



# OKLAHOMA Economic Indicators

August 2014

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Oklahoma Employment Security Commission  
Richard McPherson, Executive Director

Economic Research and Analysis Division  
Lynn Gray, Director & Chief Economist

*Prepared by*  
Monty Evans, Senior Economist

Will Rogers Memorial Office Building  
Labor Market Information Unit, 4th Floor N  
P.O. Box 52003  
Oklahoma City, OK 73152-2003  
Phone: (405) 557-5369  
Fax: (405) 525-0139  
Email: [lmi1@oesc.state.ok.us](mailto:lmi1@oesc.state.ok.us)

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# SPECIAL REPORT: OKLAHOMA BUSINESS EMPLOYMENT DYNAMICS: 4th Quarter 2013

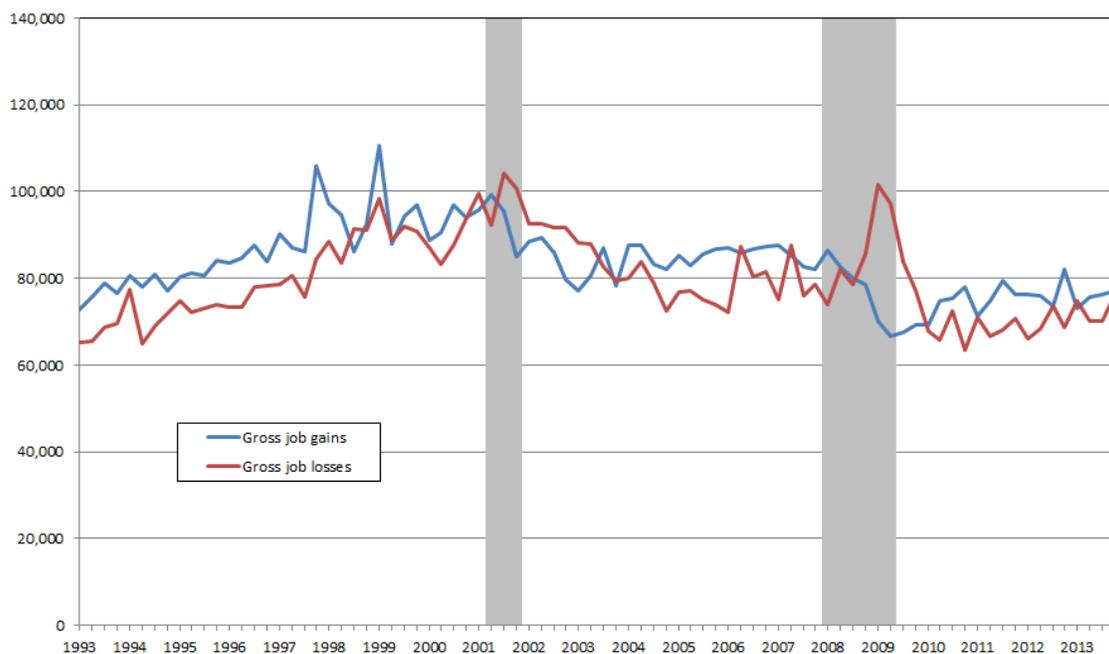
## Introduction

The economy is in a constant state of change; individual businesses are starting, stopping, growing, and declining. The Business Employment Dynamics (BED) data series are designed to explain these dynamic changes in business establishments and employment over time through expansions, contractions, openings, and closings.

Business Employment Dynamics consist of a quarterly series of statistics on gross job gains and gross job losses. Gross job gains and gross job losses reveal some aspects of business dynamics, including establishment openings and closings and establishment expansions and contractions. These data track changes in employment at the establishment level, and thus provide a picture of the dynamics underlying aggregate net employment growth statistics.

## Chart 1

Private sector gross job gains and gross job losses in Oklahoma  
March 1993 - December 2013, seasonally adjusted



Source: U.S. Bureau of Labor Statistics  
Note: Shaded areas represent NBER defined recession periods.

## Gross Job Gains and Gross Job Losses: 4th Quarter 2013

State gross job gain and gross job loss statistics highlight the forces behind job growth. From September 2013 to December 2013, the number of gross job gains from opening and expanding private sector establishments was 77,182, an increase of 786 jobs from the previous quarter, according to the Oklahoma Employment Security Commission, Labor Market Information Division, and the U.S. Bureau of Labor Statistics. After edging down in the previous quarter, the number of gross job losses at private sector closing and contracting establishments totaled 76,346, an increase of 6,150 jobs compared to the previous quarter, (see Chart 1, above).

The difference between the number of gross job gains and the number of gross job losses yielded a “net” employment gain of 836 jobs in the private sector during the 4th quarter of

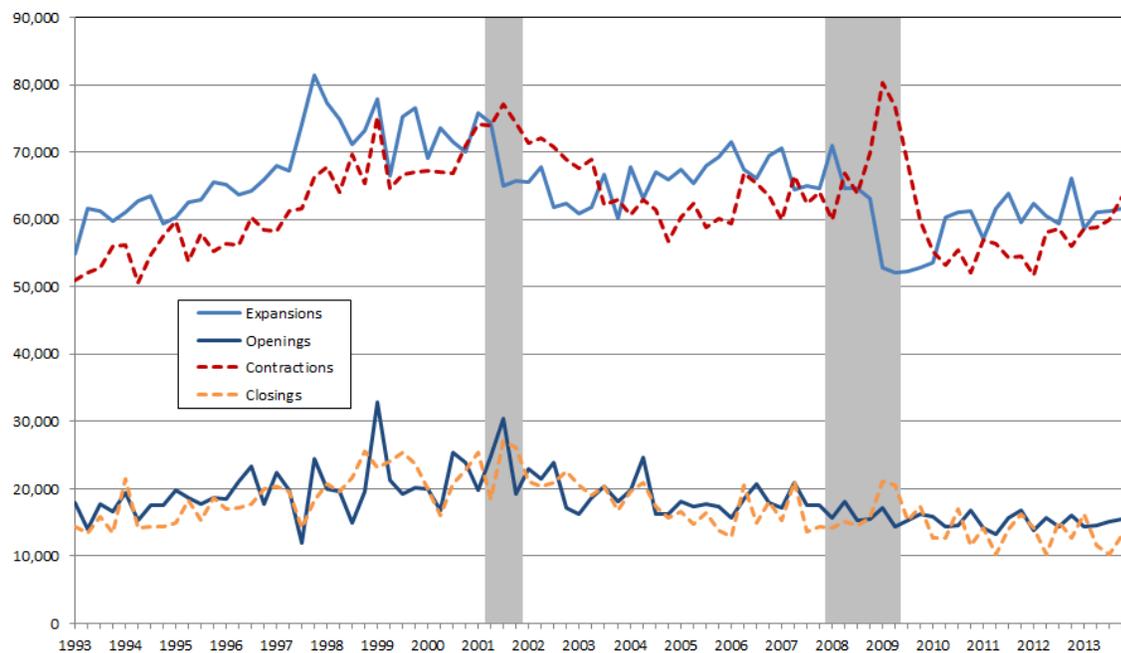
2013, representing the third consecutive quarter of net job growth, based upon BED measures. In the past 16 quarters there has been only one quarter with negative net employment, occurring in the 1st quarter of 2013.

BED data can also be used in highlighting state labor markets over the course of the business cycle, as well as measuring the importance of job changes at opening and closing establishments relative to changes at existing establishments. The change in the number of jobs over time is the net result of increases and decreases in employment that occur in all businesses in the economy. During times of overall economic growth, gross job gains exceed gross job losses. For example, in Oklahoma during the 2004-2008 timeframe, net job growth was realized in every quarter but two. At the height of Oklahoma’s economic expansion, net job growth peaked at 14,873 the in 1st quarter of 2006.

Conversely, when the economy stagnates or contracts, the reverse is typically true. During the ‘Great Recession’, gross job gains plummeted and gross job losses spiked. In Oklahoma, from 4th quarter 2008 to 4th quarter 2009, net job losses were realized in every quarter. Net quarterly job losses exceeded 30,000 per quarter in 1st and 2nd quarters of 2009.

## Chart 2

Components of private sector gross job gains and losses in Oklahoma  
March 1993 - December 2013, seasonally adjusted



Source: U.S. Bureau of Labor Statistics  
Note: Shaded areas represent NBER defined recession periods.

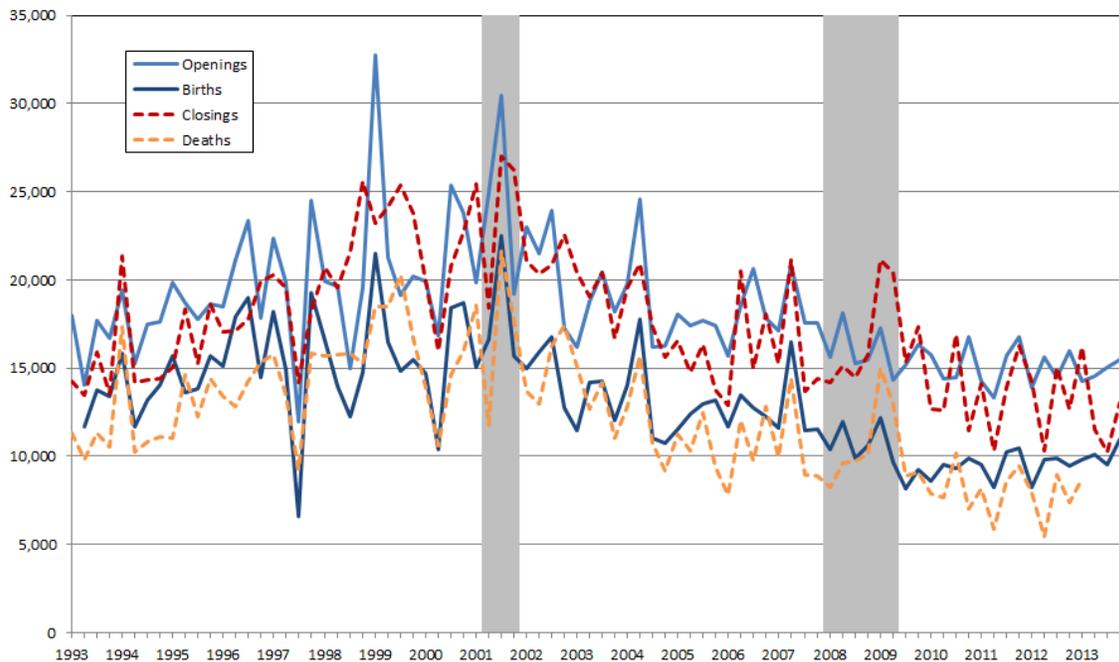
### Gross Job Gains and Losses: Openings vs. Closings and Expansions vs. Contractions

**Expanding** establishments in Oklahoma gained 61,708 jobs in the 4th quarter of 2013, an increase of 375 jobs compared to the previous quarter. **Opening** establishments gained 15,474 jobs during 4th quarter 2013, an increase of 411 more new jobs than in 3rd quarter 2013, (see Chart 2, above).

