



# OKLAHOMA Economic Indicators

November 2012

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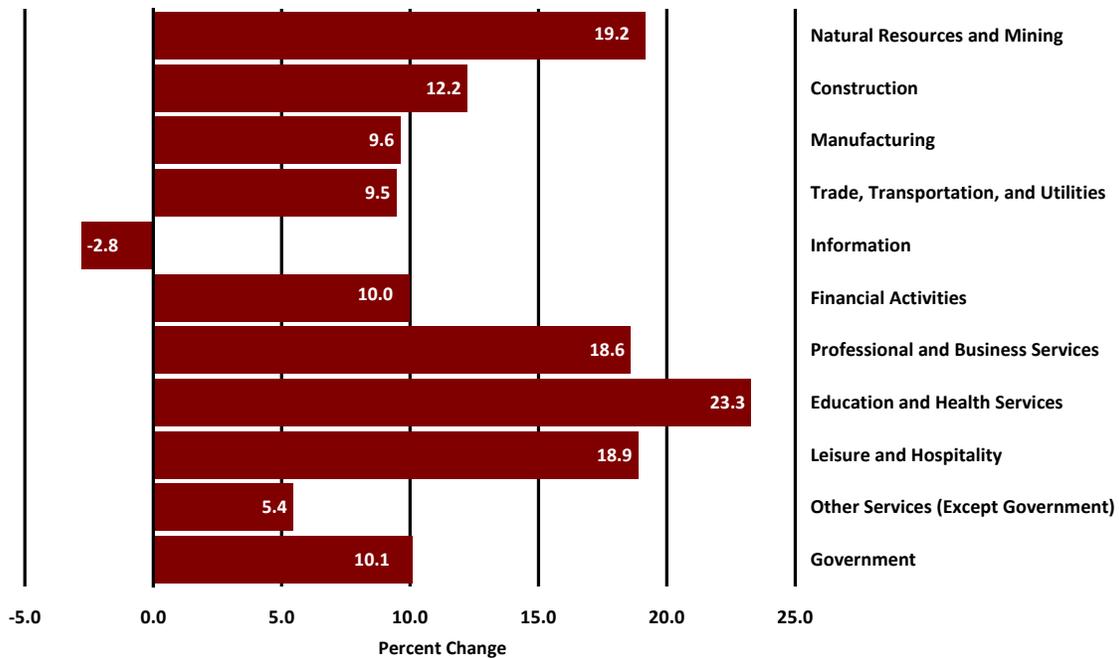
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# SPECIAL REPORT: Oklahoma Industry and Occupational Projections: 2010 to 2020

## Oklahoma Long-Term Industry Employment Projections, 2010-2020

Source: Employment Projections Program, Oklahoma Employment Security Commission, Research & Analysis Division



### Introduction

Every other year, the Oklahoma Employment Security Commission produces long-term industry and occupational employment projections with the base year of the projections decade being an even-numbered year. The goal is not necessarily to predict the exact level of employment 10 years in the future, but rather to determine overall trends that can be used for career and policy planning. Employment projections help to facilitate career exploration by high school students and their teachers and parents, college students, career changers, and career development and guidance specialists. Employment projections are also widely used by policymakers and education and training officials to make decisions about education and training policy, funding, and program offerings. Additionally, other state agencies, researchers, and academics use the projections to understand trends in the economy and labor market.

### Industry Projections

Our 2010 to 2020 industry employment forecast for Oklahoma predicts that total payroll employment will grow by 14.1 percent over the decade, adding 234,550 jobs to the state's economy (see Table 1). All but one of Oklahoma's major industry sectors are anticipated to grow in the coming years.

In the goods-producing industries, employment growth in natural resources & mining is expected to lead, adding 13,820 jobs with support activities for mining contributing over half of the job growth (+7,190 jobs). Employment growth in the manufacturing sector follows closely adding 11,810 jobs from 2010 to 2020 with machinery manufacturing and fabricated metal product manufacturing providing more than half (+6,600 jobs) of total growth. Construction employment is expected to return to a healthy growth rate of 12.2 percent, adding 8,250 jobs almost all of which are anticipated to be in the specialty trades contractors sector (+7,850 jobs).

