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PRODUCTIVITY AND COSTS BY INDUSTRY
MANUFACTURING AND MINING INDUSTRIES – 2022

Labor productivity declines were widespread among manufacturing industries in 2022, with decreases in 66 of the 86 four-digit NAICS manufacturing industries, the U.S. Bureau of Labor Statistics reported today. Of the 51 industries in durable manufacturing, 37 had productivity decreases in 2022 led by a decline of 11.7 percent in the motor vehicle industry. Nondurable manufacturing also had widespread declines in 2022 with productivity falling in 29 of 35 industries, led by a 16.9-percent decline in the cut and sew apparel industry. Productivity fell in 3 of the 5 mining industries in 2022 with the greatest decrease occurring in the coal mining industry (-12.2 percent). (See chart 1.)

Increases in hours worked were widespread among manufacturing and mining industries in 2022. Hours worked rose in 79 of the 91 industries in 2022. Forty-one industries increased both output and hours worked in 2022. Within this set of industries, just over a third had rising labor productivity.

Chart 1. Manufacturing and mining industries with the largest change in productivity, 2022 (Four-digit NAICS industries)

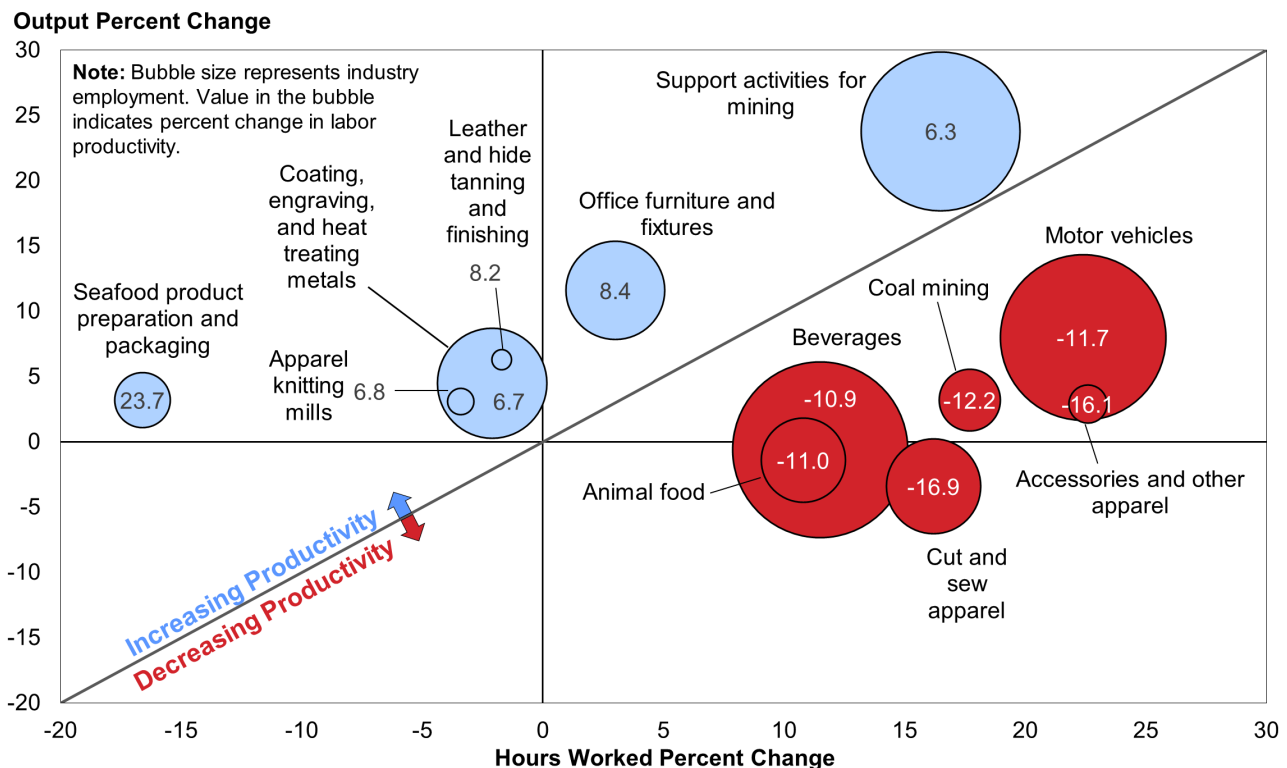


Chart 1 shows the changes in output and hours worked for industries with the largest changes in productivity. In four of the six industries with the largest gains in productivity, hours worked fell while output increased. This occurred in seafood product preparation and packaging which had the highest productivity growth (+23.7 percent). Three of the six industries with the greatest productivity declines had growth of output while all six industries recorded growth in hours worked greater than 10.0 percent.

Labor Productivity Trends in Three-Digit NAICS Industries, 2022

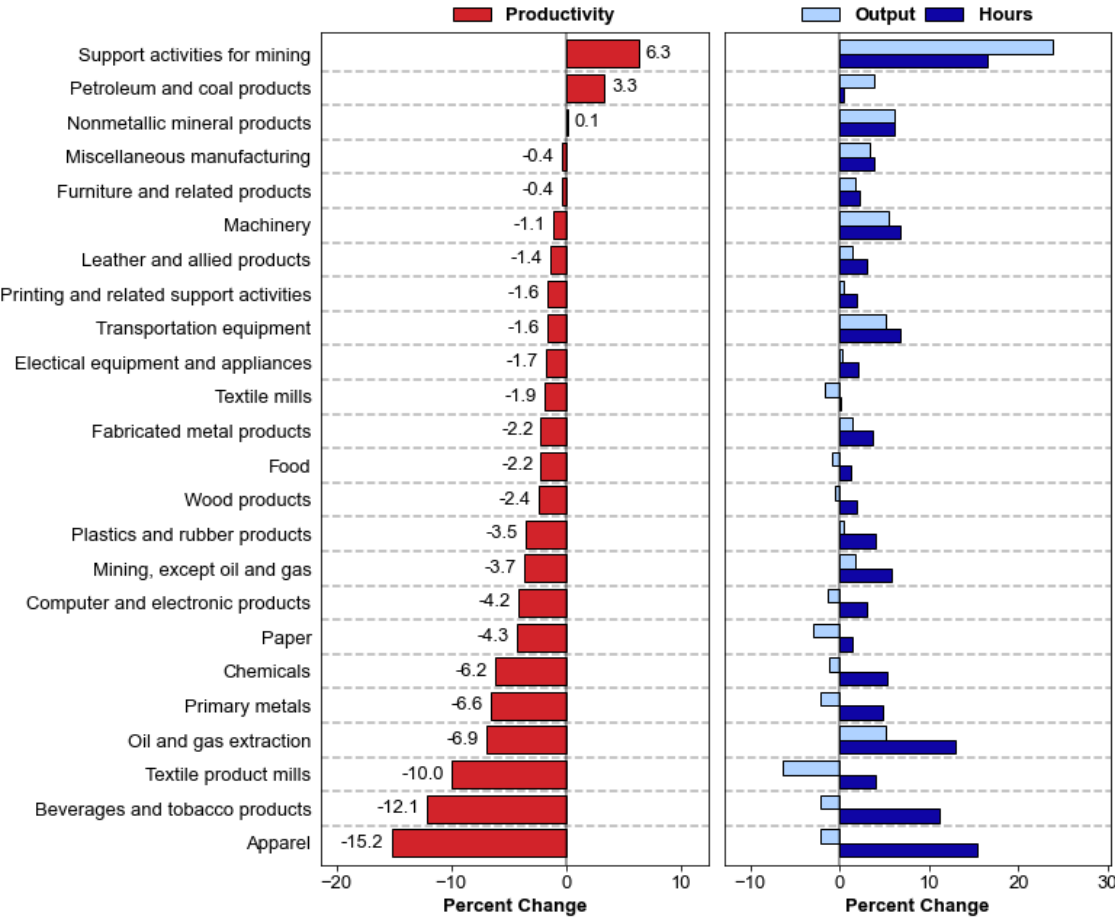
Manufacturing

- Labor productivity decreased in 19 of the 21 three-digit NAICS manufacturing industries in 2022. All 21 industries had growth in hours worked. (See chart 2.)
- Output increased in 11 industries. Four industries had increases of over 3.0 percent in both output and hours worked.
- The petroleum and coal products industry had the largest productivity gain (+3.3 percent).
- Apparel had the largest productivity decline (-15.2 percent).