**Contracting** establishments lost 63,331 jobs in the 4th quarter of 2013, representing 3,396 more jobs lost than the previous quarter. **Closing** establishments lost 13,015 jobs from September 2013 to December 2013, an increase 2,754 more jobs lost since the prior quarter.

### Chart 3

Employment from private sector openings, closings, births and deaths in Oklahoma  
March 1993 - December 2013, seasonally adjusted



Source: U.S. Bureau of Labor Statistics  
Note: Shaded areas represent NBER defined recession periods.

In Oklahoma, the number of establishment births<sup>1</sup> (a subset of the openings data) decreased by 78 to 2,267 in the 4th quarter of 2013. These new establishments accounted for 10,933 jobs—an increase of 1,384 from the previous quarter. Data for establishment deaths<sup>2</sup> (a subset of the closings data) are now available through the 1st quarter of 2013, when 8,722 jobs were lost at 2,481 establishments. In the prior quarter, 7,407 jobs were lost at 1,790 establishments (see Chart 3, above).

Over the long term, it appears that the short recession occurring from March to November in 2001 had a fairly substantial impact on employment levels from private sector establishment openings, closings, births, and deaths in Oklahoma. While job gains from openings and births spiked up in September 2001 so did job losses from closings and deaths. From the 3rd quarter of 2001, Oklahoma saw eight consecutive quarters of net job losses until the 3rd quarter of 2003 with the heaviest net job losses occurring in 4th quarter 2002 and 1st quarter 2003 (-11,864 and -11,094 respectively). It looks as if the recession of 2001 had more lingering negative effects on job growth in Oklahoma than the Great Recession.

<sup>1</sup> Births refer to establishments that appear in the longitudinal database for the first time with positive employment in the third month of a quarter, or showed four consecutive quarters of zero employment in the third month followed by a quarter in which it shows positive employment in the third month.

<sup>2</sup> Deaths refer to establishments that either drop out of the longitudinal database or an establishment that had positive employment in the third month of a given quarter followed by four consecutive quarters of showing zero employment in the third month.

## Gross Job Gains and Gross Job Losses: Percent of Total Private Sector Employment

As stated earlier, the difference between the number of gross jobs gained and the number of gross jobs lost yielded a **net employment change** of 836 jobs in the private sector for the 4th quarter of 2013.

**Gross job gains** represented 6.1 percent of 4th quarter 2013 total private sector employment in Oklahoma with expansions accounting for 4.9 percent and openings contributing 1.2 percent. **Gross job losses** represented 6.1 percent of 4th quarter 2013 total private sector employment with contractions accounting for 5.1 percent and closings adding another 1 percent<sup>3</sup> (see Chart 4, below and Table 1, next page ).

### Chart 4

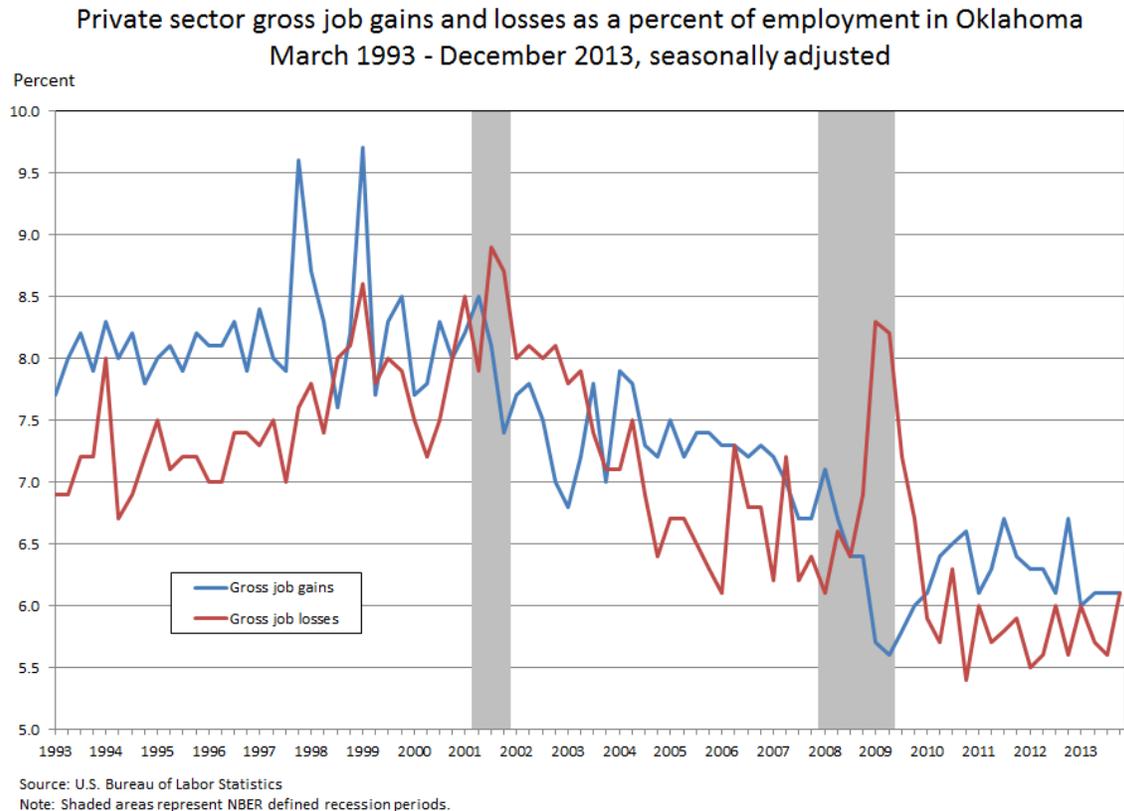


Chart 4 illustrates how, over the past 20 years in Oklahoma, both gross job gains and gross losses as a share of total private sector employment has steadily declined. Gross job gains as a percent of total private sector employment averaged 8.2 percent of total private sector employment from September 1992 up to the recession beginning March 2001 but the average dropped to 7.3 percent after that recession (from 1st quarter 2002 to 4th quarter 2007) and fell to an average of 6.3 percent following the Great Recession (from 3rd 2009 to 4th quarter 2013). Likewise, gross job losses share of private sector employment averaged 7.5 percent prior to the 2001 recession but dropped to 7.1 following that recession and fell even more to 5.9 percent after the Great Recession.

<sup>3</sup> Gross job gains and gross job losses are expressed as rates by dividing their levels by the average of total private employment in the current and previous quarters. This provides a symmetric growth rate. The rates are calculated for the components of gross job gains and gross job losses and then summed to form their respective totals. These rates can be added and subtracted just as their levels can. For instance, the difference between the gross job gains rate and the gross job loss rate is the net growth rate.

<b>Table 1. Oklahoma: Three-month private sector gross job gains and losses, seasonally adjusted</b>					
Category	3 months ended				
	Dec 2012	Mar 2013	June 2013	Sep 2013	Dec 2013
	Levels				
Gross job gains.....	<b>82,091</b>	<b>72,957</b>	<b>75,621</b>	<b>76,396</b>	<b>77,182</b>
Expanding establishments	66,115	58,675	61,087	61,333	61,708
Opening establishments	15,976	14,282	14,534	15,063	15,474
Gross job losses.....	<b>68,685</b>	<b>74,768</b>	<b>70,293</b>	<b>70,196</b>	<b>76,346</b>
Contracting establishments	56,005	58,601	58,792	59,935	63,331
Closing establishments	12,680	16,167	11,501	10,261	13,015
Net employment change <sup>1</sup>	13,406	-1,811	5,328	6,200	836
	Rates (percent)				
Gross job gains.....	<b>6.7</b>	<b>6.0</b>	<b>6.1</b>	<b>6.1</b>	<b>6.1</b>
Expanding establishments	5.4	4.8	4.9	4.9	4.9
Opening establishments	1.3	1.2	1.2	1.2	1.2
Gross job losses.....	<b>5.6</b>	<b>6.0</b>	<b>5.7</b>	<b>5.6</b>	<b>6.1</b>
Contracting establishments	4.6	4.7	4.8	4.8	5.1
Closing establishments	1.0	1.3	0.9	0.8	1.0
Net employment change <sup>1</sup>	1.1	0.0	0.4	0.5	0.0
Source: Bureau of Labor Statistics					
<sup>1</sup> Net employment change is the difference between total gross job gains and total gross job losses.					

