OKLAHOMA
Economic Indicators
August 2019
# TABLE OF CONTENTS

SPECIAL REPORT: Oklahoma Business Employment Dynamics: 4th Quarter 2018 .......... 2  
U.S. Real Gross Domestic Product and Quarterly Change .................................................. 8  
Oklahoma’s Real Gross Domestic Product and Quarterly Change ............................ 10  
Industry Share of Oklahoma’s Economy ................................................................. 11  
Metropolitan Area Contribution to State Real GDP .................................................. 12  
Leading Index for Oklahoma ...................................................................................... 13  
U.S. and Oklahoma Unemployment Rates ................................................................. 14  
Oklahoma Initial Claims for Unemployment Insurance .................................................. 15  
U.S. and Oklahoma Nonfarm Payroll Employment ................................................... 16  
Oklahoma Employment Change by Industry ............................................................... 17  
U.S. and Oklahoma Manufacturing Employment ....................................................... 18  
Purchasing Managers’ Index (Manufacturing) ............................................................... 19  
Oklahoma Active Rotary Rigs and Cushing, OK WTI Spot Price ................................. 21  
Oklahoma Active Rotary Rigs and Henry Hub Natural Gas Spot Price ........................ 23  
U.S. Total Residential Building Permits ................................................................. 25  
Oklahoma Total Residential Building Permits ............................................................. 26  
U.S. and Oklahoma Real Personal Income ............................................................... 27  
Industry Contribution to Oklahoma Personal Income ............................................. 28  
U.S. Adjusted Retail Sales ......................................................................................... 29  
Oklahoma Total Adjusted Retail Sales ............................................................. 30
SPECIAL REPORT:
OKLAHOMA BUSINESS EMPLOYMENT DYNAMICS: 4th Quarter 2018

Gross Job Gains and Gross Job Losses: 4th Quarter 2018
From September 2018 to December 2018, gross job gains from opening and expanding private-sector establishments in Oklahoma totaled 83,749, while gross job losses from closing and contracting private-sector establishments numbered 77,698, according to the Oklahoma Employment Security Commission, Economic Research and Analysis Division, and the U.S. Bureau of Labor Statistics, (see Chart 1, below and Table 1, page 6). The difference between the number of gross job gains and the number of gross job losses yielded a net employment gain of 6,051 jobs in Oklahoma’s private sector during the 4th quarter of 2018. In the previous quarter, gross job gains exceeded gross job losses by 7,004.

Chart 1

The change in the number of jobs over time is the net result of increases and decreases in employment that occur at all businesses in the economy. Business Employment Dynamics (BED) statistics track these changes in employment at private business establishments from the third month of one quarter to the third month of the next. Gross job gains are the sum of increases in employment from expansions at existing establishments and the addition of new jobs at opening establishments. Gross job losses are the result of contractions in employment at existing establishments and the loss of jobs at closing establishments. The difference between the number of gross job gains and the number of gross job losses is the net change in employment.
The number of gross job gains in Oklahoma decreased by 1,231 from September 2018 to December 2018, (see Chart 1, above and Table 1, page 6). At the same time, gross job losses declined from the previous quarter by 278. From the 1st quarter of 2015 through the 4th quarter of 2016, gross job losses exceeded gross job gains in six out of eight quarters. In the past ten years, gross job losses in the state peaked in 1st quarter 2009, at the end of the ‘Great Recession’, when 93,397 jobs were lost.

Chart 2

Gross Job Gains and Losses: Openings vs. Closings and Expansions vs. Contractions
Expanding establishments in Oklahoma gained 66,571 jobs in the 4th quarter of 2018, which was 1,660 less jobs gained compared to the 3rd quarter of 2018. Contracting establishments lost 61,675 jobs in the October to December quarter, 1,446 fewer jobs lost than in the previous quarter (see Chart 2, above).

From October 2018 to December 2018, there were 17,187 jobs gained from opening establishments. This represents 429 more jobs gained from openings than the prior quarter. Closing establishments lost 16,023 jobs during the 4th quarter of 2018, representing 1,168 more jobs lost from private sector establishment closings than in the 3rd quarter of 2018.

In Oklahoma, the number of private sector establishment births, (a subset of the openings data), increased by 220 to 2,684 births in the 4th quarter of 2018—the largest quarterly gain in over 10 years. These new establishments accounted for 12,938 jobs, 1,635 more jobs than in the previous quarter, (see Chart 3, next page).
Data for establishment deaths, (a subset of the closings data), are now available through the 1st quarter of 2018. From December 2017 to March 2018, there were 8,518 jobs lost due to 2,253 private sector establishment deaths in Oklahoma. In the prior quarter, 10,910 jobs were lost due to 2,725 private sector establishment deaths (see Chart 3, below).

**Chart 3**

Employment from private sector establishment births and deaths in Oklahoma
March 2008 - December 2018, seasonally adjusted

**Gross Job Gains and Gross Job Losses: Percent of Total Private Sector Employment**
Gross job gains represented 6.4 percent of total private sector employment in Oklahoma for the quarter ending December 2018 with expansions accounting for 5.1 percent of total private sector employment and openings contributing 1.3 percent. Nationally, gross job gains accounted for 6.1 percent of private sector employment in the 4th quarter of 2018. With few exceptions, Oklahoma’s rates of gross job gains have generally tracked with the U.S. rates. However, beginning in the 1st quarter of 2015, the rate of Oklahoma’s gross job gains slipped below the national rate for seven consecutive quarters but have exceeded the U.S. rate in eight of the past nine quarters, (See Chart 4, next page).

In the 4th quarter of 2018, Oklahoma’s rate of gross job losses represented 6.0 percent of private-sector employment, with contractions accounting for 4.8 percent and closings adding another 1.2 percent. The national rate of gross job losses was 5.6 percent. From the 3rd quarter 2013 forward, Oklahoma’s rate of gross job losses has shown more volatility especially the period beginning 1st quarter 2015 through 1st quarter 2017, (See Chart 5, next page).
Chart 3
Private sector gross job gains as a percent of employment, United States and Oklahoma
March 2008 - December 2018, seasonally adjusted

Rate of gross job gains

Source: U.S. Bureau of Labor Statistics
Note: Shaded area represents NBER defined recession periods.

