3 | -1.1 | 5.9 | -8.0 | -13.2 |
| 2123 | Nonmetallic mineral mining and quarrying | 111 | 0.9 | 1.0 | 0.1 | 3.3 | 0.7 | -2.5 |
|  | Utilities |  |  |  |  |  |  |  |
| 2211 | Power generation and supply | 434 | 3.6 | 1.9 | -1.7 | -0.5 | -2.1 | -1.6 |
| 2212 | Natural gas distribution | 118 | 3.6 | 1.7 | -1.9 | -2.8 | -4.9 | -2.2 |
|  | Manufacturing |  |  |  |  |  |  |  |
| 3111 | Animal food | 53 | 3.1 | 2.4 | -0.6 | 15.9 | 6.7 | -8.0 |
| 3112 | Grain and oilseed milling | 63 | 2.7 | 1.7 | -1.0 | 4.4 | 0.4 | -3.8 |
| 3113 | Sugar and confectionery products | 89 | 2.1 | 1.4 | -0.6 | -2.0 | -2.6 | -0.5 |
| 3114 | Fruit and vegetable preserving and specialty | 193 | 2.0 | 1.9 | -0.1 | 6.6 | 2.5 | -3.9 |
| 3115 | Dairy products | 137 | 1.1 | 0.5 | -0.6 | 0.2 | -1.1 | -1.3 |
| 3116 | Animal slaughtering and processing | 516 | 0.3 | 2.6 | 2.2 | 0.9 | 0.9 | 0.0 |
| 3117 | Seafood product preparation and packaging | 47 | 1.5 | 0.9 | -0.6 | 7.1 | 8.1 | 1.0 |
| 3118 | Bakeries and tortilla manufacturing | 303 | 0.6 | 0.8 | 0.2 | 0.9 | -0.5 | -1.4 |
| 3119 | Other food products | 152 | 0.7 | 1.7 | 0.9 | -6.2 | -5.2 | 1.1 |
| 3121 | Beverages | 177 | 1.4 | 1.2 | -0.2 | 1.2 | 1.0 | -0.3 |
| 3122 | Tobacco and tobacco products | 32 | 2.3 | -1.0 | -3.2 | 2.0 | -1.7 | -3.7 |
| 3131 | Fiber, yarn, and thread mills | 71 | 3.7 | -0.1 | -3.6 | 7.8 | -10.7 | -17.1 |
| 3132 | Fabric mills | 168 | 3.5 | -0.7 | -4.0 | -1.0 | -15.1 | -14.3 |
| 3133 | Textile and fabric finishing mills | 95 | 1.4 | -0.6 | -1.9 | 5.5 | -8.1 | -12.9 |
| 3141 | Textile furnishings mills | 121 | 1.1 | 1.0 | -0.1 | 0.3 | -4.8 | -5.1 |
| 3149 | Other textile product mills | 84 | 1.0 | 1.0 | 0.0 | -5.0 | -11.3 | -6.7 |
| 3151 | Apparel knitting mills | 61 | 2.7 | -2.3 | -4.9 | -2.0 | -12.5 | -10.7 |
| 3152 | Cut and sew apparel | 335 | 4.7 | -1.9 | -6.2 | 3.1 | -11.4 | -14.0 |
| 3159 | Accessories and other apparel | 31 | 1.2 | -0.9 | -2.1 | 9.5 | -5.0 | -13.2 |
| 3161 | Leather and hide tanning and finishing | 10 | 2.6 | -0.9 | -3.4 | -0.2 | -19.6 | -19.4 |
| 3162 | Footwear | 26 | 4.6 | -4.6 | -8.8 | 15.0 | -6.6 | -18.8 |
| 3169 | Other leather products | 23 | 1.1 | -2.7 | -3.8 | 6.1 | -10.4 | -15.6 |
| 3211 | Sawmills and wood preservation | 127 | 2.5 | 1.0 | -1.4 | 2.3 | -4.9 | -7.1 |
| 3212 | Plywood and engineered wood products | 116 | 0.4 | 1.2 | 0.9 | 4.1 | -5.0 | -8.8 |
| 3219 | Other wood products | 331 | 0.0 | 0.4 | 0.4 | 0.7 | -7.5 | -8.1 |
| 3221 | Pulp, paper, and paperboard mills | 179 | 2.2 | 0.0 | -2.1 | 1.4 | -6.4 | -7.7 |
| 3222 | Converted paper products | 398 | 0.9 | 0.9 | 0.0 | -0.9 | -5.5 | -4.7 |
| 3231 | Printing and related support activities | 768 | 0.7 | 0.7 | 0.0 | 0.7 | -5.0 | -5.7 |
| 3241 | Petroleum and coal products | 121 | 3.2 | 1.3 | -1.9 | -0.9 | -0.9 | 0.0 |
| 3251 | Basic chemicals | 181 | 1.5 | -0.5 | -2.0 | -6.2 | -10.3 | -4.3 |
| 3252 | Resin, rubber, and artificial fibers | 126 | 2.2 | 0.9 | -1.3 | -4.0 | -12.1 | -8.4 |
| 3253 | Agricultural chemicals | 46 | 0.9 | 0.4 | -0.5 | -0.4 | -6.5 | -6.1 |
| 3254 | Pharmaceuticals and medicines | 283 | 0.9 | 4.0 | 3.1 | 4.1 | 8.6 | 4.4 |
| 3255 | Paints, coatings, and adhesives | 75 | 1.2 | 0.4 | -0.9 | 3.7 | -2.7 | -6.2 |
| 3256 | Soaps, cleaning compounds, and toiletries | 127 | 1.7 | 1.7 | -0.1 | 3.4 | 1.7 | -1.6 |
| 3259 | Other chemical products and preparations | 120 | 2.8 | 1.0 | -1.8 | -7.3 | -13.3 | -6.5 |
| 3261 | Plastics products | 699 | 2.4 | 3.6 | 1.2 | 1.7 | -4.8 | -6.4 |
| 3262 | Rubber products | 199 | 2.1 | 1.8 | -0.3 | 0.4 | -9.0 | -9.3 |

Table 1. Annual percent change in output per hour and related series: mining, manufacturing, and service-producing industries, 1987-01 and 2000-01--Continued

| NAICS code | Industry | 2001 <br> Employment <br> (thousands) | Annual percent change, 1987-01 |  |  | Annual percent change, 2000-2001 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Output per hour | Output | Hours | Output per hour | Output | Hours |
| 3271 | Clay products and refractories | 77 | 1.0 | 0.1 | -0.8 | -5.7 | -12.4 | -7.1 |
| 3272 | Glass and glass products | 136 | 1.8 | 1.3 | -0.4 | -4.1 | -7.0 | -3.0 |
| 3273 | Cement and concrete products | 236 | 0.4 | 1.8 | 1.4 | -3.3 | -0.7 | 2.6 |
| 3274 | Lime and gypsum products | 20 | 1.0 | 0.3 | -0.7 | 3.1 | 1.7 | -1.4 |
