Monthly Labor Review

October 2020

Employment growth accelerates in 2018, extending a lengthy expansion

In 2018, total nonfarm payroll employment continued its lengthy expansion, which began in May 2014. The overall pace of employment growth during the year was slightly faster than that in 2017 and 2016. Job growth in 2018 remained strong in goods-producing industries and accelerated in service-providing industries.

According to data from the U.S. Bureau of Labor Statistics Current Employment Statistics (CES) survey, nonfarm payroll employment in the United States grew by 2.7 million in 2018, an average monthly gain of 223,000 jobs.[1] This monthly job growth was faster than that in 2017 (+179,000) and 2016 (+193,000), but slightly slower than that in 2015 (+227,000). (See figure 1.)

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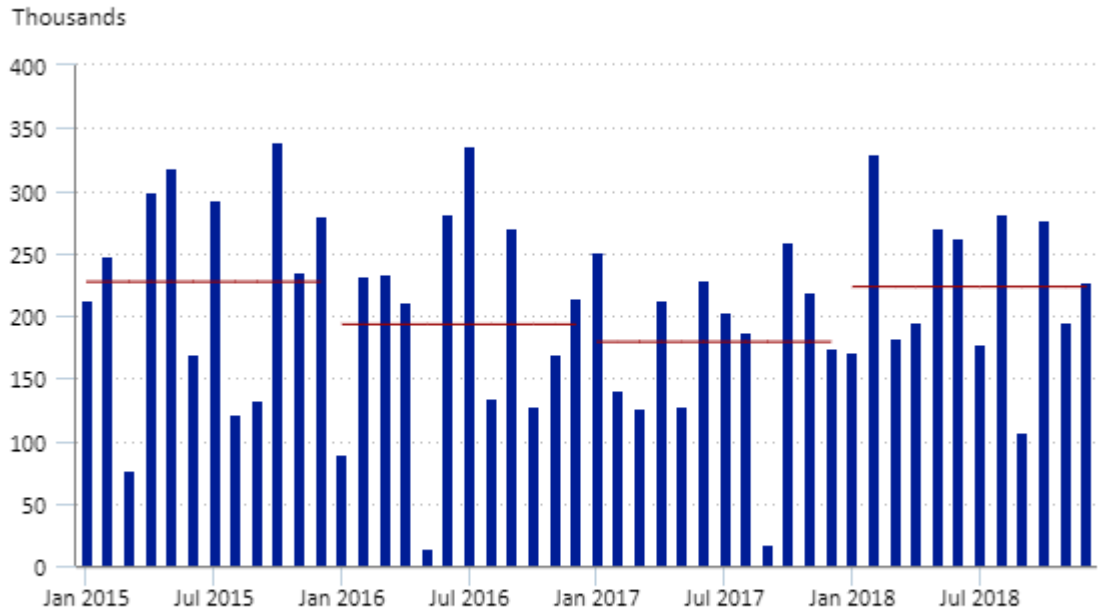
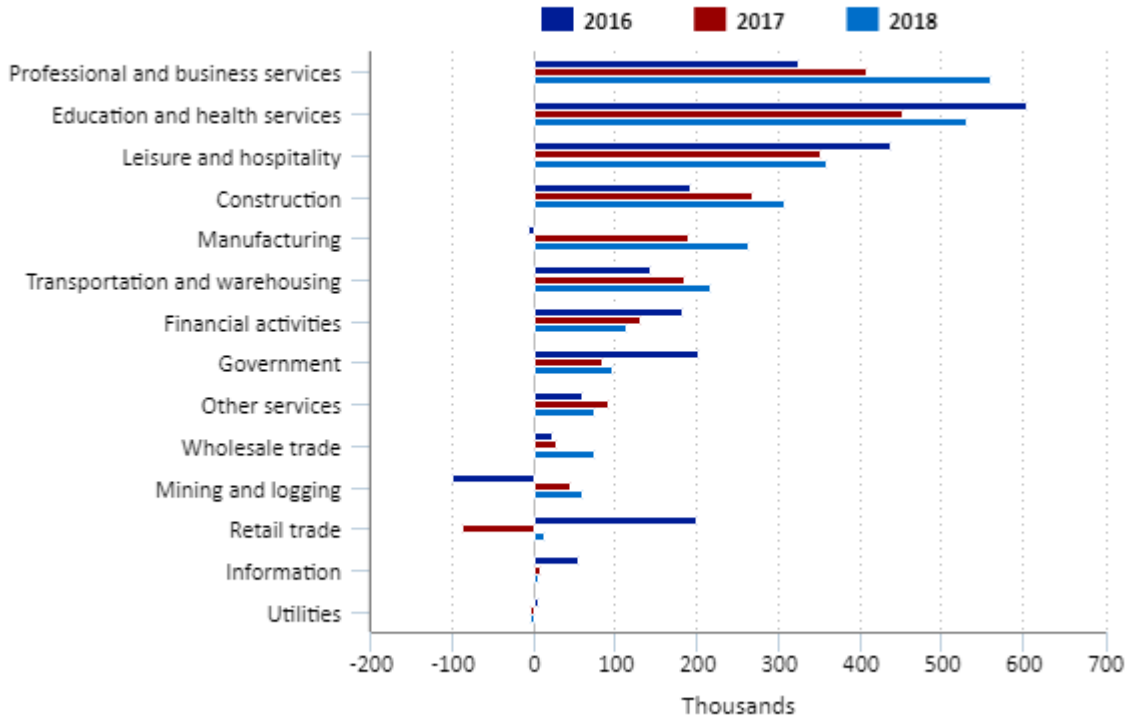
Figure 1. Over-the-month change in total nonfarm employment, seasonally adjusted, January 2015–December 2019



Click legend items to change data display. Hover over chart to view data.
Notes: Horizontal red lines represent averages of over-the-month changes in employment for each calendar year. Data for November and December 2018 are preliminary.
Source: U.S. Bureau of Labor Statistics.

Most major component industries within the total nonfarm sector experienced employment growth in 2018. (See figure 2.) This strength is evident in the 1-month total private and manufacturing diffusion indexes.[2] Over the year, the total private index averaged 64.6 and the manufacturing index averaged 63.9, indicating especially strong, broad-based employment growth. The last time these series performed so well was in 1997, when the total private index averaged 71.9 and the manufacturing index averaged 65.7.

Figure 2. Over-the-year change in total nonfarm employment, by industry, seasonally adjusted, 2016, 2017, and 2018



Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Leading the broad-based employment gains were professional and business services and private education and health services, both of which added more than half a million jobs over the year. Leisure and hospitality, construction, and manufacturing also experienced employment growth. A notable change occurred in the retail trade industry, whose employment dropped by 88,000 in 2017 but was essentially unchanged (on net) in 2018. Overall, most of the major component industries added at least as many jobs in 2018 as in 2017.