### More Information

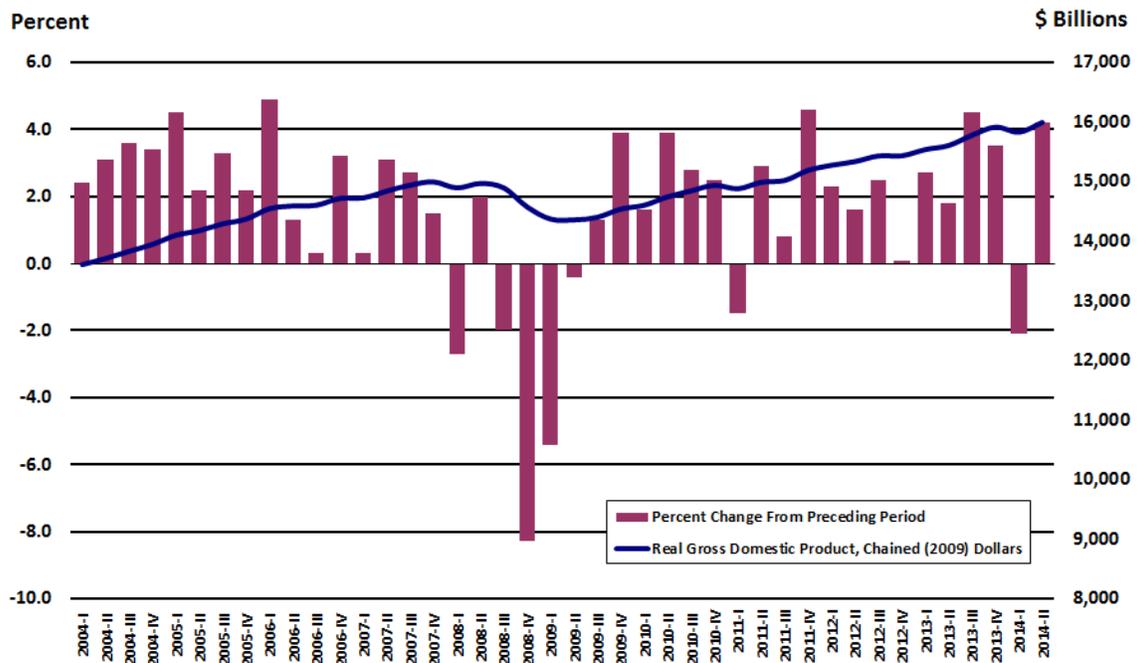
A copy of the full 4th quarter Oklahoma BED report along with technical notes and detailed tables is available on the OESC website at:

[http://www.ok.gov/oesc\\_web/Services/Find\\_Labor\\_Market\\_Statistics/BusEmpDyn.html](http://www.ok.gov/oesc_web/Services/Find_Labor_Market_Statistics/BusEmpDyn.html)

Additional information about the Business Employment Dynamics program is available online at: <http://www.bls.gov/bdm>.

## 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 rebounded more strongly than initially thought in the 2nd quarter, growing at the fastest pace since the 3rd quarter of 2013. Real gross domestic product (GDP) increased at an annual rate of 4.2 percent in the 2nd quarter of 2014, according to the "second" estimate released by the Bureau of Economic Analysis (BEA). Economic expansion in the 2nd quarter was broad-based, with consumers, businesses, the housing industry and state and local governments all combining to drive growth.

In the 2nd quarter, consumer spending, which accounts for more than two-thirds of U.S. economic activity, was unrevised at a 2.5 percent rate after a tepid 1.2 percent rate in the 1st quarter. Spending on durable goods such as autos was particularly strong, growing at a 14.3 percent rate, the biggest quarterly increase since 2009. Nondurable goods outlays were revised down to 1.9 percent from the previous 2.5 percent "advance" estimate. Spending on services advanced 0.7 percent. Overall, personal consumption expenditures (PCE) added 1.69 percentage points to the 2nd quarter change in real GDP.

The 2nd quarter revision also reflected stronger business investment in new equipment and structures than previously estimated. Real nonresidential fixed investment jumped 8.4 percent in the 2nd quarter, sharply higher than the initial 5.5 percent "advance" estimate. Firms increased spending on structures 9.4 percent, while spending for equipment grew 10.7 percent.

Businesses accumulated \$83.9 billion worth of inventory in the 2nd quarter, less than the initially reported \$93.4 billion. The change in real private inventories added 1.39 percentage points to the 2nd-quarter change in real GDP after subtracting 1.16 percent in the 1st quarter.

Housing market-related spending was revised slightly down for the April to June period. Real residential fixed investment increased 7.2 percent in the 2nd quarter, compared with an increase of 1.6 percent in the 1st quarter.

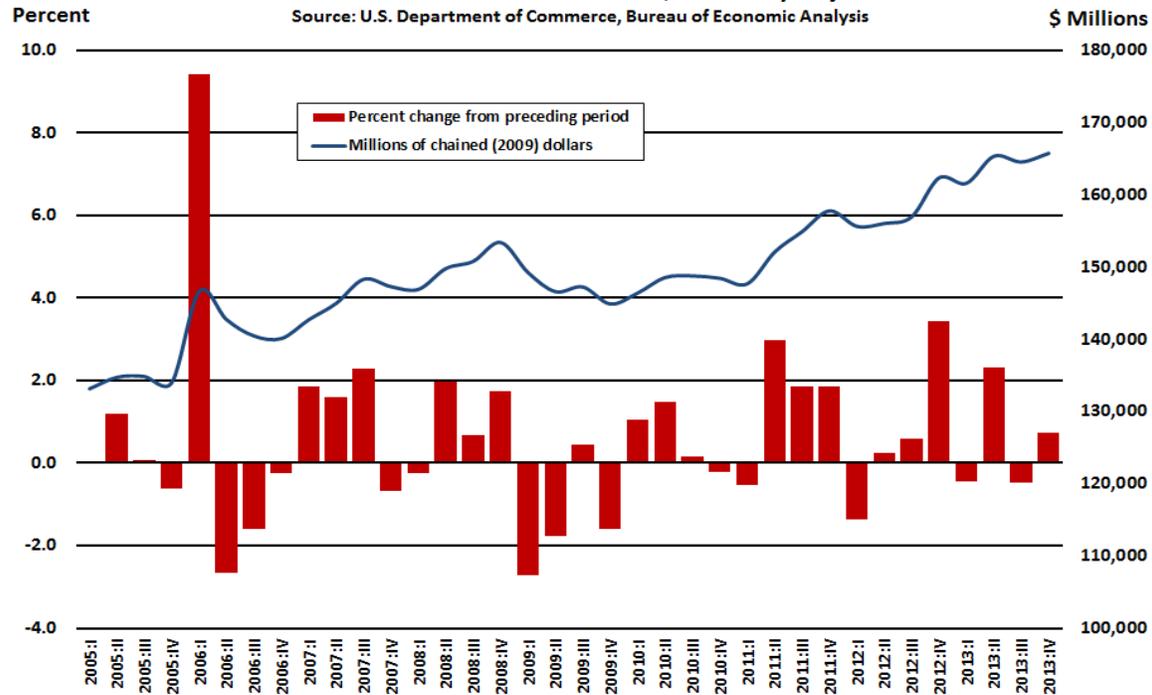
A higher trade deficit subtracted less from 2nd quarter growth than initially estimated. Real exports of goods and services was raised to a 10.1 percent pace from a 9.5 percent rate. Real imports of goods and services was revised down to 11.0 after a previous estimate of 11.7 percent.

Growth in government spending in the 2nd quarter was less than first thought but positive as state and local government spending offset federal spending. Real federal government consumption expenditures and gross investment decreased 0.9 percent in the 2nd quarter. National defense spending increased at a slower 0.9 percent rate while nondefense spending decreased 3.7 percent. Real state and local government consumption expenditures and gross investment increased 2.8 percent instead of the previous 3.1 percent estimate.

## Oklahoma Real Gross Domestic Product and Quarterly Change

1st Quarter 2005 - 4th Quarter 2013, 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

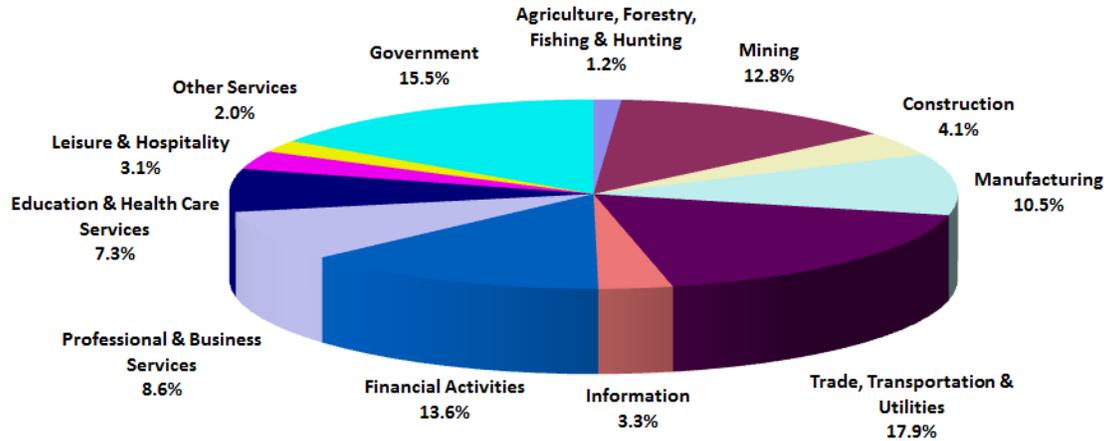
U.S. real GDP by state increased 1.8 percent in 2013. Growth in real GDP accelerated in the 2nd and 3rd quarters of the year after increasing at an annual rate of 1.1 percent in the 1st quarter. After reaching a high of 4.2 percent in the 3rd quarter, growth in real GDP decelerated to 2.8 percent in the 4th quarter. Real GDP grew steadily in 24 states through all four quarters in 2013. In the 4th quarter of 2013, real GDP increased in all states except Mississippi and Minnesota.

In the 4th quarter of 2013, Oklahoma’s GDP was \$165.7 billion in constant 2009 dollars, up from \$164.5 billion in the 3rd quarter. The state’s 4th quarter real GDP increased by \$1.19 billion, or 2.9 percent from the 3rd quarter, ranking it 29th among all other states and the District of Columbia.

## Industry Share of Oklahoma's Economy, 4th Quarter 2013

(by percentage of Gross Domestic Product)

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

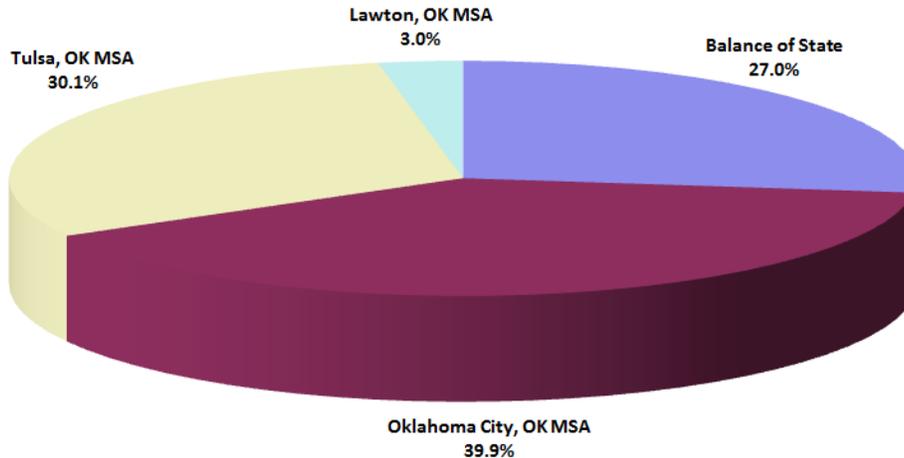


Fifteen Oklahoma industry sectors contributed to GDP growth in the 4th quarter of 2013, with six subtracting from growth. The mining sector, which includes the oil and gas industry, was by far the largest contributor to Oklahoma's GDP growth in the 4th quarter, adding 2.39 percentage points to overall GDP growth, followed by non-durable goods manufacturing, which added 0.94 percent.