| 3279 | Other nonmetallic mineral products | 75 | 1.0 | 0.7 | -0.4 | 1.3 | -5.3 | -6.5 |
| 3311 | Iron and steel mills and ferroalloy production | 122 | 3.7 | 1.0 | -2.7 | -1.7 | -13.9 | -12.4 |
| 3312 | Steel products from purchased steel | 68 | 1.6 | 1.4 | -0.2 | 0.9 | -11.6 | -12.3 |
| 3313 | Alumina and aluminum production | 92 | 0.4 | -0.8 | -1.2 | -0.8 | -10.7 | -9.9 |
| 3314 | Other nonferrous metal production | 90 | 0.4 | -1.0 | -1.4 | -2.6 | -11.0 | -8.7 |
| 3315 | Foundries | 200 | 2.2 | 1.6 | -0.5 | 5.3 | -7.1 | -11.8 |
| 3321 | Forging and stamping | 125 | 2.6 | 2.1 | -0.4 | 0.4 | -10.6 | -11.0 |
| 3322 | Cutlery and hand tools | 72 | 1.7 | 1.1 | -0.6 | 4.2 | -6.9 | -10.7 |
| 3323 | Architectural and structural metals | 422 | 0.8 | 2.2 | 1.4 | -0.3 | -4.3 | -4.0 |
| 3324 | Boilers, tanks, and shipping containers | 103 | 1.4 | 0.3 | -1.0 | 0.5 | -3.0 | -3.4 |
| 3325 | Hardware | 46 | 1.9 | -0.2 | -2.0 | -1.1 | -11.4 | -10.5 |
| 3326 | Spring and wire products | 76 | 2.1 | 1.8 | -0.3 | -3.5 | -11.7 | -8.6 |
| 3327 | Machine shops and threaded products | 348 | 2.7 | 3.8 | 1.0 | 0.1 | -7.6 | -7.7 |
| 3328 | Coating, engraving, and heat treating metals | 163 | 2.3 | 3.6 | 1.2 | -1.0 | -10.5 | -9.6 |
| 3329 | Other fabricated metal products | 321 | 0.5 | 0.3 | -0.3 | -2.7 | -6.6 | -4.0 |
| 3331 | Agriculture, construction, and mining machinery | 217 | 2.1 | 2.3 | 0.2 | -1.7 | -5.2 | -3.6 |
| 3332 | Industrial machinery | 149 | 2.4 | 2.5 | 0.2 | -19.4 | -27.9 | -10.5 |
| 3333 | Commercial and service industry machinery | 143 | 0.8 | 0.5 | -0.3 | -7.2 | -11.7 | -4.9 |
| 3334 | HVAC and commercial refrigeration equipment | 184 | 2.0 | 2.6 | 0.5 | 2.3 | -6.4 | -8.5 |
| 3335 | Metalworking machinery | 249 | 1.3 | 0.9 | -0.4 | -4.1 | -15.8 | -12.2 |
| 3336 | Turbine and power transmission equipment | 106 | 3.5 | 3.0 | -0.5 | 11.3 | 4.3 | -6.3 |
| 3339 | Other general purpose machinery | 321 | 1.8 | 1.9 | 0.1 | -3.2 | -11.4 | -8.4 |
| 3341 | Computer and peripheral equipment | 286 | 24.9 | 22.0 | -2.4 | 5.2 | -2.5 | -7.4 |
| 3342 | Communications equipment | 234 | 10.5 | 10.0 | -0.4 | -6.2 | -12.9 | -7.1 |
| 3343 | Audio and video equipment | 47 | 5.4 | 3.7 | -1.7 | 2.5 | -5.1 | -7.4 |
| 3344 | Semiconductors and electronic components | 645 | 20.8 | 21.4 | 0.5 | -0.8 | -8.3 | -7.6 |
| 3345 | Electronic instruments | 475 | 3.9 | 1.4 | -2.4 | 1.6 | -0.1 | -1.7 |
| 3346 | Magnetic media manufacturing and reproduction | 61 | 0.6 | 2.1 | 1.5 | -5.2 | -10.4 | -5.5 |
| 3351 | Electric lighting equipment | 79 | 1.0 | 0.5 | -0.5 | 3.5 | -5.6 | -8.7 |
| 3352 | Household appliances | 102 | 3.7 | 1.9 | -1.8 | 4.3 | -3.1 | -7.1 |
| 3353 | Electrical equipment | 197 | 2.8 | 0.7 | -2.1 | 0.3 | -9.9 | -10.1 |
| 3359 | Other electrical equipment and components | 180 | 2.8 | 1.8 | -0.9 | -5.8 | -13.7 | -8.4 |
| 3361 | Motor vehicles | 279 | 2.1 | 1.8 | -0.2 | -1.4 | -9.0 | -7.7 |
| 3362 | Motor vehicle bodies and trailers | 159 | 1.1 | 2.0 | 0.9 | 0.8 | -14.2 | -14.9 |
| 3363 | Motor vehicle parts | 775 | 3.1 | 4.1 | 1.0 | 1.9 | -9.1 | -10.8 |
| 3364 | Aerospace products and parts | 511 | 2.2 | -1.2 | -3.3 | 13.7 | 12.2 | -1.4 |
| 3365 | Railroad rolling stock | 28 | 6.0 | 6.4 | 0.4 | 6.0 | -13.4 | -18.2 |
| 3366 | Ship and boat building | 147 | 1.6 | 0.1 | -1.5 | -0.1 | -5.5 | -5.3 |
| 3369 | Other transportation equipment | 39 | 5.1 | 5.6 | 0.5 | 12.1 | 8.2 | -3.5 |
| 3371 | Household and institutional furniture | 416 | 1.5 | 1.5 | 0.0 | 3.4 | -3.8 | -7.0 |
| 3372 | Office furniture and fixtures | 171 | 0.9 | 1.6 | 0.7 | -3.1 | -10.9 | -8.1 |
| 3379 | Other furniture-related products | 56 | 1.7 | 2.6 | 0.9 | 5.2 | -1.2 | -6.1 |
| 3391 | Medical equipment and supplies | 311 | 3.4 | 4.8 | 1.4 | 4.2 | 5.0 | 0.7 |
| 3399 | Other miscellaneous manufacturing | 403 | 2.0 | 2.0 | 0.1 | -1.9 | -7.1 | -5.4 |
|  | Wholesale Trade |  |  |  |  |  |  |  |
| 42 | Wholesale trade | 5988 | 3.3 | 4.1 | 0.8 | 1.7 | -2.3 | -3.9 |
| 423 | Durable goods | 3236 | 4.8 | 5.7 | 0.8 | -1.3 | -6.3 | -5.1 |

Table 1. Annual percent change in output per hour and related series: mining, manufacturing, and service-producing industries, 1987-01 and 2000-01--Continued