Employment gains in 2018 coincided with predominantly strong economic indicators. (See table 1.) However, 2018 had its fair share of headwinds as well, including two major hurricanes,[3] devastating wildfires,[4] a tight labor market,[5] and a tumultuous trade environment.[6]

Table 1. Over-the-year percent change in selected economic indicators, 2016–18

Indicator	Percent change		
	2016	2017	2018
Real gross domestic product[(1)]	1.6	2.2	2.9
Real personal consumption expenditures[(1)]	2.7	2.5	2.6
Real gross private domestic investment[(1)]	-1.3	4.8	6.0
Real disposable personal income[(1)]	1.7	2.6	2.9
Industrial Production Index[(2)]	0.5	2.9	4.1
Trade-weighted U.S. dollar index (broad index)[(1)]	4.6	-0.3	0.7

See footnotes at end of table.

Table 1. Over-the-year percent change in selected economic indicators, 2016–18

Indicator	Percent change		
	2016	2017	2018
Crude oil prices: West Texas Intermediate[(1)]	39.7	11.4	-14.4
New one-family houses sold in the United States[(1)]	12.0	9.3	1.5

Notes:

[(1)] Annual, not seasonally adjusted.

[(2)] Annual, seasonally adjusted.

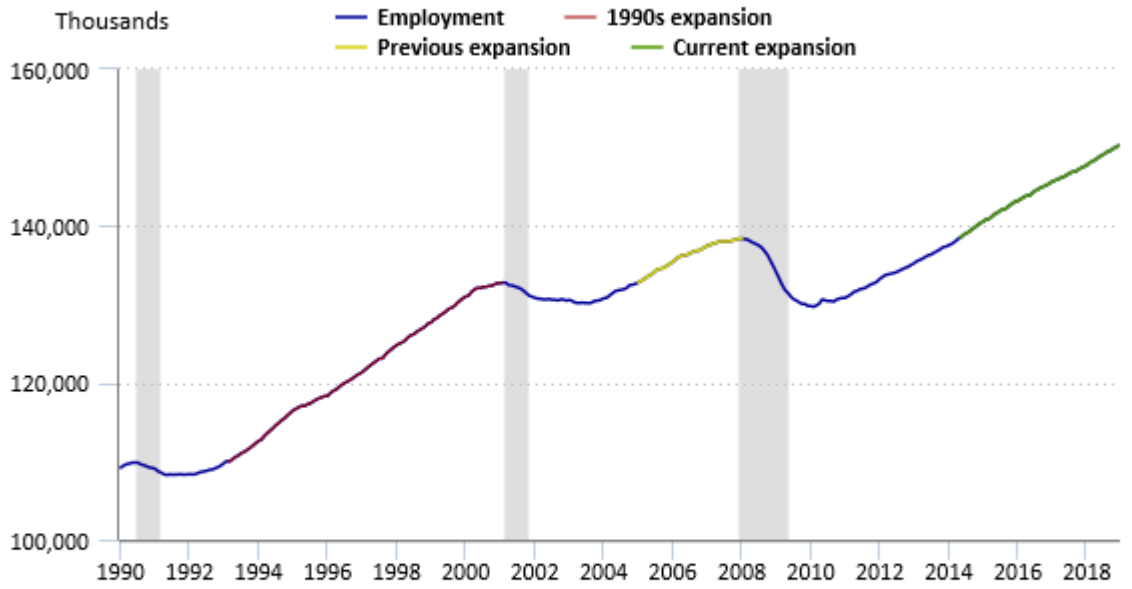
Sources: U.S. Bureau of Economic Analysis, Board of Governors of the Federal Reserve System, U.S. Energy Information Administration, and U.S. Census Bureau.

Year-over-year growth in real gross domestic product accelerated to 2.9 percent in 2018, compared with 2.2 percent in 2017 and 1.6 percent in 2016. Real personal consumption expenditures ticked up by 0.1 percent, to 2.6 percent, indicating some gradual pickup in inflationary pressures. The Industrial Production Index increased to 4.1 percent in 2018, following strong growth of 2.9 percent in 2017. These increases coincided with employment strength in durable goods manufacturing in both years, with the industry adding 215,000 jobs in 2018 and 125,000 jobs in 2017. In 2016, the Industrial Production Index increased by only 0.5 percent, and during the same year, employment in durable goods manufacturing declined by 56,000.

Continued employment expansion in 2018

Since May 2014, the recovery point of the most recent recession, nonfarm payroll employment has expanded for 56 consecutive months, adding over 11.7 million jobs.[7] (See figure 3.) By comparison, the longest employment expansion in CES history began in February 1993, lasted nearly twice as long (96 months), and added almost twice as many jobs (22.7 million).

Figure 3. Total nonfarm employment, seasonally adjusted, January 1990–December 2018



Click legend items to change data display. Hover over chart to view data.
Notes: Shaded areas represent recessions as determined by the National Bureau of Economic Research. Between February 1993 and February 2001, total nonfarm employment expanded by 22.8 million. Between January 2005 and January 2008, total nonfarm employment expanded by 5.4 million. In the current expansionary period, which started in May 2014, total nonfarm employment has expanded by 11.7 million (as of December 2018).
Source: U.S. Bureau of Labor Statistics.