**Table 1.**  
**Oklahoma Long-Term Industry Employment Projections, 2010-2020**

<b>Sector</b>	<b>2010</b>	<b>2020</b>	<b>Change</b>	<b>% Change</b>
Total Employment	1,662,220	1,896,770	234,550	14.1
Natural Resources and Mining	72,120	85,910	13,820	19.2
Construction	67,410	75,660	8,250	12.2
Manufacturing	122,830	134,650	11,810	9.6
Trade, Transportation, and Utilities	284,870	311,800	26,960	9.5
Information	24,980	24,300	-700	-2.8
Financial Activities	80,550	88,600	8,040	9.9
Professional and Business Services	170,400	202,090	31,700	18.6
Education and Health Services	354,610	437,180	82,580	23.3
Leisure and Hospitality	138,870	165,090	26,220	18.9
Other Services (Except Government)	62,590	66,010	3,410	5.5
Government	172,160	189,540	17,380	10.1

Source: Employment Projections Program, Oklahoma Employment Security Commission, Research & Analysis Division.

In the services-providing industries, employment in education & health services is forecast to provide the largest gains adding 82,580 jobs (23.3 percent) with health care & social assistance accounting for more than two-thirds of the growth and adding 60,780 jobs. Nearly two-thirds of the job growth in health care & social assistance is expected to be in the ambulatory health care services and hospitals sectors.

Professional & business services employment is expected to add 31,700 jobs (+18.6 percent) in the 2010-2020 timeframe. Nearly two-thirds of the job growth is led by gains in the administrative & support services sector which is projected to add 18,680 jobs (+20.8 percent). Professional, scientific & technical services is expected to contribute another 11,760 jobs (+18.8 percent).

The broad trade, transportation & utilities sector is forecast to add 26,960 jobs (9.5 percent) between 2010 and 2020 with about two-thirds of the employment growth in retail trade (+18,070 jobs). Wholesale trade is expected to add 6,430 jobs (11.6 percent) and transportation & warehousing employment growing by 1,670 jobs (or 3.4 percent). Utilities employment is forecast to grow by 7.0 percent adding 790 jobs.

Accommodation & food services employment is projected to increase by 23,670 jobs (+19.0 percent) from 2010 to 2020 with almost all the job gains in food services & drinking places (+21,820 jobs).

The financial activities supersector is forecast to add 8,040 jobs (+9.9 percent) between 2010 and 2020 with finance & insurance growing by 5,480 (+9.3 percent) and real estate and rental & leasing adding 2,560 jobs (+11.8 percent).

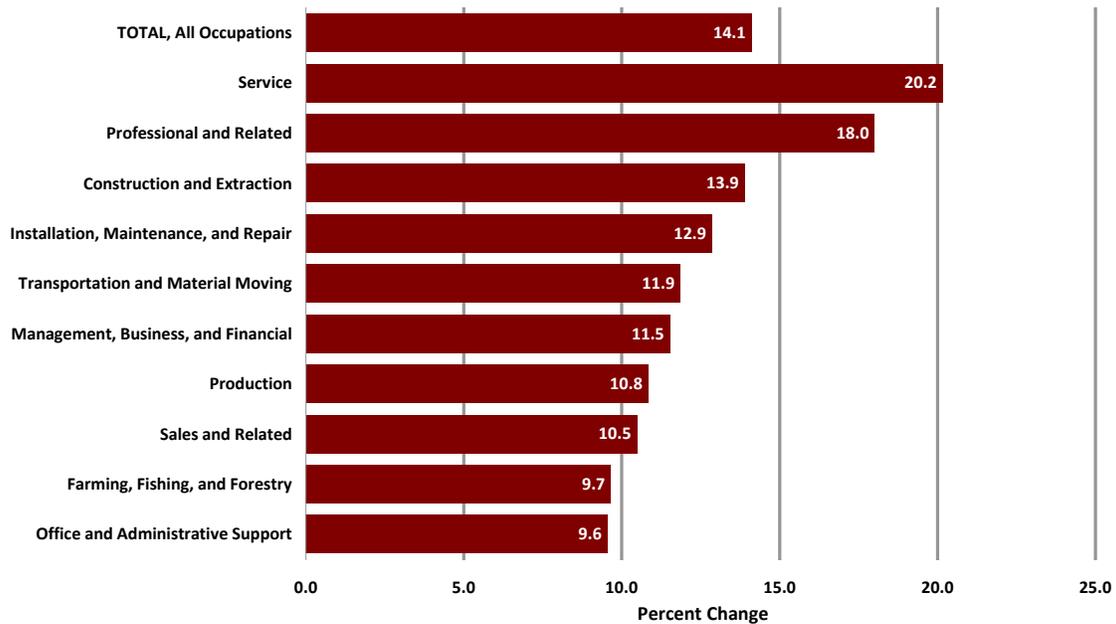
Other services (except government) is expected to add 3,410 for a 5.5 percent gain between 2010 and 2020. Information is the only supersector forecast to lose employment, shedding 700 jobs (-2.8 percent).