Agriculture, forestry, fishing and hunting was the biggest drag to state GDP growth subtracting 1.95 percent, followed by construction which subtracted 0.27 percent in the 4th quarter.

## Metropolitan Area Contribution to State Real Gross Domestic Product 2012

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

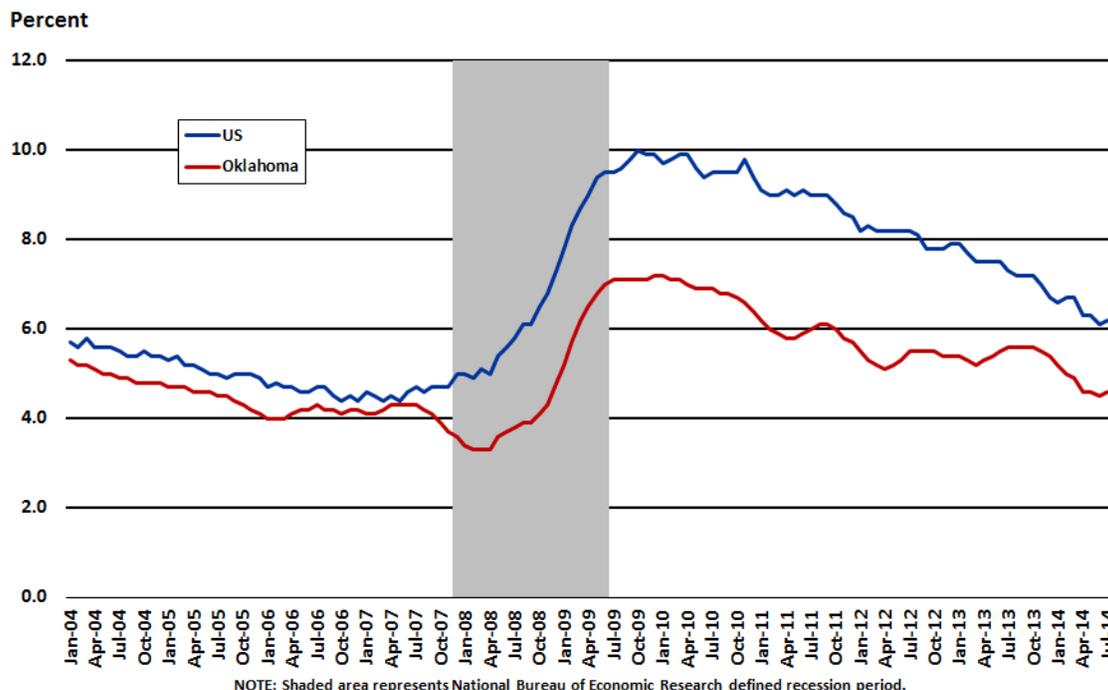
Real GDP increased in 305 of the nation's 381 metropolitan areas in 2012, led by growth in durable-goods manufacturing, trade, and financial activities, according to the U.S. Bureau of Economic Analysis (BEA). Real GDP in metropolitan areas increased 2.5 percent in 2012 after increasing 1.7 percent in 2011, according to BEA revised estimates.

In terms of growth in real GDP, two of the three Oklahoma metropolitan areas grew in 2012. Oklahoma City MSA grew by 2.2 percent to \$55.2 billion and ranked 152nd (out of 381 metro areas). Tulsa MSA grew at a rate of 0.3 percent to \$41.7 billion and ranked at 294th. Lawton MSA was the only state MSA to register negative growth in 2012, declining 2.0 percent to \$4.2 billion in 2012 and ranked 370th out of 381 U.S. metro areas.

Financial activities (+0.67 percent) and leisure & hospitality (+0.22 percent) were the largest drivers of GDP growth in Oklahoma City MSA in 2012. Durable-goods manufacturing (+1.12 percent) led GDP growth in the Tulsa MSA but was offset by declines in other sectors including financial activities (-0.27 percent), and professional & business services (-0.22 percent). GDP growth in the Lawton MSA was hampered by declines in financial activities (-1.17 percent), construction (-0.18 percent), leisure & hospitality (-0.16 percent), and government (-0.10 percent).

## 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

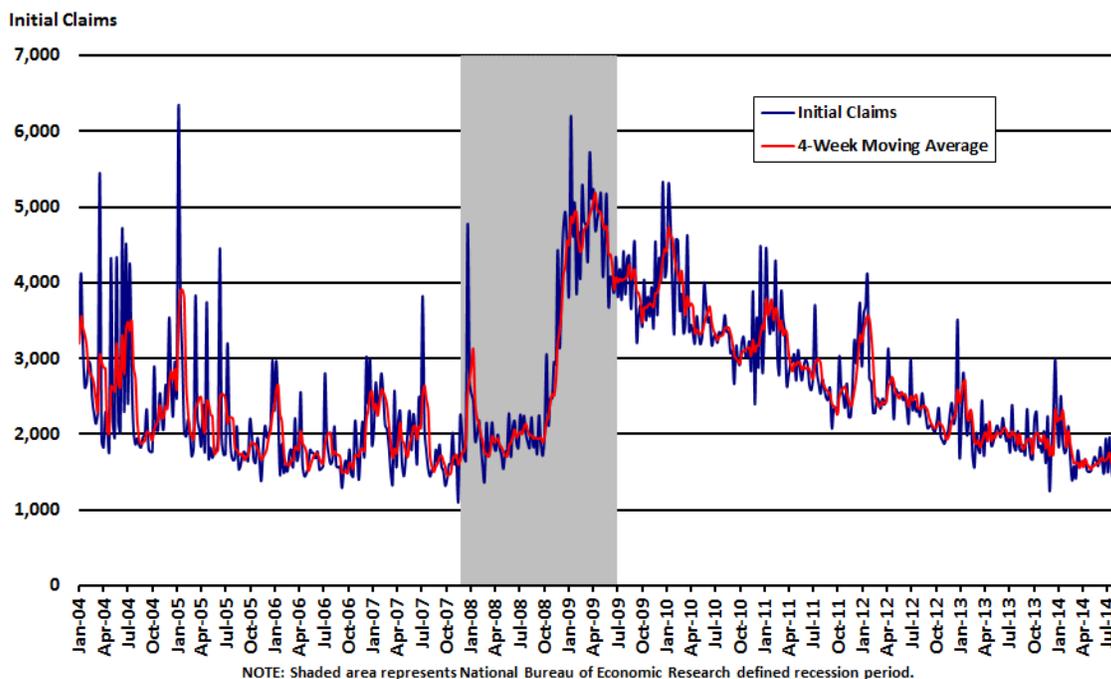
The U.S. unemployment rate ticked down in August but that was because fewer people were working or looking for work. In August, the unemployment rate fell by 0.1 percentage point to 6.1 percent, according to the Bureau of Labor Statistics (BLS). The civilian labor force participation rate, or the share of working-age Americans who are employed or looking for a job, fell to 62.8 percent in August from 62.9 percent in July.

Oklahoma's jobless rate rose one-tenth of a percentage point to 4.6 percent in July. Oklahoma's jobless rate tied with Montana for the 11th-lowest jobless rate among all states in July. Over the year, Oklahoma's seasonally adjusted unemployment rate was down by one percentage point.

Unemployment rates dropped over the month in 54 of 77 Oklahoma counties in July. Latimer County, once again, claimed Oklahoma's highest county unemployment rate of 8.3 percent while the month's lowest county unemployment rate was again posted by Beckham County 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

The number of Americans filing initial jobless claims rose slightly in the last week of August, but the total number of people receiving jobless aid remains at its lowest level in more than seven years. In the week ending August 30, the advance figure for seasonally adjusted initial claims was 302,000, an increase of 4,000 from the previous week's unrevised level of 298,000, according to figures released by the U.S. Labor Department (DOL). The 4-week moving average was 302,750, an increase of 3,000 from the previous week's unrevised average of 299,750.

Both claims and the four-week moving average continued to point to a strengthening jobs market.

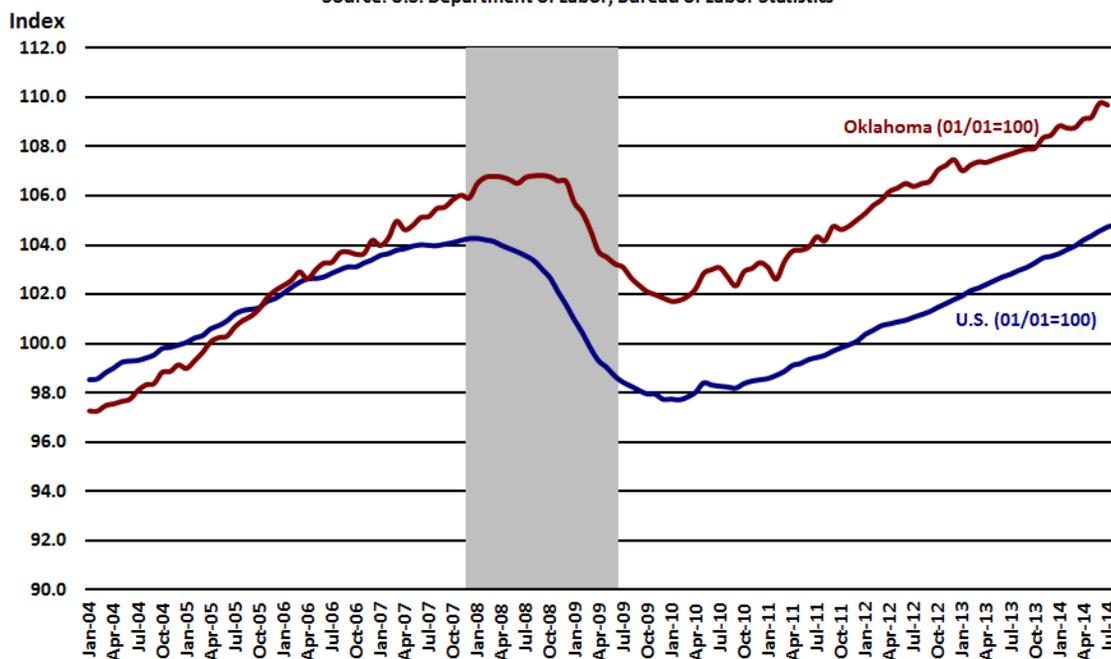
It appears that initial claims for unemployment insurance in Oklahoma have finally returned to pre-recession levels. For the file week ending August 23, initial jobless claims were at a level of 1,452, up 27 claims from the previous week. For the same file week ending, the four-week moving average was at 1,455, down 49 from the previous week's level of 1,504.