Chart 5
Private sector gross job losses as a percent of employment, United States and Oklahoma
March 2008 - December 2018, seasonally adjusted

Rate of gross job losses

Source: U.S. Bureau of Labor Statistics
Note: Shaded area represents NBER defined recession periods.
Gross Job Gains and Gross Job Losses by Industry: 4th Quarter 2018

Gross job gains exceeded gross job losses in 8 of 11 reported Oklahoma industries in the 4th quarter of 2018. Transportation and warehousing had the largest positive net change in jobs as gross job gains exceeded gross job losses by 2,746 jobs. While 5,068 jobs were created at opening and expanding transportation and warehousing establishments, 2,322 jobs were lost at closing and contracting establishments for the three months ending December 2018. Leisure & hospitality also had a significant positive net change in jobs in the 4th quarter as gross job gains exceeded gross job losses by 1,406 jobs. Other sectors showing net job gains in 4th quarter 2018 were construction (236); manufacturing (82 jobs); wholesale trade (1,104 jobs); professional & business services (889 jobs); education and health services (1,000 jobs); and other services (66).

Retail trade saw the largest negative net change in jobs in the 4th quarter of 2018 as gross job losses exceeded gross job gains by 1,868 jobs. Although 9,213 jobs were created at opening and expanding manufacturing establishments, 11,081 jobs were lost at closing and contracting establishments for the three months ending December 2018. Information followed, gaining 952 jobs at opening and expanding establishments but losing 1,311 jobs at closing and contracting establishments, resulting in a net job loss of 359 jobs. The only other sector with net job losses in 4th quarter 2018 was financial activities (-103 jobs), (see Chart 6 below).

Chart 6

Private sector net change in jobs by industry, Oklahoma
December 2018, seasonally adjusted
## Table 1. Oklahoma: Three-month private sector gross job gains and losses, seasonally adjusted

<table>
<thead>
<tr>
<th>Category</th>
<th>Dec 2017</th>
<th>March 2018</th>
<th>June 2018</th>
<th>Sep 2018</th>
<th>Dec 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Levels</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross job gains</td>
<td>82,246</td>
<td>78,771</td>
<td>81,185</td>
<td>84,980</td>
<td>83,749</td>
</tr>
<tr>
<td>Expanding establishments</td>
<td>66,487</td>
<td>62,852</td>
<td>64,459</td>
<td>68,231</td>
<td>66,571</td>
</tr>
<tr>
<td>Opening establishments</td>
<td>15,759</td>
<td>15,919</td>
<td>16,726</td>
<td>16,749</td>
<td>17,178</td>
</tr>
<tr>
<td>Gross job losses</td>
<td>74,837</td>
<td>70,899</td>
<td>82,922</td>
<td>77,976</td>
<td>77,698</td>
</tr>
<tr>
<td>Contracting establishments</td>
<td>58,962</td>
<td>58,040</td>
<td>66,297</td>
<td>63,121</td>
<td>61,675</td>
</tr>
<tr>
<td>Closing establishments</td>
<td>15,875</td>
<td>12,859</td>
<td>16,625</td>
<td>14,855</td>
<td>16,023</td>
</tr>
<tr>
<td>Net employment change¹</td>
<td>7,409</td>
<td>7,872</td>
<td>-1,737</td>
<td>7,004</td>
<td>6,051</td>
</tr>
<tr>
<td>Gross job gains</td>
<td>6.4</td>
<td>6.1</td>
<td>6.3</td>
<td>6.6</td>
<td>6.4</td>
</tr>
<tr>
<td>Expanding establishments</td>
<td>5.2</td>
<td>4.9</td>
<td>5.0</td>
<td>5.3</td>
<td>5.1</td>
</tr>
<tr>
<td>Opening establishments</td>
<td>1.2</td>
<td>1.2</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Gross job losses</td>
<td>5.8</td>
<td>5.5</td>
<td>6.5</td>
<td>6.1</td>
<td>6.0</td>
</tr>
<tr>
<td>Contracting establishments</td>
<td>4.6</td>
<td>4.5</td>
<td>5.2</td>
<td>4.9</td>
<td>4.8</td>
</tr>
<tr>
<td>Closing establishments</td>
<td>1.2</td>
<td>1.0</td>
<td>1.3</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Net employment change¹</td>
<td>0.6</td>
<td>0.6</td>
<td>-0.2</td>
<td>0.5</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: U.S Bureau of Labor Statistics

¹Net employment change is the difference between total gross job gains and total gross job losses.

---

**More Information**

A copy of the full 4th quarter 2018 Oklahoma BED report along with technical notes and detailed tables is available on the OESC website at:

[https://ok.gov/oesc/documents/lmibedpub.pdf](https://ok.gov/oesc/documents/lmibedpub.pdf)

Additional information about the Business Employment Dynamics program is available online at:

[http://www.bls.gov/bdm](http://www.bls.gov/bdm)
Definition & Importance
Gross Domestic Product (GDP)—the output of goods and services produced by labor and property located in the United States—is the broadest measure of economic activity. It is also the measure that is most indicative of whether the economy is in recession. In the post-World War II period, there has been no recession in which GDP did not decrease in at least two quarters, (the exceptions being during the recessions of 1960-61 and 2001).

The Bureau of Economic Analysis (BEA), U.S. Department of Commerce releases GDP data on a quarterly basis, usually during the fourth week of the month. Data are for the prior quarter, so data released in April are for the 1st quarter. Each quarter's data are revised in each of the following two months after the initial release.

Background
There are four major components to GDP:

1. Personal consumption expenditures: Individuals purchase durable goods (such as furniture and cars), nondurable goods (such as clothing and food) and services (such as banking, education and transportation).

2. Investment: Private housing purchases are classified as residential investment. Businesses invest in nonresidential structures, durable equipment and computer software. Inventories at all stages of production are counted as investment. Only inventory changes, not levels, are added to GDP.

3. Net exports: Equal the sum of exports less imports. Exports are the purchases by foreigners of goods and services produced in the United States. Imports represent domestic purchases of foreign-produced goods and services and are deducted from the calculation of GDP.