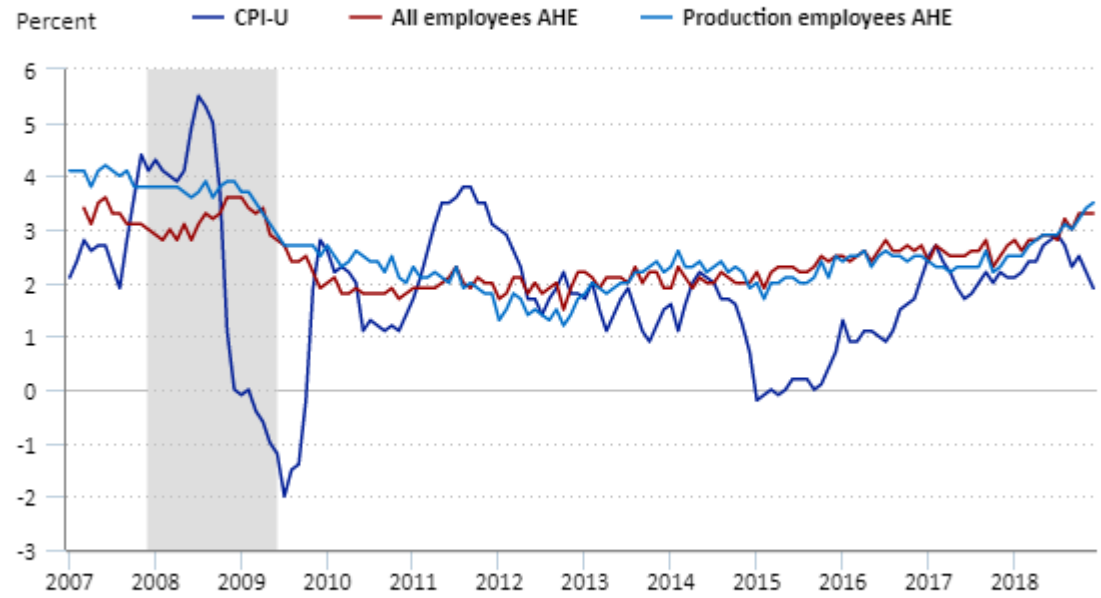
Hours and earnings

Average weekly hours for all employees on private payrolls remained flat in 2018, staying within the range of 34.4–34.5 hours the entire year. Average hourly earnings, however, advanced by $0.89, to $27.53, for all employees on total private payrolls, a gain of 3.3 percent. Not surprisingly, given the unchanged workweek and increasing earnings, average weekly earnings also increased by 3.3 percent over the year.

In 2018, average weekly hours for production and supervisory employees trended similarly to those for all employees, staying within the range of 33.6–33.8 hours. The series began the year at a level of 33.6 hours and, over the next 11 months, ranged from 33.7 to 33.8 hours. Average hourly earnings for production and nonsupervisory employees on total private payrolls increased by $0.78 over the year, to $23.09, a gain of 3.5 percent.

Prices, as measured by the Consumer Price Index for all Urban Consumers (CPI-U), rose 1.9 percent over the year, resulting in 1.4-percent growth in real average weekly earnings. The growth in real average weekly earnings accelerated in the last quarter of 2018, averaging 1.1 percent over the year, compared with 0.7 percent in the preceding 9 months. This is due mainly to steady increases in average hourly earnings and some weakness in prices measured by the CPI-U. (See figure 4.)

Figure 4. Over-the-year percent change in average hourly earnings (AHE), all employees and production employees, and Consumer Price Index for All Urban Consumers (CPI-U), seasonally adjusted, January 2007–December 2018



Click legend items to change data display. Hover over chart to view data.
Note: Shaded area represents a recession as determined by the National Bureau of Economic Research.
Source: U.S. Bureau of Labor Statistics.

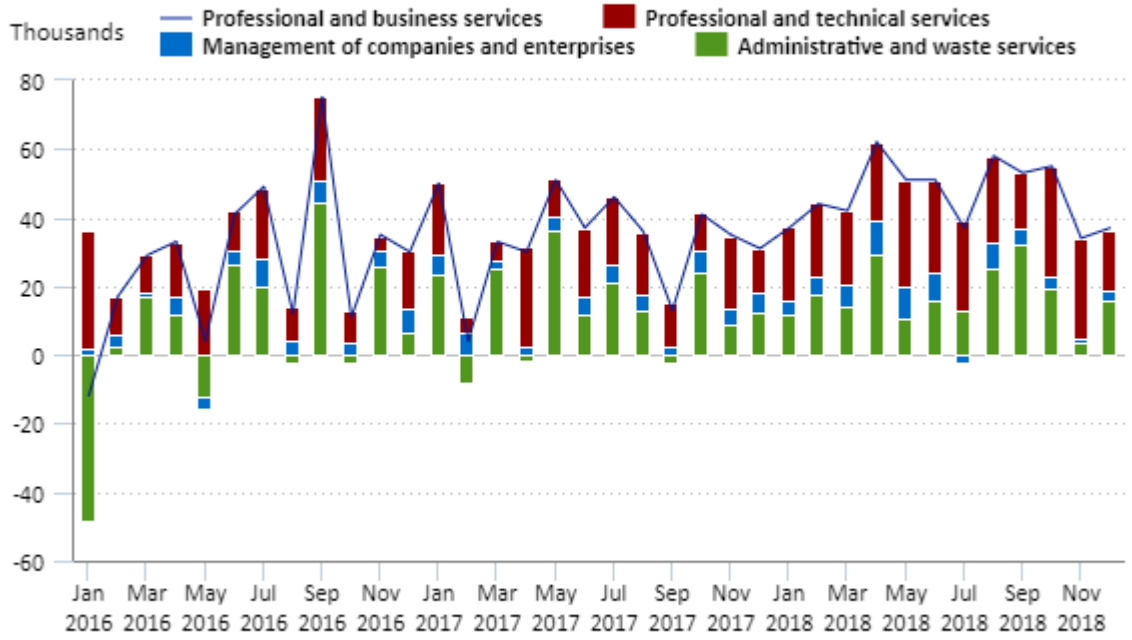
Improving employment growth

This section discusses industries whose employment growth improved in 2018.

Professional and business services

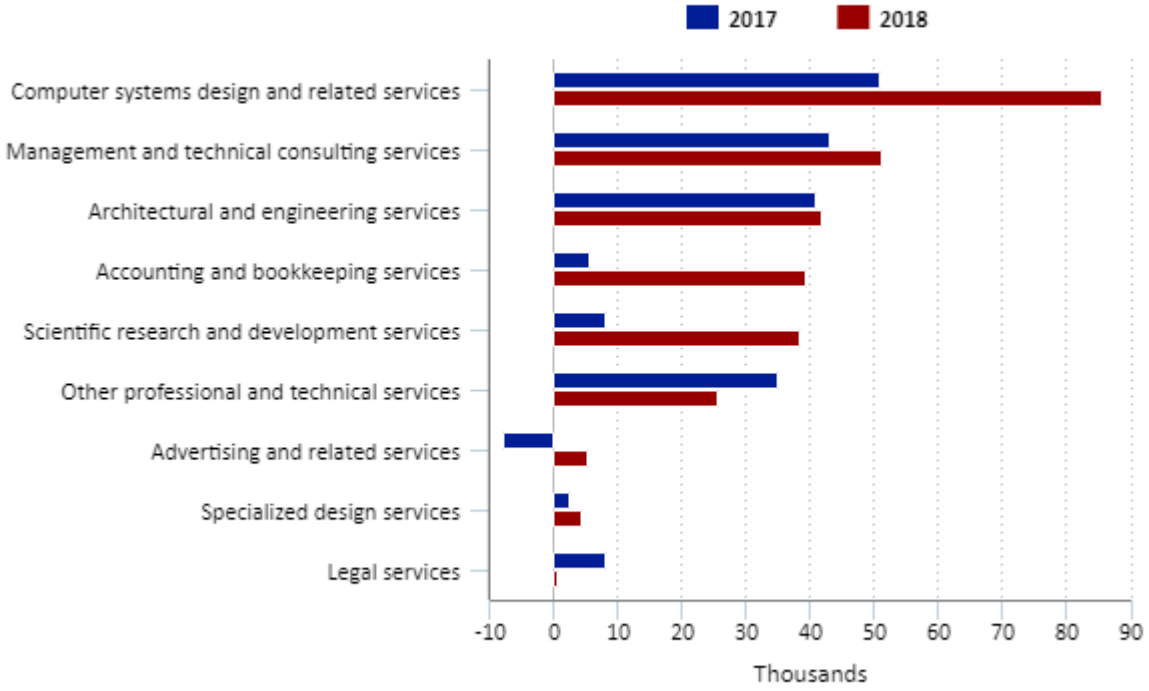
Professional and business services added 561,000 jobs in 2018, the most of any industry sector. This employment growth accounted for 21 percent of total nonfarm employment growth over the year, or about 1 out of every 5 jobs. The acceleration in employment growth (relative to 2017) was concentrated in professional and technical services, specifically computer systems design and related services (+86,000), accounting and bookkeeping services (+39,000), and scientific research and development services (+38,000). Each of these industries added more jobs in 2018 than in 2017. (See figures 5 and 6.) The other major component industries in the sector—management of companies and enterprises and administrative and waste services—experienced employment growth similar to that in 2017.