| NAICS code | Industry | 2001 <br> Employment <br> (thousands) | Annual percent change, 1987-01 |  |  | Annual percent change, 2000-2001 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Output per hour | Output | Hours | Output <br> per hour | Output | Hours |
| 4231 | Motor vehicles and parts | 359 | 3.1 | 3.5 | 0.3 | 0.1 | -6.9 | -7.0 |
| 4232 | Furniture and furnishings | 118 | 2.0 | 2.7 | 0.7 | -0.1 | -8.0 | -7.9 |
| 4233 | Lumber and construction supplies | 228 | -0.7 | 0.8 | 1.5 | 6.8 | 2.7 | -3.8 |
| 4234 | Commercial equipment | 709 | 13.4 | 14.8 | 1.3 | -1.1 | -8.6 | -7.6 |
| 4235 | Metals and minerals | 134 | -0.7 | 0.1 | 0.8 | 2.8 | -7.0 | -9.5 |
| 4236 | Electric goods | 413 | 9.8 | 10.7 | 0.8 | -2.4 | -7.5 | -5.3 |
| 4237 | Hardware and plumbing | 258 | 1.3 | 2.6 | 1.3 | -7.6 | -6.0 | 1.8 |
| 4238 | Machinery and supplies | 729 | 2.6 | 2.8 | 0.2 | -1.3 | -4.9 | -3.6 |
| 4239 | Miscellaneous durable goods | 287 | 1.6 | 3.0 | 1.3 | -0.5 | -3.6 | -3.1 |
| 424 | Nondurable goods | 2123 | 0.9 | 1.7 | 0.7 | 3.3 | 0.6 | -2.6 |
| 4241 | Paper and paper products | 170 | 1.4 | 2.4 | 0.9 | 3.3 | -5.0 | -8.0 |
| 4242 | Druggists' goods | 205 | 2.1 | 5.7 | 3.5 | 4.5 | 11.3 | 6.5 |
| 4243 | Apparel and piece goods | 162 | 1.0 | 1.4 | 0.4 | -0.2 | -5.9 | -5.7 |
| 4244 | Grocery and related products | 708 | 1.5 | 2.6 | 1.1 | 4.0 | 0.6 | -3.2 |
| 4245 | Farm product raw materials | 84 | 3.2 | 0.5 | -2.6 | 0.9 | -0.6 | -1.5 |
| 4246 | Chemicals | 137 | -0.4 | 1.0 | 1.4 | -2.3 | -5.1 | -2.9 |
| 4247 | Petroleum | 120 | 0.9 | -1.1 | -2.0 | -0.5 | -4.3 | -3.8 |
| 4248 | Alcoholic beverages | 130 | 0.8 | 1.7 | 0.9 | 0.5 | 2.1 | 1.6 |
| 4249 | Miscellaneous nondurable goods | 406 | -0.3 | 0.3 | 0.6 | -1.9 | -5.3 | -3.4 |
| 42511 | Business to business electronic markets | 93 | 7.4 | 8.5 | 1.0 | 17.9 | 12.6 | -4.4 |
| 42512 | Wholesale trade agents and brokers | 536 | 4.4 | 5.7 | 1.2 | -2.0 | -3.6 | -1.6 |
|  | Retail Trade |  |  |  |  |  |  |  |
| 44-45 | Retail trade | 16177 | 2.7 | 3.8 | 1.1 | 2.6 | 2.6 | 0.0 |
| 441 | Motor vehicle and parts dealers | 1934 | 1.7 | 3.1 | 1.4 | 1.5 | 1.5 | 0.0 |
| 4411 | Automobile dealers | 1273 | 1.6 | 3.0 | 1.4 | 1.1 | 2.2 | 1.1 |
| 4412 | Other motor vehicle dealers | 141 | 2.8 | 4.8 | 1.9 | 3.5 | 0.8 | -2.6 |
| 4413 | Auto parts, accessories, and tire stores | 519 | 2.2 | 3.5 | 1.3 | -2.4 | -4.1 | -1.8 |
| 442 | Furniture and home furnishings stores | 611 | 3.1 | 4.3 | 1.2 | 0.8 | 0.8 | 0.0 |
| 4421 | Furniture stores | 318 | 3.4 | 4.2 | 0.8 | 3.8 | 1.9 | -1.8 |
| 4422 | Home furnishings stores | 293 | 2.6 | 4.5 | 1.8 | -2.6 | -0.6 | 2.1 |
| 443 | Electronics and appliance stores | 592 | 12.9 | 15.6 | 2.5 | 12.6 | 13.7 | 1.1 |
| 444 | Building material and garden supply stores | 1183 | 2.8 | 4.8 | 1.9 | 2.3 | 4.4 | 2.0 |
| 4441 | Building material and supplies dealers | 1020 | 2.7 | 5.0 | 2.2 | 1.2 | 4.5 | 3.3 |
| 4442 | Lawn and garden equipment and supplies stores | 163 | 3.4 | 3.5 | 0.1 | 10.3 | 3.3 | -6.4 |
| 445 | Food and beverage stores | 3085 | -0.2 | 0.4 | 0.6 | 2.5 | 1.4 | -1.1 |
| 4451 | Grocery stores | 2618 | -0.3 | 0.5 | 0.7 | 2.6 | 1.3 | -1.3 |
| 4452 | Specialty food stores | 308 | -1.9 | -1.7 | 0.2 | 5.2 | 4.1 | -1.1 |
| 4453 | Beer, wine and liquor stores | 158 | 1.0 | 0.2 | -0.8 | -0.6 | 1.9 | 2.5 |
| 446 | Health and personal care stores | 965 | 2.0 | 3.7 | 1.7 | 0.9 | 3.2 | 2.3 |
| 447 | Gasoline stations | 946 | 1.6 | 1.4 | -0.3 | 3.3 | 1.0 | -2.3 |
| 448 | Clothing and clothing accessories stores | 1391 | 4.4 | 4.4 | 0.0 | 2.8 | 1.5 | -1.3 |
| 4481 | Clothing stores | 1001 | 4.6 | 4.8 | 0.2 | 3.6 | 3.0 | -0.6 |
| 4482 | Shoe stores | 193 | 3.9 | 2.6 | -1.2 | 5.7 | 0.5 | -4.9 |
| 4483 | Jewelry, luggage, and leather goods stores | 197 | 4.2 | 4.5 | 0.3 | -3.5 | -4.6 | -1.2 |
| 451 | Sporting goods, hobby, book, and music stores | 740 | 3.9 | 5.7 | 1.7 | 3.0 | 2.6 | -0.4 |
| 4511 | Sporting goods and musical instrument stores | 485 | 4.5 | 6.0 | 1.4 | 1.8 | 5.3 | 3.5 |
| 4512 | Book, periodical, and music stores | 256 | 2.9 | 5.2 | 2.2 | 4.9 | -2.9 | -7.4 |
| 452 | General merchandise stores | 2860 | 3.9 | 5.5 | 1.5 | 3.5 | 6.0 | 2.3 |
| 4521 | Department stores | 1769 | 1.3 | 3.6 | 2.3 | -2.3 | -0.2 | 2.1 |
| 4529 | Other general merchandise stores | 1091 | 8.1 | 8.9 | 0.7 | 11.2 | 14.2 | 2.7 |
| 453 | Miscellaneous store retailers | 1207 | 3.9 | 5.7 | 1.7 | -1.3 | -3.6 | -2.4 |

