



# OKLAHOMA Economic Indicators

August 2015

# OKLAHOMA ECONOMIC INDICATORS

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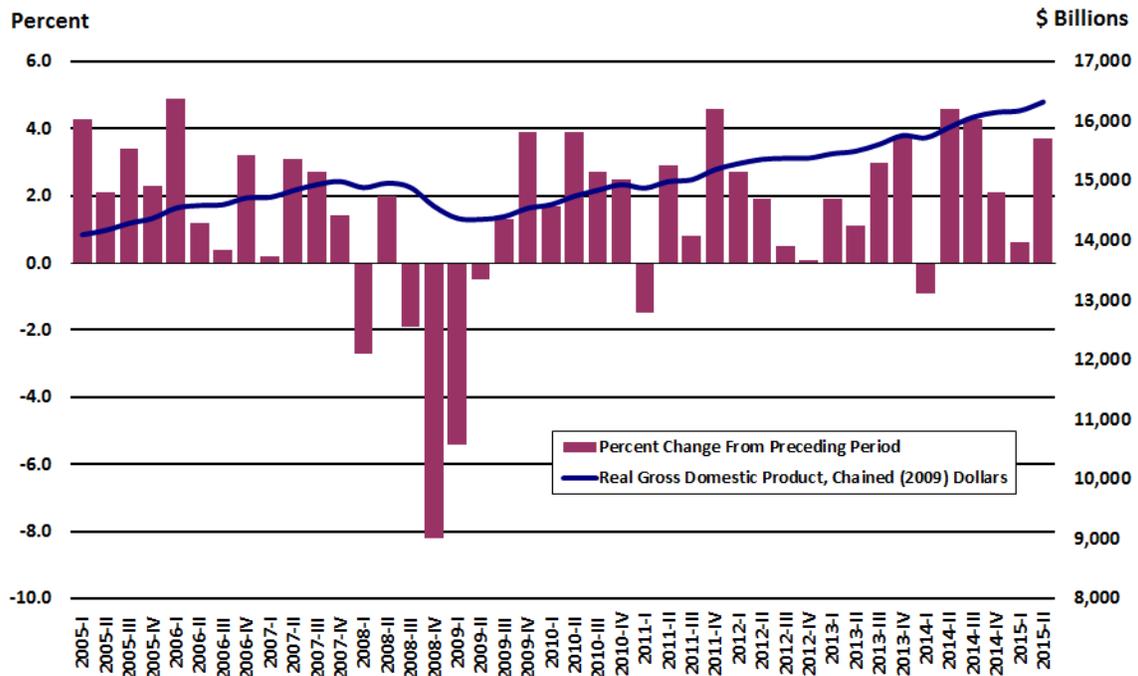
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## Real Gross Domestic Product and Quarterly Change

Source: U.S. Department of Commerce, Bureau of Economic Analysis



### 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 grew faster than first thought in the 2nd quarter, pushed higher by strong consumer spending and business investment. Real gross domestic product (GDP) increased at an annual rate of 3.7 percent in the 2nd quarter of 2015, according to the "second" estimate released by the Bureau of Economic Analysis (BEA). The 2nd quarter revision was 1.4 percentage points greater than the initial 2.3 percent estimate and a sharp improvement from the 0.6 percent pace during the January-March quarter.

American households, buoyed by gains in employment, rising home prices and cheaper fuel costs, helped boost 2nd quarter GDP growth. Consumer spending grew at annual rate of 3.1 percent, up from a 1.8 percent growth rate in the 1st quarter. Spending on durable goods increased 8.2 percent, compared to the 7.3 percent rate previously estimated. Nondurable goods purchases increased 4.1 percent, instead of the 3.6 percent pace reported earlier. Services increased 2.0 percent, rather than 2.1 percent in the "advance" estimate.

Investment in nonresidential structures was revised to show an increase rather than a contraction, reflecting stronger spending on commercial and healthcare construction. Real nonresidential fixed investment was revised up to 3.2 percent instead of a 0.6 decline.

Businesses spent more on inventory buildup in the 2nd quarter. Private businesses accumulated \$121.1 billion worth of inventories, \$11.1 billion more than previously estimated. The change in real private inventories contributed 0.22 percentage point to 2nd quarter GDP instead of subtracting 0.08 percentage point as reported last month.

Spending on residential construction in the 2nd quarter was also raised. Real residential fixed investment jumped 7.8 percent, up from an initial estimate of 6.6 percent, adding 0.25 percentage point to 2nd quarter GDP growth.

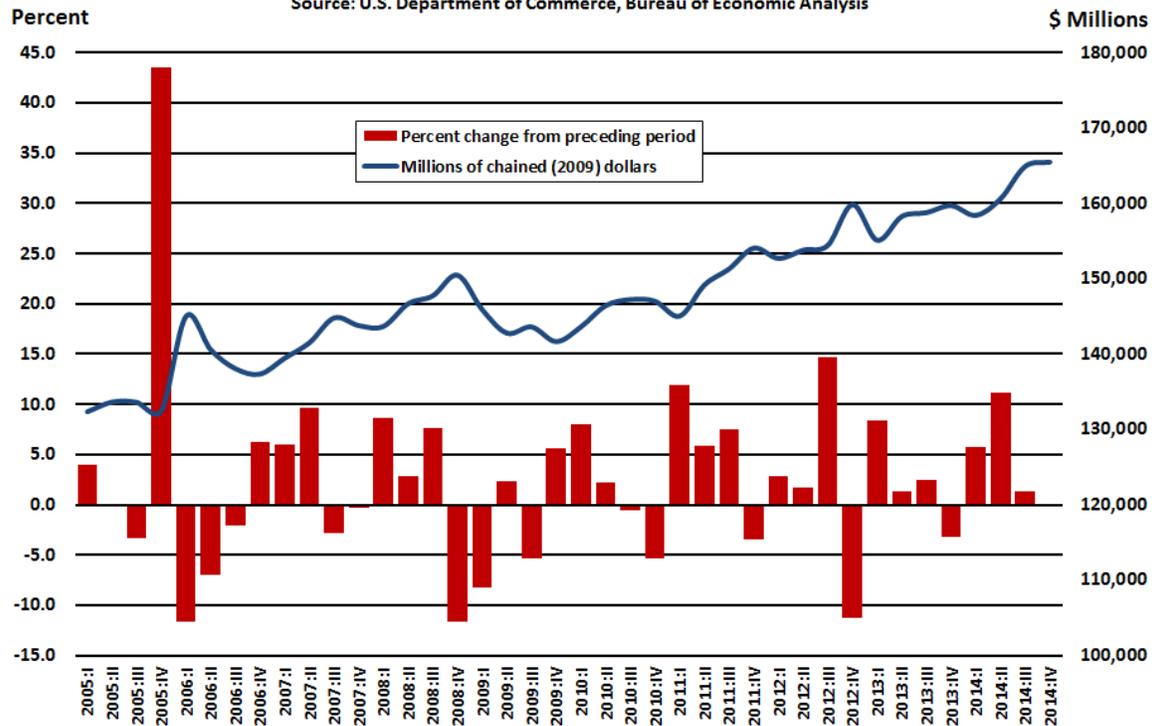
Exports rebounded in the 2nd quarter, despite a strong dollar, while imports rose moderately; the smaller trade deficit added 0.23 percentage point to GDP growth.

Government spending in the 2nd quarter increased by the most in five years as state and local outlays increased at the fastest rate since 2001. Real federal government consumption expenditures and gross investment was flat in the 2nd quarter, in contrast to a 1.1 percent decline previously reported. National defense spending grew 0.3 percent but was all but wiped out by a 0.4 decline in nondefense spending. Real state and local government consumption expenditures and gross investment increased at a 4.3 percent pace, more than double the previously reported 2.0 percent. Government consumption expenditures and gross investment added 0.47 percentage point from GDP growth in the 2nd quarter.

## Oklahoma Real Gross Domestic Product and Quarterly Change

1st Quarter 2005 - 4th Quarter 2014, Seasonally Adjusted

Source: U.S. Department of Commerce, Bureau of Economic Analysis



### Definition & Importance

The U.S. Bureau of Economic Analysis (BEA) recently released prototype statistics of quarterly gross domestic product (GDP) by state for 2005–2013. 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 GDP by state increased 2.2 percent in 2014. Growth in real GDP accelerated in the 2nd and 3rd quarter of the year after declining at an annual rate of 2.4 percent in the 1st quarter. After climbing to a high of 5.5 percent in the 3rd quarter, growth in real GDP decelerated to 2.0 percent in the 4th quarter. Real GDP increased in all eight BEA regions. However, in the first quarter of 2014 GDP declined in five of the eight regions. The Plains region declined the most primarily due to a decline in agriculture, forestry, fishing, and hunting.