Figure 5. Over-the-month employment change in professional and business services, by major component industry, seasonally adjusted, January 2016–December 2018



Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Figure 6. Over-the-year employment change in professional and technical services, by major component industry, seasonally adjusted, 2017 and 2018

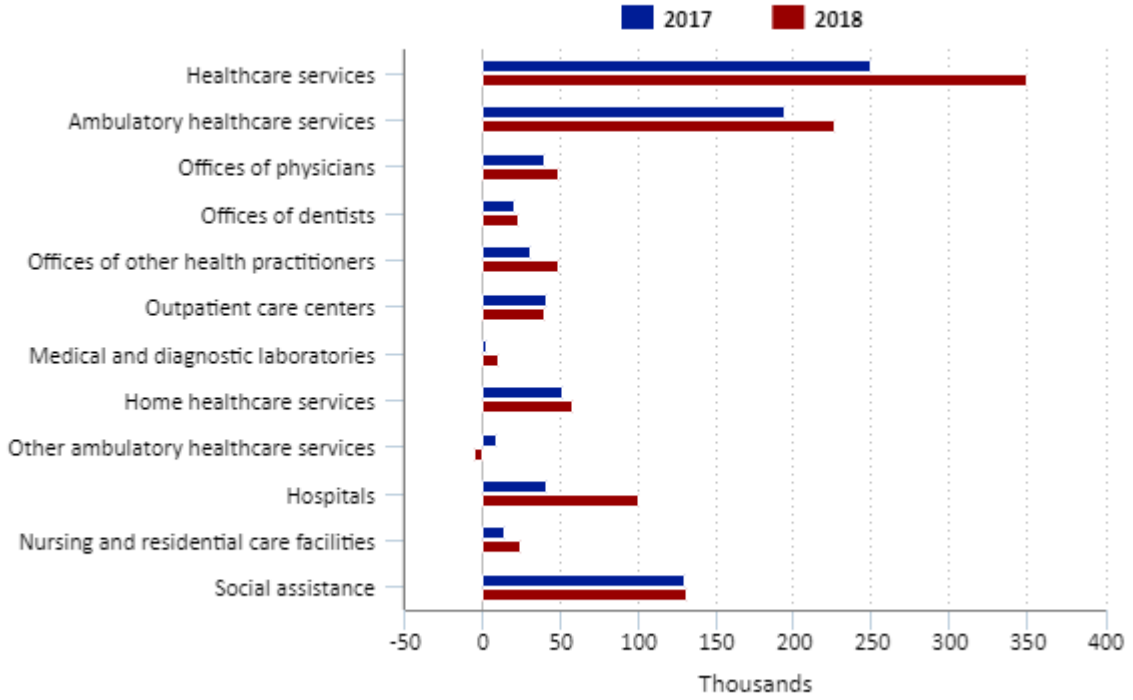


Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Private education and healthcare services

Both education and healthcare services added jobs in 2018. However, education services expanded at a slightly slower rate, adding 50,000 jobs in 2018, compared with 73,000 jobs in 2017. Conversely, healthcare services accelerated quite markedly, adding 350,000 jobs in 2018, compared with 250,000 jobs in the previous year. (See figure 7.)

Figure 7. Over-the-year employment change in selected healthcare and social assistance industries, seasonally adjusted, 2017 and 2018



Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

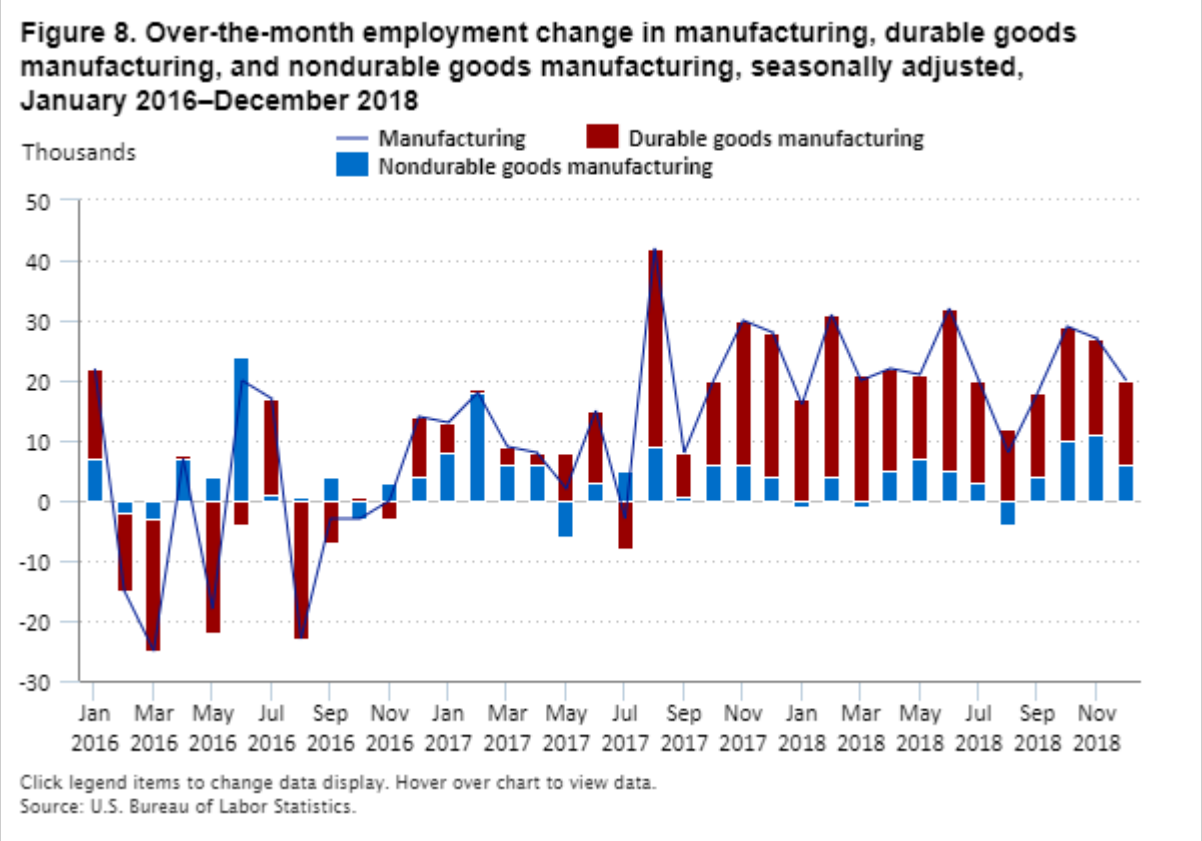
Within healthcare, hospitals (+100,000), home healthcare services (+59,000), offices of physicians (+50,000), and offices of other health practitioners (+49,000) drove employment gains. The remaining component industries showed little net change over the year.