Table 1. Annual percent change in output per hour and related series: mining, manufacturing, and service-producing industries, 1987-01 and 2000-01--Continued

| NAICS code | Industry | 2001 <br> Employment <br> (thousands) | Annual percent change, 1987-01 |  |  | Annual percent change, 2000-2001 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Output per hour | Output | Hours | Output per hour | Output | Hours |
| 4531 | Florists | 155 | 3.1 | 2.7 | -0.4 | 4.8 | 5.8 | 1.0 |
| 4532 | Office supplies, stationery and gift stores | 556 | 6.7 | 8.1 | 1.3 | 11.6 | 4.6 | -6.3 |
| 4533 | Used merchandise stores | 130 | 1.9 | 7.0 | 5.0 | -8.0 | -8.1 | -0.1 |
| 4539 | Other miscellaneous store retailers | 366 | 1.5 | 4.0 | 2.5 | -13.1 | -11.6 | 1.7 |
| 454 | Nonstore retailers | 664 | 8.5 | 9.4 | 0.8 | 4.4 | 2.7 | -1.6 |
| 4541 | Electronic shopping and mail-order houses | 263 | 12.0 | 17.1 | 4.5 | 11.1 | 7.2 | -3.5 |
| 4542 | Vending machine operators | 79 | 1.1 | 0.1 | -0.9 | -12.3 | -6.0 | 7.2 |
| 4543 | Direct selling establishments | 321 | 1.5 | 0.5 | -1.0 | -4.1 | -6.2 | -2.2 |
|  | Transportation and Warehousing |  |  |  |  |  |  |  |
| 481 | Air transportation | 576 | 0.9 | 3.2 | 2.3 | -6.4 | -6.6 | -0.2 |
| 482111 | Line-haul railroads | 189 | 5.4 | 2.4 | -2.8 | 6.7 | -0.5 | -6.8 |
| 48412 | General freight trucking, long-distance | 849 | 1.9 | 3.5 | 1.5 | -1.8 | -3.9 | -2.1 |
| 491 | Postal service | 873 | 1.0 | 1.8 | 0.8 | 1.1 | -0.9 | -2.0 |
|  | Information |  |  |  |  |  |  |  |
| 5111 | Newspaper, book, and directory publishers | 752 | 0.3 | 0.4 | 0.1 | -2.5 | -5.5 | -3.1 |
| 5112 | Software publishers | 269 | 15.7 | 28.1 | 10.7 | -1.5 | 2.3 | 3.8 |
| 51213 | Motion picture and video exhibition | 133 | 0.8 | 3.0 | 2.2 | -1.7 | 0.6 | 2.3 |
| 5151 | Radio and television broadcasting | 249 | 0.2 | 0.7 | 0.5 | -5.0 | -8.6 | -3.7 |
| 5152 | Cable and other subscription programming | 96 | -2.1 | 4.2 | 6.4 | -4.4 | 5.0 | 9.8 |
| 5171 | Wired telecommunications carriers | 732 | 6.2 | 6.8 | 0.6 | 1.6 | 2.1 | 0.4 |
| 5172 | Wireless telecommunications carriers | 201 | 9.9 | 24.6 | 13.4 | 24.2 | 34.5 | 8.4 |
|  | Finance and Insurance |  |  |  |  |  |  |  |
| 52211 | Commercial banking | 1258 | 2.4 | 2.0 | -0.4 | -2.7 | -0.4 | 2.4 |
|  | Real Estate and Rental Leasing |  |  |  |  |  |  |  |
| 532111 | Passenger car rental | 136 | 1.6 | 4.6 | 3.0 | 0.1 | -1.1 | -1.2 |
| 53212 | Truck, trailer and RV rental and leasing | 61 | 3.4 | 3.5 | 0.2 | -1.8 | -4.6 | -2.9 |
|  | Professional and Technical Services |  |  |  |  |  |  |  |
| 54181 | Advertising agencies | 217 | 3.4 | 4.1 | 0.7 | 1.1 | -6.2 | -7.2 |
|  | Accommodation and Food Services |  |  |  |  |  |  |  |
| 7211 | Traveler accommodations | 1856 | -0.5 | 1.0 | 1.5 | -3.6 | -8.3 | -4.8 |
| 722 | Food services and drinking places | 8560 | 0.6 | 2.3 | 1.7 | 0.5 | 1.0 | 0.5 |
| 7221 | Full-service restaurants | 4028 | 0.8 | 2.4 | 1.6 | 0.0 | 0.7 | 0.7 |
| 7222 | Limited-service eating places | 3614 | 1.0 | 2.6 | 1.6 | 2.0 | 2.4 | 0.4 |
| 7223 | Special food services | 513 | 0.2 | 2.4 | 2.2 | -2.9 | -2.2 | 0.7 |
| 7224 | Drinking places, alcoholic beverages | 406 | -2.2 | -0.9 | 1.3 | -2.2 | -2.2 | 0.0 |
|  | Other Services |  |  |  |  |  |  |  |
| 8111 | Automotive repair and maintenance | 1134 | 1.6 | 3.4 | 1.8 | 1.1 | 1.3 | 0.2 |
| 81211 | Hair, nail and skin care services | 789 | 1.9 | 2.7 | 0.8 | 4.9 | -0.3 | -5.0 |
| 81221 | Funeral homes and funeral services | 105 | -0.7 | 0.8 | 1.6 | -0.7 | 2.1 | 2.8 |
| 8123 | Drycleaning and laundry services | 422 | 1.5 | 1.5 | -0.1 | 5.8 | -1.4 | -6.8 |
| 81292 | Photofinishing | 105 | 0.7 | -0.9 | -1.6 | 5.7 | -3.8 | -9.1 |

Table 2. Annual percent change in total compensation, output, and unit labor costs: mining, manufacturing, and service-producing industries, 1987-01 and 2000-01

| NAICS code | Industry | 2001 <br> Employment <br> (thousands) | Annual percent change, 1987-01 |  |  | Annual percent change 2000-01 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total compensation | Output | Unit labor costs | Total compensation | Output | Unit labor costs |
|  | Mining |  |  |  |  |  |  |  |
| 21 | Mining | 533 | 2.8 | 0.0 | 2.8 | 7.4 | 0.8 | 6.5 |
| 211 | Oil and gas extraction | 124 | 3.1 | -0.8 | 4.0 | 4.5 | 0.9 | 3.6 |