Over the month, statewide initial claims edged up 27 from 1,425 to 1,252 while the less volatile 4-week moving average dropped 255 from 1,710 to 1,455.

## 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

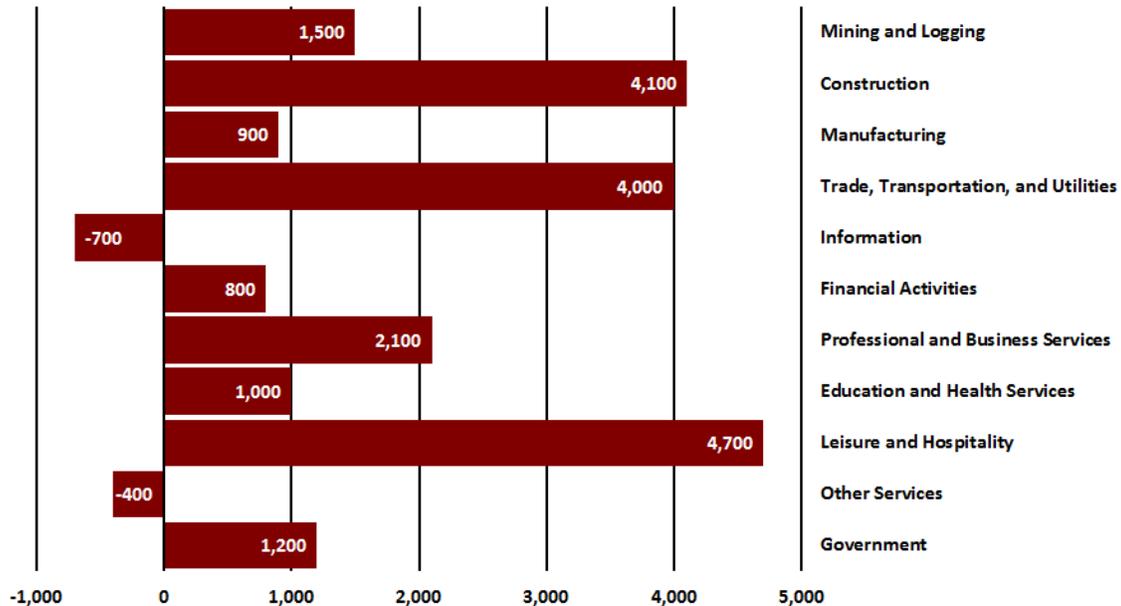
U.S. employers extended their solid hiring for the sixth straight month in July. Total nonfarm payroll employment increased by 209,000 in July, according to the Bureau of Labor Statistics (BLS). In July, employment grew in professional and business services (+47,000 jobs), manufacturing (+28,000 jobs), retail trade (+27,000 jobs), and construction (+22,000 jobs).

Oklahoma's seasonally adjusted nonfarm employment contracted by 1,100 jobs (+0.1 percent) in July. Five of Oklahoma's 11 supersectors dropped jobs in July, while five others added jobs. Large losses in professional & business services (-3,600 jobs) and trade, transportation & utilities (-1,900 jobs) more than offset job gains for an overall job loss for the month.

Nine of Oklahoma's 11 supersectors saw over-the-year growth in July. Leisure & hospitality (+8,800 jobs) provided the largest year-to-year job gain.

## Oklahoma Employment Change by Industry 2012 - 2013

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 in Oklahoma picked up more momentum in 2012. Nonfarm employment grew at a robust 1.9 percent growth rate in 2011, adding approximately 30,100 jobs.

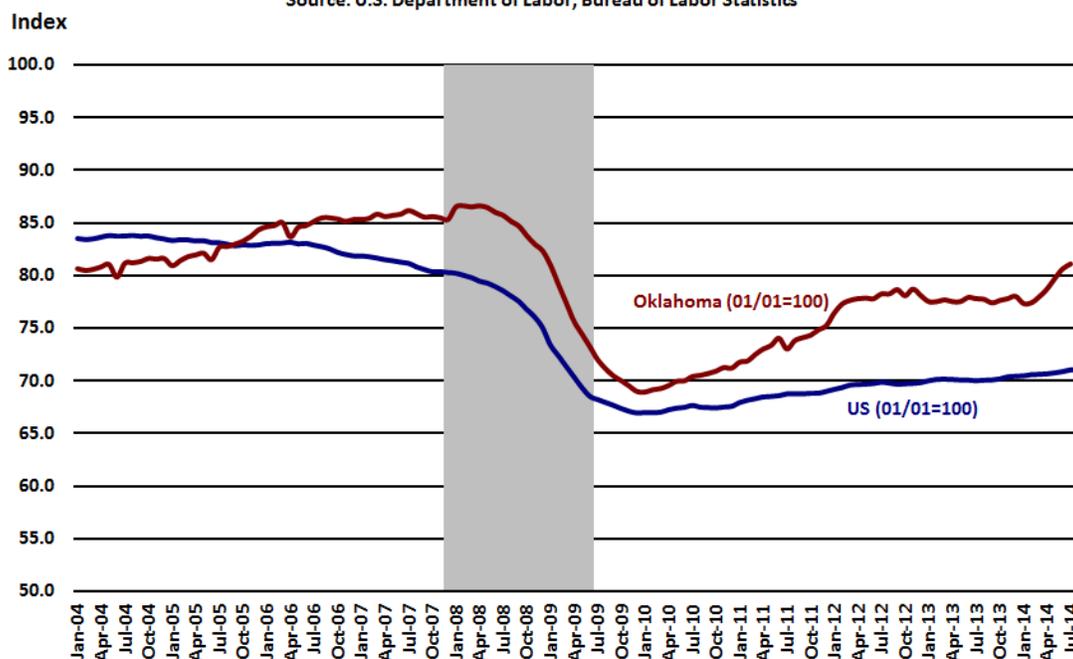
Employment growth in 2012 was wide-ranging with nine out of the 11 statewide industry supersectors reporting job gains. The broad trade, transportation & utilities industry recorded the largest employment increase adding 6,700 jobs with nearly half the hiring in wholesale trade. Mining had another strong year of job growth adding 6,100 jobs and more than half of the growth coming from support activities for mining. Manufacturing added 4,900 jobs with all of the growth in durable goods. Leisure & hospitality added 4,600 jobs with most of the job gains being in accommodation & food services. Professional & business services employment grew by 2,800 driven by job gains in professional, scientific, and technical services and employment services. Government employment added 3,200 jobs with state and local government adding employment as federal government employment shed 700 jobs. Education & health services added 1,200 jobs with two-thirds of the employment gains in hospitals.

Job losses were in financial activities (-500) and other services (-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. manufacturing employment was unchanged in August, following an increase of 28,000 in July, according to the Bureau of Labor Statistics (BLS). August manufacturing jobs figures were mixed, with a gain of 2,000 workers in durable goods industries offsetting a 2,000-employee decline among nondurable goods firms. Motor vehicles and parts lost 5,000 jobs in August, after adding 13,000 jobs in July. There were job gains in computer and peripheral equipment (+3,000) and in nonmetallic mineral products (+3,000), and job losses in electronic instruments (-2,000).

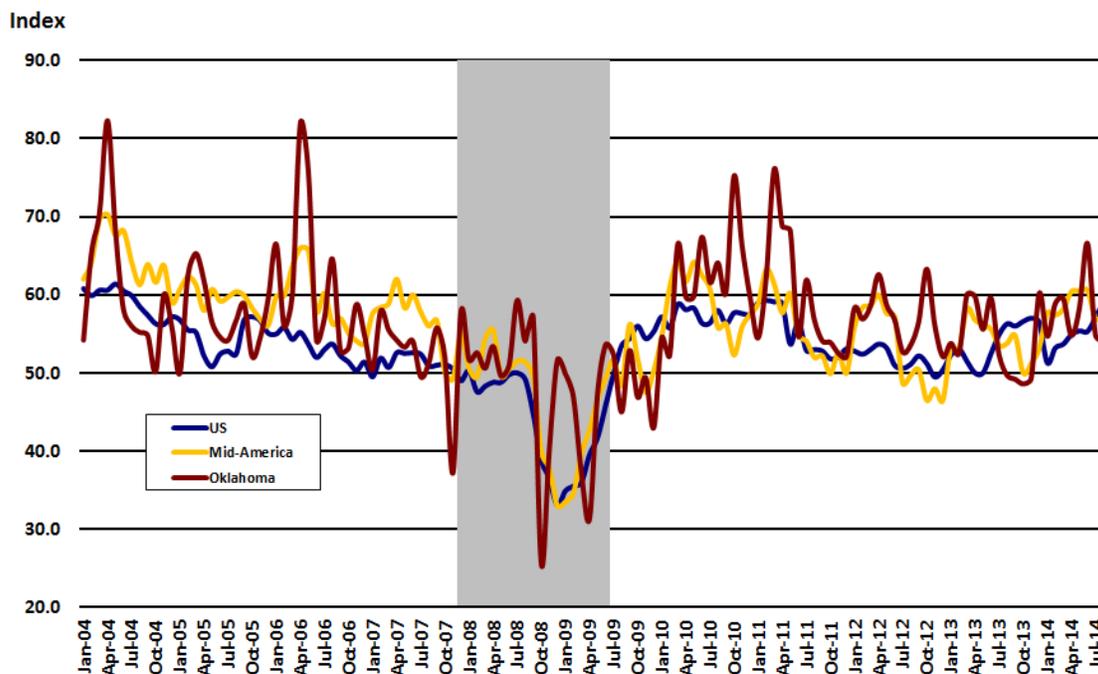
Manufacturing added a non-seasonally adjusted 800 jobs (0.6 percent) in July. Durable goods manufacturing accounted for all of the job growth in July. Non-durable goods manufacturing registered a 200-job loss (-0.2 percent) in July.