Mining

- Labor productivity declined in 2 of the 3 three-digit NAICS mining industries in 2022.
- The productivity gain of 6.3 percent in support activities for mining was caused by output increasing 23.8 percent while hours worked rose 16.5 percent.
- Increases in hours worked outpaced output growth in both oil and gas extraction and mining, except oil and gas.

Chart 2. Productivity growth in three-digit NAICS manufacturing and mining industries, 2022



Trends in Unit Labor Costs in 2022

Unit labor costs reflect the total labor costs required to produce a unit of output. Unit labor costs increase when hourly compensation growth exceeds productivity growth.

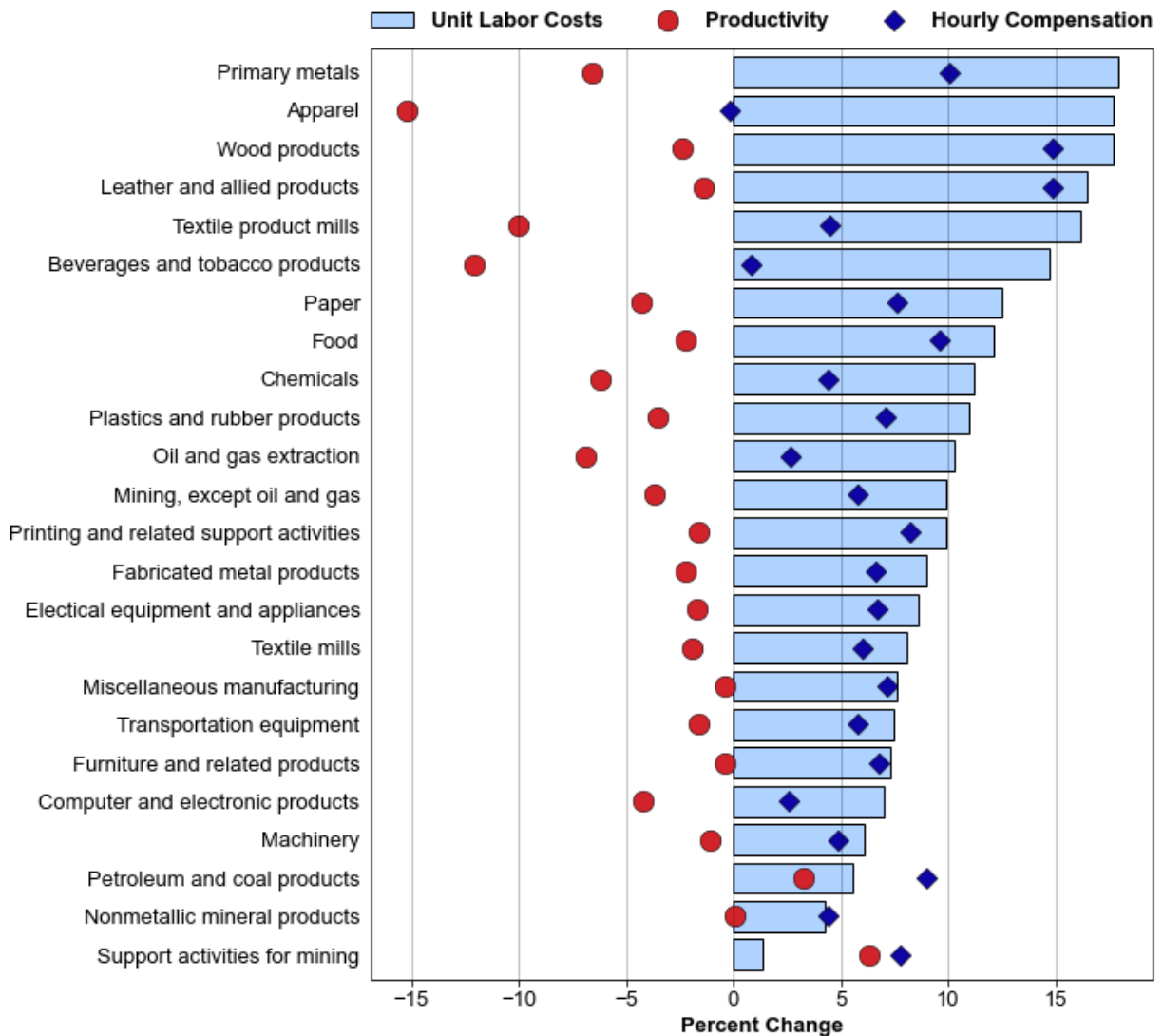
Manufacturing

- In manufacturing, unit labor costs increased in all 21 three-digit NAICS industries in 2022. (See chart 3.) Ten industries had growth of unit labor costs greater than 10.0 percent, and each of these industries had declining labor productivity.
- Unit labor costs increased in 82 out of 86 four-digit NAICS manufacturing industries. Nearly every manufacturing industry recorded growth in labor compensation in 2022, with the only decline occurring in audio and video equipment. (See table 1.)

Mining

- Unit labor costs increased in all 3 three-digit NAICS mining industries. The greatest growth in unit labor costs occurred in oil and gas extraction (+10.3 percent), which also had the largest drop in labor productivity in 2022 (-6.9 percent).

Chart 3. Unit labor costs, productivity, and hourly compensation in three-digit NAICS manufacturing and mining industries, 2022



2019 to 2022 Trends

Productivity increased in half of the NAICS four-digit manufacturing industries from 2019 to 2022. Over this period, four of the five NAICS four-digit mining industries experienced productivity growth. Note that the percent changes referring to periods of more than one year in this section and the following section are compound annual growth rates. (See table 3.)

Manufacturing

- The two industries with the greatest gains in productivity from 2019 to 2022 were audio and video equipment (+12.4 percent per year) and metalworking machinery (+9.6 percent per year). The largest productivity decline occurred in the iron and steel mills and ferroalloys industry (-7.7 percent).
- Output increased in just under half of the NAICS four-digit manufacturing industries from 2019 to 2022. Audio and video equipment manufacturing was the industry with the greatest output growth (+8.7 percent per year) while the largest decline occurred in the iron and steel mills and ferroalloys industry (-10.1 percent).
- Hours worked fell in 51 out of 86 NAICS four-digit manufacturing industries from 2019 to 2022. Apparel knitting mills recorded the largest drop in hours worked (-9.9 percent per year). However, three industries had growth in hours worked greater than 5.0 percent over this period: other transportation equipment (+8.2 percent), beverages (+7.2 percent), and motor vehicles (+7.0 percent).

Mining

- In 2022, hours worked remained below pre-pandemic levels in all five of the NAICS four-digit mining industries. The largest decline in hours worked occurred in support activities for mining which decreased by 7.9 percent per year from 2019 to 2022.
- Output decreased from 2019 to 2022 in four mining industries. The greatest drop in output occurred in coal mining which fell by 6.6 percent per year. Only nonmetallic mineral mining and quarrying returned to its pre-pandemic level of output with an average increase of 0.3 percent from 2019 to 2022.