Employment growth in social assistance remained steady, with the industry adding 131,000 jobs in 2018, compared with 130,000 jobs in 2017. Within social assistance, individual family services added 111,000 jobs in 2018. This growth was concentrated in services for the elderly and persons with disabilities, which added 3 out of every 4 jobs in this industry.

Manufacturing

After adding 190,000 jobs in 2017, manufacturing saw its employment growth accelerate in 2018, adding another 264,000 jobs over the year. Employment growth continued to be concentrated in durable goods manufacturing. In 2018, 81 percent of all manufacturing jobs were added in the durable goods component, compared with 66 percent in 2017. The component industries that drove gains in 2017 continued to show strength in 2018. These industries include transportation equipment (+65,000), machinery (+42,000), and fabricated metal products (+40,000).

The number of jobs added in nondurable goods manufacturing in 2018 (+49,000) was similar to that added in 2017 (+65,000). Within nondurable goods in 2018, food manufacturing accounted for about 43 percent of the employment gains (+21,000) and chemicals accounted for 32 percent (+16,000). (See figure 8.)



Employment growth in manufacturing continued in 2018 despite rising trade tensions between the United States and many of its largest trading partners. Trade restrictions and negotiations disproportionately affect manufacturing industries because tariffs are levied on physical goods, not on services.[8] Adding to the whirlwind of trade tensions, the United States–Mexico–Canada Agreement (the new trade agreement designed to replace the 1994 North American Free Trade Agreement) was signed on November 30, 2018, and is waiting for ratification by the three countries.[9] The agreement's new regulations may have far-reaching impacts on the transportation equipment industry and the supply chains that support it.[10]

Transportation and warehousing

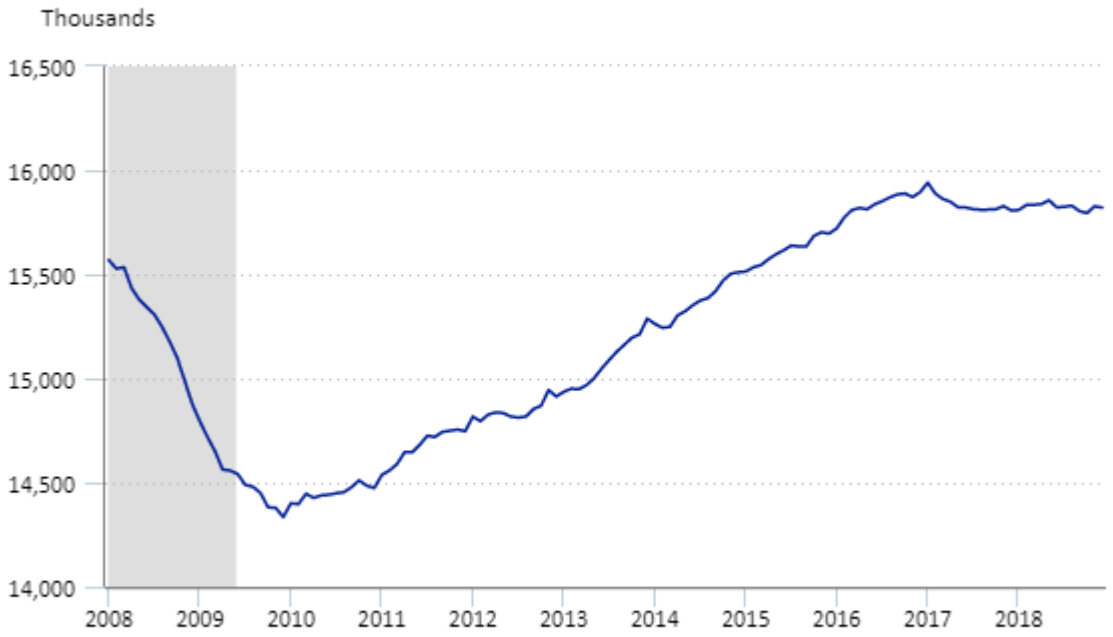
Employment in transportation and warehousing also accelerated in 2018, adding 216,000 jobs over the year, compared with 186,000 jobs in 2017. This acceleration was driven by couriers and messengers (+54,000) and by warehousing and storage (+84,000). Almost 2 out of every 3 jobs created within transportation and warehousing in 2018 can be attributed to these two industries. The rise of e-commerce has increased the demand for package handling and delivery services (couriers and messengers) and for storing goods and fulfilling online orders (warehousing and storage).

Retail trade

A fundamental shift in the retail trade environment continues as brick-and-mortar retail stores struggle and e-commerce takes over a growing percentage of total retail sales. The U.S. Census Bureau, in its latest e-commerce data release for the fourth quarter of 2018, reported that e-commerce sales totaled $132.8 billion, an increase of 12.1 percent from the third quarter of 2017.[11] More importantly, e-commerce sales are now responsible for 9.9

percent of all retail sales. In light of these changing business dynamics, it is unsurprising that retail trade employment experienced erratic over-the-month changes throughout 2018. However, it still managed to remain basically unchanged—a marked improvement over the loss of 88,000 jobs in 2017. (See figure 9.)