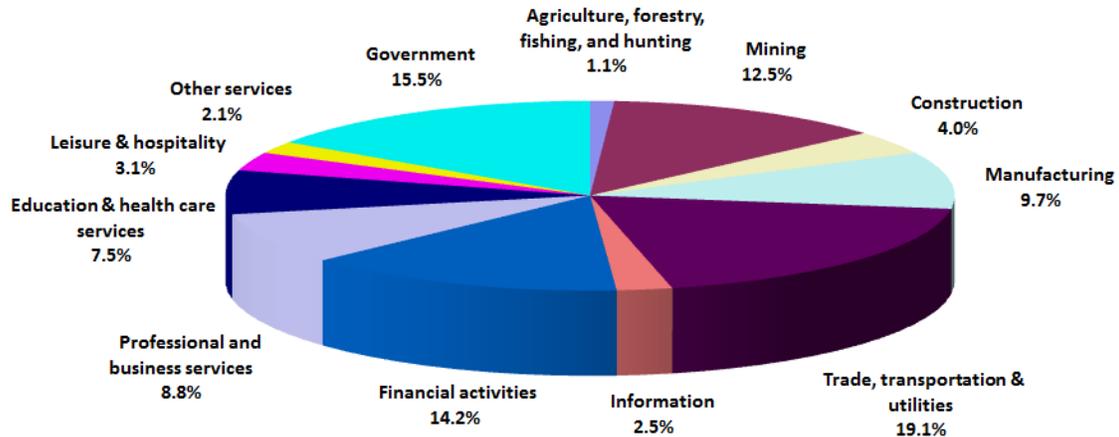
In 4th quarter 2014, Oklahoma’s real GDP was \$165.5 billion in constant 2009 dollars, up from \$164.9 billion in the 3rd quarter. The state’s 4th quarter real GDP increased by \$1.19 billion, or 1.3 percent, ranking Oklahoma 29th among all other states and the District of Columbia. Mining was the largest contributor to Oklahoma’s GDP growth in the 4th quarter, adding 2.30 percent while utilities provided the largest drag, subtracting 2.61 percent.

For all of 2014, Oklahoma’s real GDP was at a level of \$162.4 billion in constant 2009 dollars, growing at a rate of 2.8 percent from 2013 and placing Oklahoma as the tenth-highest annual GDP growth rate among all other states and the District of Columbia.

## 2014 Industry Share of Oklahoma's Economy

(by percentage of Gross Domestic Product)

Source: U.S. Department of Commerce, Bureau of Economic Analysis



### Definition & Importance

Oklahoma's economy typically follows a similar trend to that of the nation. State GDP data lags behind national data and is only available annually. As a result, it is not a good indicator of current economic conditions and does not fully reflect the recent changes in Oklahoma's economic climate. However, it is still valuable to understand the state's growth trend compared to the nation and what industries are the largest contributors to Oklahoma's economy.

### Current Developments

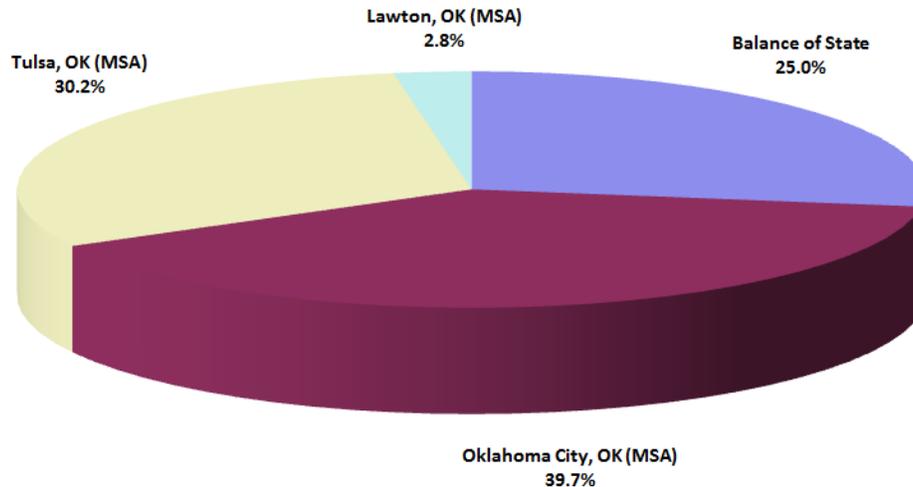
Oklahoma was among 48 states and the District of Columbia experiencing growth in real gross domestic product (GDP) in 2014, according to new statistics from the Bureau of Economic Analysis (BEA). U.S. real GDP grew 2.2 percent in 2014 after increasing 1.9 percent in 2013.

In 2014, Oklahoma's real GDP was at a level of \$162.4 billion, a 2.8 percent gain from the revised \$158.0 billion in 2013. Oklahoma's real GDP growth rate was the 10th highest among all states and the District of Columbia in 2014. Oklahoma's 2013 advance GDP estimate was revised downward from 4.2 percent to 1.8 percent while the state's 2012 GDP was further revised upward from 3.0 percent to 3.5 percent. The Southwest region, which includes Oklahoma, was the fastest growing BEA region in 2014 growing at 4.3 percent, and led by Texas with a 5.2 percent increase.

Although mining was not a significant contributor to real GDP growth for the U.S. economy, it did play a key role in Oklahoma. Mining contributed 1.45 percentage points to statewide real GDP growth in 2014. Other industries adding to 2014 GDP growth in Oklahoma were utilities (0.57 percentage point); non-durable goods manufacturing (0.25 percentage point); wholesale trade (0.22 percentage point); retail trade (0.14 percentage point); and finance & insurance (0.11 percent). Subtracting from Oklahoma GDP growth were real estate, rental & leasing (-0.36 percentage point); construction (-0.22 percentage point); and government (-0.06 percentage point).

## Metropolitan Area Contribution to State Real Gross Domestic Product 2013

Source: U.S. Department of Commerce, Bureau of Economic Analysis



### Definition & Importance

Metropolitan Statistical Areas (MSA) are the 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.

Nationally, metropolitan statistical areas represent approximately 90 percent of total GDP. In Oklahoma, the three MSAs of Oklahoma City, Tulsa and Lawton accounted for roughly 75 percent of total state GDP in 2010.

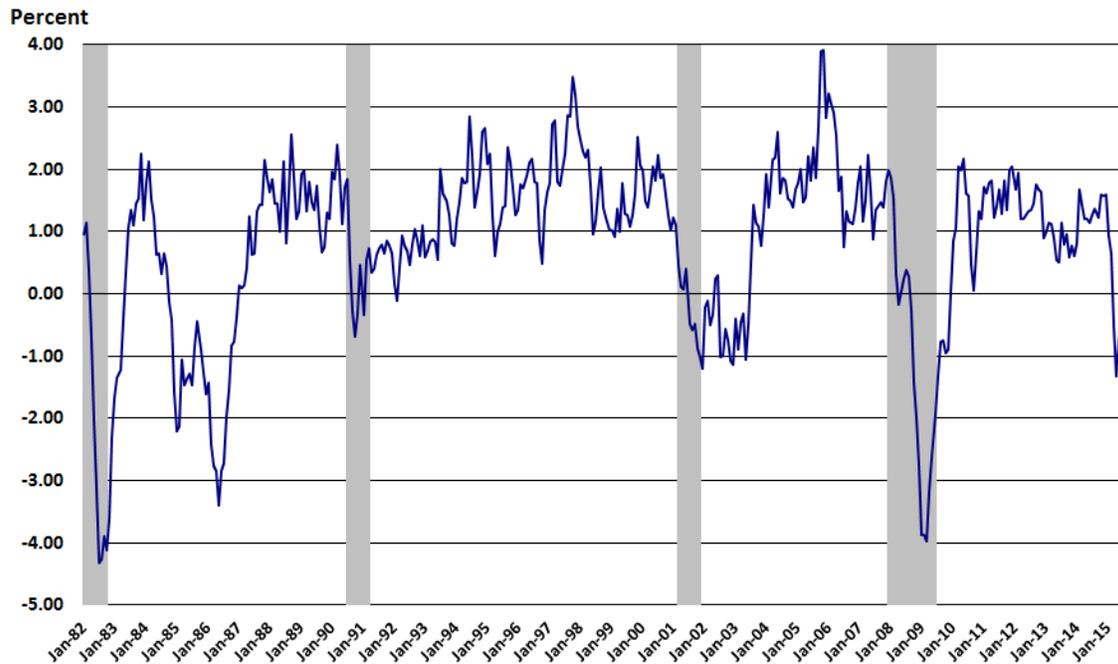
### Current Developments

Real GDP increased in 292 of the nation's 381 metropolitan areas in 2013, led by widespread growth in finance, insurance, real estate, rental, and leasing, nondurable-goods manufacturing and professional and business services, according to the U.S. Bureau of Economic Analysis (BEA). Natural resources and mining also spurred strong growth in several metropolitan areas. Collectively, real GDP for U.S. metropolitan areas increased 1.7 percent in 2013 after increasing 2.6 percent in 2012.

All three Oklahoma metropolitan areas outpaced or equaled U.S. metropolitan area real GDP growth in 2013. Oklahoma City MSA grew by 3.9 percent to \$65.2 billion and ranked 56th (out of 381 metro areas). Tulsa MSA grew at a rate of 3.5 percent to \$49.6 billion and ranked at 68th. Lawton MSA grew 1.7 percent to \$4.5 billion in 2013 and ranked 175th out of 381 U.S. metro areas.

## Leading Index for Oklahoma, 1982-2015

Source: Federal Reserve Bank of Philadelphia



NOTE: Shaded area represents National Bureau of Economic Research defined recession period.