Long-Term Trends in Labor Productivity and Unit Labor Costs

Chart 4 displays the number of four-digit NAICS manufacturing and mining industries with increases in productivity, output, and hours worked for selected time periods through 2022.

Labor Productivity

- Over the entire **1987-2022** period, labor productivity rose in 82 of the 91 manufacturing and mining industries. Output rose in 50 industries while hours worked increased in only 19. (See table 2.) In the 19 industries where hours worked increased, they rose at a slow pace, 0.7 percent per year on average.
- During the **2007-2019** period, productivity increased in 35 industries. Of these industries, only five had simultaneous growth in output as well as hours worked. Oil and gas extraction had the greatest average growth in output over this period (+7.1 percent per year).
- In the most recent **2019-2022** period, productivity increased in 47 industries. Hours worked grew in 33 industries which is more than the other selected time periods. Other

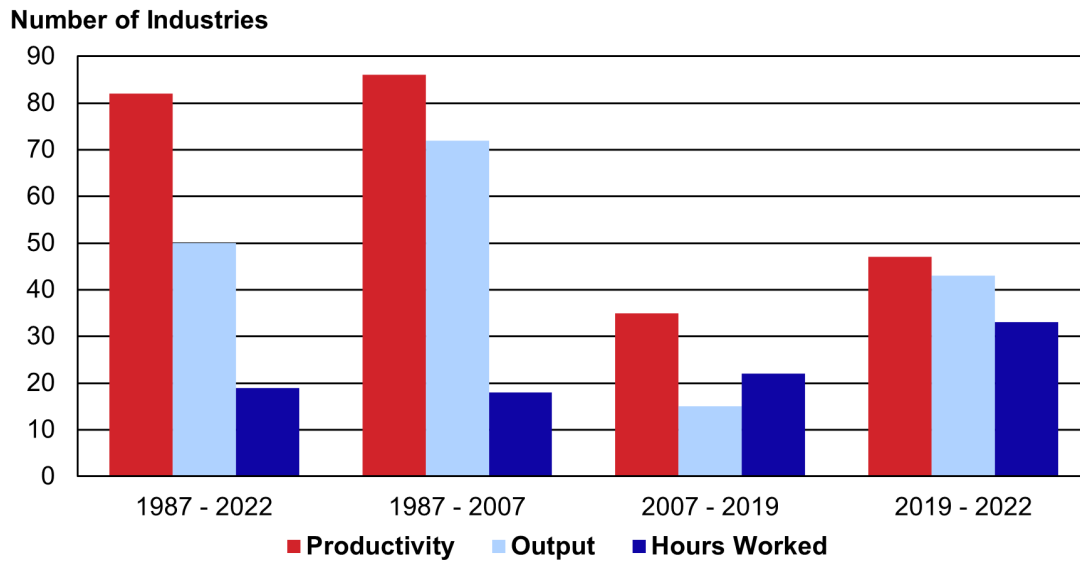
transportation had the highest average growth in hours worked from 2019 to 2022 (+8.2 percent).

Unit Labor Costs

- From **1987 to 2022**, unit labor costs increased in 81 of the 86 four-digit NAICS manufacturing industries and in all five mining industries. (See table 2.)
- In both the **2007-2019** and **2019-2022** time periods, unit labor costs increased in 82 out of 86 manufacturing industries, but in just 3 of the 5 mining industries. From 2007 to 2019, unit labor costs rose the most in the resin, rubber, and artificial fibers industry. From 2019 to 2022, unit labor costs rose the most in the plywood and engineered wood products industry (+15.0 percent per year).

The computer and peripheral equipment industry recorded the largest productivity gain (+12.4 percent per year) as well as the largest unit labor costs decline (-10.7 percent) during the 1987-2022 period. However, between 2019 and 2022, the audio and video equipment industry posted the greatest productivity growth (+12.4 percent) and the largest unit labor costs decline (-15.4 percent).

Chart 4. Manufacturing and mining industries with increases in labor productivity, output, and hours worked (Four-digit NAICS industries)



Additional Information

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 all-employee 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 methodology, see www.bls.gov/opub/mlr/2022/article/improving-estimates-of-hours-worked-for-us-productivity-measurement.htm.

Manufacturing industry output measures for 2021 and earlier years are constructed primarily using data from the economic censuses and annual surveys of the U.S. Census Bureau together with data on price changes primarily from BLS. These measures have been revised due to the release of the 2021 Annual Survey of Manufactures. Manufacturing industry output for 2022 is estimated based on historical relationships between BLS sectoral output, BLS price indexes, and data on industrial production from the Federal Reserve Board.

Mining industry output measures are constructed primarily using data from the U.S. Energy Information Administration and the U.S. Geological Survey's Mineral Commodity Summaries and Mineral Yearbooks. The data from the U.S. Energy Information Administration are usually revised on a monthly schedule while the U.S. Geological Survey's publications are released annually.

Access productivity data at www.bls.gov/productivity/tables/labor-productivity-detailed-industries.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, sectoral output, and labor compensation

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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 is usually derived by deflating nominal sales or values of production using BLS price indexes, but for some industries it is measured by physical quantities of output. Output is the measure of what is produced by an industry, derived by adjusting shipments for changes in inventories and removing intra-industry transactions. Industry output measures are constructed primarily using data from the economic censuses and annual surveys of the Census Bureau, U.S. Department of Commerce, together with data on price changes primarily from BLS. Data from the Bureau of Economic Analysis at the U.S. Department of Commerce is used in part to construct intra-industry transactions. Other data sources include the Energy Information Administration at the U.S. Department of Energy and the U.S. Geological Survey at the U.S. Department of the Interior. Manufacturing industry output for 2022 is estimated based on historical relationships between BLS sectoral output, BLS price indexes, and data on industrial production from the Federal Reserve Board.

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 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 at the U.S. Department of Commerce.

Compound Annual Growth Rate: The compound annual growth rate, referred to in the release tables as "average annual percent change," is the annualized average rate of change in an index series over a period of more than one year. In reality, the annual change of an index series is different from year to year. However, the compound annual growth rate equals the rate that can be applied each year from the start to the end that would give the same final period result *if* every year's growth was exactly the same. It is calculated as $(\text{Ending Value}/\text{Starting Value})^{(1/\text{Number of Years})}-1$.