Figure 9. Employment in retail trade, seasonally adjusted, January 2008–December 2018



Click legend items to change data display. Hover over chart to view data.
Note: Shaded area represents a recession as determined by the National Bureau of Economic Research.
Source: U.S. Bureau of Labor Statistics.

Motor vehicle and parts dealers led the employment gains in retail trade in 2018, adding 24,000 jobs over the year. This job growth partly offset weakness in sporting goods, hobby, book, and music stores (–62,000); electronics and appliance stores (–17,000); and building material and garden supply stores (+4,000). Employment in food and beverage stores changed little over the year. Employment in general merchandise stores was also flat in 2018 (+9,000), following large losses in 2017 (–74,000).

Steady employment growth

This section discusses industries whose employment growth in 2018 was about the same as that in 2017.

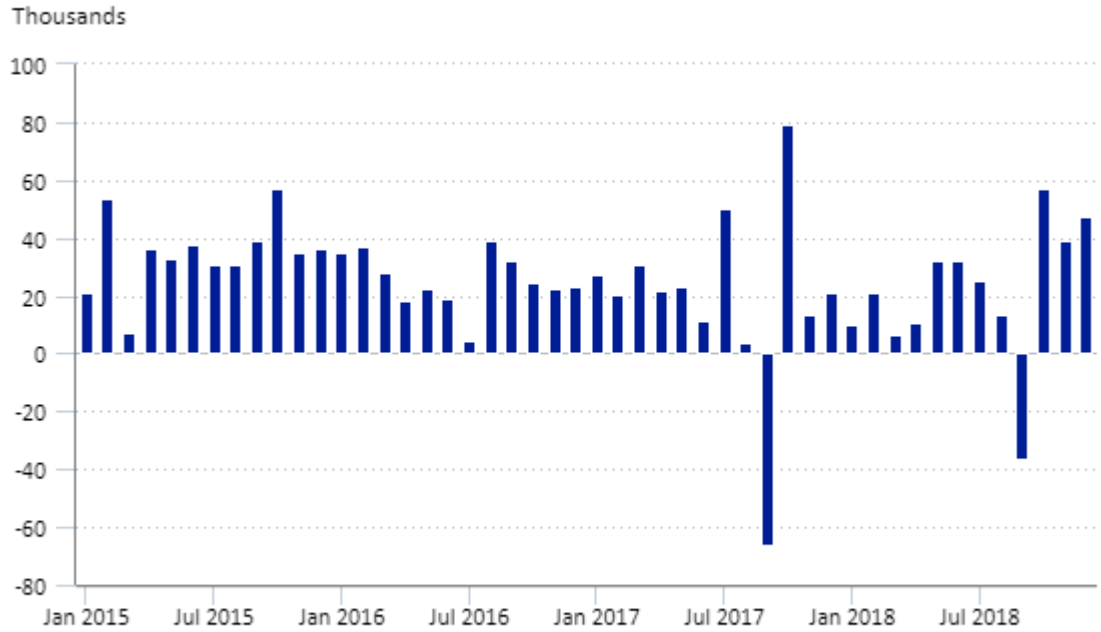
Leisure and hospitality

Leisure and hospitality added 359,000 jobs in 2018, close to the growth experienced in 2017, when the industry added 351,000 jobs. Employment growth within the industry was widespread, and component industries experienced over-the-year job gains similar to those in 2017.

In December 2018, there were just over 16.5 million jobs in the leisure and hospitality industry, and of these, about 73 percent were in food services and drinking places. Because workers in food services and drinking places are typically paid by the hour and on a weekly basis, employment in this industry can be affected by natural disasters. In fact, some of the employment weakness in September 2018 may have reflected the impact of Hurricane

Florence, just as employment changes in August and September 2017 were likely affected by Hurricanes Harvey and Irma.[12] (See figure 10.)

Figure 10. Over-the-month employment change in food services and drinking places, seasonally adjusted, January 2015–December 2018



Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Construction

In 2018, employment in construction expanded by 307,000, fairly consistent with the 268,000 jobs added in 2017. (See table 2.) Within construction, three component industries—nonresidential specialty trade contractors, residential building, and heavy and civil engineering construction—experienced a slight acceleration in employment growth, while nonresidential building and residential specialty trade contractors grew at the same pace as in 2017.

Table 2. Comparison of employment growth in construction industries, 2017 and 2018 (in thousands)

Industry	12-month change		Difference
	2017	2018	
Construction	268	307	39
Residential building	31	51	20
Nonresidential building	34	21	-14
Heavy and civil engineering construction	51	67	16
Residential specialty trade contractors	69	65	-4
Nonresidential specialty trade contractors	83	104	21

Note: Employment estimates are rounded to the nearest thousand.
See footnotes at end of table.

Source: U.S. Bureau of Labor Statistics.

The year 2018 saw extraordinary events that required recovery and rebuilding efforts. Hurricane Florence made landfall on September 14 near Wrightsville Beach, North Carolina.[13] In response to the wide-scale flooding caused by the storm, the Federal Emergency Management Agency (FEMA) issued disaster declarations for 28 counties in North Carolina and 6 counties in South Carolina.[14] Almost a month later, Hurricane Michael made landfall near Mexico Beach, Florida. It was the strongest hurricane to strike the contiguous United States in 26 years,[15] causing FEMA to issue disaster declarations for 12 counties in Florida and 17 counties in Georgia.[16] Following these two hurricanes, in November 2018, California experienced the worst wildfire season in its history, with a total of 7,571 fires burning an area of 1,671,203 acres—the largest amount of burned acreage recorded.[17]

Despite these events, the CES survey cannot directly attribute any changes in construction employment to rebuilding or recovery efforts.

Government

Employment growth in the public sector remained steady in 2018, with the sector adding almost the same number of jobs as it did in 2017. Small employment gains at the federal level were offset by slight weakness in both state and local government employment. Although total government employment grew slightly faster in 2018, it still remained 192,000 jobs short of fully recovering from its most recent downturn. (See figure 11.)