4. Government: Government purchases of goods and services are the compensation of government employees and purchases from businesses and abroad. Data show the portion attributed to consumption and investment. Government outlays for transfer payments or interest payments are not included in GDP.
The four major categories of GDP—personal consumption expenditures, investment, net exports and government—all reveal important information about the economy and should be monitored separately. This allows one to determine the strengths and weaknesses of the economy.

**Current Developments**

The U.S. economy slowed a bit more than first thought in the 2nd quarter of 2019, even as consumer spending accelerated at the fastest pace in 4-1/2 years. Real gross domestic product (GDP) increased at an annual rate of 2.0 percent in the 2nd quarter of 2019, according to the "second" estimate released by the Bureau of Economic Analysis (BEA). In the previous "advance" estimate, the increase in real GDP was estimated at 2.1 percent. In the 1st quarter, real GDP increased 3.1 percent.

Consumer spending, which accounts for more than two-thirds of U.S. economic activity, accelerated to a 4.7 percent rate, a slight upward revision from the 4.3 percent pace estimated previously. Outlays on durable goods, such as automobiles, jumped to a 13.0 percent rate, the biggest increase in five years. Nondurable goods spending climbed a 6.8 percent pace in the 2nd quarter. Spending on services rose to a 2.8 percent rate. Personal consumption expenditures (PCE) added 3.1 percentage points to 2nd quarter GDP, up from the previous 2.85 percentage point estimate.

Businesses capital spending, which had been strong for the past two years, turned negative in the 2nd quarter, falling at a 0.6 percent annual rate. Spending on structures plunged 9.4 percent, the biggest drop since the 1st quarter of 2016. Investment in equipment rose 0.7 percent, while outlays on intellectual property products, such as computer software, increased 3.7 percent. Nonresidential fixed investment subtracted 0.09 percentage point from 2nd quarter GDP growth.

Growth in business inventories slowed to a $69.0 billion rate in the 2nd quarter, down $47.0 billion from the $116.0 billion pace in the 1st quarter. The change in private inventories subtracted 0.91 percentage point from 2nd quarter GDP.

Investment in homebuilding contracted again in the 2nd quarter and has fallen in eight of the last ten quarters. Residential construction fell at a 2.9 percent rate in the 2nd quarter. Residential investment subtracted 0.11 percentage point from GDP growth in the 2nd quarter.

The trade deficit widened in the 2nd quarter, as exports fell 5.8 percent while imports rose 0.1 percent. The larger trade gap subtracted 0.72 percentage point to GDP in the April to June period after adding 0.73 percentage point in the 1st quarter.

Government investment was revised downward to a 4.5 percent rate in the 2nd quarter, from the previous 5.0 percent estimate. Federal government spending jumped 8.1 percent in the 2nd quarter, as nondefense spending soared 16.0 percent and national defense spending rose 3.1 percent. State and local government outlays grew 2.3 percent, instead of the 3.2 percent rate previously reported. Government consumption expenditures and investment added 0.77 percentage point to 2nd quarter GDP growth.
Definition & Importance
The U.S. Bureau of Economic Analysis (BEA) recently began producing statistics of quarterly gross domestic product (GDP) by state dating back to 2005. These new statistics provide a more complete picture of economic growth across states that can be used with other regional data to gain a better understanding of regional economies as they evolve from quarter to quarter. The new data provide a fuller description of the accelerations, decelerations, and turning points in economic growth at the state level, including key information about changes in the distribution of industrial infrastructure across states.

Current Developments
U.S. real gross domestic product (GDP) by state—a measure of nationwide growth calculated as the sum of GDP of all states and the District of Columbia—increased in all 50 states and the District of Columbia in the 1st quarter of 2019, according to the Bureau of Economic Analysis (BEA). The percent change in real GDP in the 1st quarter ranged from 5.2 percent in West Virginia to 1.2 percent in Hawaii.

Overall growth in real GDP by state accelerated to a 3.1 percent pace in the 1st quarter from a 2.2 percent rate in the 4th quarter of 2018. Finance and insurance, retail trade, and health care and social assistance were the leading contributors to the increase in real GDP nationally in the 1st quarter, according to the BEA.

Oklahoma’s real GDP decelerated in the 1st quarter of 2018, after climbing 5.5 percent in the previous quarter. Statewide real GDP grew at a 3.9 percent pace in the 1st quarter, ranking Oklahoma 9th among all other states and the District of Columbia. Statewide GDP was at a level of $197.5 billion (in constant 2012 dollars) in the 1st quarter, up $1.8 billion from the 4th quarter level of $195.7 billion.
Based on overall U.S. real GDP growth by state, finance and insurance (9.5 percent); retail trade (11.9 percent); and health care and social assistance (6.2 percent) were the leading contributors to the increase in real GDP nationally and contributed to growth in all 50 states and the District of Columbia in the 1st quarter of 2019.

In Oklahoma, finance and insurance (0.44 percentage point); retail trade (0.66 percentage point); and health care and social assistance (0.34 percentage point) all contributed to state GDP growth in the 1st quarter.

Mining for the nation increased 26.5 percent, after increasing 38.0 percent in the 4th quarter. This industry was the leading contributor to growth in several states, including the three fastest growing states of West Virginia, Texas, and New Mexico. In Oklahoma, mining was by far the leading contributor to 1st quarter growth, adding 3.08 percentage points.

The government sector decreased 1.1 percent nationally and slowed growth in most states, especially in the District of Columbia. The decrease was partly due to the partial federal government shutdown in January 2019. In Oklahoma, government subtracted 0.16 percentage point from 1st quarter growth.
Definition & Importance

Metropolitan Statistical Areas (MSAs) are county-based definitions developed by the Office of Management and Budget for federal statistical purposes. A metropolitan area is defined as a geographic area consisting of a large population nucleus together with adjacent communities having a high degree of economic and social integration with the nucleus.

GDP by metropolitan area is the sub-state counterpart of the Nation's gross domestic product (GDP), the BEA's featured and most comprehensive measure of U.S. economic activity. GDP by metropolitan area is derived as the sum of the GDP originating in all the industries in the metropolitan area. Nationally, metropolitan statistical areas represent approximately 90 percent of total GDP. In Oklahoma, the four MSAs of Oklahoma City, Tulsa, Lawton and Enid accounted for 74.3 percent of total state GDP in 2017.