### 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

Declining oil and natural gas prices have weighed on Oklahoma's economy since the beginning of 2015. Oklahoma's leading index began falling at the end of 2014 and saw six consecutive months of decline slipping into negative territory in March, April and May.

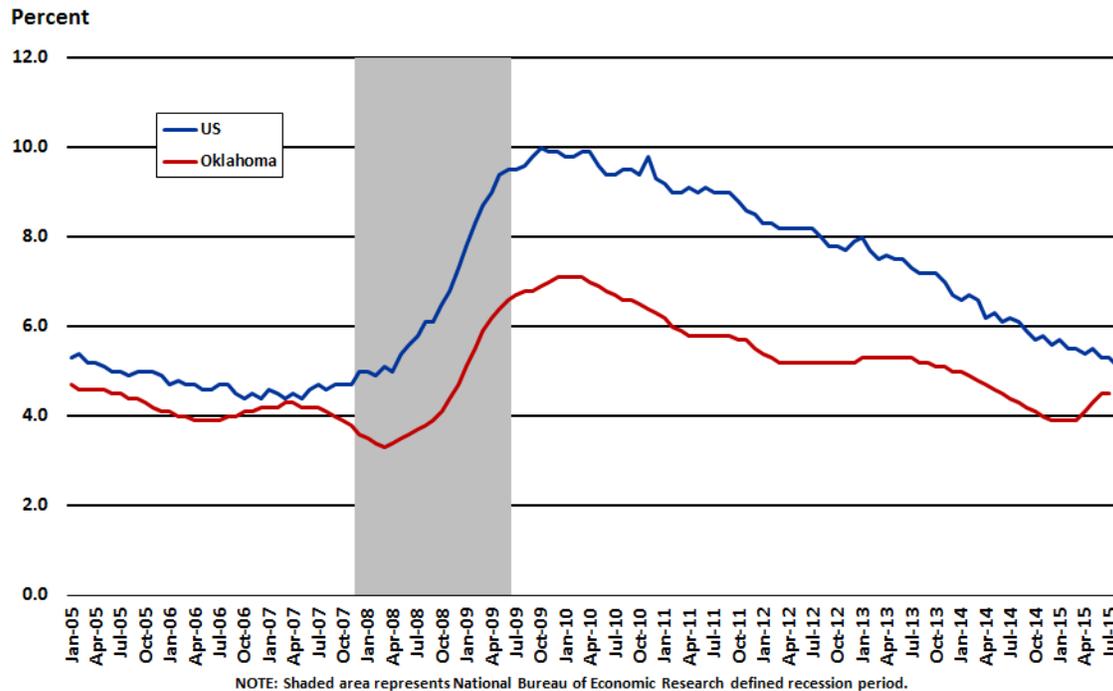
Oklahoma's leading index rose 1.33 percent in July after a 0.47 reading in June, according to the latest figures from the Federal Reserve Bank of Philadelphia.

During the first half of 2015, energy sector layoffs translated into elevated initial claims for unemployment insurance while home builders statewide pulled back on applications for residential construction. It appears that initial claims have finally stabilized and June marked a turnaround for residential permitting returning to normal levels.

Nevertheless, it looks like the Oklahoma economy experienced a mild recession during the first half of 2015.

## U.S. and Oklahoma Unemployment Rate (Seasonally Adjusted)

Source: U.S. Department of Labor, Bureau of Labor Statistics



### 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

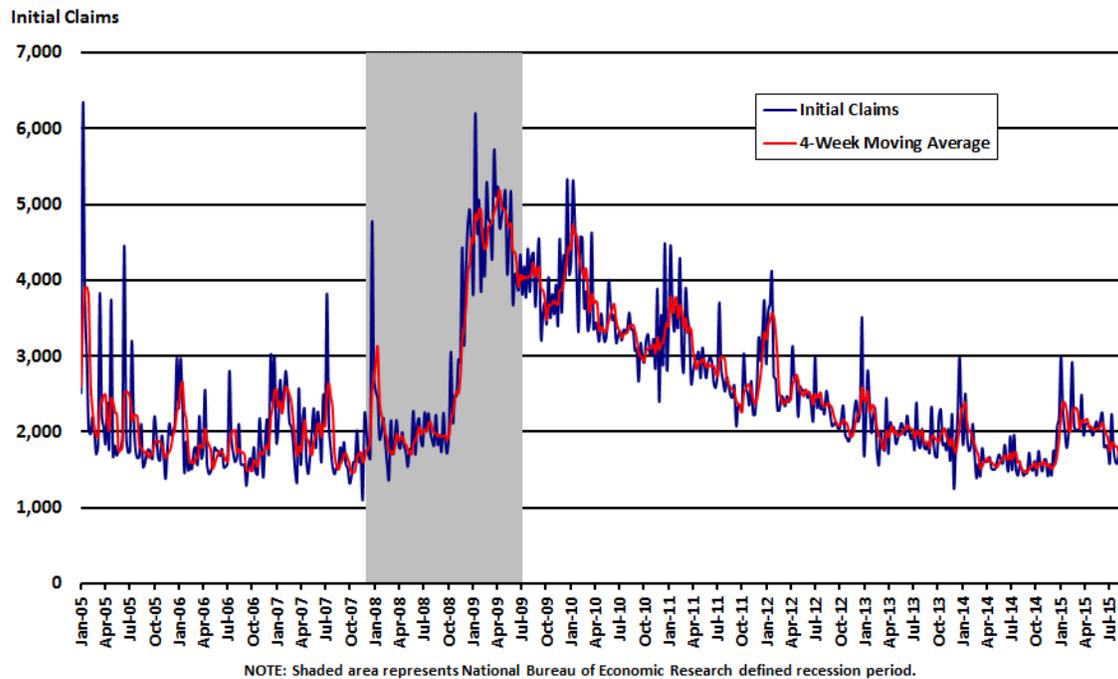
The U.S. unemployment rate fell to another seven-year low in August even as job growth slowed. In August, the unemployment rate edged down to 5.1 percent, according to the Bureau of Labor Statistics (BLS). The civilian labor force participation rate held steady for the third consecutive month at 62.6 percent, a 37-1/2-year low.

Oklahoma's unemployment rate remained at a seasonally adjusted 4.5 percent in July. Oklahoma's jobless rate was the 15th lowest unemployment rate among all states in July. Over the year, the state's seasonally adjusted unemployment rate was 0.1 percentage point more than the June 2014 rate of 4.4 percent.

Unemployment rates improved in 60 of 77 Oklahoma counties over the month in July. In July, Coal and McIntosh Counties tied for Oklahoma's highest county unemployment rate of 9.1 percent. Cimarron County again posted the lowest county unemployment rate in July at 2.6 percent.

## Oklahoma Initial Weekly Claims for Unemployment Insurance (Not Seasonally Adjusted)

Source: U.S. Department of Labor, Employment and Training Administration



### 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 smoothes out weekly volatility and gives a better perspective on the underlying trend.

### Current Developments

More Americans applied for unemployment benefits in the last week of August, but initial jobless claims still remained near cycle lows. In the week ending August 29, the advance figure for seasonally adjusted initial claims was 282,000, an increase of 12,000 from the previous week's revised level of 270,000, according to figures released by the U.S. Labor Department (DOL). The less volatile 4-week moving average was 275,500, an increase of 3,250 from the previous week's revised average of 272,250.

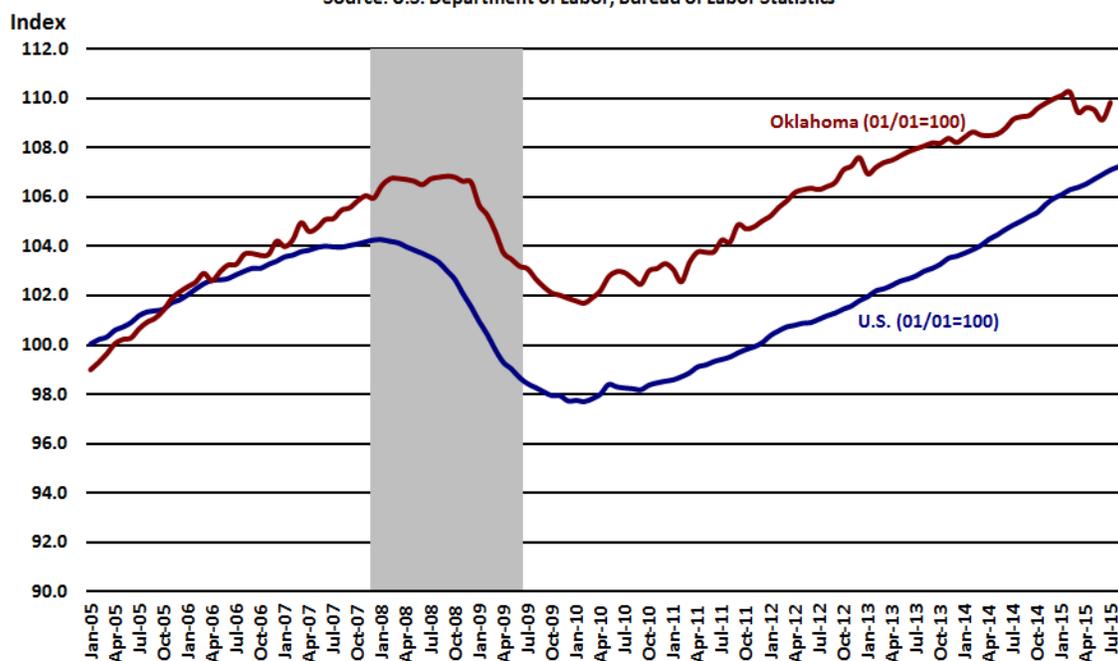
Oklahoma initial jobless claims rose in August but the longer term trend has been declining. For the file week ending August 22, initial jobless claims were at a level of 1,779, or 54 more claims than the previous week. For the same file week ending, the four-week moving average moved up to 1,707, or 42 more claims from the previous week. Over the month, initial claims were up 169 from 1,610 for the file week ending July 25.