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

Industry	2017 NAICS code	2022 Employment (thousands)	Percent change, 2021-2022					
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compen- sation	Hourly compen- sation
Mining								
Mining.....	21	574.2	-7.0	13.2	4.6	12.4	18.3	5.3
Oil and gas extraction.....	211	119.3	-6.9	10.3	5.1	12.9	15.9	2.7
Oil and gas extraction.....	2111	119.3	-6.9	10.3	5.1	12.9	15.9	2.7
Mining, except oil and gas.....	212	184.6	-3.7	9.9	1.8	5.8	11.9	5.8
Coal mining.....	2121	40.7	-12.2	14.8	3.2	17.7	18.5	0.7
Metal ore mining.....	2122	43.4	-6.0	8.1	-0.8	5.5	7.2	1.6
Nonmetallic mineral mining and quarrying.....	2123	100.5	1.7	8.3	3.1	1.3	11.6	10.2
Support activities for mining.....	213	270.3	6.3	1.4	23.8	16.5	25.5	7.8
Support activities for mining.....	2131	270.3	6.3	1.4	23.8	16.5	25.5	7.8
Nondurable Manufacturing								
Food.....	311	1,748.5	-2.2	12.1	-0.9	1.3	11.1	9.6
Animal food.....	3111	76.8	-11.0	15.3	-1.4	10.8	13.7	2.6
Grain and oilseed milling.....	3112	63.7	-5.8	12.5	-3.0	3.0	9.1	6.0
Sugar and confectionery products.....	3113	84.9	-7.5	12.3	-1.1	7.0	11.1	3.9
Fruit and vegetable preserving and specialty.....	3114	179.9	-0.1	9.3	-2.0	-1.8	7.1	9.2
Dairy products.....	3115	160.8	-3.2	11.5	-2.3	1.0	9.0	7.9
Animal slaughtering and processing.....	3116	533.3	3.6	11.3	0.7	-2.8	12.0	15.3
Seafood product preparation and packaging.....	3117	33.2	23.7	6.4	3.2	-16.6	9.8	31.6
Bakeries and tortilla products.....	3118	360.1	-4.9	15.1	-1.7	3.4	13.2	9.5
Other food products.....	3119	255.8	-8.0	11.8	-0.3	8.4	11.5	2.9
Beverages and tobacco products.....	312	340.4	-12.1	14.7	-2.2	11.2	12.1	0.8
Beverages.....	3121	329.3	-10.9	13.0	-0.6	11.5	12.3	0.7
Tobacco.....	3122	11.1	-7.6	15.1	-5.9	1.8	8.3	6.4
Textile mills.....	313	101.9	-1.9	8.1	-1.7	0.2	6.2	6.0
Fiber, yarn, and thread mills.....	3131	26.7	-5.2	11.1	-5.8	-0.6	4.7	5.3
Fabric mills.....	3132	49.4	-4.8	9.0	-2.8	2.0	6.0	3.8
Textile and fabric finishing mills.....	3133	25.8	4.8	5.3	2.5	-2.2	8.0	10.4
Textile product mills.....	314	119.5	-10.0	16.2	-6.4	4.0	8.7	4.5
Textile furnishings mills.....	3141	49.0	-10.8	17.0	-9.5	1.5	5.9	4.3
Other textile product mills.....	3149	70.5	-8.2	14.2	-2.7	6.0	11.1	4.8
Apparel.....	315	120.6	-15.2	17.7	-2.2	15.4	15.2	-0.2
Apparel knitting mills.....	3151	7.7	6.8	7.2	3.1	-3.4	10.6	14.5
Cut and sew apparel.....	3152	96.6	-16.9	17.8	-3.4	16.2	13.8	-2.1
Accessories and other apparel.....	3159	16.3	-16.1	24.0	2.9	22.6	27.6	4.0
Leather and allied products.....	316	31.7	-1.4	16.5	1.5	3.0	18.3	14.9
Leather and hide tanning and finishing.....	3161	4.4	8.2	5.2	6.3	-1.7	11.9	13.9
Footwear.....	3162	12.3	-4.5	15.3	0.4	5.1	15.7	10.1
Other leather products.....	3169	15.0	-2.9	23.9	-0.4	2.6	23.4	20.3
Paper.....	322	361.4	-4.3	12.5	-3.0	1.4	9.1	7.6
Pulp, paper, and paperboard mills.....	3221	88.6	-3.6	8.2	-3.3	0.3	4.6	4.3
Converted paper products.....	3222	272.8	-4.5	14.3	-2.8	1.8	11.0	9.1
Printing and related support activities.....	323	402.7	-1.6	9.9	0.4	2.0	10.4	8.2
Printing and related support activities.....	3231	402.7	-1.6	9.9	0.4	2.0	10.4	8.2
Petroleum and coal products.....	324	106.1	3.3	5.6	3.8	0.5	9.6	9.0
Petroleum and coal products.....	3241	106.1	3.3	5.6	3.8	0.5	9.6	9.0
Chemicals.....	325	922.8	-6.2	11.2	-1.1	5.4	9.9	4.4
Basic chemicals.....	3251	152.5	-10.1	17.0	-4.5	6.2	11.7	5.2
Resin, rubber, and artificial fibers.....	3252	97.3	-4.1	14.8	-0.8	3.5	14.0	10.1
Agricultural chemicals.....	3253	36.9	-1.2	14.1	-0.8	0.3	13.1	12.8
Pharmaceuticals and medicines.....	3254	353.5	-2.3	8.3	0.1	2.5	8.4	5.8
Paints, coatings, and adhesives.....	3255	71.0	-7.8	6.1	6.9	15.9	13.4	-2.2

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

Industry	2017 NAICS code	2022 Employment (thousands)	Percent change, 2021-2022					
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compen- sation	Hourly compen- sation
Soaps, cleaning compounds, and toiletries.....	3256	127.7	-7.8	6.4	-1.0	7.4	5.4	-1.9
Other chemical products and preparations.....	3259	83.9	-8.0	10.9	1.0	9.8	12.1	2.1
Plastics and rubber products.....	326	760.5	-3.5	11.0	0.5	4.1	11.5	7.1
Plastics products.....	3261	623.8	-3.8	11.2	0.3	4.3	11.5	6.9
Rubber products.....	3262	136.7	-2.2	10.3	1.2	3.5	11.6	7.9
Durable Manufacturing								
Wood products.....	321	452.2	-2.4	17.7	-0.5	1.9	17.1	14.9
Sawmills and wood preservation.....	3211	100.2	-3.3	14.0	-0.8	2.6	13.1	10.3
Plywood and engineered wood products.....	3212	86.3	-8.3	21.1	-3.2	5.5	17.2	11.1
Other wood products.....	3219	265.7	0.6	17.7	0.9	0.3	18.7	18.3
Nonmetallic mineral products.....	327	434.7	0.1	4.3	6.1	6.1	10.7	4.4
Clay products and refractories.....	3271	43.1	-4.9	1.0	9.7	15.4	10.8	-3.9
Glass and glass products.....	3272	86.3	-3.8	12.9	-2.7	1.1	9.9	8.7
Cement and concrete products.....	3273	205.9	1.3	2.0	8.6	7.2	10.8	3.4
Lime and gypsum products.....	3274	16.3	-8.4	13.7	-0.8	8.3	12.8	4.2
Other nonmetallic mineral products.....	3279	83.1	5.8	1.3	9.5	3.5	10.9	7.1
Primary metals.....	331	367.3	-6.6	17.9	-2.1	4.8	15.3	10.1
Iron and steel mills and ferroalloys.....	3311	83.2	-10.1	24.7	-5.5	5.1	17.8	12.1
Steel products from purchased steel.....	3312	55.6	-9.6	22.3	-6.6	3.3	14.2	10.5
Alumina and aluminum production.....	3313	60.3	-7.1	19.5	-2.4	5.0	16.6	11.1
Other nonferrous metal production.....	3314	59.6	1.6	5.1	8.8	7.1	14.4	6.8
Foundries.....	3315	108.6	-1.8	10.6	2.0	3.9	12.8	8.6
Fabricated metal products.....	332	1,456.7	-2.2	9.0	1.4	3.7	10.5	6.6
Forging and stamping.....	3321	92.7	-3.1	16.0	-4.7	-1.7	10.5	12.5
Cutlery and handtools.....	3322	38.0	-1.9	10.2	-0.8	1.1	9.3	8.0
Architectural and structural metals.....	3323	406.4	-3.3	12.8	-0.4	3.1	12.4	9.1
Boilers, tanks, and shipping containers.....	3324	93.0	-7.5	12.6	-0.1	7.9	12.4	4.2
Hardware.....	3325	25.1	-4.9	13.1	-2.4	2.7	10.4	7.5
Spring and wire products.....	3326	41.3	0.4	7.4	1.2	0.8	8.7	7.8
Machine shops and threaded products.....	3327	348.7	-2.6	6.5	3.7	6.5	10.4	3.7
Coating, engraving, and heat treating metals.....	3328	129.6	6.7	7.0	4.5	-2.1	11.8	14.2
Other fabricated metal products.....	3329	281.9	-0.5	2.7	4.6	5.2	7.4	2.1
Machinery.....	333	1,120.8	-1.1	6.1	5.5	6.8	11.9	4.9
Agriculture, construction, and mining machinery...	3331	218.2	5.7	0.8	17.2	10.9	18.2	6.6
Industrial machinery.....	3332	134.6	-3.9	8.5	4.0	8.2	12.8	4.2
Commercial and service industry machinery.....	3333	89.2	0.3	6.3	3.6	3.3	10.1	6.7
HVAC and commercial refrigeration equipment...	3334	145.1	-9.6	18.0	-6.8	3.1	10.0	6.7
Metalworking machinery.....	3335	162.9	5.4	-0.4	8.0	2.4	7.6	5.0
Turbine and power transmission equipment.....	3336	87.8	-0.8	4.2	3.9	4.8	8.2	3.3
Other general purpose machinery.....	3339	283.0	-6.7	9.9	2.0	9.4	12.2	2.6
Computer and electronic products.....	334	1,095.9	-4.2	7.0	-1.3	3.0	5.7	2.6
Computer and peripheral equipment.....	3341	164.6	-1.6	2.9	1.6	3.3	4.6	1.2
Communications equipment.....	3342	86.2	-1.1	3.0	2.8	3.9	5.9	2.0
Audio and video equipment.....	3343	20.2	-10.7	-16.0	-8.0	3.0	-22.7	-25.0
Semiconductors and electronic components.....	3344	390.5	-6.0	10.1	-2.1	4.2	7.8	3.4
Electronic instruments.....	3345	421.4	-3.4	8.3	-1.7	1.7	6.4	4.7
Magnetic media manufacturing and reproducing...	3346	13.0	-5.3	9.5	-1.7	3.7	7.6	3.7
Electrical equipment and appliances.....	335	406.0	-1.7	8.6	0.3	2.1	8.9	6.7
Electric lighting equipment.....	3351	40.3	2.7	0.0	0.2	-2.4	0.1	2.7
Household appliances.....	3352	70.0	-7.2	14.8	-5.6	1.7	8.3	6.6
Electrical equipment.....	3353	142.5	1.4	7.3	3.0	1.6	10.4	8.7
Other electrical equipment and components.....	3359	153.2	-2.6	8.6	1.4	4.0	10.1	5.8
Transportation equipment.....	336	1,742.3	-1.6	7.5	5.1	6.8	13.0	5.8
Motor vehicles.....	3361	291.8	-11.7	14.2	8.0	22.4	23.3	0.8