Current Developments

Real gross domestic product (GDP) increased in 312 out of 383 metropolitan areas in 2017, according to the U.S. Bureau of Economic Analysis (BEA). The percent change in real GDP by metropolitan area ranged from 12.1 percent in Odessa, TX to -7.8 percent in Enid, OK. Real GDP for U.S. metropolitan areas increased 2.1 percent in 2017, led by growth in professional and business services; wholesale and retail trade; and finance, insurance, real estate, rental, and leasing.

In 2017, three of Oklahoma’s four metropolitan areas experienced negative growth. Natural resources and mining subtracted from growth in Enid MSA (-7.8 percent), ranking it last among the 383 metro areas in 2017. Tulsa MSA’s GDP contracted 1.1 percent (ranked 353rd), pulled down by natural resources and mining and construction. Lawton MSA declined 0.1 percent to $5.2 billion in 2017 and ranked 318th among U.S. metro areas. Oklahoma City MSA grew 2.3 percent to $74.9 billion and ranked 142nd, lifted by natural resources and mining and professional and business services.
Definition & Importance

The Federal Reserve Bank of Philadelphia produces leading indexes for each of the 50 states. The indexes are calculated monthly and are usually released a week after the release of the coincident indexes. The Bank issues a release each month describing the current and future economic situation of the 50 states with special coverage of the Third District: Pennsylvania, New Jersey, and Delaware.

The leading index for each state predicts the six-month growth rate of the state's coincident index. In addition to the coincident index, the models include other variables that lead the economy: state-level residential housing permits (1 to 4 units), state initial unemployment insurance claims, delivery times from the Institute for Supply Management (ISM) manufacturing survey, and the interest rate spread between the 10-year Treasury bond and the 3-month Treasury bill.

Current Developments

The Federal Reserve Bank of Philadelphia has released the leading indexes for the 50 states for June 2019. Forty-eight state coincident indexes, including Oklahoma’s, are projected to grow over the next six months and two are expected to contract. For comparison purposes, the Philadelphia Fed has also developed a similar leading index for its U.S. coincident index, which is projected to grow 1.2 percent over the next six months.

After revisions, Oklahoma’s leading index, a six-month forecast of the state’s coincident index, had been declining since June 2018 but now appears to be turning around. The state’s leading index was 1.46 percent in June. The May index was revised down to 1.93 percent (from 2.07 percent), following a downwardly-revised 1.28 percent reading in April, according to the latest figures from the Federal Reserve Bank of Philadelphia.

Overall, Oklahoma’s leading index for June suggests expansion in the state’s economy into the 4th quarter of 2019.
**Definition & Importance**

The Bureau of Labor Statistics Local Area Unemployment Statistics (LAUS) program produces monthly estimates of total employment and unemployment from a national survey of 60,000 households. The unemployment rate measures the percentage of people who are without work and is calculated by dividing the estimated number of unemployed people by the civilian labor force. The result expresses unemployment as a percentage of the labor force.

The unemployment rate is a lagging indicator of economic activity. During a recession many people leave the labor force entirely. As a result, the jobless rate may not increase as much as expected. This means that the jobless rate may continue to increase in the early stages of recovery because more people are returning to the labor force as they believe they will be able to find work. The civilian unemployment rate tends towards greater stability than payroll employment on a monthly basis and reveals the degree to which labor resources are utilized in the economy.

**Current Developments**

The U.S. unemployment rate held steady in August, remaining at a nearly 50-year low. The unemployment rate was 3.7 percent for the third month in a row in August, according to the Bureau of Labor Statistics (BLS). The labor force participation rate—the share of working-age Americans who are employed or looking for work—moved up to 63.2 percent in August.

Oklahoma’s seasonally adjusted unemployment rate remained at 3.2 percent in July. Over the year, Oklahoma’s seasonally adjusted unemployment rate was unchanged compared to June 2018.

In July, Latimer County and McIntosh County posted Oklahoma’s highest county unemployment rate of 6.6 percent, while Cimarron County had the lowest county unemployment rate at 2.0 percent. Unemployment rates in July were higher than a year earlier in 49 counties, lower in 16 counties and unchanged in 12 counties.
Definition & Importance

Initial unemployment claims are compiled weekly by the U.S. Department of Labor, Employment and Training Administration and show the number of individuals who filed for unemployment insurance benefits for the first time. This particular variable is useful because it gives a timely assessment of the overall economy.

Initial claims are a leading indicator because they point to changes in labor market conditions. An increasing trend signals that layoffs are occurring. Conversely, a decreasing trend suggests an improving labor market. The four-week moving average of initial claims smooths out weekly volatility and gives a better perspective on the underlying trend.

Current Developments

The number of Americans filing applications for state unemployment benefits rose moderately in the last week of August. In the week ending August 31, the advance figure for seasonally adjusted initial claims was 217,000, an increase of 1,000 from the previous week's revised level, according to the Department of Labor (DOL). The less volatile 4-week moving average was 216,250, an increase of 1,500 from the previous week's revised average of 214,750.

The level of initial and continued claims for jobless benefits in Oklahoma moved down in August. For the file week ending August 24, 2019, non-seasonally adjusted initial claims for unemployment insurance benefits were at a level of 1,624, up 25 from the previous week's level of 1,599 and 117 more than the July 27th level of 1,507. For the same file week ending, the less volatile four-week moving average was at a level of 1,598, up 29 from the previous week's average of 1,569 but down 241 from 1,839 on July 27th.

For the same file week ending August 24th, continued claims for unemployment insurance benefits were at a level of 14,468, down 239 from the previous week's level of 14,707.
Definition & Importance

Nonfarm payroll employment data is produced by the Current Employment Statistics (CES) program of the Bureau of Labor Statistics (BLS). The CES Survey is a monthly survey of approximately 140,000 nonfarm businesses and government agencies representing approximately 440,000 individual worksites. The CES program has provided estimates of employment, hours, and earnings data by industry for the nation as a whole, all States, and most major metropolitan areas since 1939. In order to account for the size disparity between U.S. and Oklahoma employment levels, we have indexed the data with January 2001 as the start value.

Payroll employment is one of the most current and reliable indicators of economic conditions and recessionary trends. Increases in nonfarm payrolls translate into earnings that workers will spend on goods and services in the economy. The greater the increases in employment, the faster the total economic growth.