Over the year, Oklahoma manufacturing employment added a non-seasonally adjusted 5,800 jobs for a 4.2 percent growth rate. Durable goods led the job gains, adding a non-seasonally adjusted 4,200 jobs (4.4 percent), while non-durable goods manufacturing added a non-seasonally adjusted 1,600 jobs (3.9 percent).

*\*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



### 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

The pace of growth in the U.S. manufacturing sector rose in August to its highest level since March 2011, led by a surge in new orders. The August PMI® registered 59 percent, an increase of 1.9 percentage points from July's reading of 57.1 percent, according to the latest Manufacturing ISM *Report On Business*®. Seventeen of 18 manufacturing industries reported growth in August. The only declining industry in August was Textile Mills.

The New Orders index reached its highest level in 10 years, rising to an exceptional 66.7 after an already very strong 63.4 in July. The measure for employment was steady, with a strong 58.1 reading, although at a slightly slower pace than July. ISM's gauge of production rose to the highest level in four years.

The pace with which firms were building up their inventories also rose in August. The Inventory index rose by 3.5 points to 52.0 after falling to 48.5 in July.

The Mid-America Business Conditions Index for August, a leading economic indicator for a nine-state region stretching from North Dakota to Arkansas, rose slightly from July's healthy reading. The Business Conditions Index, which ranges between 0 and 100, sank to 57.0 from June's very healthy 60.6 reading, according to the Creighton Economic Forecasting Group. It was the eighth straight month that the index was greater than 50, a level that indicates an expanding economy over the next three to six months

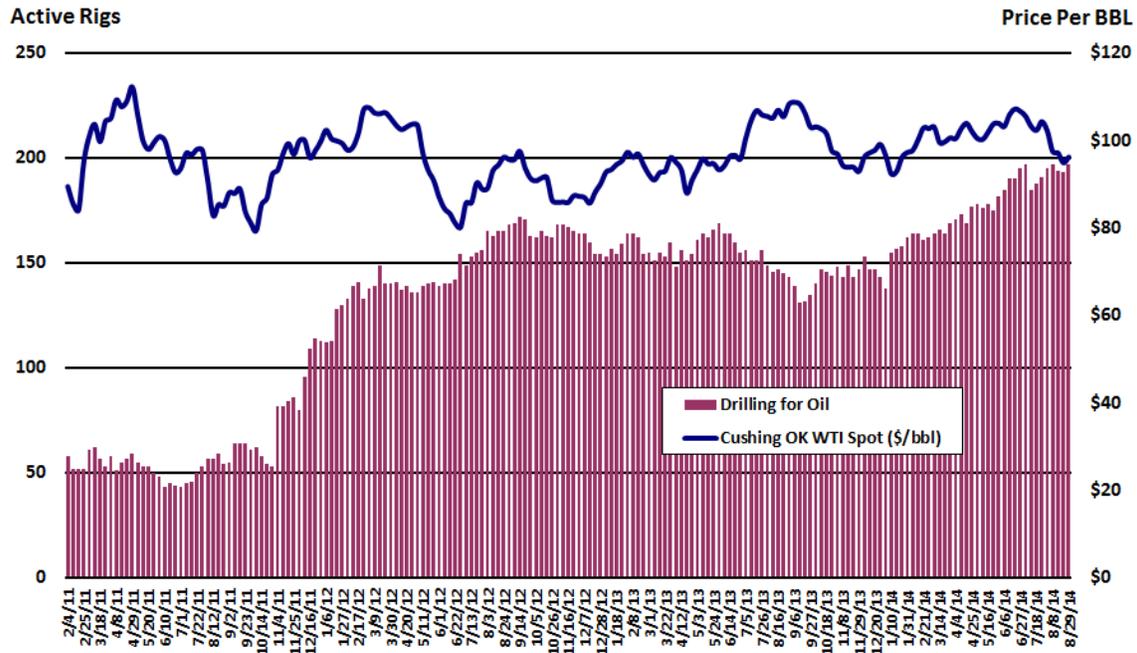
Oklahoma's leading economic indicator, or Business Condition Index, continues to point to expanding economic conditions in the months ahead. The index for August fell to a solid 54.0 from July's 54.9. Components of the August survey of supply managers in the state were new orders at 55.3, production or sales at 56.4, delivery lead time at 47.0, inventories at 65.8, and employment at 45.5.

"Economic growth will remain positive for the second half of 2014 for the state based on our surveys over the last several months. Since the national recovery began in July 2009, the manufacturing sector in Oklahoma added almost 16,000 manufacturing jobs for a 12.6 percent job gain. Until August, the manufacturing sector had added jobs at a healthy pace for 2014," said Dr. Ernie Goss, director of Creighton University's Economic Forecasting Group.

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

February 2011 to August 2014

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**

U.S. total crude oil production averaged an estimated 8.5 million barrels per day (bbl/d) in July, the highest monthly level of production since April 1987. U.S. total crude oil production, which averaged 7.5 million bbl/d in 2013, is expected to average 8.5 million bbl/d in 2014 and 9.3 million bbl/d in 2015, according to the most recent Short-Term Energy Outlook Energy Outlook from the U.S. Energy Information Agency (EIA). The 2015 forecast represents the highest annual average level of oil production since 1972.

State crude oil production in June slipped a bit from the previous month's level. Total field production of 10,342,000 barrels ranked Oklahoma 5th among all states for the month. Crude production in June was 998,000 barrels less than May's level of 11,340,000 barrels which was the highest monthly level since July 1987.

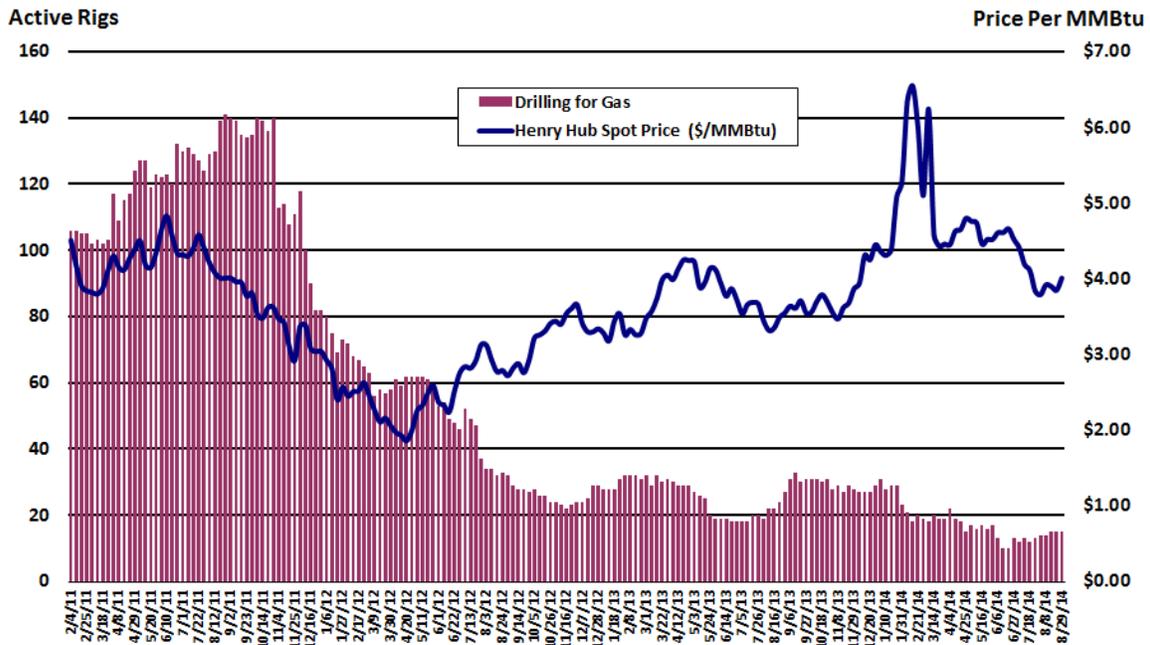
WTI-Cushing spot prices have taken quite a tumble this summer. After reaching a high of \$107.95 per barrel in June, WTI-Cushing spot prices have fallen more than \$10 per barrel, ending at \$97.86 per barrel on August 29, a 9.3 percent drop.

August's average rotary rig count was at a level of 210, seven more than July's average count of 203 rigs. Over the year, the active rotary rig count in Oklahoma was 41 more than 169 in August 2013. Oil-directed active rotary rigs advanced to a level of 197, (for the week ended August 29, 2014), representing approximately 93 percent of total rig activity in the state in August.

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

February 2011 to August 2014

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**

In the first six months of 2014, net working natural gas design storage capacity in the Lower 48 states grew nearly 7 billion cubic feet (Bcf), to 4,688 Bcf, according to data recently released by the U.S. Energy Information Administration (EIA). This growth is lower than the net capacity additions in the first six months of 2013, when 25 Bcf of new capacity came online. All of the growth in 2014 came from expansions of existing facilities, and largely occurred at salt dome storage facilities in the Producing region.

The subdued growth comes at a time when volumes of stored natural gas are running 15 percent below their year-ago and five-year-average volumes. At the same time, however, natural gas production is well ahead of the year-ago pace, with EIA reporting gross withdrawals from wells in June up 6.8 percent year-over-year.

Oklahoma natural gas production was at a level of 190,500 MMcf in June, or 6,071MMcf less than the record level in May. Oklahoma natural gas production for 2013 was 2,143,989 MMcf, 6.0 percent more than the 2012 total of 2,023,461 MMcf, also its highest annual level since 1991.

Natural gas spot prices made a comeback in August. The Henry Hub spot price climbed from \$3.77/MMBtu at the beginning of the month to \$4.04/MMBtu on August 29, for an increase of \$0.27/MMBtu over the month.