| 212 | Mining, except oil and gas | 219 | 0.7 | 1.3 | -0.5 | 1.3 | 0.6 | 0.7 |
| 2121 | Coal mining | 74 | -2.1 | 0.4 | -2.5 | 7.7 | 4.8 | 2.7 |
| 2122 | Metal ore mining | 33 | 3.0 | 3.3 | -0.4 | -8.8 | -8.0 | -0.8 |
| 2123 | Nonmetallic mineral mining and quarrying | 111 | 3.6 | 1.0 | 2.6 | 0.5 | 0.7 | -0.2 |
|  | Utilities |  |  |  |  |  |  |  |
| 2211 | Power generation and supply | 434 | 2.8 | 1.9 | 0.9 | 4.3 | -2.1 | 6.6 |
| 2212 | Natural gas distribution | 118 | 3.9 | 1.7 | 2.2 | 4.4 | -4.9 | 9.8 |
|  | Manufacturing |  |  |  |  |  |  |  |
| 3111 | Animal food | 53 | 3.6 | 2.4 | 1.2 | 2.7 | 6.7 | -3.7 |
| 3112 | Grain and oilseed milling | 63 | 1.8 | 1.7 | 0.1 | 0.1 | 0.4 | -0.4 |
| 3113 | Sugar and confectionery products | 89 | 2.8 | 1.4 | 1.4 | 2.1 | -2.6 | 4.8 |
| 3114 | Fruit and vegetable preserving and specialty | 193 | 3.0 | 1.9 | 1.1 | 0.3 | 2.5 | -2.1 |
| 3115 | Dairy products | 137 | 3.0 | 0.5 | 2.5 | 3.2 | -1.1 | 4.4 |
| 3116 | Animal slaughtering and processing | 516 | 3.8 | 2.6 | 1.2 | 4.4 | 0.9 | 3.4 |
| 3117 | Seafood product preparation and packaging | 47 | 3.0 | 0.9 | 2.1 | 1.0 | 8.1 | -6.6 |
| 3118 | Bakeries and tortilla manufacturing | 303 | 3.3 | 0.8 | 2.5 | 2.9 | -0.5 | 3.4 |
| 3119 | Other food products | 152 | 3.9 | 1.7 | 2.2 | 0.0 | -5.2 | 5.5 |
| 3121 | Beverages | 177 | 2.3 | 1.2 | 1.1 | 3.0 | 1.0 | 2.0 |
| 3122 | Tobacco and tobacco products | 32 | -0.1 | -1.0 | 0.9 | -6.7 | -1.7 | -5.1 |
| 3131 | Fiber, yarn, and thread mills | 71 | -0.7 | -0.1 | -0.6 | -12.5 | -10.7 | -2.0 |
| 3132 | Fabric mills | 168 | 0.1 | -0.7 | 0.8 | -12.3 | -15.1 | 3.4 |
| 3133 | Textile and fabric finishing mills | 95 | -1.2 | -0.6 | -0.6 | -11.0 | -8.1 | -3.1 |
| 3141 | Textile furnishings mills | 121 | 1.9 | 1.0 | 0.9 | -4.5 | -4.8 | 0.3 |
| 3149 | Other textile product mills | 84 | 3.7 | 1.0 | 2.7 | -7.1 | -11.3 | 4.8 |
| 3151 | Apparel knitting mills | 61 | -1.7 | -2.3 | 0.6 | -8.1 | -12.5 | 5.0 |
| 3152 | Cut and sew apparel | 335 | -2.9 | -1.9 | -1.1 | -11.2 | -11.4 | 0.2 |
| 3159 | Accessories and other apparel | 31 | 1.5 | -0.9 | 2.4 | -5.8 | -5.0 | -0.9 |
| 3161 | Leather and hide tanning and finishing | 10 | 1.8 | -0.9 | 2.7 | -13.9 | -19.6 | 7.1 |
| 3162 | Footwear | 26 | -3.5 | -4.6 | 1.2 | -8.1 | -6.6 | -1.6 |
| 3169 | Other leather products | 23 | -1.6 | -2.7 | 1.2 | -9.2 | -10.4 | 1.4 |
| 3211 | Sawmills and wood preservation | 127 | 2.0 | 1.0 | 0.9 | -4.5 | -4.9 | 0.4 |
| 3212 | Plywood and engineered wood products | 116 | 3.7 | 1.2 | 2.4 | -3.6 | -5.0 | 1.6 |
| 3219 | Other wood products | 331 | 3.9 | 0.4 | 3.5 | -4.0 | -7.5 | 3.8 |
| 3221 | Pulp, paper, and paperboard mills | 179 | 1.6 | 0.0 | 1.6 | -1.3 | -6.4 | 5.5 |
| 3222 | Converted paper products | 398 | 3.4 | 0.9 | 2.5 | -0.5 | -5.5 | 5.4 |
| 3231 | Printing and related support activities | 768 | 2.9 | 0.7 | 2.1 | -3.2 | -5.0 | 1.9 |
| 3241 | Petroleum and coal products | 121 | 3.0 | 1.3 | 1.7 | 6.0 | -0.9 | 6.9 |
| 3251 | Basic chemicals | 181 | 2.6 | -0.5 | 3.2 | 0.3 | -10.3 | 11.7 |
| 3252 | Resin, rubber, and artificial fibers | 126 | 2.3 | 0.9 | 1.4 | -5.6 | -12.1 | 7.3 |
| 3253 | Agricultural chemicals | 46 | 2.6 | 0.4 | 2.2 | -1.4 | -6.5 | 5.4 |
| 3254 | Pharmaceuticals and medicines | 283 | 7.0 | 4.0 | 2.8 | 5.3 | 8.6 | -3.1 |
| 3255 | Paints, coatings, and adhesives | 75 | 3.2 | 0.4 | 2.8 | -1.3 | -2.7 | 1.4 |
| 3256 | Soaps, cleaning compounds, and toiletries | 127 | 3.2 | 1.7 | 1.6 | 3.8 | 1.7 | 2.0 |
| 3259 | Other chemical products and preparations | 120 | 2.4 | 1.0 | 1.4 | -2.6 | -13.3 | 12.4 |
| 3261 | Plastics products | 699 | 5.1 | 3.6 | 1.4 | -2.7 | -4.8 | 2.3 |
| 3262 | Rubber products | 199 | 2.9 | 1.8 | 1.1 | -4.4 | -9.0 | 5.1 |

Table 2. Annual percent change in total compensation, output, and unit labor costs: mining, manufacturing, and service-producing industries, 1987-01 and 2000-01--Continued

| NAICS code | Industry | 2001 <br> Employment <br> (thousands) | Annual percent change, 1987-01 |  |  | Annual percent change 2000-01 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total compensation | Output | $\begin{gathered} \hline \text { Unit labor } \\ \text { costs } \\ \hline \end{gathered}$ | Total compensation | Output | Unit labor costs |
| 3271 | Clay products and refractories | 77 | 1.9 | 0.1 | 1.8 | -5.6 | -12.4 | 7.7 |