Current Developments

Hiring slowed in August, as job gains were lifted by the temporary hiring of government workers for the 2020 Census. Total nonfarm payroll employment increased by 130,000 in August, according to the Bureau of Labor Statistics (BLS). Employment in federal government rose, largely reflecting the hiring of 25,000 temporary workers for the 2020 Census. Other notable job gains also occurred in health care (+24,000 jobs) and financial activities (+15,000 jobs), while mining lost jobs, mostly in support activities for mining (-5,000 jobs).

Oklahoma’s nonfarm employment added a seasonally-adjusted 4,100 jobs (0.2 percent) in July, to a level of 1,704,000 while the June estimate was revised upward to 1,699,900. Eight of Oklahoma’s 11 supersectors added jobs over the month as education & health services (+1,000 jobs) posted the largest monthly gain followed by professional & business services and government (+900 jobs each). Financial activities (-400 jobs) reported the largest over-the-month job losses.
Definition & Importance

Employment growth by industry identifies the types of jobs being created in the state. Conversely, industries with a declining employment trend indicate those which are becoming less important in the state’s economy. There may also be industries which behave more cyclically, growing during expansion and decreasing in times of economic slowdown or contraction. These changes are crucial in that they help to recognize the types of jobs being lost by individuals. Anticipating what will happen in recovery helps identify whether those jobs will return or what types of new jobs will be created. Consequently, key information for planning re-employment, retraining, and other workforce and economic development programs is contained within these data. For this analysis, we are using CES non-seasonally adjusted annual averages to compare year-over-year employment changes.

Current Developments

Oklahoma’s annual average employment growth turned in solid gains in 2018, boosted by increases in mining & logging, leisure & hospitality, and professional & business services. Total nonfarm employment gained a non-seasonally adjusted 24,900 jobs for a 1.5 percent growth rate. For comparison, in 2017, 9,000 jobs were gained for a 0.5 percent increase.

In 2018, nine out of 11 statewide supersectors recorded job gains. Mining & logging led all other supersectors adding 5,000 jobs (10.4 percent). Leisure & hospitality added 4,400 jobs (2.6 percent), while professional & business services gained 4,200 jobs (2.3 percent). Manufacturing employment grew by 3,900 jobs (2.9 percent). Construction and other services added 2,800 jobs for 2.9 percent and 4.1 percent gains respectively. The broad trade, transportation and utilities supersector added a non-seasonally adjusted 2,400 jobs (0.8 percent). Education and health services grew by 1,000 jobs (0.4 percent) and financial activities added 300 jobs (0.4 percent) over the year.

The largest annual average over-the-year job losses were seen in government which shed a non-seasonally adjusted 1,400 jobs (-0.4 percent), followed by information dropping 600 jobs (-2.9 percent).
Definition & Importance
Manufacturing employment data is also produced by the Bureau of Labor Statistics’ Current Employment Statistics (CES) program. Manufacturing and production are still important parts of both the U.S. and Oklahoma economies. During the 2007-09 recession, employment in manufacturing declined sharply. Although manufacturing plunged in 2008 and early 2009 along with the rest of the economy, it is on the rebound today while other key economic sectors, such as construction, still suffer. In Oklahoma, manufacturing accounts for one of the largest shares of private output and employment in the state. In addition, many manufacturing jobs are among the highest paying jobs in the state. In order to account for the size disparity between the U.S. and Oklahoma employment levels, we have indexed the data with January 2001 as the starting value.

Current Developments
U.S. manufacturing employment was little changed in August, as factory hiring has slowed dramatically this year. In August, manufacturing added 3,000 jobs, according to the Bureau of Labor Statistics (BLS). So far this year, job growth in the industry has averaged 6,000 per month, compared with an average of 22,000 per month in 2018.

Oklahoma manufacturing employment added jobs in July, after three straight months of decline. Manufacturing added a seasonally-adjusted 500 jobs (0.4 percent) over the month. Most the job gains in July occurred in durable goods manufacturing.

Over the year, statewide manufacturing employment contracted by a seasonally-adjusted 1,700 jobs (-1.2 percent). Almost of the job losses also occurred in durable goods manufacturing. Non-durable goods manufacturing shed a seasonally-adjusted 100 jobs over the year.
Definition & Importance

Economists consider the Institute for Supply Management’s Purchasing Managers’ Index (PMI™) a key economic indicator. The Institute for Supply Management (ISM®) surveys more than 300 manufacturing firms on employment, production, new orders, supplier deliveries, and inventories. The ISM® manufacturing index is constructed so that any level at 50 or above signifies growth in the manufacturing sector, which accounts for about 12 percent of the U.S. economy. A level above 43 or so, but below 50, indicates that the U.S. economy is still growing even though the manufacturing sector is contracting. Any level below 43 indicates that the economy is in recession.

For the region, since 1994, the Creighton Economic Forecasting Group at Creighton University has conducted a monthly survey of supply managers in nine states (including Arkansas, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma and South Dakota), to produce leading economic indicators for the Mid-America economy using the same methodology as the national survey by the ISM®.

Current Developments

The U.S. manufacturing sector contracted for the first time in three years in August, ending a 35-month expansion period. The August PMI® registered 49.1 percent, a decrease of 2.1 percentage points from the July reading of 51.2 percent, according to the latest ISM Manufacturing Report On Business®. Nine of the 18 manufacturing industries reported growth in August, including: textile mills; furniture & related products; food, beverage & tobacco products; wood products; and petroleum & coal products.

Consumption, as measured by ISM’s Production (49.5 percent) and Employment (47.4 percent) Indexes, also showed contraction in August for the first time in almost three years. Demand, as measured by ISM’s gauge of new export orders, slowed for the second month in a row to 47.2 percent—their lowest reading since April 2009. Inputs, expressed as supplier deliveries, inventories and imports, were again lower in August.
The Creighton University Mid-America Business Conditions Index, a leading economic indicator for a nine-state region stretching from North Dakota to Arkansas, fell below growth-neutral in August, signaling slow or no economic growth over the next three to six months, according to the latest monthly survey results. The Business Conditions Index, which ranges between 0 and 100, dropped to 49.3 in August, from a reading of 52.0 in July. The index had remained above growth-neutral for 32 straight months.