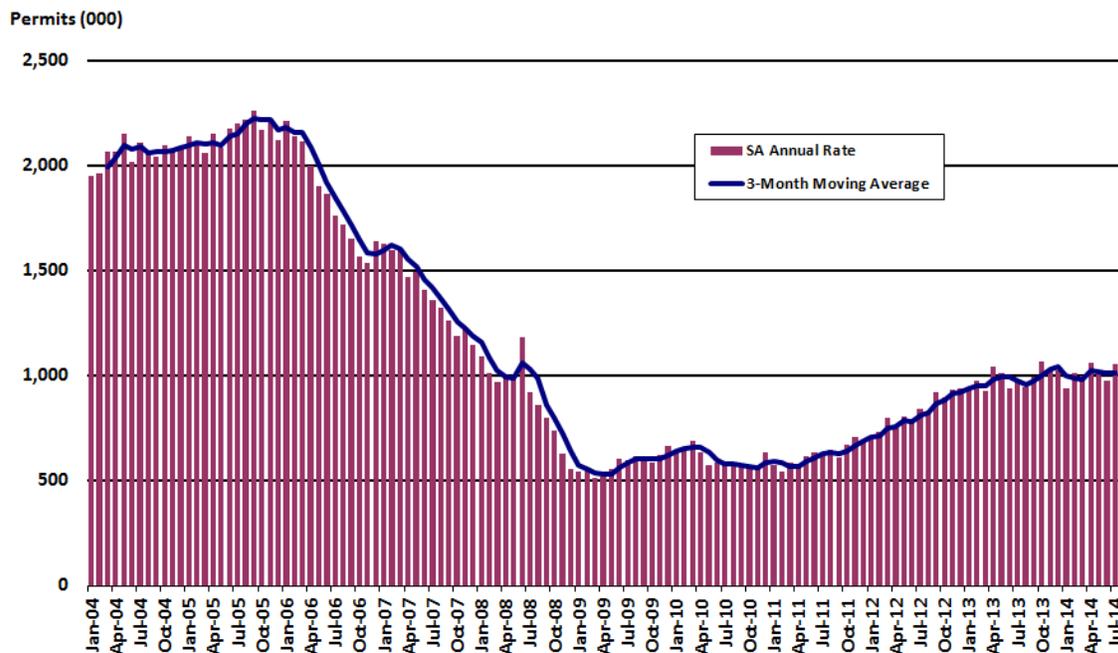
The Baker Hughes rotary rig count for natural gas in Oklahoma edged up in August. For the week ended August 29, the state natural gas-directed drilling rig count was at a level of 15 active rigs, or 7 percent of total statewide drilling activity. Over the year, Oklahoma's natural gas-directed rotary rig count was down 12 rigs from 27 rigs reported for the week ended August 30, 2013.

The U.S. active rotary rig count, as reported by Baker Hughes, increased by 18 to 1,914 active units in the last week of August. Natural gas-directed rigs increased by eight to 338, and oil-directed rigs increased by 11 to 1,575. Gas-directed rigs are 42 units below last year's level, and oil rigs are 187 units greater than last year's level.

## U.S. Total Residential Building Permits, 2004-2014

### Seasonally Adjusted

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



### 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

Applications for building permits gained momentum in July, led by a surge in apartment activity. Privately-owned housing units authorized by building permits in July advanced at a seasonally adjusted annual rate of 1.05 million, up 8.1 percent from the revised June rate and up 7.7 percent from July 2013, according to the U.S. Census Bureau and the Department of Housing and Urban Development. This followed declines of 3.1 percent in June and 5.1 percent in May.

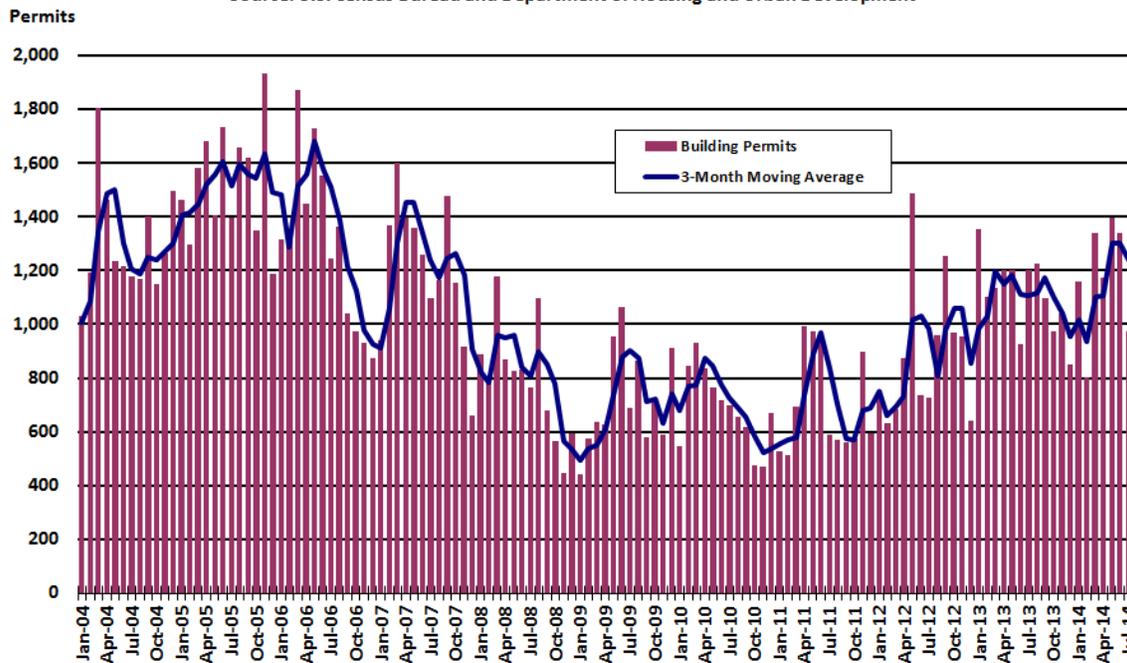
For July, multifamily permitting gained 21.5 percent while the single-family component edged up 0.9 percent.

The National Association of Home Builders/Wells Fargo builder sentiment index rose in August to 55, up two points from a revised 53 for July. That is the third straight monthly increase and put the index at its highest reading since January, when it was 56.

## Oklahoma Total Residential Building Permits, 2004-2014

Not Seasonally Adjusted

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



Residential permitting activity in Oklahoma slumped in July mainly due to a pullback in apartment permitting. Total residential building permitting for June was at an unadjusted level of 976 units, 27.3 percent lower than the previous month, according to figures from the U.S. Census Bureau and the Department of Housing and Urban Development.

Permitting activity in July was dominated by the single-family component and accounted for almost all (91.4 percent) of total residential permitting activity in July while multi-family permitting added only 7.2 percent. Permits for single-family homes were at a non-seasonally adjusted level of 892 or 0.9 percent more than June's level of 884 permits. Applications for apartments fell to a non-seasonally adjusted level of 56 permits, 366 less than June's level of 428 permits.

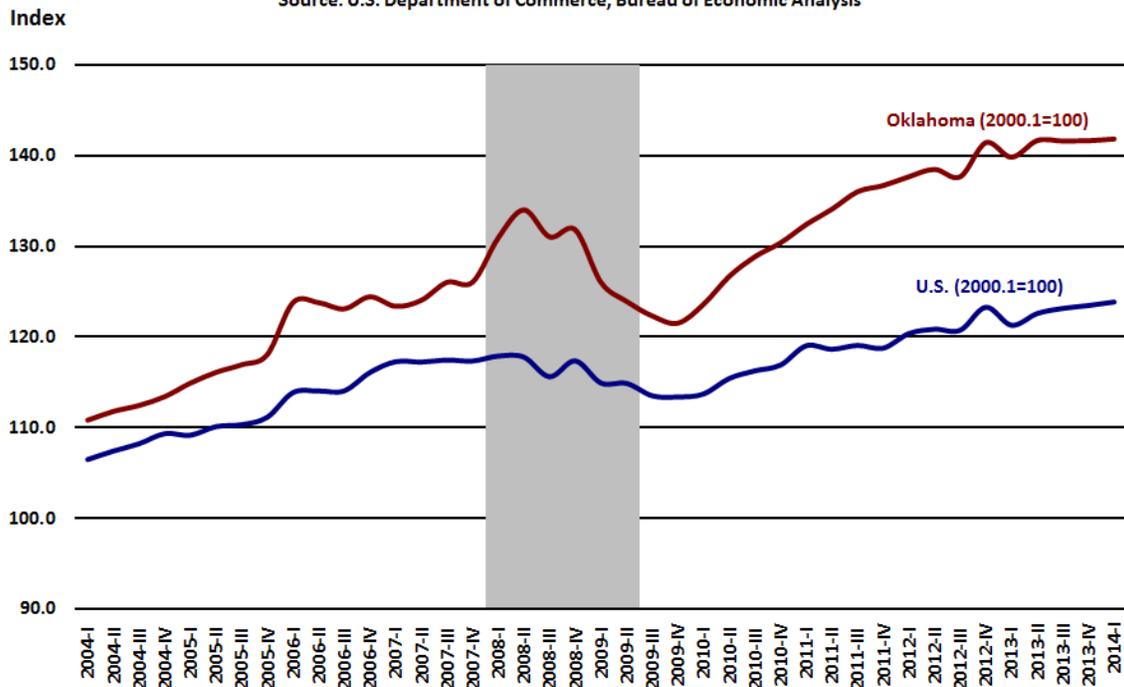
Over the year, total unadjusted residential permitting in July was an unadjusted 224 permits or 18.7 percent less than July 2013. Single-family permits were down 164 permits or 15.5 percent less than a year ago, while the more volatile multi-family permitting was 68 less than the July 2013 level of 130 permits.

For the first seven months of 2014, total unadjusted residential building permitting was at a level of 8,191 or 68 permits (0.8 percent) more than the same period a year ago.

## U.S. and Oklahoma Real Personal Income

Index: 1st Quarter 2000 = 100

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



### 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

Personal income growth slowed in July to its weakest pace since December as savings rose to their highest level in more than 1 1/2 years. Personal income increased \$28.6 billion, or 0.2 percent, and disposable personal income (DPI) increased \$17.7 billion, or 0.1 percent, in July, according to the Bureau of Economic Analysis (BEA). Personal consumption expenditures (PCE) decreased \$13.6 billion, or 0.1 percent. In June, personal income increased \$67.1 billion, or 0.5 percent, DPI increased \$62.9 billion, or 0.5 percent, and PCE increased \$50.5 billion, or 0.4 percent, based on revised estimates.