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

Industry	2017 NAICS code	2022 Employment (thousands)	Percent change, 2021-2022					
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compen- sation	Hourly compen- sation
Motor vehicle bodies and trailers.....	3362	172.1	-1.7	17.9	-1.7	0.0	15.9	15.8
Motor vehicle parts.....	3363	559.9	3.1	4.2	6.5	3.3	11.0	7.4
Aerospace products and parts.....	3364	502.8	-3.1	8.2	1.9	5.2	10.4	4.9
Railroad rolling stock.....	3365	19.7	-1.2	10.2	1.3	2.6	11.6	8.8
Ship and boat building.....	3366	153.4	-3.3	8.9	0.6	4.1	9.6	5.3
Other transportation equipment.....	3369	42.6	-6.8	8.0	3.8	11.3	12.1	0.7
Furniture and related products.....	337	407.6	-0.4	7.3	1.8	2.3	9.2	6.8
Household and institutional furniture.....	3371	266.7	-2.8	10.1	-0.1	2.8	10.0	7.0
Office furniture and fixtures.....	3372	104.3	8.4	-0.8	11.6	3.0	10.7	7.5
Other furniture related products.....	3379	36.6	-10.9	16.4	-13.6	-3.0	0.6	3.7
Miscellaneous manufacturing.....	339	684.2	-0.4	7.6	3.4	3.8	11.2	7.2
Medical equipment and supplies.....	3391	342.9	1.1	4.3	5.6	4.5	10.1	5.4
Other miscellaneous manufacturing.....	3399	341.3	-2.5	12.4	0.5	3.0	13.0	9.7

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

Industry	2017 NAICS code	2022 Employment (thousands)	Average annual percent change, 1987-2022					
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compen- sation	Hourly compen- sation
Mining								
Mining.....	21	574.2	1.8	1.9	1.5	-0.3	3.4	3.7
Oil and gas extraction.....	211	119.3	3.3	1.6	1.8	-1.4	3.4	4.9
Oil and gas extraction.....	2111	119.3	3.3	1.6	1.8	-1.4	3.4	4.9
Mining, except oil and gas.....	212	184.6	1.1	1.9	-0.2	-1.2	1.8	3.0
Coal mining.....	2121	40.7	1.4	1.2	-1.9	-3.3	-0.7	2.6
Metal ore mining.....	2122	43.4	-0.1	3.7	0.5	0.6	4.1	3.5
Nonmetallic mineral mining and quarrying.....	2123	100.5	1.1	2.4	0.9	-0.3	3.3	3.6
Support activities for mining.....	213	270.3	2.4	1.7	3.6	1.2	5.4	4.2
Support activities for mining.....	2131	270.3	2.4	1.7	3.6	1.2	5.4	4.2
Nondurable Manufacturing								
Food.....	311	1,748.5	0.6	2.3	1.1	0.6	3.4	2.9
Animal food.....	3111	76.8	0.9	2.5	1.5	0.6	4.0	3.4
Grain and oilseed milling.....	3112	63.7	1.5	1.6	0.9	-0.6	2.5	3.1
Sugar and confectionery products.....	3113	84.9	0.7	2.3	0.6	-0.1	2.9	3.0
Fruit and vegetable preserving and specialty.....	3114	179.9	0.7	2.2	0.7	0.0	2.9	2.9
Dairy products.....	3115	160.8	1.1	2.3	1.2	0.1	3.5	3.4
Animal slaughtering and processing.....	3116	533.3	0.5	2.6	1.4	0.9	4.0	3.1
Seafood product preparation and packaging.....	3117	33.2	1.4	2.8	0.0	-1.4	2.9	4.3
Bakeries and tortilla products.....	3118	360.1	0.0	2.2	0.3	0.3	2.5	2.2
Other food products.....	3119	255.8	-0.3	2.5	2.0	2.3	4.6	2.2
Beverages and tobacco products.....	312	340.4	-0.8	3.2	-0.3	0.5	2.9	2.4
Beverages.....	3121	329.3	-0.1	2.5	1.0	1.1	3.6	2.4
Tobacco.....	3122	11.1	2.1	2.2	-2.8	-4.8	-0.7	4.4
Textile mills.....	313	101.9	1.8	0.7	-2.7	-4.4	-2.0	2.6
Fiber, yarn, and thread mills.....	3131	26.7	1.2	0.6	-2.6	-3.7	-2.0	1.7
Fabric mills.....	3132	49.4	2.2	0.8	-2.8	-4.9	-2.1	3.0
Textile and fabric finishing mills.....	3133	25.8	1.0	1.4	-3.2	-4.2	-1.8	2.4
Textile product mills.....	314	119.5	0.3	2.7	-1.8	-2.1	0.8	3.0
Textile furnishings mills.....	3141	49.0	0.1	2.6	-2.5	-2.6	0.0	2.7
Other textile product mills.....	3149	70.5	1.1	2.3	-0.6	-1.6	1.8	3.4
Apparel.....	315	120.6	-0.2	1.9	-6.0	-5.8	-4.2	1.7
Apparel knitting mills.....	3151	7.7	0.4	1.9	-6.9	-7.2	-5.1	2.3
Cut and sew apparel.....	3152	96.6	0.0	1.8	-5.9	-6.0	-4.3	1.8
Accessories and other apparel.....	3159	16.3	-2.9	3.0	-5.4	-2.5	-2.5	0.0
Leather and allied products.....	316	31.7	1.2	2.4	-3.5	-4.7	-1.1	3.7
Leather and hide tanning and finishing.....	3161	4.4	1.5	1.4	-2.6	-4.0	-1.2	2.9
Footwear.....	3162	12.3	1.1	2.7	-4.7	-5.7	-2.1	3.8
Other leather products.....	3169	15.0	0.8	2.8	-2.6	-3.4	0.1	3.6
Paper.....	322	361.4	1.1	1.9	-0.5	-1.6	1.5	3.1
Pulp, paper, and paperboard mills.....	3221	88.6	1.7	1.3	-0.9	-2.6	0.4	3.1
Converted paper products.....	3222	272.8	0.6	2.7	-0.4	-1.0	2.2	3.3
Printing and related support activities.....	323	402.7	1.0	1.5	-0.9	-2.0	0.5	2.6
Printing and related support activities.....	3231	402.7	1.0	1.5	-0.9	-2.0	0.5	2.6
Petroleum and coal products.....	324	106.1	1.9	2.6	0.9	-1.0	3.5	4.5
Petroleum and coal products.....	3241	106.1	1.9	2.6	0.9	-1.0	3.5	4.5
Chemicals.....	325	922.8	0.8	2.5	0.6	-0.2	3.1	3.3
Basic chemicals.....	3251	152.5	1.7	1.8	0.4	-1.3	2.3	3.6
Resin, rubber, and artificial fibers.....	3252	97.3	1.2	2.7	-0.1	-1.3	2.6	3.9
Agricultural chemicals.....	3253	36.9	1.5	2.3	0.6	-0.9	2.9	3.8
Pharmaceuticals and medicines.....	3254	353.5	-0.9	4.0	1.1	1.9	5.1	3.1
Paints, coatings, and adhesives.....	3255	71.0	0.3	2.7	0.1	-0.3	2.8	3.0