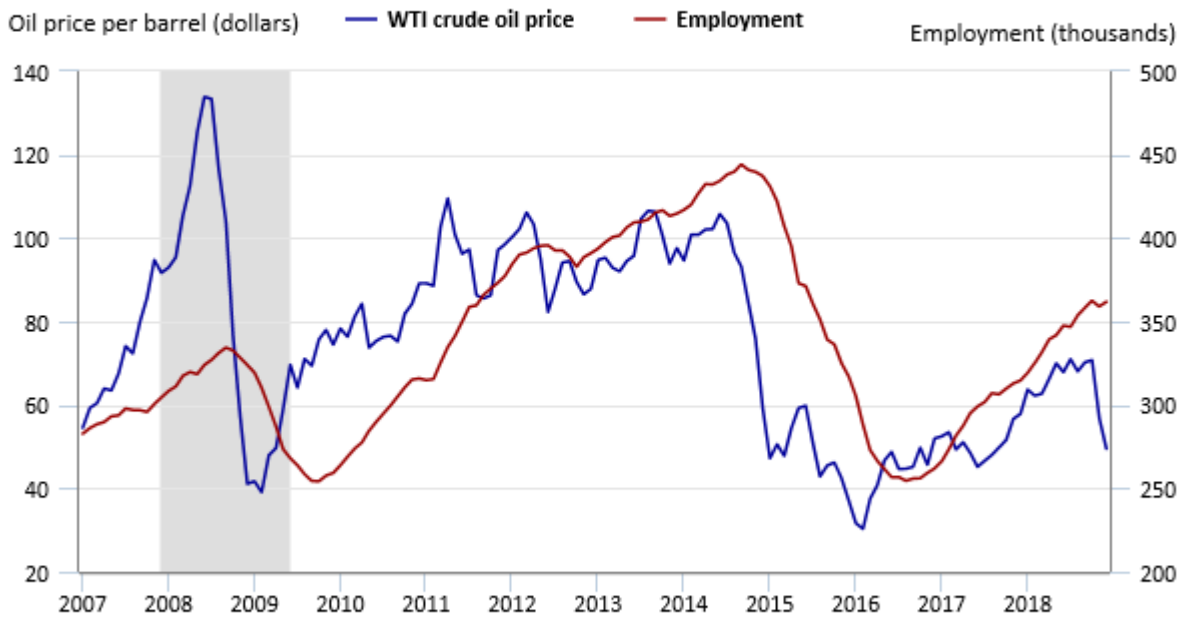
Figure 11. Employment in government, seasonally adjusted, January 2007–December 2018

Click legend items to change data display. Hover over chart to view data.
Note: Shaded area represents a recession as determined by the National Bureau of Economic Research.
Source: U.S. Bureau of Labor Statistics.

Mining and logging

Within mining and logging, the mining industry continued to add jobs in 2018, at a pace similar to that in 2017. This industry is driven primarily by support activities for mining and is very sensitive to changes in the price of oil.[18] (See figure 12.) Since many establishments in the industry operate on very small margins, oil price fluctuations can determine whether the industry adds or loses jobs. This sensitivity results in the price of oil leading employment changes in mining.

Figure 12. Employment in support activities for mining (seasonally adjusted) versus West Texas Intermediate (WTI) crude oil prices (not seasonally adjusted), January 2007–December 2018



Click legend items to change data display. Hover over chart to view data.
Note: Shaded area represents a recession as determined by the National Bureau of Economic Research.
Sources: U.S. Bureau of Labor Statistics and U.S. Energy Information Administration.

The price of oil declined sharply from a high of $76.40 in October 2018 to $44.48 in December 2018, a decrease of roughly 29 percent, but, to date, employment in mining has not peaked.

Information

Employment in the information sector remained essentially unchanged in 2018 (+6,000). Within the sector, telecommunications continued to lose jobs, shedding 34,000 jobs in 2018 after losing 31,000 jobs in 2017. Employment in other information services—a category that includes industries such as news syndicates, libraries and archives, internet publishing and broadcasting, and web search portals—increased by 24,000 in 2018, the same as in 2017. The remaining component industries of the information sector experienced negligible employment changes.

Slowing employment growth

This section discusses industries whose employment growth decelerated in 2018.

Financial activities

The financial activities industry added 115,000 jobs in 2018, slightly down from the 130,000 jobs added in 2017. Within the industry, finance and insurance added 49,000 jobs, less than in the previous year (+68,000). This employment slowdown is partly explained by a widespread weakness within credit intermediation and related activities and a slight deceleration within insurance carriers and related activities. However, job growth in securities, commodity contracts, investments, and funds and trusts (+23,000) was almost twice that recorded in 2017. Real estate and rental and leasing services added 67,000 jobs, in line with growth in 2017.

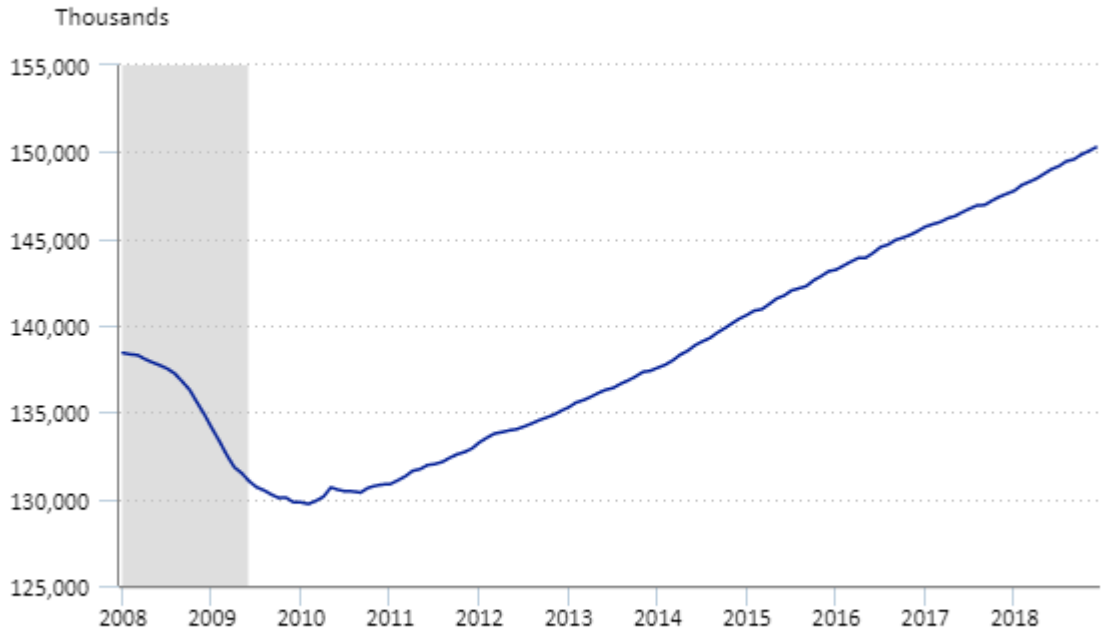
Other services

Employment in other services increased by 75,000 in 2018, after rising by 91,000 in 2017. Among the component industries, only personal and laundry services added jobs over the year (+31,000), accounting for almost half of all job gains within the industry. Employment in repair and maintenance and in membership associations and organizations changed little in 2018.