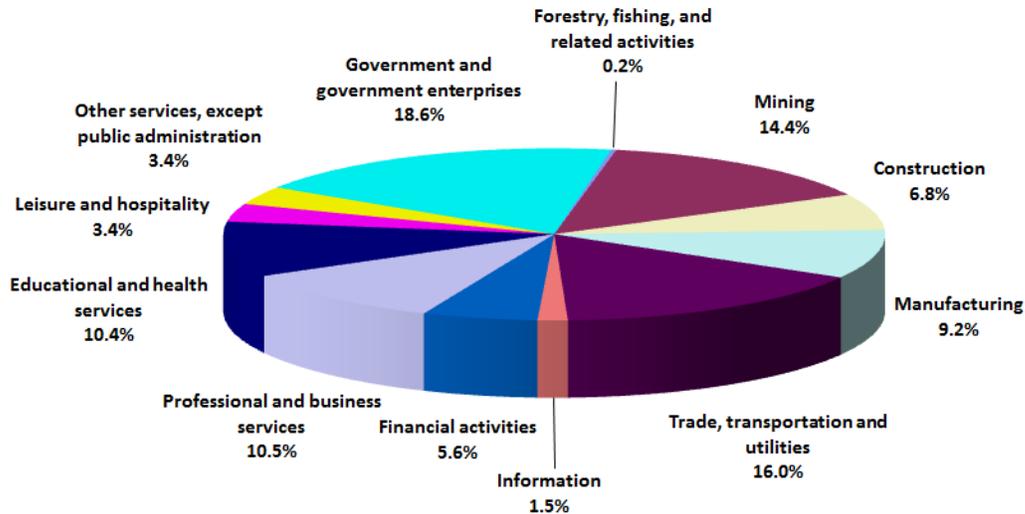
Personal consumption expenditures (PCE) unexpectedly declined 0.1 percent after a 0.4 percent jump in June. Spending on durable goods, including cars and trucks, declined 0.6 percent, following a 0.5 percent advance in June. Purchases of non-durable goods, which include fuel and clothing, fell 0.2 percent. Spending on services was flat in July, reflecting a weather-related drop in demand for utilities.

Incomes rose for a seventh straight month in July, while savings hit their highest level since December 2012. Personal saving, (DPI less personal outlays), was \$739.1 billion in July, compared with \$709.4 billion in June.

# Oklahoma Nonfarm Contribution to Earnings

First Quarter 2014

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 than the data that were available when the estimates were initially prepared and to incorporate updated seasonal factors.

## Current Developments

State personal income increased 0.8 percent on average in the 1st quarter of 2014, an acceleration from the 0.5 percent growth in the 4th quarter of 2013, according to estimates by the U.S. Bureau of Economic Analysis (BEA). Personal income grew in 46 states including Oklahoma and growth accelerated in 24 of those states. The fastest growth, 1.4 percent, was in Washington state, Vermont, and West Virginia. Personal income fell 2.9 percent in North Dakota, 0.3 percent in South Dakota, and 0.2 percent in Arkansas and Nebraska.

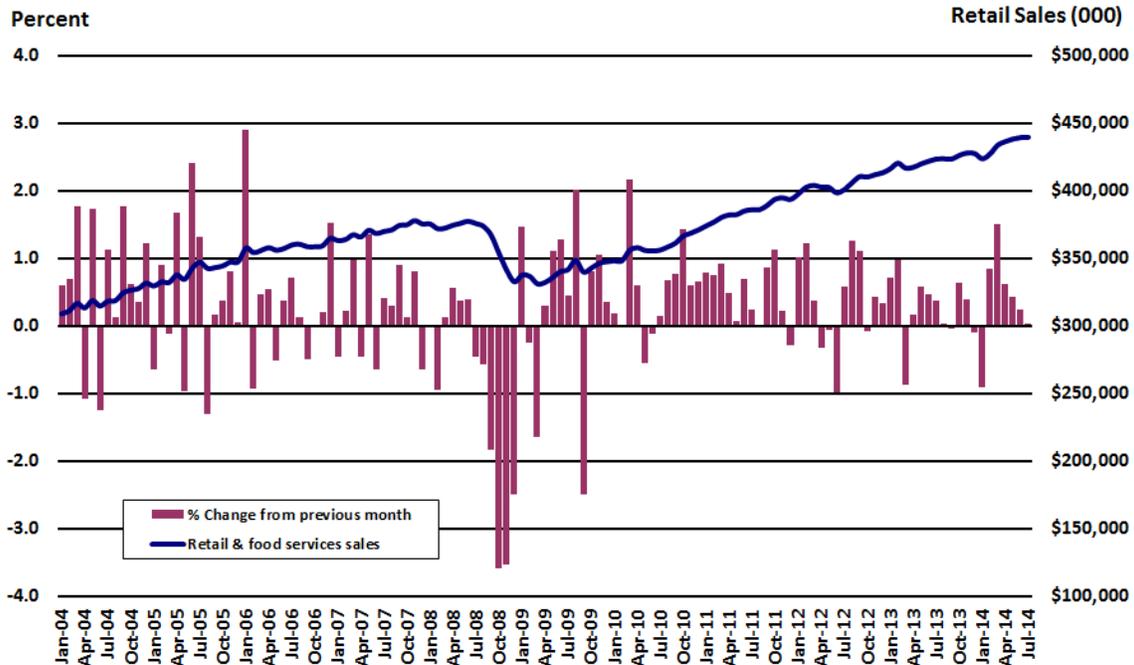
Personal income Oklahoma ranked 32nd among all states and the District of Columbia growing at a seasonally adjusted rate of 0.6 percent (from the previous quarter) at a level of \$162.2 billion.

Overall, statewide earnings grew \$1,069 billion in the 1st quarter with the largest increases in construction (\$264 million), mining (\$258 million), finance & insurance (\$135 million) and non-durable goods manufacturing (\$111 million).

Earnings fell in seven industries: farming (\$132 million), durable goods manufacturing (\$50 million), information (\$14 million), management of companies (\$18 million), utilities (\$12 million), real estate, rental & leasing (\$3 million), and forestry, fishing and related activities (\$1 million).

## 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

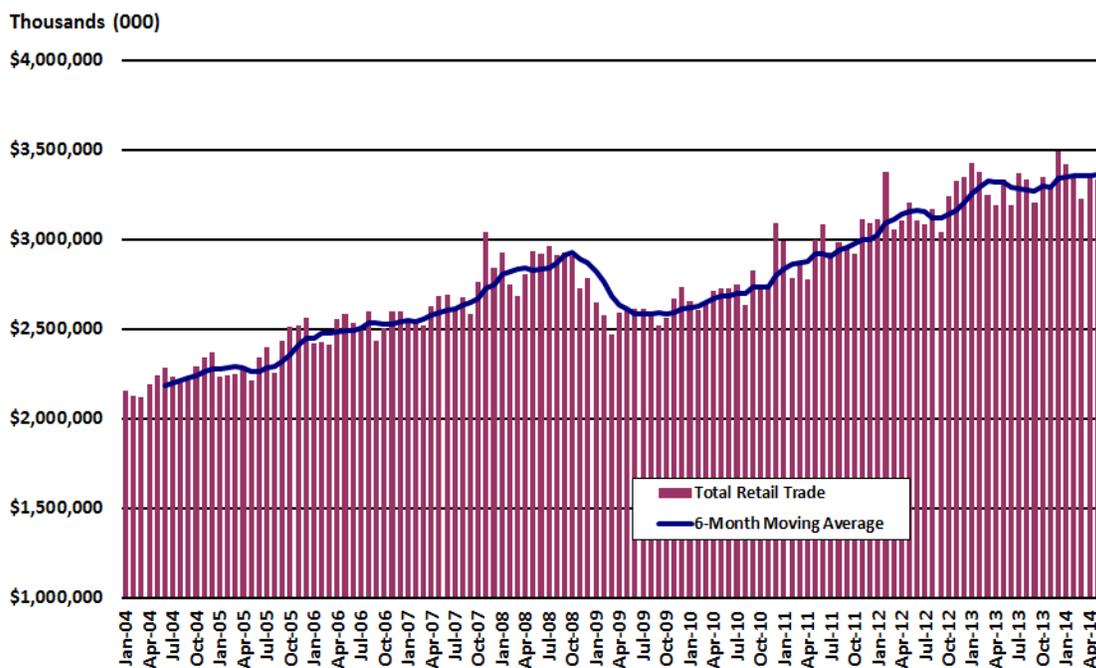
U.S. retail sales were essentially flat in July, as consumers remained cautious in their spending despite recent job gains. Advance estimates of U.S. retail and food services sales for July, adjusted for seasonal variation and holiday and trading-day differences, but not for price changes, were \$439.8 billion, virtually unchanged from the previous month, and 3.7 percent above July 2013, according to the U.S. Census Bureau. This follows an upwardly revised 0.5 percent increase in May (originally up 0.3 percent).

Receipts at auto dealerships fell 0.2 percent in July after declining 0.3 percent the prior month. Excluding motor vehicles, sales edged up 0.1 percent, following an increase of 0.4 percent in June.

The less volatile "core" retail sales, which strip out automobiles, gasoline, building materials and food services, edged up 0.1 percent in July, suggesting a moderation in consumer spending early in the 3rd quarter. In the core, strength was seen in miscellaneous store retailers (+0.9 percent), clothing & clothing accessories stores (+0.4 percent), health & personal care stores (+0.4 percent), and sporting goods, book & music stores (+0.2 percent). Core sales rose by a revised 0.5 percent in June after being previously reported to have increased 0.6 percent.

## 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 retail spending dipped in June as total adjusted retail sales for was at a level of \$3.24 billion, down 3.0 percent from May but 1.5 percent greater than June 2013. Year to date, total adjusted retail trade was 0.8 percent more than the first half of 2013.

Durable goods sales were down 1.0 percent in June with declines in lumber & hardware (-1.8 percent), miscellaneous durable goods (-1.8 percent); furniture (-1.4 percent); used merchandise (-0.7 percent); and electronics & music store sales (-0.4 percent). The only durable goods category to see gains was auto accessories & repair (+0.6 percent).

Total nondurable goods sales fell 3.7 percent in June with the largest monthly loss in the volatile estimated gasoline sales (-17.6 percent). Spending on apparel also retreated in June (-0.9 percent), followed by general merchandise store sales (-0.8 percent), and food (-0.1 percent). Advancing in June were miscellaneous non-durables (+2.0 percent); eating & drinking (+0.8 percent), drugs (+0.6 percent); liquor (+0.4 percent). Over the year, non-durable goods sales were up 1.5 percent.