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

Industry	2017 NAICS code	2022 Employment (thousands)	Average annual percent change, 1987-2022					
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compen- sation	Hourly compen- sation
Soaps, cleaning compounds, and toiletries.....	3256	127.7	0.6	1.7	0.7	0.1	2.4	2.3
Other chemical products and preparations.....	3259	83.9	1.7	1.5	0.0	-1.6	1.6	3.2
Plastics and rubber products.....	326	760.5	1.2	1.8	1.1	-0.1	2.9	3.0
Plastics products.....	3261	623.8	1.1	1.9	1.3	0.2	3.3	3.0
Rubber products.....	3262	136.7	1.6	1.5	0.3	-1.3	1.8	3.1
Durable Manufacturing								
Wood products.....	321	452.2	0.8	2.7	0.0	-0.8	2.6	3.5
Sawmills and wood preservation.....	3211	100.2	1.5	1.9	0.2	-1.3	2.0	3.4
Plywood and engineered wood products.....	3212	86.3	0.0	2.9	-0.4	-0.4	2.5	2.9
Other wood products.....	3219	265.7	0.9	2.8	0.1	-0.8	3.0	3.8
Nonmetallic mineral products.....	327	434.7	0.8	1.9	0.3	-0.5	2.3	2.8
Clay products and refractories.....	3271	43.1	1.1	1.5	-1.0	-2.1	0.5	2.6
Glass and glass products.....	3272	86.3	1.3	1.4	-0.2	-1.4	1.2	2.7
Cement and concrete products.....	3273	205.9	0.2	2.3	0.5	0.3	2.9	2.5
Lime and gypsum products.....	3274	16.3	0.8	3.2	-0.4	-1.1	2.9	4.0
Other nonmetallic mineral products.....	3279	83.1	1.2	1.8	1.3	0.1	3.1	3.0
Primary metals.....	331	367.3	1.3	1.5	-0.4	-1.7	1.1	2.9
Iron and steel mills and ferroalloys.....	3311	83.2	1.8	0.9	-0.4	-2.1	0.5	2.7
Steel products from purchased steel.....	3312	55.6	0.2	2.5	-0.4	-0.6	2.1	2.7
Alumina and aluminum production.....	3313	60.3	1.2	2.0	-0.4	-1.6	1.5	3.2
Other nonferrous metal production.....	3314	59.6	1.4	2.3	-0.3	-1.7	1.9	3.7
Foundries.....	3315	108.6	1.2	1.6	-0.8	-1.9	0.8	2.7
Fabricated metal products.....	332	1,456.7	0.9	2.0	0.6	-0.3	2.5	2.8
Forging and stamping.....	3321	92.7	1.6	1.3	0.3	-1.3	1.6	2.9
Cutlery and handtools.....	3322	38.0	1.0	1.7	-1.0	-1.9	0.7	2.7
Architectural and structural metals.....	3323	406.4	0.4	2.6	0.7	0.3	3.4	3.1
Boilers, tanks, and shipping containers.....	3324	93.0	0.6	1.9	0.2	-0.4	2.1	2.5
Hardware.....	3325	25.1	0.5	1.8	-1.9	-2.4	-0.1	2.3
Spring and wire products.....	3326	41.3	1.6	1.7	-0.4	-1.9	1.3	3.3
Machine shops and threaded products.....	3327	348.7	1.5	1.5	1.9	0.4	3.4	3.0
Coating, engraving, and heat treating metals.....	3328	129.6	2.1	1.1	1.9	-0.3	2.9	3.2
Other fabricated metal products.....	3329	281.9	0.5	2.0	0.0	-0.5	2.0	2.5
Machinery.....	333	1,120.8	1.4	1.4	0.9	-0.5	2.3	2.9
Agriculture, construction, and mining machinery...	3331	218.2	1.8	1.1	1.9	0.1	3.0	2.9
Industrial machinery.....	3332	134.6	0.9	1.7	0.8	-0.1	2.5	2.6
Commercial and service industry machinery.....	3333	89.2	1.4	1.2	0.0	-1.4	1.1	2.5
HVAC and commercial refrigeration equipment....	3334	145.1	0.5	2.1	0.3	-0.2	2.4	2.7
Metalworking machinery.....	3335	162.9	2.1	0.7	0.6	-1.5	1.3	2.9
Turbine and power transmission equipment.....	3336	87.8	1.2	1.0	0.6	-0.6	1.7	2.2
Other general purpose machinery.....	3339	283.0	1.3	2.1	0.9	-0.3	3.0	3.4
Computer and electronic products.....	334	1,095.9	7.4	-4.2	5.5	-1.8	1.1	2.9
Computer and peripheral equipment.....	3341	164.6	12.4	-10.7	8.9	-3.1	-2.7	0.4
Communications equipment.....	3342	86.2	4.5	-1.1	1.6	-2.8	0.5	3.4
Audio and video equipment.....	3343	20.2	2.5	-0.3	-0.2	-2.7	-0.5	2.2
Semiconductors and electronic components.....	3344	390.5	10.8	-7.1	9.5	-1.2	1.8	3.0
Electronic instruments.....	3345	421.4	2.4	0.8	1.1	-1.3	1.9	3.3
Magnetic media manufacturing and reproducing...	3346	13.0	-0.4	0.1	-3.2	-2.8	-3.1	-0.4
Electrical equipment and appliances.....	335	406.0	1.6	1.7	0.0	-1.5	1.7	3.3
Electric lighting equipment.....	3351	40.3	1.7	1.5	-0.4	-2.0	1.1	3.2
Household appliances.....	3352	70.0	2.4	0.3	0.5	-1.9	0.8	2.7
Electrical equipment.....	3353	142.5	1.5	1.9	-0.2	-1.7	1.6	3.4
Other electrical equipment and components.....	3359	153.2	0.9	2.3	0.0	-0.9	2.3	3.2
Transportation equipment.....	336	1,742.3	1.9	0.6	1.3	-0.6	1.9	2.5
Motor vehicles.....	3361	291.8	1.7	0.8	1.7	0.0	2.4	2.4