Summary—another chapter in a long expansion

Total nonfarm employment continued to expand in 2018, advancing faster than it did in 2017 or 2016. (See figure 13.) Over the year, many major industries added more jobs than they did in 2017. The employment strength in goods-producing industries in 2017 largely continued in 2018. Employment in service-providing industries accelerated slightly, leading to the larger over-the-year change in total nonfarm employment. Professional and business services, private education and health services, leisure and hospitality, manufacturing, and construction led the employment gains.

Figure 13. Total nonfarm employment, seasonally adjusted, January 2008–December 2018



Click legend items to change data display. Hover over chart to view data.
Note: Shaded area represents a recession as determined by the National Bureau of Economic Research.
Source: U.S. Bureau of Labor Statistics.

The year 2018 also showcased the resiliency of the U.S. job market. Despite some headwinds from uncertain trade environment, natural disasters, and a historically tight labor market, payrolls continued to march onward.

SUGGESTED CITATION

Tyler Downing, "Employment growth accelerates in 2018, extending a lengthy expansion," *Monthly Labor Review,* U.S. Bureau of Labor Statistics, October 2020, https://doi.org/10.21916/mlr.2019.10.

NOTES

1 The CES program, which provides detailed industry data on employment, hours, and earnings of workers on nonfarm payrolls, is a monthly survey of about 142,000 businesses and government agencies representing approximately 689,000 individual worksites. For more information on the program's concepts and methodology, see "Technical notes for the Current Employment Statistics survey," *Current Employment Statistics—CES (national)* (U.S. Bureau of Labor Statistics), https://www.bls.gov/web/empsit/cestn.htm. To access CES data, see https://www.bls.gov/ces/. The CES data are seasonally adjusted unless otherwise noted. Over-the-year changes are calculated from December of the previous year through December of the reference year.

2 Diffusion indexes measure the percentage of industries with increasing employment plus one-half of the industries with unchanged employment. A diffusion index of 50 indicates an equal balance between industries with increasing and decreasing employment. For more information on how the index is calculated, see Patricia M. Getz and Mark G. Ulmer, "Diffusion indexes: a barometer of the economy," *Monthly Labor Review*, April 1990, https://www.bls.gov/opub/mlr/1990/04/art3full.pdf.

3 "Destructive 2018 Atlantic hurricane season draws to an end" (National Oceanic and Atmospheric Administration, November 28, 2018), https://www.noaa.gov/media-release/destructive-2018-atlantic-hurricane-season-draws-to-end.

4 For more information, see "Incident information" (California Department of Forestry and Fire Protection), http://cdfdata.fire.ca.gov/incidents/incidents_stats?year=2018.

5 See "Beige Book—July 18, 2018" (Board of Governors of the Federal Reserve System), https://www.federalreserve.gov/monetarypolicy/beigebook201807.htm. According to this source, "all districts reported that labor markets were tight and many said that the inability to find workers constrained growth."

6 The World Trade Organization's World Trade Outlook Indicator dropped from 102.3 in the first quarter of 2018 to 98.6 in the fourth quarter of 2018, a decline of 3.6 points. For more information, see "Methodology of World Trade Outlook Indicator (WTOI)" (World Trade Organization), https://www.wto.org/english/news_e/news19_e/wtoi_methodology_18_02_19.pdf. For archived releases, see https://www.wto.org/english/news_e/archive_e/wtoi_arc_e.htm.

7 Recessions are identified by the National Bureau of Economic Research (NBER). According to the NBER, the most recent recession began in December 2007 and ended in June 2009. The previous two recessions were from March 2001 to November 2001 and from July 1990 to March 1991. For a complete list of business cycle dates, see "U.S. business cycle expansions and contractions" (Cambridge, MA: National Bureau of Economic Research), http://www.nber.org/cycles/cyclesmain.html.

8 Alanna Petroff and Julia Horowitz, "What is a tariff? Your trade questions, answered," *CNN Money*, June 8, 2018, https://money.cnn.com/2018/06/08/news/economy/tariff-questions-answered/index.html.

9 The full text of the agreement is available at https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement.

10 According to reporting by National Public Radio's Scott Horsley, "the biggest change this deal makes, really, is to the automotive sector, where it does put higher requirements on North American content, and in particular high-wage content, for vehicles to trade duty-free." See Horsley, "Trump, at G-20 summit, signs trade deal with Canada, Mexico," *NPR*, November 30, 2018, https://www.npr.org/2018/11/30/672161749/trump-at-g-20-summit-signs-trade-deal-with-canada-mexico.

11 For further information, see https://www.census.gov/retail/index.html#ecommerce.

12 *The Employment Situation—September 2018*, USDL-18-1586 (U.S. Department of Labor, October 5, 2018), https://www.bls.gov/news.release/archives/empsit_10052018.pdf.

13 According to the National Weather Service, "Hurricane Florence, a large and slow moving category one hurricane, made landfall during the morning of September 14, 2018. After the eye crossed Wrightsville Beach, NC at 7:15 a.m. the storm spent the next two days producing record-breaking rainfall across eastern North Carolina and a portion of northeastern South Carolina." See "Hurricane Florence: September 14, 2018" (National Oceanic and Atmospheric Administration, September 14, 2018), https://www.weather.gov/ilm/HurricaneFlorence.

14 See "North Carolina Hurricane Florence (DR-4393)" (Federal Emergency Management Agency), https://www.fema.gov/disaster/4393; and "South Carolina Hurricane Florence (DR-4394)" (Federal Emergency Management Agency), https://www.fema.gov/disaster/4394.

15 According to the National Weather Service, "Hurricane Michael made landfall as an unprecedented Category 5 Hurricane in the Florida Panhandle region with maximum sustained wind speeds of 140 knots (161 mph) and a minimum pressure 919 mb." See "Catastrophic Hurricane Michael strikes Florida Panhandle October 10, 2018" (National Oceanic and Atmospheric Administration), https://www.weather.gov/tae/HurricaneMichael2018.

16 See "Florida Hurricane Michael (DR-4399)" (Federal Emergency Management Agency), https://www.fema.gov/disaster/4399; and "Georgia Hurricane Michael (DR-4400)" (Federal Emergency Management Agency), https://www.fema.gov/disaster/4400.

17 "Incident information" (California Department of Forestry and Fire Protection), http://cdfdata.fire.ca.gov/incidents/incidents_stats?year=2018.

18 According to the North American Industry Classification System, support activities for mining includes “establishments primarily providing support services, on a contract or fee basis, required for the mining and quarrying of minerals and for the extraction of oil and gas. Establishments performing exploration (except geophysical surveying and mapping) for minerals, on a contract or fee basis, are included in this subsector.” See https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=213&search=2017%20NAICS%20Search.

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