Over the year, statewide initial jobless claims have increased by 327 from 1,452 for the file week ended August 23, 2014, while the less volatile 4-week moving average was 218 more than the 1,488 for the same file week ending. Continued claims jumped by 6,143 over the year from 16,017 for the file week ended August 23, 2014.

## U.S. and Oklahoma Nonfarm Payroll Employment (Seasonally Adjusted)

Index: January 2001=100

Source: U.S. Department of Labor, Bureau of Labor Statistics



NOTE: Shaded area represents National Bureau of Economic Research defined recession period.

### 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 of 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.

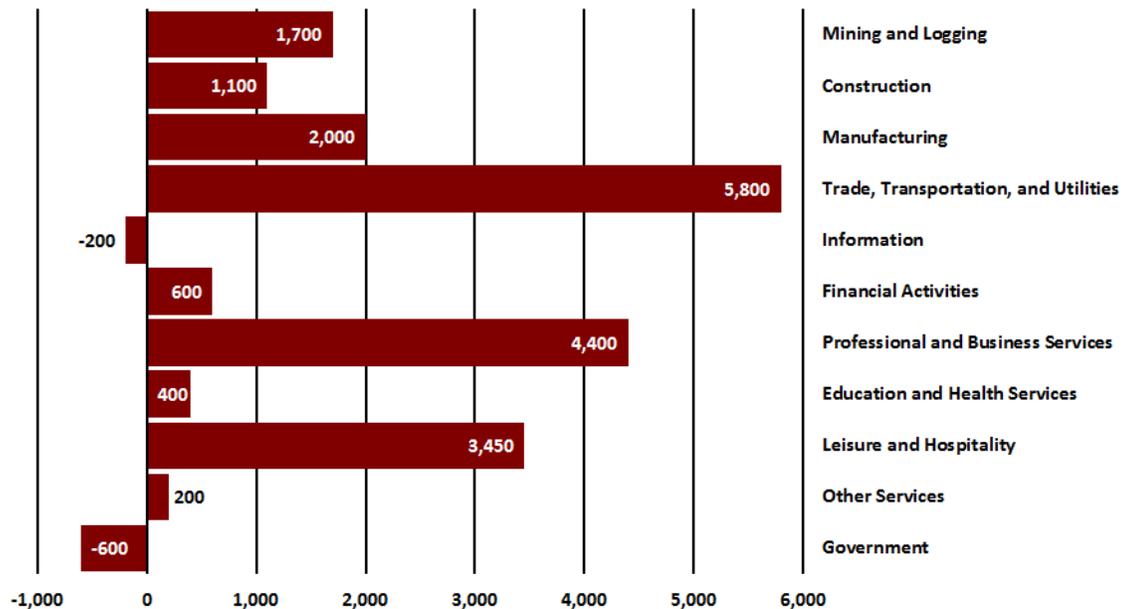
### Current Developments

U.S. job growth slowed in August, as job gains were the smallest in five months. Total nonfarm payroll employment rose by 173,000 in August, compared with an average monthly gain of 247,000 over the prior 12 months, according to the Bureau of Labor Statistics (BLS). In August, job gains occurred in health care and social assistance and in financial activities. Employment in manufacturing and mining declined.

Oklahoma's seasonally adjusted total nonfarm employment added 10,800 jobs (+0.7 percent) in July. Nine of Oklahoma's 11 supersectors posted job gains in July, with trade, transportation & utilities (+3,700 jobs) posting the largest increase. Over the year, statewide total nonfarm employment gained 10,300 jobs (+0.6 percent). Mining & logging (-7,200 jobs) and manufacturing (-6,600 jobs) were the only statewide supersectors losing jobs over the year. Trade, transportation & utilities (+4,500 jobs) also claimed the largest over-the-year job gain.

## Oklahoma Employment Change by Industry, 2013-2014 Annual Averages (Not Seasonally Adjusted)

Source: Current Employment Statistics (CES), U.S. Department of Labor, Bureau of Labor Statistics



### 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

Nonfarm employment growth eased a bit in 2014, adding a non-seasonally adjusted 18,900 jobs for a 1.2 percent growth rate, (compared to 2013, with 21,000 jobs added and a 1.3 percent growth rate).

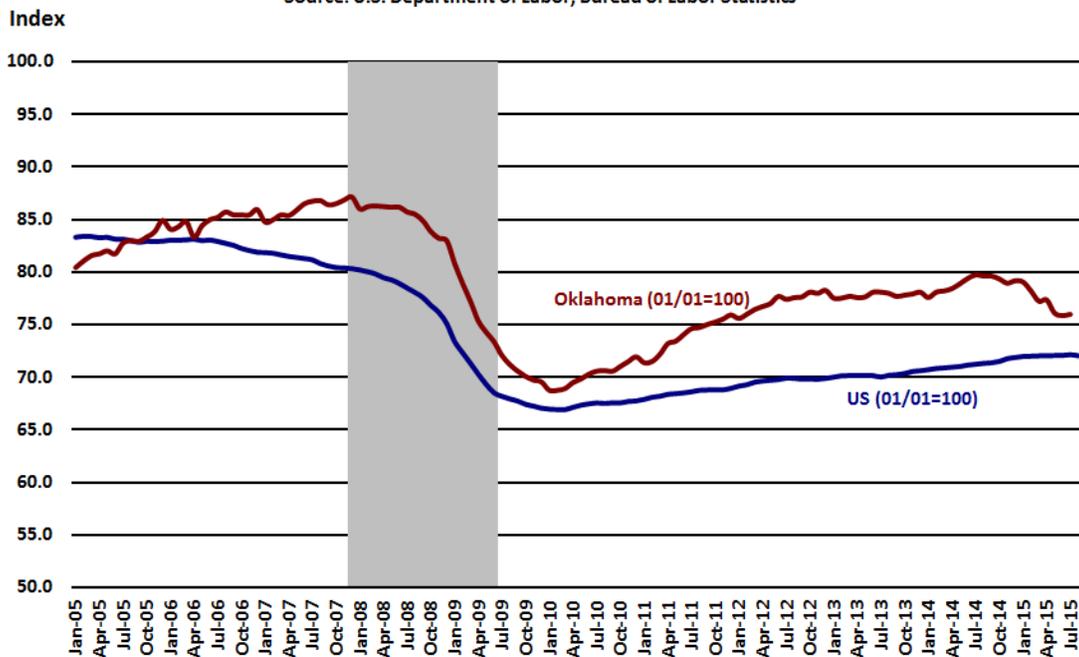
In 2014, nine out of Oklahoma's 11 statewide supersectors recorded job growth. The broad trade, transportation & utilities sector led all other supersectors adding a non-seasonally adjusted 5,800 jobs with the bulk of hiring occurring in retail trade. Professional & business services employment added 4,400 jobs with almost all of the growth coming from administrative & support and waste management & remediation services. Leisure & hospitality added 3,450 employees with most of the growth in accommodation & food services. Manufacturing employment grew by 2,100 driven by job gains in durable goods manufacturing. Mining & logging added 1,700 jobs led by support activities for mining. Construction added 1,100 jobs with nearly all the job growth in specialty trade contractors.

Over-the-year declines were seen in government (-400) and information (-200).

## U.S. and Oklahoma Manufacturing Employment (Seasonally Adjusted)\*

Index: January 2001 = 100

Source: U.S. Department of Labor, Bureau of Labor Statistics



NOTE: Shaded area represents National Bureau of Economic Research defined recession period.

### 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. factory employment declined for the first time in two years in August as the strong dollar and weak global demand continue to produce headwinds for manufacturers. In August, manufacturing employment decreased by 17,000 in August, after changing little in July (+12,000), according to the Bureau of Labor Statistics (BLS). Job losses occurred in a number of component industries, including fabricated metal products and food manufacturing (-7,000 each). These losses more than offset gains in motor vehicles and parts (+6,000) and in miscellaneous durable goods manufacturing (+4,000).