| 3272 | Glass and glass products | 136 | 2.2 | 1.3 | 0.8 | -2.8 | -7.0 | 4.5 |
| 3273 | Cement and concrete products | 236 | 4.0 | 1.8 | 2.2 | 2.6 | -0.7 | 3.4 |
| 3274 | Lime and gypsum products | 20 | 3.5 | 0.3 | 3.2 | -4.0 | 1.7 | -5.6 |
| 3279 | Other nonmetallic mineral products | 75 | 2.9 | 0.7 | 2.2 | -2.7 | -5.3 | 2.7 |
| 3311 | Iron and steel mills and ferroalloy production | 122 | 0.4 | 1.0 | -0.6 | -9.2 | -13.9 | 5.4 |
| 3312 | Steel products from purchased steel | 68 | 2.8 | 1.4 | 1.4 | -4.0 | -11.6 | 8.5 |
| 3313 | Alumina and aluminum production | 92 | 1.5 | -0.8 | 2.3 | -7.5 | -10.7 | 3.6 |
| 3314 | Other nonferrous metal production | 90 | 2.0 | -1.0 | 3.0 | -4.5 | -11.0 | 7.3 |
| 3315 | Foundries | 200 | 2.5 | 1.6 | 0.9 | -6.3 | -7.1 | 0.9 |
| 3321 | Forging and stamping | 125 | 3.0 | 2.1 | 0.8 | -6.0 | -10.6 | 5.2 |
| 3322 | Cutlery and hand tools | 72 | 2.9 | 1.1 | 1.7 | -6.8 | -6.9 | 0.2 |
| 3323 | Architectural and structural metals | 422 | 4.2 | 2.2 | 1.9 | -1.9 | -4.3 | 2.5 |
| 3324 | Boilers, tanks, and shipping containers | 103 | 1.1 | 0.3 | 0.8 | -3.8 | -3.0 | -0.9 |
| 3325 | Hardware | 46 | 0.8 | -0.2 | 1.0 | -6.5 | -11.4 | 5.5 |
| 3326 | Spring and wire products | 76 | 2.8 | 1.8 | 1.0 | -8.8 | -11.7 | 3.4 |
| 3327 | Machine shops and threaded products | 348 | 5.3 | 3.8 | 1.5 | -3.8 | -7.6 | 4.2 |
| 3328 | Coating, engraving, and heat treating metals | 163 | 4.4 | 3.6 | 0.8 | -6.1 | -10.5 | 4.9 |
| 3329 | Other fabricated metal products | 321 | 2.1 | 0.3 | 1.8 | -3.5 | -6.6 | 3.3 |
| 3331 | Agriculture, construction, and mining machinery | 217 | 2.6 | 2.3 | 0.3 | -2.3 | -5.2 | 3.0 |
| 3332 | Industrial machinery | 149 | 4.6 | 2.5 | 2.0 | -5.1 | -27.9 | 31.5 |
| 3333 | Commercial and service industry machinery | 143 | 0.8 | 0.5 | 0.3 | -2.0 | -11.7 | 11.1 |
| 3334 | HVAC and commercial refrigeration equipment | 184 | 3.4 | 2.6 | 0.8 | -5.1 | -6.4 | 1.3 |
| 3335 | Metalworking machinery | 249 | 2.9 | 0.9 | 1.9 | -9.5 | -15.8 | 7.5 |
| 3336 | Turbine and power transmission equipment | 106 | 1.7 | 3.0 | -1.3 | -2.8 | 4.3 | -6.9 |
| 3339 | Other general purpose machinery | 321 | 3.5 | 1.9 | 1.5 | -5.5 | -11.4 | 6.6 |
| 3341 | Computer and peripheral equipment | 286 | -0.2 | 22.0 | -18.2 | -12.3 | -2.5 | -10.0 |
| 3342 | Communications equipment | 234 | 5.8 | 10.0 | -3.8 | 3.2 | -12.9 | 18.4 |
| 3343 | Audio and video equipment | 47 | 3.3 | 3.7 | -0.3 | -1.0 | -5.1 | 4.4 |
| 3344 | Semiconductors and electronic components | 645 | 4.4 | 21.4 | -14.0 | -8.5 | -8.3 | -0.2 |
| 3345 | Electronic instruments | 475 | 1.4 | 1.4 | 0.1 | 2.6 | -0.1 | 2.7 |
| 3346 | Magnetic media manufacturing and reproduction | 61 | 2.6 | 2.1 | 0.5 | -3.2 | -10.4 | 8.0 |
| 3351 | Electric lighting equipment | 79 | 1.8 | 0.5 | 1.3 | -4.7 | -5.6 | 1.0 |
| 3352 | Household appliances | 102 | 1.7 | 1.9 | -0.1 | -5.9 | -3.1 | -2.8 |
| 3353 | Electrical equipment | 197 | 1.9 | 0.7 | 1.3 | -5.7 | -9.9 | 4.6 |
| 3359 | Other electrical equipment and components | 180 | 3.0 | 1.8 | 1.2 | -4.7 | -13.7 | 10.5 |
| 3361 | Motor vehicles | 279 | 2.0 | 1.8 | 0.1 | -8.4 | -9.0 | 0.7 |
| 3362 | Motor vehicle bodies and trailers | 159 | 4.0 | 2.0 | 2.0 | -8.7 | -14.2 | 6.4 |
| 3363 | Motor vehicle parts | 775 | 3.4 | 4.1 | -0.7 | -8.7 | -9.1 | 0.5 |
| 3364 | Aerospace products and parts | 511 | -0.7 | -1.2 | 0.5 | 1.4 | 12.2 | -9.6 |
| 3365 | Railroad rolling stock | 28 | 5.2 | 6.4 | -1.1 | -2.2 | -13.4 | 12.9 |
| 3366 | Ship and boat building | 147 | 1.4 | 0.1 | 1.2 | -2.9 | -5.5 | 2.7 |
| 3369 | Other transportation equipment | 39 | 4.6 | 5.6 | -0.9 | 4.1 | 8.2 | -3.8 |
| 3371 | Household and institutional furniture | 416 | 3.6 | 1.5 | 2.0 | -2.7 | -3.8 | 1.1 |
| 3372 | Office furniture and fixtures | 171 | 3.8 | 1.6 | 2.2 | -4.5 | -10.9 | 7.3 |
| 3379 | Other furniture-related products | 56 | 3.7 | 2.6 | 1.0 | -2.1 | -1.2 | -0.9 |
| 3391 | Medical equipment and supplies | 311 | 6.0 | 4.8 | 1.1 | 3.4 | 5.0 | -1.5 |
| 3399 | Other miscellaneous manufacturing | 403 | 4.0 | 2.0 | 1.9 | -0.8 | -7.1 | 6.8 |
|  | Wholesale Trade |  |  |  |  |  |  |  |
| 42 | Wholesale trade | 5988 | 5.3 | 4.1 | 1.1 | -1.0 | -2.3 | 1.4 |
| 423 | Durable goods | 3236 | 5.2 | 5.7 | -0.5 | -4.3 | -6.3 | 2.1 |