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

Industry	2017 NAICS code	2022 Employment (thousands)	Average annual percent change, 1987-2022					
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compen- sation	Hourly compen- sation
Motor vehicle bodies and trailers.....	3362	172.1	1.4	2.6	1.9	0.5	4.6	4.1
Motor vehicle parts.....	3363	559.9	2.4	-0.5	2.1	-0.3	1.6	1.8
Aerospace products and parts.....	3364	502.8	1.0	1.8	-0.4	-1.5	1.4	2.9
Railroad rolling stock.....	3365	19.7	1.9	1.4	1.5	-0.5	2.8	3.3
Ship and boat building.....	3366	153.4	1.6	1.8	1.0	-0.6	2.8	3.4
Other transportation equipment.....	3369	42.6	2.5	0.1	3.4	0.8	3.5	2.7
Furniture and related products.....	337	407.6	1.0	2.0	-0.3	-1.3	1.6	2.9
Household and institutional furniture.....	3371	266.7	0.8	2.1	-0.6	-1.4	1.4	2.9
Office furniture and fixtures.....	3372	104.3	1.1	1.9	-0.1	-1.2	1.8	3.1
Other furniture related products.....	3379	36.6	1.2	1.5	0.3	-0.8	1.9	2.7
Miscellaneous manufacturing.....	339	684.2	1.5	1.7	1.4	-0.2	3.0	3.2
Medical equipment and supplies.....	3391	342.9	2.0	1.4	2.8	0.8	4.2	3.4
Other miscellaneous manufacturing.....	3399	341.3	1.0	1.9	0.1	-0.9	2.0	2.9

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

Industry	2017 NAICS code	2022 Employment (thousands)	Average annual percent change, 2019-2022					
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compen- sation	Hourly compen- sation
Mining								
Mining.....	21	574.2	6.0	-2.2	-0.5	-6.2	-2.7	3.8
Oil and gas extraction.....	211	119.3	6.5	-2.8	-0.2	-6.2	-3.0	3.5
Oil and gas extraction.....	2111	119.3	6.5	-2.8	-0.2	-6.2	-3.0	3.5
Mining, except oil and gas.....	212	184.6	1.2	4.7	-2.0	-3.1	2.6	5.9
Coal mining.....	2121	40.7	0.8	3.4	-6.6	-7.3	-3.4	4.2
Metal ore mining.....	2122	43.4	-0.4	7.1	-1.3	-0.9	5.7	6.7
Nonmetallic mineral mining and quarrying.....	2123	100.5	2.3	4.2	0.3	-1.9	4.5	6.6
Support activities for mining.....	213	270.3	4.2	-1.6	-4.0	-7.9	-5.5	2.6
Support activities for mining.....	2131	270.3	4.2	-1.6	-4.0	-7.9	-5.5	2.6
Nondurable Manufacturing								
Food.....	311	1,748.5	-0.5	7.0	0.5	0.9	7.5	6.5
Animal food.....	3111	76.8	-4.4	8.6	0.5	5.1	9.1	3.8
Grain and oilseed milling.....	3112	63.7	-2.2	5.2	0.2	2.4	5.4	2.9
Sugar and confectionery products.....	3113	84.9	-2.8	5.5	0.9	3.8	6.5	2.6
Fruit and vegetable preserving and specialty.....	3114	179.9	0.2	5.7	0.0	-0.2	5.7	5.9
Dairy products.....	3115	160.8	-0.9	6.0	0.5	1.4	6.5	5.0
Animal slaughtering and processing.....	3116	533.3	1.0	9.9	-0.2	-1.2	9.7	11.0
Seafood product preparation and packaging.....	3117	33.2	2.5	3.9	-1.4	-3.8	2.4	6.5
Bakeries and tortilla products.....	3118	360.1	-0.1	6.0	0.7	0.8	6.7	5.9
Other food products.....	3119	255.8	-2.9	5.9	1.5	4.5	7.5	2.8
Beverages and tobacco products.....	312	340.4	-7.6	9.0	-1.1	7.0	7.8	0.7
Beverages.....	3121	329.3	-6.7	7.9	0.1	7.2	8.0	0.7
Tobacco.....	3122	11.1	-4.5	9.2	-3.7	0.9	5.2	4.3
Textile mills.....	313	101.9	-0.3	5.7	-3.5	-3.2	1.9	5.3
Fiber, yarn, and thread mills.....	3131	26.7	-4.2	8.7	-6.7	-2.5	1.5	4.1
Fabric mills.....	3132	49.4	1.0	4.3	-1.7	-2.7	2.6	5.4
Textile and fabric finishing mills.....	3133	25.8	-0.4	7.0	-5.3	-5.0	1.3	6.6
Textile product mills.....	314	119.5	0.0	6.1	-1.7	-1.7	4.4	6.2
Textile furnishings mills.....	3141	49.0	1.0	5.6	-2.0	-2.9	3.6	6.7
Other textile product mills.....	3149	70.5	-0.6	6.5	-1.4	-0.8	5.0	5.8
Apparel.....	315	120.6	-0.6	5.4	-2.9	-2.3	2.3	4.7
Apparel knitting mills.....	3151	7.7	7.6	2.2	-3.1	-9.9	-0.9	10.0
Cut and sew apparel.....	3152	96.6	-1.1	5.4	-3.7	-2.7	1.5	4.3
Accessories and other apparel.....	3159	16.3	-0.9	6.4	4.4	5.3	11.1	5.5
Leather and allied products.....	316	31.7	2.1	6.0	0.5	-1.6	6.6	8.3
Leather and hide tanning and finishing.....	3161	4.4	5.3	6.3	0.2	-4.9	6.4	11.9
Footwear.....	3162	12.3	-2.3	6.6	-5.1	-2.9	1.1	4.2
Other leather products.....	3169	15.0	5.9	5.3	6.7	0.8	12.4	11.5
Paper.....	322	361.4	-2.0	6.0	-2.0	0.1	3.9	3.9
Pulp, paper, and paperboard mills.....	3221	88.6	-1.8	4.5	-3.8	-2.1	0.5	2.6
Converted paper products.....	3222	272.8	-1.6	6.5	-0.7	0.9	5.7	4.7
Printing and related support activities.....	323	402.7	1.0	4.7	-2.9	-3.8	1.7	5.7
Printing and related support activities.....	3231	402.7	1.0	4.7	-2.9	-3.8	1.7	5.7
Petroleum and coal products.....	324	106.1	1.0	3.9	-1.4	-2.4	2.4	4.9
Petroleum and coal products.....	3241	106.1	1.0	3.9	-1.4	-2.4	2.4	4.9
Chemicals.....	325	922.8	-1.0	5.4	0.5	1.5	5.9	4.3
Basic chemicals.....	3251	152.5	2.2	4.0	0.3	-1.9	4.3	6.2
Resin, rubber, and artificial fibers.....	3252	97.3	-0.8	7.6	-2.4	-1.7	5.0	6.8
Agricultural chemicals.....	3253	36.9	0.7	2.4	2.1	1.4	4.5	3.1
Pharmaceuticals and medicines.....	3254	353.5	-1.1	5.9	2.3	3.5	8.3	4.7
Paints, coatings, and adhesives.....	3255	71.0	0.4	4.5	3.7	3.3	8.3	4.9