“Weakness in the region’s farm and manufacturing sectors produced by tariffs and a global economic slowdown pulled regional growth below that of the nation. Based on our manufacturing survey over the past several months, I expect overall growth to slow and potentially move into negative territory in the months ahead,” said Ernie Goss, Ph.D., director of Creighton University’s Economic Forecasting Group and the Jack A. MacAllister Chair in Regional Economics in the Heider College of Business.

Oklahoma’s Business Conditions Index also dipped into negative territory in August, following two straight months with above growth-neutral readings. The overall index from a monthly survey of supply managers dropped to 49.6 in August from 52.8 in July. Index components were new orders at 51.8, production or sales at 49.5, delivery lead time at 47.8, inventories at 45.8 and employment at 59.5.

"Recent surveys indicate that both durable and nondurable goods producers in the state experienced business pullbacks in economic activity," said Goss.
Definition & Importance

Crude oil is an important commodity in the global market. Prices fluctuate depending on supply and demand conditions in the world. Since oil is such an important part of the economy, it can also help determine the direction of inflation. In the U.S. consumer prices have moderated whenever oil prices have fallen, but have accelerated when oil prices have risen. The U.S. Energy Information Administration (EIA) provides weekly information on petroleum inventories in the U.S., whether produced here or abroad.

The Baker Hughes rig count is an important indicator for the energy industry and Oklahoma. When drilling rigs are active they consume products and services produced by the oil service industry. The active rig count acts as a leading indicator of demand for products used in drilling, completing, producing and processing hydrocarbons.

West Texas Intermediate (WTI-Cushing) is a light crude oil produced in Texas and southern Oklahoma which serves as a reference or "marker" for pricing a number of other crude streams and which is traded in the domestic spot market at Cushing, Oklahoma.

Background

Oklahoma produces a substantial amount of oil. Excluding federal offshore areas, Oklahoma was the nation's 6th-largest crude oil producing state in 2017 (at 165,920,000 barrels). Crude oil wells and gathering pipeline systems are concentrated in central Oklahoma. Two of the 100 largest oil fields in the United States are found in Oklahoma.

The city of Cushing, in central Oklahoma, is a major crude oil trading hub connecting Gulf Coast producers to Midwest refining markets. In addition to Oklahoma crude oil, the Cushing hub receives supply from several major pipelines that originate in Texas. Traditionally, the Cushing Hub has pushed Gulf Coast and Mid-Continent crude oil supply north to Midwest refining markets. However, production from those regions is in decline, and an underused crude oil pipeline system has been reversed to deliver rapidly expanding heavy crude oil supply produced in Alberta, Canada to Cushing, where it can access Gulf Coast refining markets. For this reason,
Cushing is the designated delivery point for the New York Mercantile Exchange (NYMEX) crude oil futures contracts. Crude oil supplies from Cushing that are not delivered to the Midwest are fed to Oklahoma’s five refineries. As of January 2018, those refineries had a combined distillation capacity of more than 522,000 barrels per day—roughly 3.0 percent of the total U.S. refining capacity.

**Current Developments**

The U.S. Energy Information Administration (EIA) recently reported that U.S. petroleum and natural gas production increased by 16 percent and by 12 percent, respectively, in 2018, and these totals combined established a new production record. The United States surpassed Russia in 2011 to become the world’s largest producer of natural gas and surpassed Saudi Arabia in 2018 to become the world’s largest producer of petroleum. Last year’s increase in the United States was one of the largest absolute petroleum and natural gas production increases from a single country in history.

Oklahoma reached another record crude production level for the second month in a row in May. Oklahoma field production of crude oil in May was at a level of 18,689,000 barrels (bbl), 233,000 bbl (1.3 percent) more than the downwardly-revised April production level of 18,456,000 bbl.

WTI-Cushing spot crude prices averaged $54.81 per barrel (b) in August, down $2.55/b (4.4 percent) from the July average of $57.36/b but $13.25/b (-19.5 percent) below the August 2018 average.

The number of rigs drilling for oil and natural gas in the U.S. was down 12 for the week ending August 30, 2019, for a total count of 946 rigs, according to Houston oilfield services company Baker Hughes Inc. Of that total, 742 rigs (82.1 percent) drilled for oil while 162 (17.9 percent) explored for natural gas. Compared to a year ago, the nation’s rig count was 144 less than the 1,048 rigs reported on August 31, 2018.

Oklahoma’s active rig count continued to decline in August, to the lowest level in more than 2 1/2 years. For the week ending August 30, 2019, the statewide active rig count shed two (2) rigs for a total of 80 rigs, according to Baker Hughes. It was the lowest weekly rig count since 78 rigs were active for the week ended December 16, 2016. Oil-directed rigs accounted for 75 active rigs (94 percent) of total rig activity. Over the year, Oklahoma’s rig count was down 59 (-42.4 percent) from 139 rigs reported on August 31, 2018.
Definition & Importance
The U.S. Energy Information Administration (EIA) provides weekly information on natural gas stocks in underground storage for the U.S., and three regions of the country. The level of inventories helps determine prices for natural gas products. Natural gas product prices are determined by supply and demand—like any other good or service. During periods of strong economic growth, one would expect demand to be robust. If inventories are low, this will lead to increases in natural gas prices. If inventories are high and rising in a period of strong demand, prices may not need to increase at all, or as much. However, during a period of sluggish economic activity, demand for natural gas may not be as strong. If inventories are rising, this may push down oil prices.

The Henry Hub in Erath, Louisiana is a key benchmark location for natural gas pricing throughout the United States. The Henry Hub is the largest centralized point for natural gas spot and futures trading in the United States. The New York Mercantile Exchange (NYMEX) uses the Henry Hub as the point of delivery for its natural gas futures contract. Henry Hub “spot gas” represents natural gas sales contracted for next day delivery and title transfer at the Henry Hub. The settlement prices at the Henry Hub are used as benchmarks for the entire North American natural gas market. Approximately 49 percent of U.S. wellhead production either occurs near the Henry Hub or passes close to the Henry Hub as it moves to downstream consumption markets.