Table 2. Annual percent change in total compensation, output, and unit labor costs: mining, manufacturing, and service-producing industries, 1987-01 and 2000-01--Continued

| NAICS code | Industry | 2001 <br> Employment <br> (thousands) | Annual percent change, 1987-01 |  |  | Annual percent change 2000-01 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total compensation | Output | $\begin{gathered} \hline \text { Unit labor } \\ \text { costs } \\ \hline \end{gathered}$ | Total compensation | Output | Unit labor costs |
| 4231 | Motor vehicles and parts | 359 | 3.9 | 3.5 | 0.4 | -0.2 | -6.9 | 7.2 |
| 4232 | Furniture and furnishings | 118 | 4.7 | 2.7 | 1.9 | -9.8 | -8.0 | -1.9 |
| 4233 | Lumber and construction supplies | 228 | 4.8 | 0.8 | 4.0 | -2.6 | 2.7 | -5.2 |
| 4234 | Commercial equipment | 709 | 6.2 | 14.8 | -7.5 | -3.4 | -8.6 | 5.7 |
| 4235 | Metals and minerals | 134 | 4.0 | 0.1 | 4.0 | -11.3 | -7.0 | -4.7 |
| 4236 | Electric goods | 413 | 5.8 | 10.7 | -4.4 | -8.0 | -7.5 | -0.5 |
| 4237 | Hardware and plumbing | 258 | 5.1 | 2.6 | 2.4 | 2.4 | -6.0 | 8.9 |
| 4238 | Machinery and supplies | 729 | 4.5 | 2.8 | 1.6 | -4.1 | -4.9 | 0.9 |
| 4239 | Miscellaneous durable goods | 287 | 4.6 | 3.0 | 1.6 | -6.8 | -3.6 | -3.3 |
| 424 | Nondurable goods | 2123 | 5.0 | 1.7 | 3.3 | 0.4 | 0.6 | -0.2 |
| 4241 | Paper and paper products | 170 | 5.4 | 2.4 | 3.0 | 3.1 | -5.0 | 8.4 |
| 4242 | Druggists' goods | 205 | 10.5 | 5.7 | 4.5 | 11.8 | 11.3 | 0.4 |
| 4243 | Apparel and piece goods | 162 | 3.5 | 1.4 | 2.1 | -6.1 | -5.9 | -0.2 |
| 4244 | Grocery and related products | 708 | 4.7 | 2.6 | 2.1 | 0.2 | 0.6 | -0.4 |
| 4245 | Farm product raw materials | 84 | 1.9 | 0.5 | 1.4 | -8.2 | -0.6 | -7.6 |
| 4246 | Chemicals | 137 | 5.0 | 1.0 | 4.0 | -6.6 | -5.1 | -1.6 |
| 4247 | Petroleum | 120 | 2.7 | -1.1 | 3.9 | 0.1 | -4.3 | 4.6 |
| 4248 | Alcoholic beverages | 130 | 4.1 | 1.7 | 2.4 | 3.0 | 2.1 | 0.9 |
| 4249 | Miscellaneous nondurable goods | 406 | 4.6 | 0.3 | 4.3 | -2.2 | -5.3 | 3.3 |
| 42511 | Business to business electronic markets | 93 | 6.1 | 8.5 | -2.3 | -1.5 | 12.6 | -12.5 |
| 42512 | Wholesale trade agents and brokers | 536 | 6.7 | 5.7 | 0.9 | 16.8 | -3.6 | 21.1 |
|  | Retail Trade |  |  |  |  |  |  |  |
| 44-45 | Retail trade | 16177 | 4.6 | 3.8 | 0.8 | -2.0 | 2.6 | -4.5 |
| 441 | Motor vehicle and parts dealers | 1934 | 5.2 | 3.1 | 2.0 | 3.1 | 1.5 | 1.5 |
| 4411 | Automobile dealers | 1273 | 5.4 | 3.0 | 2.4 | 5.5 | 2.2 | 3.2 |
| 4412 | Other motor vehicle dealers | 141 | 6.4 | 4.8 | 1.5 | 1.9 | 0.8 | 1.1 |
| 4413 | Auto parts, accessories, and tire stores | 519 | 4.0 | 3.5 | 0.5 | -5.0 | -4.1 | -1.0 |
| 442 | Furniture and home furnishings stores | 611 | 4.6 | 4.3 | 0.3 | -2.2 | 0.8 | -2.9 |
| 4421 | Furniture stores | 318 | 4.7 | 4.2 | 0.4 | -0.5 | 1.9 | -2.4 |
| 4422 | Home furnishings stores | 293 | 4.6 | 4.5 | 0.2 | -4.1 | -0.6 | -3.5 |
| 443 | Electronics and appliance stores | 592 | 8.0 | 15.6 | -6.6 | 4.4 | 13.7 | -8.2 |
| 444 | Building material and garden supply stores | 1183 | 4.7 | 4.8 | -0.1 | -3.8 | 4.4 | -7.9 |
| 4441 | Building material and supplies dealers | 1020 | 5.0 | 5.0 | 0.0 | -2.0 | 4.5 | -6.2 |
| 4442 | Lawn and garden equipment and supplies stores | 163 | 2.9 | 3.5 | -0.5 | -15.5 | 3.3 | -18.2 |
| 445 | Food and beverage stores | 3085 | 3.5 | 0.4 | 3.1 | -1.7 | 1.4 | -3.1 |
| 4451 | Grocery stores | 2618 | 3.5 | 0.5 | 3.0 | -1.8 | 1.3 | -3.0 |
| 4452 | Specialty food stores | 308 | 4.0 | -1.7 | 5.8 | -2.3 | 4.1 | -6.1 |
| 4453 | Beer, wine and liquor stores | 158 | 2.8 | 0.2 | 2.6 | 0.7 | 1.9 | -1.2 |
| 446 | Health and personal care stores | 965 | 5.8 | 3.7 | 2.0 | 0.8 | 3.2 | -2.2 |
| 447 | Gasoline stations | 946 | 2.5 | 1.4 | 1.1 | -7.0 | 1.0 | -7.8 |
| 448 | Clothing and clothing accessories stores | 1391 | 3.2 | 4.4 | -1.1 | -8.4 | 1.5 | -9.8 |
| 4481 | Clothing stores | 1001 | 3.6 | 4.8 | -1.2 | -8.6 | 3.0 | -11.3 |
| 4482 | Shoe stores | 193 | 2.1 | 2.6 | -0.6 | -8.9 | 0.5 | -9.4 |
| 4483 | Jewelry, luggage, and leather goods stores | 197 | 3.1 | 4.5 | -1.3 | -7.4 | -4.6 | -2.9 |
| 451 | Sporting goods, hobby, book, and music stores | 740 | 5.0 | 5.7 | -0.7 | -8.3 | 2.6 | -10.6 |
| 4511 | Sporting goods and musical instrument stores | 485 | 4.5 | 6.0 | -1.4 | -7.0 | 5.3 | -11.7 |
| 4512 | Book, periodical, and music stores | 256 | 6.1 | 5.2 | 0.8 | -10.4 | -2.9 | -7.8 |