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

Industry	2017 NAICS code	2022 Employment (thousands)	Average annual percent change, 2019-2022					
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compen- sation	Hourly compen- sation
Soaps, cleaning compounds, and toiletries.....	3256	127.7	-6.7	5.9	-3.4	3.6	2.3	-1.3
Other chemical products and preparations.....	3259	83.9	0.6	4.6	0.7	0.1	5.3	5.3
Plastics and rubber products.....	326	760.5	-0.9	6.1	-0.1	0.8	6.0	5.2
Plastics products.....	3261	623.8	-0.9	6.2	0.2	1.1	6.4	5.2
Rubber products.....	3262	136.7	-0.7	6.0	-1.2	-0.5	4.7	5.3
Durable Manufacturing								
Wood products.....	321	452.2	0.6	9.4	0.6	-0.1	10.0	10.1
Sawmills and wood preservation.....	3211	100.2	2.2	5.6	0.8	-1.4	6.4	8.0
Plywood and engineered wood products.....	3212	86.3	-7.5	15.0	-4.1	3.7	10.3	6.4
Other wood products.....	3219	265.7	3.9	8.0	3.2	-0.7	11.4	12.2
Nonmetallic mineral products.....	327	434.7	2.2	2.9	2.1	0.0	5.1	5.2
Clay products and refractories.....	3271	43.1	4.9	0.3	3.5	-1.3	3.8	5.2
Glass and glass products.....	3272	86.3	-4.2	6.7	-5.2	-1.1	1.1	2.2
Cement and concrete products.....	3273	205.9	4.0	2.2	4.3	0.3	6.6	6.3
Lime and gypsum products.....	3274	16.3	1.5	4.0	2.1	0.5	6.1	5.6
Other nonmetallic mineral products.....	3279	83.1	2.8	2.7	3.6	0.8	6.5	5.6
Primary metals.....	331	367.3	-4.0	9.1	-6.3	-2.5	2.2	4.7
Iron and steel mills and ferroalloys.....	3311	83.2	-7.7	14.2	-10.1	-2.6	2.7	5.5
Steel products from purchased steel.....	3312	55.6	-4.2	9.7	-6.9	-2.8	2.1	5.1
Alumina and aluminum production.....	3313	60.3	-2.8	7.6	-3.7	-0.9	3.7	4.6
Other nonferrous metal production.....	3314	59.6	3.9	1.2	1.1	-2.7	2.4	5.2
Foundries.....	3315	108.6	-1.6	5.3	-4.5	-3.0	0.5	3.6
Fabricated metal products.....	332	1,456.7	0.5	4.7	-1.2	-1.7	3.5	5.2
Forging and stamping.....	3321	92.7	-4.6	8.1	-6.8	-2.4	0.7	3.2
Cutlery and handtools.....	3322	38.0	-0.6	3.6	0.1	0.7	3.8	3.0
Architectural and structural metals.....	3323	406.4	-0.5	7.3	-1.5	-1.0	5.7	6.8
Boilers, tanks, and shipping containers.....	3324	93.0	-2.3	6.8	-3.2	-0.9	3.4	4.3
Hardware.....	3325	25.1	0.1	7.8	-2.0	-2.1	5.6	7.9
Spring and wire products.....	3326	41.3	2.4	4.9	-1.2	-3.5	3.7	7.5
Machine shops and threaded products.....	3327	348.7	1.5	3.2	-1.0	-2.5	2.2	4.7
Coating, engraving, and heat treating metals.....	3328	129.6	6.2	1.5	1.4	-4.5	3.0	7.9
Other fabricated metal products.....	3329	281.9	1.7	1.9	1.3	-0.3	3.3	3.6
Machinery.....	333	1,120.8	0.7	3.5	0.4	-0.3	3.9	4.1
Agriculture, construction, and mining machinery.....	3331	218.2	4.3	1.2	3.8	-0.5	5.0	5.5
Industrial machinery.....	3332	134.6	-3.7	5.0	0.6	4.4	5.6	1.2
Commercial and service industry machinery.....	3333	89.2	5.4	1.3	3.4	-2.0	4.7	6.8
HVAC and commercial refrigeration equipment.....	3334	145.1	-5.4	9.0	-3.2	2.4	5.5	3.0
Metalworking machinery.....	3335	162.9	9.6	-2.6	4.0	-5.0	1.3	6.7
Turbine and power transmission equipment.....	3336	87.8	0.8	3.4	-2.5	-3.2	0.8	4.2
Other general purpose machinery.....	3339	283.0	-2.8	5.6	-1.8	1.1	3.7	2.6
Computer and electronic products.....	334	1,095.9	0.5	1.9	0.4	-0.2	2.3	2.4
Computer and peripheral equipment.....	3341	164.6	1.5	4.1	-0.5	-2.0	3.6	5.6
Communications equipment.....	3342	86.2	-2.6	0.4	-0.3	2.4	0.1	-2.3
Audio and video equipment.....	3343	20.2	12.4	-15.4	8.7	-3.2	-8.0	-4.9
Semiconductors and electronic components.....	3344	390.5	2.6	-0.1	3.3	0.7	3.2	2.5
Electronic instruments.....	3345	421.4	-0.8	4.1	-1.3	-0.5	2.7	3.3
Magnetic media manufacturing and reproducing.....	3346	13.0	8.4	-4.4	7.9	-0.5	3.1	3.7
Electrical equipment and appliances.....	335	406.0	0.8	5.3	0.4	-0.4	5.7	6.1
Electric lighting equipment.....	3351	40.3	2.9	0.8	-1.2	-4.0	-0.4	3.7
Household appliances.....	3352	70.0	-2.7	6.6	0.7	3.6	7.4	3.7
Electrical equipment.....	3353	142.5	2.0	7.1	0.6	-1.4	7.7	9.2
Other electrical equipment and components.....	3359	153.2	0.3	4.8	0.3	-0.1	5.1	5.2
Transportation equipment.....	336	1,742.3	-1.6	5.3	-1.7	-0.1	3.5	3.6
Motor vehicles.....	3361	291.8	-7.0	8.9	-0.5	7.0	8.3	1.3

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

Industry	2017 NAICS code	2022 Employment (thousands)	Average annual percent change, 2019-2022					
			Labor productivity	Unit labor costs	Output	Hours worked	Labor compen- sation	Hourly compen- sation
Motor vehicle bodies and trailers.....	3362	172.1	1.4	6.1	1.4	0.0	7.6	7.6
Motor vehicle parts.....	3363	559.9	0.9	2.1	-1.0	-1.9	1.0	3.0
Aerospace products and parts.....	3364	502.8	-5.0	10.0	-7.3	-2.5	2.0	4.6
Railroad rolling stock.....	3365	19.7	-2.0	6.4	-7.2	-5.3	-1.3	4.2
Ship and boat building.....	3366	153.4	1.9	3.3	2.9	0.9	6.2	5.2
Other transportation equipment.....	3369	42.6	-5.6	3.7	2.1	8.2	5.9	-2.1
Furniture and related products.....	337	407.6	-1.5	4.4	-1.5	0.0	2.9	2.9
Household and institutional furniture.....	3371	266.7	-0.7	4.4	0.5	1.2	5.0	3.7
Office furniture and fixtures.....	3372	104.3	0.1	3.7	-3.3	-3.4	0.3	3.8
Other furniture related products.....	3379	36.6	-6.4	6.0	-4.3	2.2	1.4	-0.8
Miscellaneous manufacturing.....	339	684.2	2.2	3.8	1.6	-0.6	5.5	6.1
Medical equipment and supplies.....	3391	342.9	2.2	3.5	2.2	0.0	5.8	5.8
Other miscellaneous manufacturing.....	3399	341.3	1.9	4.3	0.7	-1.2	5.0	6.3