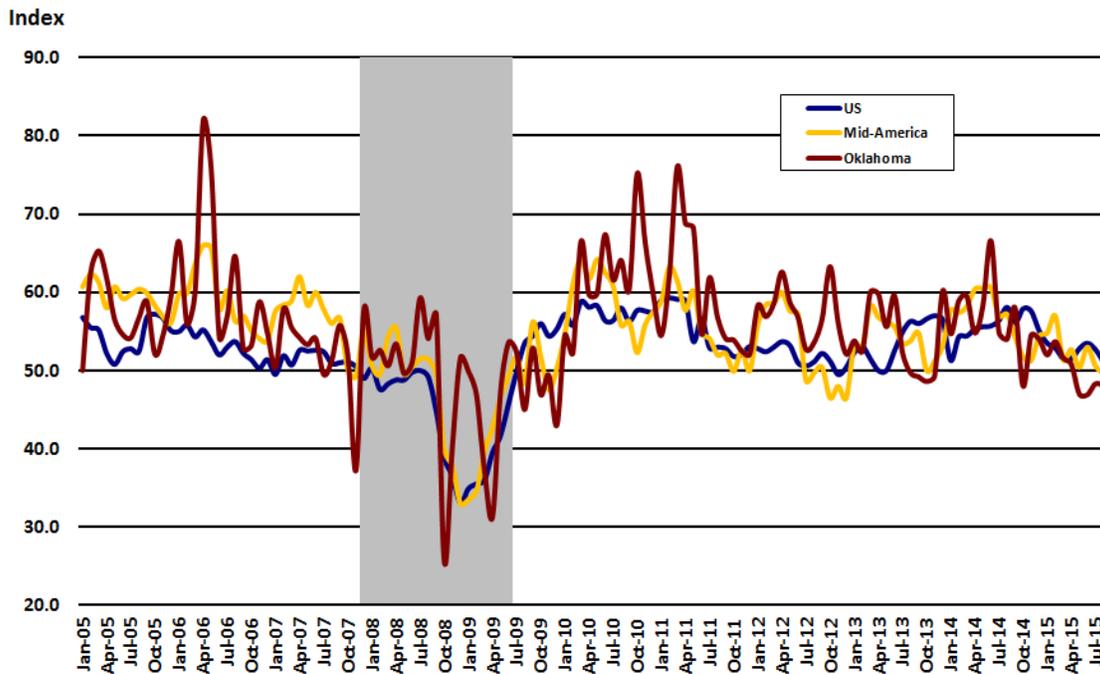
Oklahoma manufacturing employment declined for the third month in a row in July, shedding a non-seasonally adjusted 200 jobs (-0.2 percent). Durable goods manufacturing accounted for the majority of the job losses in July.

Over the year, Oklahoma non-seasonally adjusted manufacturing employment dropped 6,600 jobs (-4.7 percent) with nearly all of the job losses coming from durable goods manufacturing.

*\*As of January 2013, due to employment stability in the Manufacturing and Information supersectors, the BLS has determined that they do not need to be adjusted for seasonal factors at this time.*

## Purchasing Managers' Index (Manufacturing)

Sources: ISM Manufacturing Report On Business® and Business Conditions Index for Mid-America, Creighton University



NOTE: Shaded area represents National Bureau of Economic Research defined recession period.

### 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. 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

A strong dollar and weak global demand pulled down U.S. factory activity to its slowest rate of growth in more than two years. The August PMI® registered 51.1 percent, a decrease of 1.6 percentage points from the July reading of 52.7 percent, indicating growth in manufacturing for the 32nd consecutive month, according to the latest Manufacturing ISM Report On Business®. It was the second straight drop.

In August, the Employment Index registered 51.2 for a 1.5 point decline from July and the weakest reading since April. The New Orders Index at 51.7, declined 4.8 from July, one of the slowest rates of monthly growth of the recovery, since April 2013. New export orders fell 1.5 points to 46.5 percent, in their third straight month of contraction and are at the lowest rate since July 2012. Production slowed and prices paid, at only a 39.0 level last since in March, points to deflationary pressures.

The Mid-America Business Conditions Index for July, a leading economic indicator for a nine-state region stretching from North Dakota to Arkansas, slumped for the month. The Business  
*August 2015*

Conditions Index, which ranges between 0 and 100, declined to 49.6 from July's 50.6, according to the Creighton Economic Forecasting Group. The regional index, much like the national reading, is pointing to weak, and potentially negative growth through the fourth quarter of 2015.

"Growth for nondurable goods manufacturers offset weaker business conditions for durable goods producers including metal manufacturers, agricultural equipment producers and energy equipment manufacturers. Firms in Arkansas, Iowa, Minnesota, Missouri and South Dakota reported positive growth for the month while businesses in Kansas, Nebraska, North Dakota and Oklahoma detailed cuts in economic activity," said Ernie Goss, Ph.D., director of Creighton University's Economic Forecasting Group.

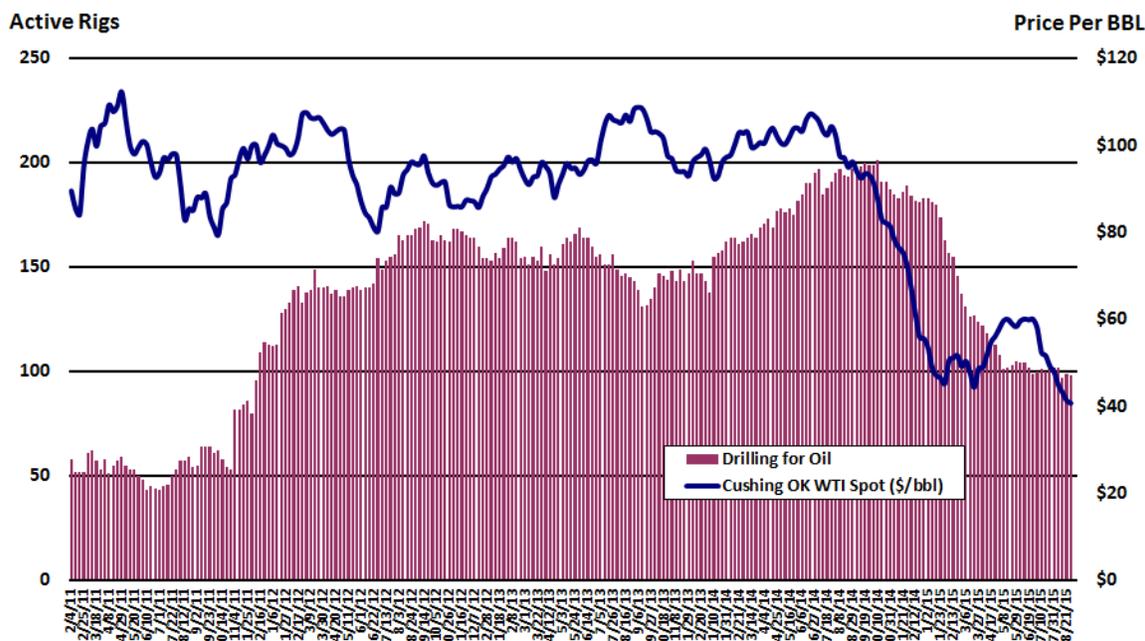
The July Business Conditions Index for Oklahoma slumped below growth neutral for a fourth straight month. The index from a monthly survey of supply managers in the state, dipped to a weak 48.1 from 48.3 in July. Components of the August survey of supply managers were new orders at 51.4, production or sales at 46.0, delivery lead time at 52.4, inventories at 40.4, and employment at 50.4.

"According to U.S. Bureau of Labor Statistics, Oklahoma has lost approximately 5,000, or 3.6 percent, of its manufacturing jobs since January 2015. The strong dollar and weakness in the state's energy sector weighed primarily on Oklahoma's manufacturing sector, particularly metal producers. Only Wyoming and North Dakota are more dependent on the two U.S. industries experiencing significant pullbacks in economic activity – agriculture and energy. Creighton's survey results over the past several months have pointed to economic losses for the overall state economy for the rest of 2015," said Goss.

## Oklahoma Active Rotary Rigs & Cushing, OK WTI Spot Price

February 2011 to August 2015

SOURCES: U.S. Department of Energy, Energy Information Administration and Baker Hughes Rig Counts



### 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, with annual production typically accounting for more than 3 percent of total U.S. production in recent years. 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, which have a combined distillation capacity of over 500 thousand barrels per day—roughly 3 percent of the total U.S. refining capacity.

### **Current Developments**

The recently announced crude oil swaps with Mexico are expected to provide economic and environmental benefits, according to a report from the Energy Information Administration (EIA). Under licenses approved earlier this month by the Bureau of Industry and Security (BIS), an office within the Department of Commerce that administers export controls on crude oil, volumes of crude oil produced in the United States and Mexico up to the approved volume cap will be exchanged. These swaps will likely involve U.S. light sweet crude, such as the growing output from shale formations in the United States, and Mexican heavy sour crude. The approved swaps are expected to be both economically and environmentally beneficial due to differences in U.S. and Mexican refineries. With significant coking and desulfurization capacity, U.S. Gulf Coast refineries are well-suited to process heavy sour crude. Conversely, part of the Mexican refinery fleet is configured to run light sweet crude. Therefore, the exchange should result in better optimization of refineries within both Mexico and the United States, and allow for increased supply of lower-sulfur gasoline from Mexican refineries.