Background
Oklahoma is one of the top natural gas producers in the nation, ranking 4th among all states in U.S. gross production in 2017, (excluding offshore production), and accounting for 8.6 percent of U.S. marketed production. More than a dozen of the 100 largest natural gas fields in the country are found in Oklahoma and proven reserves of conventional natural gas have been increasing in recent years.

Most natural gas in Oklahoma is consumed by the electricity generation and industrial sectors. About three-fifths of Oklahoma households use natural gas as their primary energy source for...
home heating. Nevertheless, only about one-third of Oklahoma’s natural gas output is consumed within the state. The remaining supply is sent via pipeline to neighboring states, the majority to Kansas, including the natural gas trading hubs in Texas and Kansas.

**Current Developments**

The U.S. Energy Information Administration (EIA) recently reported that natural gas deliveries to U.S. facilities producing liquefied natural gas (LNG) for export set a monthly record in July 2019, averaging 6.0 billion cubic feet per day (Bcf/d)—7.0 percent of the total U.S. dry natural gas production—according to data from OPIS PointLogic Energy. In the first seven months of 2019, natural gas feedstock deliveries to LNG export facilities have been the fastest growing among all U.S. natural gas consumption sectors.

Statewide natural gas production in June was the seventh-highest production level on record. Oklahoma natural gas gross withdrawals were at a level of 260,442 million cubic feet (MMcf) in June, down 10,417 MMcf (-3.8 percent) less than May’s record level of 270,859 MMcf. In 2018, statewide natural gas production set a record level of 2,946,115 MMcf, or 432,218 MMcf (17.2 percent) more than 2,513,897 MMcf produced in 2017.

The Henry Hub natural gas spot price averaged about $2.22/million British thermal units (MMBtu) in August, down 15 cents/MMBtu (-6.3 percent) from July’s average of $2.37/MMBtu, according to the EIA.

According to oilfield services company Baker Hughes, for the week ending Friday, August 30, the U.S. natural gas rig count was at 162 rigs, the same as the previous week’s count the previous week and 22 less than a year ago.

Oklahoma’s natural gas-directed drilling rig count held steady at six (6) units for the week ending July 26, 2019, unchanged from the previous week. Over the year, the number of statewide rotary rigs exploring for natural gas was down four (4) from nine (9) reported for the week ended August 31, 2018.
Definition & Importance

The U.S. Census Bureau and the Department of Housing and Urban Development jointly provide monthly national and regional data on the number of new housing units authorized by building permits; authorized, but not started; started; under construction; and completed. The data are for new, privately-owned housing units (single and multifamily), excluding "HUD-code" manufactured homes. Because permits precede construction, they are considered a leading indicator for the residential construction industry and the overall economy. Most of the construction begins the same month the permit is issued. The remainder usually begins construction during the following three months; therefore we also use a three-month moving average.

While home construction represents a small portion of the housing market, it has an outszie impact on the economy. Each home built creates an average of three jobs for a year and about $90,000 in taxes, according to the National Association of Home Builders. Overall, homebuilding fell to its lowest levels in 50 years in 2009, when builders began work on just 554,000 homes.

Current Developments

Although U.S. homebuilding activity fell for a third consecutive month in July, building permits, an indicator of future home building activity, jumped to a seven-month high. Privately-owned housing units authorized by building permits in July were at a seasonally adjusted annual rate of 1,336,000. This is 8.4 percent above the revised June rate of 1,232,000 and 1.5 percent above the July 2018 rate of 1,316,000, according to the U.S. Census Bureau.

Permits to build single-family homes rose 1.8 percent to a rate of 838,000 units in July, while permits for the construction of apartments jumped 24.8 percent to a pace of 453,000 units.

Confidence among homebuilders increased in August according to the National Association of Home Builders/Wells Fargo Housing Market Index which climbed to a reading of 66, up from 65 in July.
Definition & Importance

The data services of the Federal Reserve Bank of St. Louis produces series that are seasonally adjusted including monthly state level data on the number of new housing units authorized by building permits. These adjustments are made using the X-12 Procedure of SAS to remove the seasonal component of the series so that non-seasonal trends can be analyzed. This procedure is based on the U.S. Bureau of the Census X-12-ARIMA Seasonal Adjustment Program.

Current Developments

Statewide residential permitting surged in July after falling for three straight months. Total residential permitting rose to a seasonally-adjusted level of 1,121 in July, this is 298 permits (36.2 percent) more than the upwardly-revised June level of 823, and 316 permits (39.3 percent) more than the July 2018 estimate of 804 permits, according to figures from the U.S. Census Bureau and the Federal Reserve Bank of St. Louis.

In July, permits for single-family homes were at a seasonally-adjusted level of 1,002, up 280 permits (38.9 percent) from the downwardly-revised level of 721 permits in June. Multi-family permitting climbed to a seasonally-adjusted level of 119 units in July, an increase of 17 permits (16.9 percent) from the upwardly-revised level of 102 in the previous month. Single-family permitting accounted for 89.4 percent of total residential permitting activity in July while the more volatile multi-family permitting accounted for 10.6 percent.

For the first seven months of 2019, statewide residential permitting was at a seasonally-adjusted level of 6,723 permits issued, which is 648 (10.7 percent) more compared to 6,075 permits issued during the first seven months of the previous year.
Definition & Importance

Personal income is a broad measure of economic activity and one for which relatively current data are available. Personal income includes earnings, property income such as dividends, interest, and rent and transfer payments, such as retirement, unemployment insurance, and various other benefit payments. It is a measure of income that is available for spending and is seen as an indicator of the economic well-being of the residents of a state. Earnings and wages make up the largest portion of personal income.

To show the vastly different levels of total personal income for the U.S. and Oklahoma on the same chart, these data have been converted to index numbers. This chart shows a comparison of Oklahoma and U.S. growth in real personal income with 1st quarter 2000 as the base year.

Current Developments

Although U.S. consumer spending had a solid gain in July, personal income saw the smallest gain since last September. Personal income increased $23.9 billion (0.1 percent) in July according to estimates by the Bureau of Economic Analysis (BEA). Disposable personal increased $44.4 billion (0.3 percent) and personal consumption expenditures (PCE) increased $93.1 billion (0.6 percent). Real DPI increased 0.1 percent in July and Real PCE increased 0.4 percent. The PCE price index increased 0.2 percent. Excluding food and energy, the PCE price index increased 0.2 percent in July. June’s PCE change was unrevised at 0.3 percent.