| 452 | General merchandise stores | 2860 | 4.1 | 5.5 | -1.3 | -3.6 | 6.0 | -9.0 |
| 4521 | Department stores | 1769 | 4.3 | 3.6 | 0.7 | -5.3 | -0.2 | -5.1 |
| 4529 | Other general merchandise stores | 1091 | 3.7 | 8.9 | -4.7 | -0.7 | 14.2 | -13.0 |
| 453 | Miscellaneous store retailers | 1207 | 4.5 | 5.7 | -1.1 | -6.1 | -3.6 | -2.5 |

Table 2. Annual percent change in total compensation, output, and unit labor costs: mining, manufacturing, and service-producing industries, 1987-01 and 2000-01--Continued

| NAICS code | Industry | 2001 <br> Employment <br> (thousands) | Annual percent change, 1987-01 |  |  | Annual percent change 2000-01 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Total } \\ \text { compensation } \end{gathered}$ | Output | $\begin{gathered} \hline \text { Unit labor } \\ \text { costs } \end{gathered}$ | $\begin{gathered} \text { Total } \\ \text { compensation } \\ \hline \end{gathered}$ | Output | $\begin{gathered} \hline \text { Unit labor } \\ \text { costs } \end{gathered}$ |
| 4531 | Florists | 155 | 3.4 | 2.7 | 0.7 | 2.9 | 5.8 | -2.7 |
| 4532 | Office supplies, stationery and gift stores | 556 | 4.9 | 8.1 | -3.0 | -11.8 | 4.6 | -15.7 |
| 4533 | Used merchandise stores | 130 | 6.9 | 7.0 | -0.1 | -7.0 | -8.1 | 1.2 |
| 4539 | Other miscellaneous store retailers | 366 | 3.8 | 4.0 | -0.3 | -0.7 | -11.6 | 12.4 |
| 454 | Nonstore retailers | 664 | 6.0 | 9.4 | -3.1 | -2.2 | 2.7 | -4.7 |
| 4541 | Electronic shopping and mail-order houses | 263 | 11.2 | 17.1 | -5.0 | 0.4 | 7.2 | -6.4 |
| 4542 | Vending machine operators | 79 | 2.7 | 0.1 | 2.5 | 10.1 | -6.0 | 17.1 |
| 4543 | Direct selling establishments | 321 | 2.9 | 0.5 | 2.4 | -7.8 | -6.2 | -1.7 |
| Transportation and Warehousing |  |  |  |  |  |  |  |  |
| 481 | Air transportation | 576 | 5.4 | 3.2 | 2.2 | 5.4 | -6.6 | 12.8 |
| 482111 | Line-haul railroads | 189 | 0.5 | 2.4 | -1.9 | 1.0 | -0.5 | 1.5 |
| 48412 | General freight trucking, long-distance | 849 | 5.0 | 3.5 | 1.5 | 0.1 | -3.9 | 4.1 |
| 491 | Postal service | 873 | 4.9 | 1.8 | 3.0 | 3.7 | -0.9 | 4.7 |
| Information |  |  |  |  |  |  |  |  |
| 5111 | Newspaper, book, and directory publishers | 752 | 4.7 | 0.4 | 4.3 | -1.4 | -5.5 | 4.4 |
| 5112 | Software publishers | 269 | 19.4 | 28.1 | -6.8 | -7.1 | 2.3 | -9.2 |
| 51213 | Motion picture and video exhibition | 133 | 3.8 | 3.0 | 0.9 | -3.3 | 0.6 | -3.8 |
| 5151 | Radio and television broadcasting | 249 | 5.0 | 0.7 | 4.3 | -0.7 | -8.6 | 8.5 |
| 5152 | Cable and other subscription programming | 96 | 11.9 | 4.2 | 7.3 | 26.4 | 5.0 | 20.4 |
| 5171 | Wired telecommunications carriers | 732 | 4.4 | 6.8 | -2.2 | -4.1 | 2.1 | -6.1 |
| 5172 | Wireless telecommunications carriers | 201 | 22.0 | 24.6 | -2.2 | 2.0 | 34.5 | -24.2 |
| Finance and Insurance |  |  |  |  |  |  |  |  |
| 52211 | Commercial banking | 1258 | 5.3 | 2.0 | 3.2 | 4.6 | -0.4 | 5.0 |
| Real Estate and Rental Leasing |  |  |  |  |  |  |  |  |
| 532111 | Passenger car rental | 136 | 7.1 | 4.6 | 2.4 | -3.7 | -1.1 | -2.6 |
| 53212 | Truck, trailer and RV rental and leasing | 61 | 4.4 | 3.5 | 0.8 | -3.7 | -4.6 | 1.0 |
| Professional and Technical Services |  |  |  |  |  |  |  |  |
| 54181 | Advertising agencies | 217 | 6.0 | 4.1 | 1.8 | -4.6 | -6.2 | 1.6 |
| Accommodation and Food Services |  |  |  |  |  |  |  |  |
| 7211 | Traveler accommodations | 1856 | 6.0 | 1.0 | 5.0 | -2.4 | -8.3 | 6.4 |
| 722 | Food services and drinking places | 8560 | 5.6 | 2.3 | 3.2 | 0.0 | 1.0 | -1.0 |
| 7221 | Full-service restaurants | 4028 | 6.2 | 2.4 | 3.7 | 8.4 | 0.7 | 7.6 |
| 7222 | Limited-service eating places | 3614 | 4.7 | 2.6 | 2.0 | -10.9 | 2.4 | -13.0 |
| 7223 | Special food services | 513 | 6.9 | 2.4 | 4.3 | 18.9 | -2.2 | 21.6 |
| 7224 | Drinking places, alcoholic beverages | 406 | 4.9 | -0.9 | 5.8 | -9.3 | -2.2 | -7.3 |
|  | Other Services |  |  |  |  |  |  |  |
| 8111 | Automotive repair and maintenance | 1134 | 5.4 | 3.4 | 2.0 | 2.9 | 1.3 | 1.5 |
| 81211 | Hair, nail and skin care services | 789 | 5.0 | 2.7 | 2.3 | -1.2 | -0.3 | -0.9 |
| 81221 | Funeral homes and funeral services | 105 | 5.4 | 0.8 | 4.5 | 4.3 | 2.1 | 2.2 |
| 8123 | Drycleaning and laundry services | 422 | 3.5 | 1.5 | 1.9 | -5.3 | -1.4 | -4.0 |
| 81292 | Photofinishing | 105 | 3.0 | -0.9 | 3.9 | -3.9 | -3.8 | 0.0 |