Oklahoma's crude production continues at levels matching those seen in the early to mid-1980s. Statewide crude production in June was at 10,675,000 barrels, 63,000 barrels, (or -0.6 percent), less than June's level of 10,738,000 barrels. For the first half of 2015, Oklahoma's crude production was 65,045,000 barrels, 2,026,000 barrels or 3.2 percent more than the 63,019,000 barrels produced in the first six months of 2014.

Domestic crude oil prices continued to slide in August. West Texas Intermediate (WTI-Cushing) spot prices dropped below the \$40/barrel level to \$38.22/barrel, its lowest level in 6 1/2 years, before recovering to finish the month at \$49.20/barrel. Since peak prices in June 2014, WTI-Cushing prices have fallen more than 60 percent.

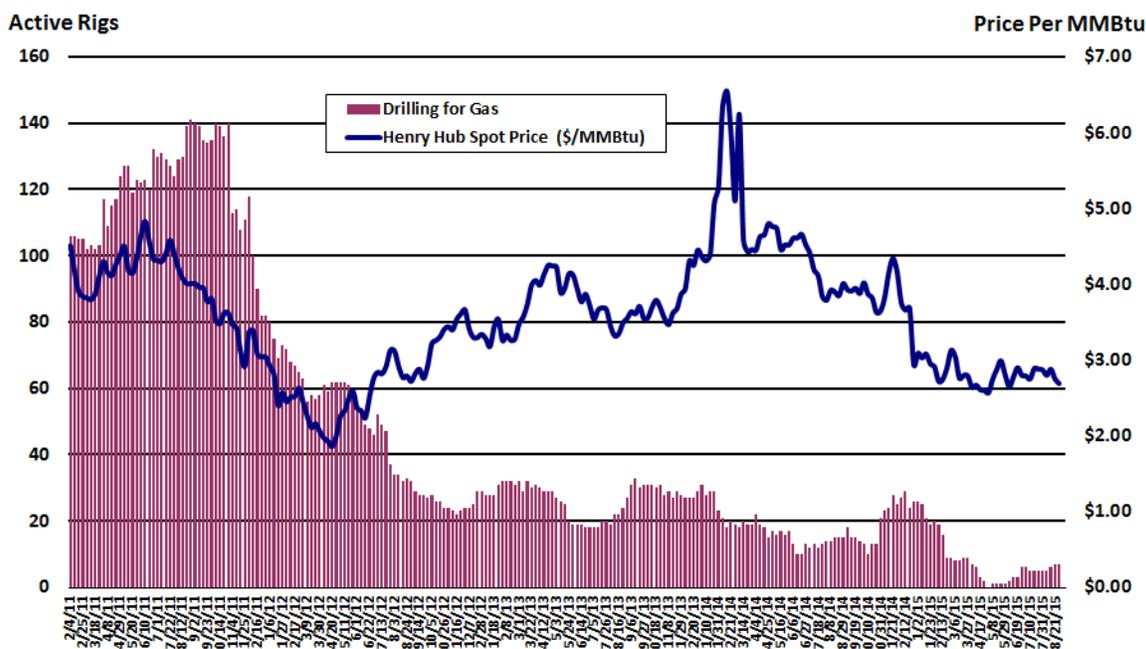
Oklahoma's active rig count moved down to 105 for the week ending August 28 with 98 rigs being oil-directed. Over the year, Oklahoma's rig count was off 107 from 212 rigs operating August 29, 2014.

The overall count of rigs searching for oil and natural gas in the U.S. fell by 8 to 877 in the week ended August 28, according to data from oilfield service company Baker Hughes. Oil-directed rigs accounted for 77.0 percent of drilling activity while natural gas-directed accounted for 23.0 percent.

## Oklahoma Active Rotary Rigs & Henry Hub Natural Gas Spot Price

February 2011 to August 2015

Sources: U.S. Department of Energy, Energy Information Administration and Baker Hughes Rig Counts



### 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 United States with production typically accounting for almost one-tenth of the U.S. total. 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**

According to a recent article in the Wall Street Journal, abundant domestic natural gas supplies will likely keep prices low for decades. Natural gas increasingly powers the U.S. economy and is critical to the Obama administration's push to reduce carbon emissions from electricity generation. American natural gas consumption has risen 2.4 percent annually for the past decade while demand for coal has dropped 2.7 percent and oil by less than 1 percent, according to the Energy Information Administration (EIA). Natural gas is now used to generate approximately 30 percent of U.S. electricity and heat nearly half of all American homes.

June natural gas gross withdrawals in Oklahoma were at a level of 209,633 MMcf, 3,181 MMcf (or -1.5 percent) less than May's record-setting production level. For the first half of 2015, Oklahoma natural gas gross withdrawals totaled 1,242,055 MMcf compared to 1,117,149 MMcf for the first six months of 2014, that's 124,906 MMcf, or 11.2 percent, more than the first half 2014.

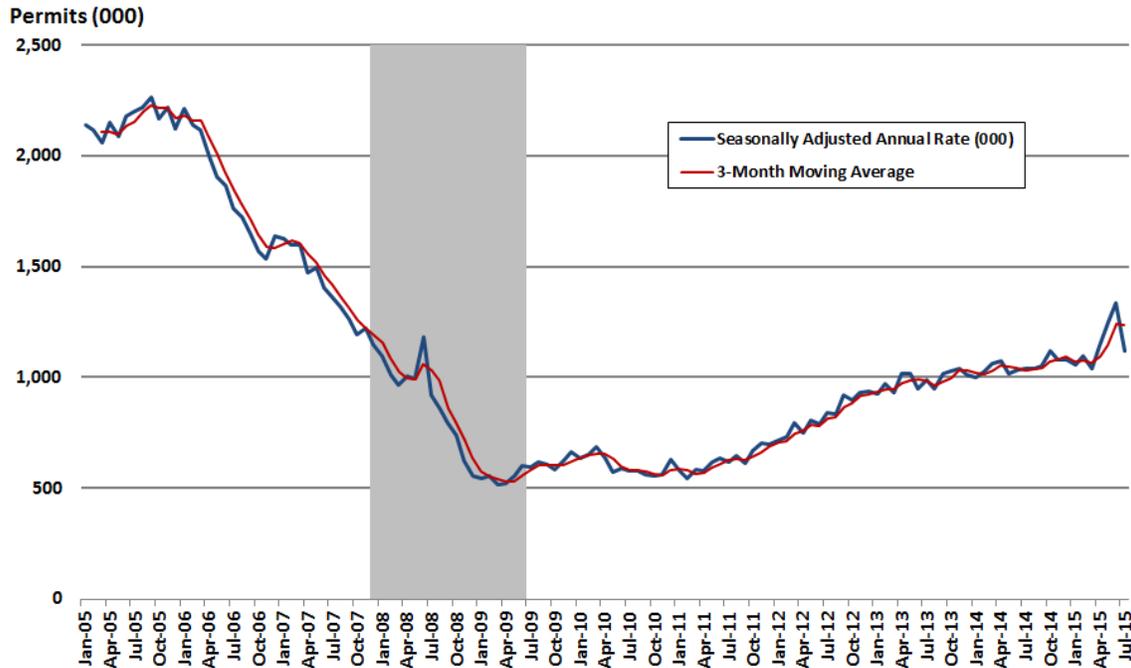
Natural gas prices generally remained fairly stable in August. The Henry Hub spot price began the month at \$2.76 per million British thermal units (MMBtu) and finishing the month at \$2.70/MMBtu.

Oklahoma's natural gas-directed drilling rig count averaged about 6 active rigs in August. Over the year, Oklahoma's natural gas-directed rotary rig count was down eight rigs from 15 reported the week ended August 29, 2014.

## U.S. New Private Housing Units Authorized by Building Permit, 2005-2015

### Seasonally Adjusted

Source: U.S. Census Bureau and Department of Housing and Urban Development



NOTE: Shaded area represents National Bureau of Economic Research defined recession period.

### 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 outside 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

After posting three months of solid gains, approved building permits declined in July after achieving an eight-year high in June. Privately-owned housing units authorized by building permits in July were at a seasonally adjusted annual rate of 1,119,000, or 16.3 percent below the revised June rate of 1,337,000, but 7.5 percent above the July 2014 estimate of 1,041,000, according to the U.S. Census Bureau and the Department of Housing and Urban Development.