In July, outlays on durable goods such as motor vehicles rose 1.1 percent after showing no change in June. Purchases of nondurable goods such as food and clothing increased 0.6 percent while outlays on services, such as utilities and doctor visits rose 0.3 percent.

Core inflation, which excludes the volatile food and energy categories, rose 1.6 percent in July from a year ago, well below the Federal Reserve’s 2.0 percent inflation target.

With spending outpacing incomes, the personal saving rate, personal saving as a percentage of disposable personal income, fell to 7.7 percent of after-tax incomes in July, the lowest rate since last November.
**Definition & Importance**
Quarterly estimates of state personal income are seasonally adjusted at annual rates by the Bureau of Economic Analysis (BEA). Quarterly personal income estimates are revised on a regular schedule to reflect more complete information than the data that were available when the estimates were initially prepared and to incorporate updated seasonal factors.

**Current Developments**
State personal income increased 3.4 percent at an annual rate in the 1st quarter of 2019, a deceleration from the 4.1 percent increase in the 4th quarter of 2018, according to estimates by the Bureau of Economic Analysis (BEA). Personal income increased in all states except South Dakota. The percent change in personal income across all states ranged from 5.6 percent in West Virginia to -0.6 percent in South Dakota.

Oklahoma’s personal income grew at a 3.0 percent rate in the 1st quarter of 2019, to a level of $186.1 billion, ranking the state 37th among all states. For the 4th quarter of 2018, Oklahoma’s personal income was revised slightly upward to $184.7 billion (5.0 percent) from the previous estimate of $184.6 billion.

For the nation, earnings increased 2.8 percent in the 1st quarter of 2019, after increasing 3.2 percent in the 4th quarter of 2018 and was the leading contributor to personal income growth in most states. Oklahoma’s net earnings grew 1.2 percent, contributing 0.7 percentage point to personal income growth in the 1st quarter of 2019.

In Oklahoma, mining, quarrying, and oil and gas extraction earnings (0.47 percentage point), was the leading contributor to 1st quarter earnings growth. Earnings in health care and social assistance (0.39 percentage point), and retail trade (0.23 percentage point) were also contributors to 1st quarter earnings growth. Transportation and warehousing (-0.37 percentage point), durable goods manufacturing and farm earnings (-0.27 percentage point) subtracted from 1st quarter earnings growth.
Definition & Importance
Retail sales measure the total receipts at stores that sell merchandise and related services to final consumers. Sales are by retail and food services stores. Data are collected from the Monthly Retail Trade Survey conducted by the U.S. Bureau of the Census. Essentially, retail sales cover the durables and nondurables portions of consumer spending. Consumer spending accounts for roughly two-thirds of the U.S. GDP and is therefore essential to Oklahoma’s economy. Retail sales account for around one-half of consumer spending and economic recovery calls for consumption growth.

Current Developments
U.S. consumers spent more at stores, restaurants and online in July, a sign that consumer confidence remains high. Advance estimates of U.S. retail and food services sales for July 2019, adjusted for seasonal variation and holiday and trading-day differences, but not for price changes, were $523.5 billion, an increase of 0.7 percent from the previous month, and 3.4 percent above July 2018, according to the U.S. Census Bureau. The May 2019 to June 2019 percent change was revised downward from 0.4 percent to 0.3 percent.

Households cut back on purchases of autos in July as motor vehicle sales fell 0.6 percent after a 0.3 percent gain in June. Sales at service stations jumped 1.8 percent, reflecting higher pump prices. Excluding the volatile automobile and gas categories, sales increased 0.9 percent in July.

Internet sales climbed 2.8 percent in July and sales at department stores grew 1.2 percent. Sales at restaurants and bars jumped 1.1 percent, a positive sign because such spending is more discretionary than purchases at grocery stores or gas stations. Sales at electronics and appliance stores rebounded 0.9 percent after dropping 5.5 percent in June.

The less volatile “core” or retail-control group sales which are used to calculate gross domestic product, and strips out automobiles, gasoline, building materials, and food services sales jumped 1.0 percent in July after an unrevised 0.7 percent rate in June.
**Definition & Importance**

The Center for Economic and Management Research (CEMR) Price College of Business, at the University of Oklahoma produces the Oklahoma Monthly Retail Sales Series containing monthly estimates of retail sales for Oklahoma, the Oklahoma City, Tulsa and Lawton Metropolitan Statistical Areas and 48 selected cities in Oklahoma. The series is based on sales tax collection data provided by the Business Tax Division, Oklahoma Tax Commission (OTC). In order to smooth out monthly volatility, we have used a six-month moving average.

**Current Developments**

Statewide retail spending surged in July, and much of the gain can be attributed to a spike in pump prices. Total adjusted retail trade for July was at a level of $3.56 billion, a 5.8 percent gain from the upwardly revised June level of $3.38 billion. Over the year, total adjusted retail sales was 5.3 percent more than the July 2018 level of $3.38 billion. Excluding estimated gasoline sales, total retail sales for July grew 0.3 percent over the month.

Total durable goods sales slipped 0.1 percent in July. Sales at electronics & music stores dropped 3.7 percent, while furniture and auto accessories & repair both declined 0.5 percent. Advancing categories were lumber & hardware (1.0 percent); used merchandise (0.8 percent); and miscellaneous durable goods (0.6 percent).

Non-durable goods purchases jumped 7.4 percent in July as higher pump prices pushed the volatile estimated gasoline sales category to 60.0 percent over the month. Other advancing non-durable goods categories in July included general merchandise stores (0.9 percent); drug stores (0.9 percent); used merchandise (0.8 percent); miscellaneous non-durable goods (0.6 percent); eating & drinking places (0.3 percent); and food stores (0.1 percent). Declining non-durable goods categories in July were liquor stores (-2.2 percent) and apparel (-0.5 percent).
This workforce product was funded by a grant awarded by the U.S. Department of Labor’s Employment and Training Administration. This product was created by the recipient and does not necessarily reflect the official position of the U.S. Department of Labor. The U.S. Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This product is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.