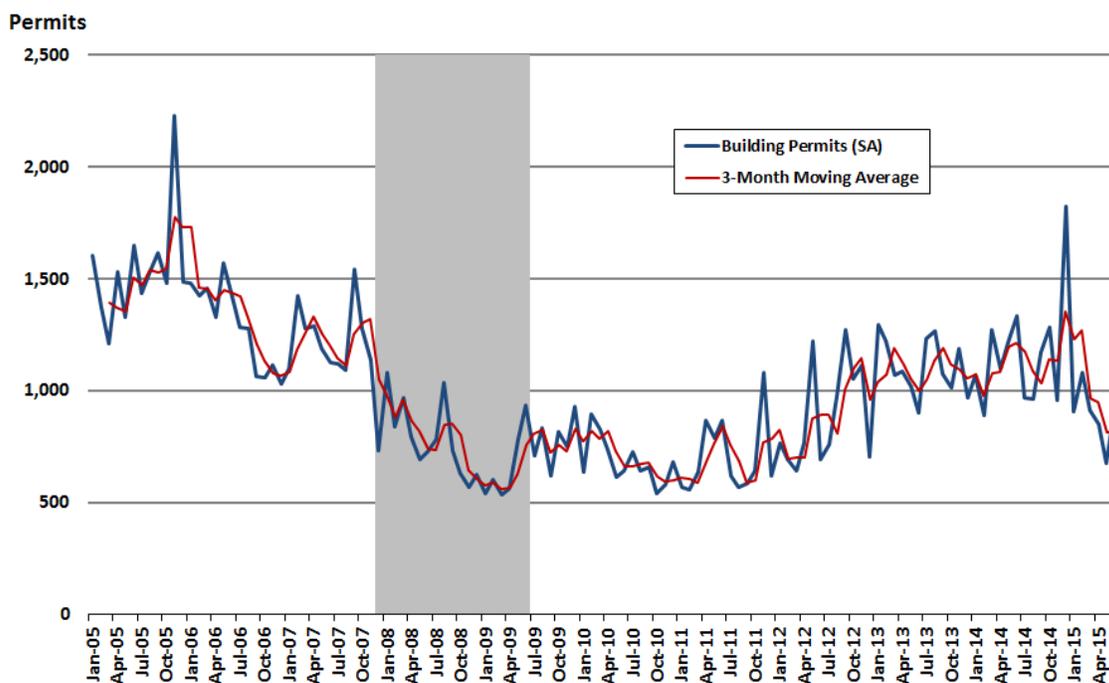
Much of the decrease in July permitting was attributed to a sharp plunge in permits to construct apartments after a tax break expired in New York. Building permits in the Northeast plunged 60.2 percent last month as all four regions of the country saw declines in July.

Homebuilder confidence climbed in August. The National Association of Home Builders/Wells Fargo builder sentiment index reached 61, the highest level since November 2005.

## Oklahoma New Private Housing Units Authorized by Building Permit, 2005-2015

### Seasonally Adjusted

Sources: U.S. Census Bureau and Department of Housing and Urban Development, Federal Reserve Bank of St. Louis



NOTE: Shaded area represents National Bureau of Economic Research defined recession period.

### 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

Residential permitting activity in Oklahoma continued to climb in July as apartment permitting helped boost the total. Total residential building permitting for July was at a seasonally-adjusted level of 1,165, or 24.6 percent above the June level of 935 and 20.1 percent below the July 2014 estimate of 970 units, according to figures from the Federal Reserve Bank of St. Louis.

Single-family permitting accounted for 74.4 percent of total residential permitting activity in July while multi-family permitting added 25.6 percent. Applications for single-family homes were at a seasonally adjusted level of 867, or 1.5 percent more than June's level of 854 permits.

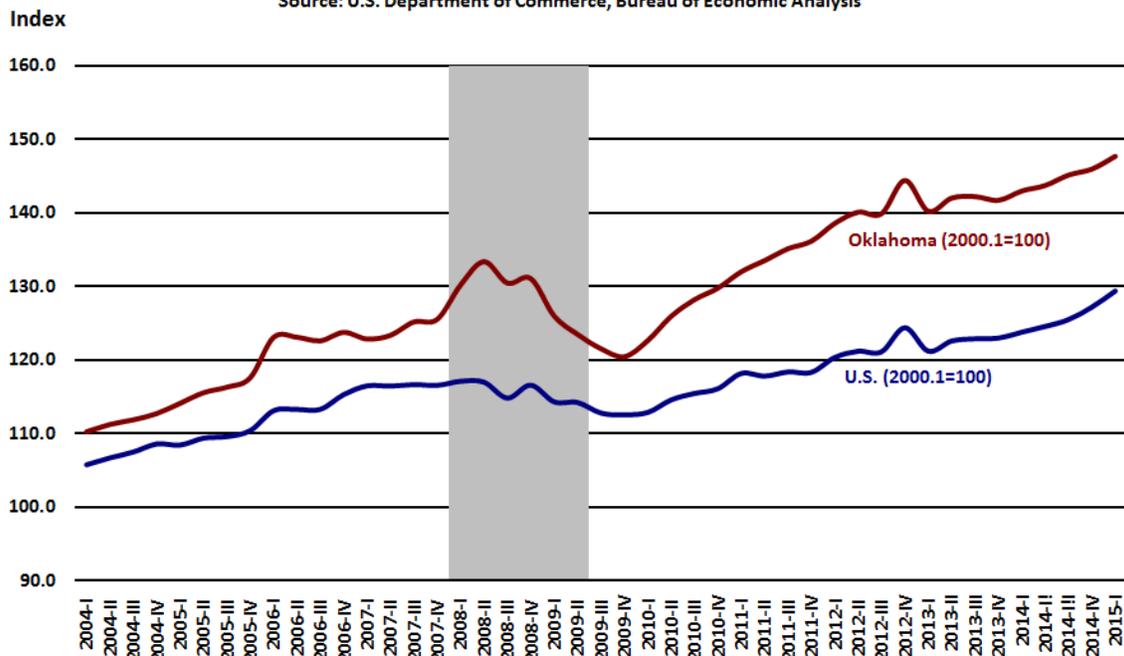
Over the year, total residential permitting was 195 permits, or 20.1 percent, more than July 2014. Single-family permits were up 46 permits, or 5.6 percent more than a year ago, while the more volatile multi-family permitting was 149 more than the June 2014 level of 149 permits.

It appears that statewide residential permitting has gotten off to a slow start in 2015. Year to date, total unadjusted residential building permitting was at a level of 6,521 for the first seven months of 2015, compared to 7,852 the first half of 2014.

## U.S. and Oklahoma Real Personal Income

Index: 1st Quarter 2000 = 100

Source: U.S. Department of Commerce, Bureau of Economic Analysis



NOTE: Shaded area represents National Bureau of Economic Research defined recession period.

### 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

Wages and salaries made their largest jump in eight months and consumer spending picked up in July as households bought more automobiles. Personal income increased \$67.1 billion, or 0.4 percent, and disposable personal income (DPI) increased \$61.5 billion, or 0.5 percent in July, according to the Bureau of Economic Analysis (BEA). Personal consumption expenditures (PCE) increased \$37.4 billion, or 0.3 percent. In June, personal income increased \$59.4 billion, or 0.4 percent, DPI increased \$52.4 billion, or 0.4 percent, and PCE increased \$31.8 billion, or 0.3 percent, based on revised estimates.

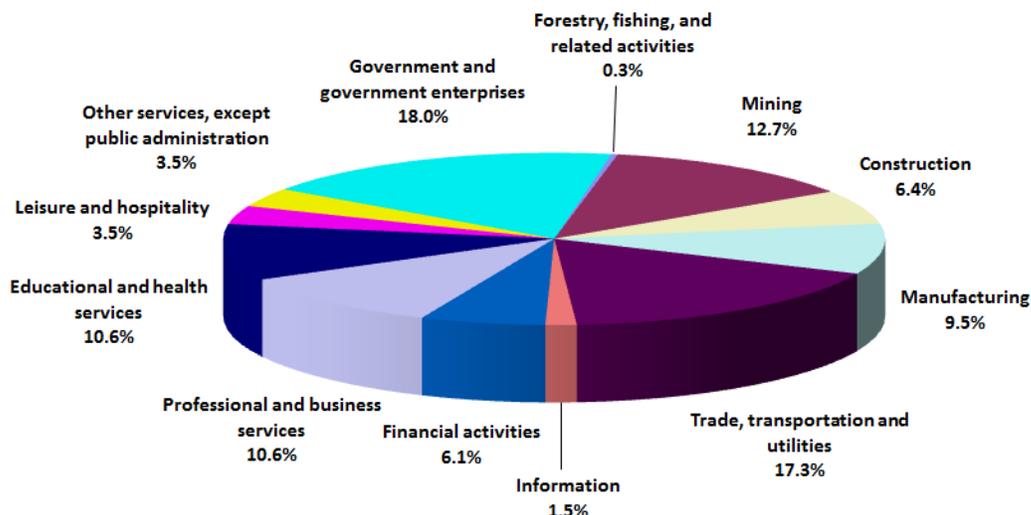
Spending on durable goods, including automobiles, increased 1.1 percent, reversing June's 1.1 percent drop. Auto purchases accounted for about half that increase. Outlays on services like utilities rose 0.2 percent. Inflation remained tame in July, the core PCE price index, rose only 0.1 percent, slowing from a 0.2 percent increase in June, and only 0.3 percent over the year.

The savings rate rose to 4.9 percent in July from 4.7 percent in June, stemming in part from a big jump in after-tax income of 0.5 percent, the biggest gain since last November.

## Oklahoma Nonfarm Contribution to Earnings

First Quarter 2015

Source: U.S. Department of Commerce, Bureau of Economic Analysis



### 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 grew 0.9 percent on average in the 1st quarter of 2015, after growing 1.1 percent in the 4th quarter of 2014, according to estimates released today by the U.S. Bureau of Economic Analysis (BEA). Personal income grew in 46 states and growth accelerated in 15 of those states. The fastest growth, 1.3 percent, was in Florida. Personal income fell in four states, with the largest decline, 1.2 percent, in Iowa. The national price index for personal consumption expenditures fell 0.5 percent in the 1st quarter, after falling 0.1 percent in the 4th quarter.

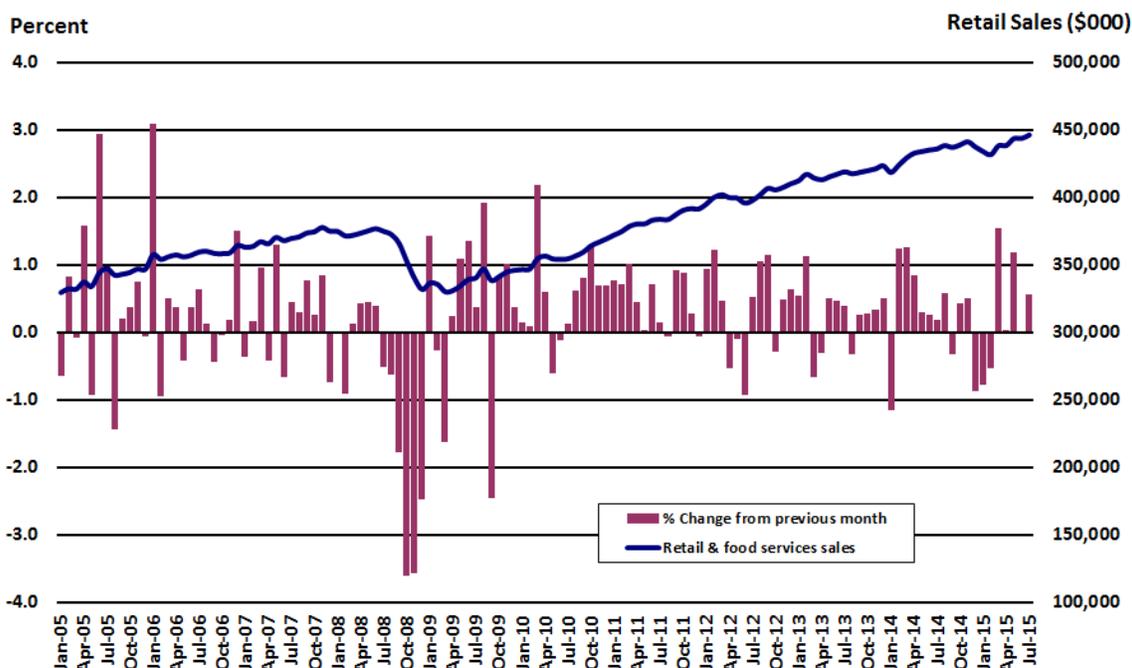
Oklahoma's personal income grew at a 0.4 percent pace in the 1st quarter of 2015, following a revised 0.3 percent rate in the 4th quarter, ranking the state 42nd among all other states and the District of Columbia. Total state personal income was at a level of \$169.8 billion in the 1st quarter of 2015.

The drop in oil prices has hurt top oil-producing states, including Oklahoma, in the form of slower growth in personal income and employment. Earnings in mining (which includes oil and gas extraction) fell 3.5 percent in the 1st quarter, the first decline since the 3rd quarter of 2009, according to the BEA. Mining earnings fell 4.5 percent in Wyoming, 4.4 percent in Louisiana, 4.1 percent in North Dakota, 3.9 percent in Oklahoma, and 3.1 percent in Texas.

Oklahoma's earnings growth was essentially flat in the 1st quarter, growing only \$11.0 million to a level of \$120.3 million and a growth rate of 0.01 percent. Mining was the largest detractor to earnings growth, subtracting 0.36 percentage point. Farm earnings subtracted another 0.21 percentage point. Construction was the largest contributor to 1st quarter earnings growth, adding 0.12 percentage point.

## U.S. Retail Sales (Adjusted for Seasonal, Holiday, and Trading-Day Differences)

Source: U.S. Census Bureau, Advance Monthly Sales for Retail and Food Services



### 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

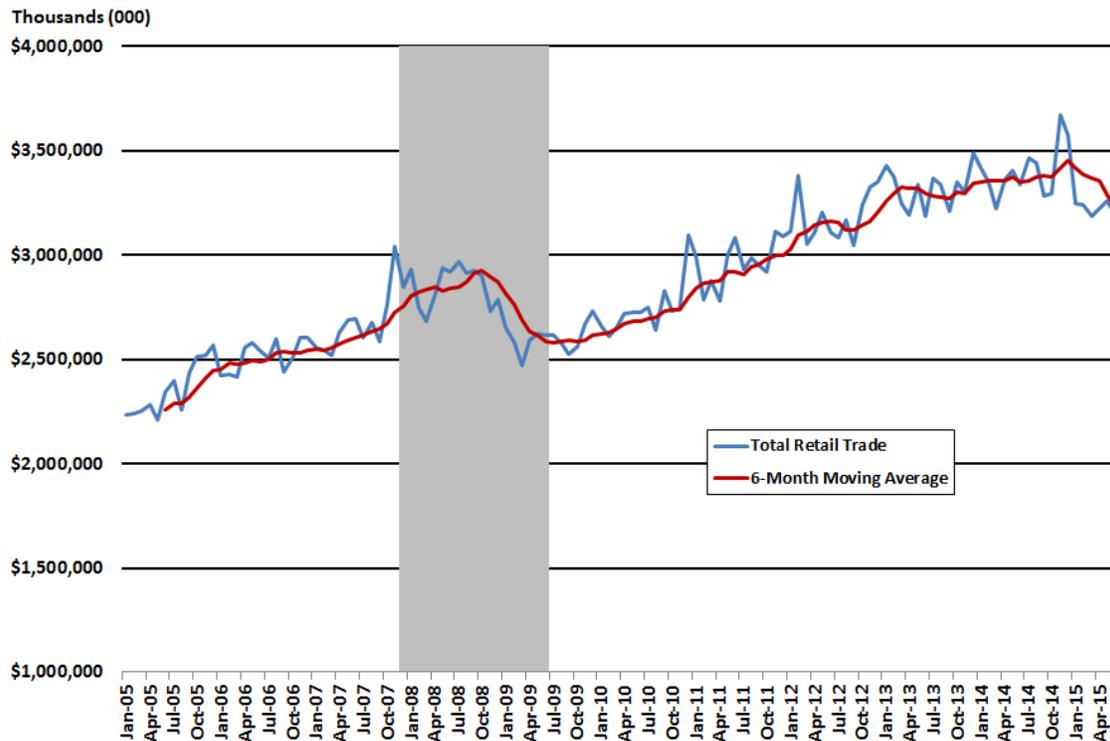
U.S. retail sales rebounded in July as consumers boosted spending on cars, restaurants and building supplies. Advance estimates of U.S. retail and food services sales for July, adjusted for seasonal variation and holiday and trading-day differences, but not for price changes, were \$446.5 billion, an increase of 0.6 percent from the previous month, and 2.4 percent above July 2014, according to the U.S. Census Bureau. The May 2015 to June 2015 percent change was revised from -0.3 percent to virtually unchanged while April to May was revised to a jump of 1.2 percent from 1.0 percent. The revisions to June and May point to an upward revision for 2nd-quarter GDP.

Purchases at auto dealers jumped 1.4 percent in July, nearly reversing June's 1.5 percent slide and almost matching May's historic 1.9 percent surge. Restaurants and building materials stores both recorded a 0.7 percent gain in July. Gasoline station sales increased 0.4 percent in July but cheaper energy prices have pushed sales down over the year by 15.2 percent. Excluding autos and gasoline, retail sales rose a solid 0.4 percent in July.

The less volatile "core" sales, which strip out automobiles, gasoline, building materials and food services rose 0.3 percent after a revised 0.2 percent gain in June. Gains were seen at furniture stores (+0.8 percent), and sporting goods (+0.9 percent) and clothiers (+0.4 percent), last month. Sales declined at electronics and department stores, while spending at grocers was flat.

## Oklahoma Total Adjusted Retail Trade

Source: Center for Economic & Management Research, University of Oklahoma



### 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 take out monthly volatility, we have used a six-month moving average.

### Current Developments

Oklahoma total adjusted retail trade fell in June with broad-based losses occurring in both durable and nondurable sales. Total adjusted retail sales for June were at a level of \$3.19 billion, or 1.9 percent lower than the May level of \$3.26 billion. For the first six months of 2015, total adjusted retail trade was at a level of \$19.35 billion, or 3.7 percent lower than \$20.09 billion for the first half of 2014.

Total durable goods sales fell 1.1 percent in June led by big declines in miscellaneous durable goods (2.2 percent) and auto accessories & repair (-1.9 percent). Other declining durable goods categories were furniture (-1.9 percent); electronics & music stores (-0.6 percent); lumber & hardware (-0.2 percent); and used merchandise (-0.8 percent).

Nondurable goods spending sank 2.2 percent in June led by a drop in estimated gasoline sales (-13.4 percent) due to lower pump prices. Other declining categories were miscellaneous non-durable goods sales (-1.3 percent); apparel (-0.7 percent); and general merchandise stores (-0.6 percent). Advancing for June were drugstore sales (1.2 percent); eating & drinking (0.5 percent); food (0.2 percent); and liquor (0.1 percent).