Government employment is projected to grow by 10.1 percent adding 17,380 jobs during the 2010-2020 period with nearly all the growth at the local government level which is expected to add 13,960 jobs (+15.2 percent).

## Oklahoma Long-Term Occupational Employment Projections, 2010-2020

### Major Occupational Groups

Source: Occupational Employment Statistics Program, Oklahoma Employment Security Commission, Research & Analysis Division



### Occupational Projections

Turning to occupational projections, the base year, 2010, follows a severe downturn in both the U.S. and Oklahoma economies. Therefore, it is important to note that the estimated employment in 2010 was 87,910 lower than in 2008. Every major occupational group lost employment between 2008 and 2010 with the largest losses coming from office & administrative support (-18,500 jobs), production (-18,290 jobs), and transportation & material moving (-14,640). When analyzing the current projections data, looking at the employment levels in 2008 compared to those in 2010 and in 2020 gives a clearer picture of the employment situation.

In terms of absolute job gains, every major occupational group is expected to add jobs over the decade between 2010 and 2020. Office and administrative support occupations are expected to see the largest gain in employment adding 26,250 jobs. Food preparation & serving related occupations are projected to add 23,730 jobs followed by healthcare practitioners and technical occupations which should add 23,180 jobs over the decade.

Not surprisingly, the fastest growing occupations for the 2010 to 2020 period are in health and personal care. Healthcare support occupations are projected to grow at a rate of 29.7 percent, followed by personal care and service occupations growing at a 27.8 percent rate. Healthcare practitioners and technical occupations are forecast to grow 24.1 percent between 2010 and 2020.

The occupational groups with the most job openings due to growth and replacement needs remained similar to previous projections rounds. Office & administrative support occupations are projected to have 8,680 average annual openings followed by sales & related occupations which should have 7,230 annual openings. Food preparation & serving related occupations are expected to have 6,964 average annual openings between 2010 and 2020.

## Oklahoma Occupational Employment Estimates & Projections by Major Group, 2010-2020

Occupational Division	2010	2020	Numeric Change	Percent Change	Average Annual Openings
					2010-2020
<b>Total, All Occupations</b>	<b>1,662,220</b>	<b>1,896,770</b>	<b>234,550</b>	<b>14.11</b>	<b>63,280</b>
Management, Business, and Financial Occupations <sup>1</sup>	171,710	191,500	19,790	11.53	5,620
Professional and Related Occupations <sup>2</sup>	313,640	370,130	56,490	18.01	12,500
Service Occupations <sup>3</sup>	317,120	381,050	63,930	20.16	14,800
Sales and Related Occupations	176,210	194,670	18,460	10.48	7,230
Office and Administrative Support Occupations	274,930	301,180	26,250	9.55	8,680
Farming, Fishing, and Forestry Occupations	21,120	23,160	2,040	9.66	840
Construction and Extraction Occupations	99,330	113,140	13,800	13.89	3,500
Installation, Maintenance, and Repair Occupations	75,390	85,080	9,700	12.86	2,740
Production Occupations	111,610	123,710	12,100	10.84	3,630
Transportation and Material Moving Occupations	101,170	113,170	12,000	11.86	3,750

### Notes:

1) Major occupational groups 11-0000 through 13-0000 in the 2010 Standard Occupational Classification (SOC).

2) Major occupational groups 15-0000 through 29-0000 in the 2010 Standard Occupational Classification (SOC).

3) Major occupational groups 31-0000 through 39-0000 in the 2010 Standard Occupational Classification (SOC).

Source: Employment Projections Program, Oklahoma Employment Security Commission. Research & Analysis Division.

A few occupational groups are projected to have lower employment levels in 2020 than estimated in the 2008 round. Production occupations are forecast to have an employment level of 123,710 by 2020 compared to 129,900 employment level in 2008—a loss of 6,190 jobs. Farming, fishing, & forestry occupations projected employment level of 23,162 is 4,640 jobs less than estimated in 2008. Transportation & material moving occupations is expected to have an employment level of 113,168 in 2020 or 2,650 fewer jobs than the 2008 level of 115,814 workers. Finally, Computer and mathematical occupations is expected to have an employment level of 27,651 by 2020, slightly lower the 2008 estimate of 28,514 jobs.

### More Information

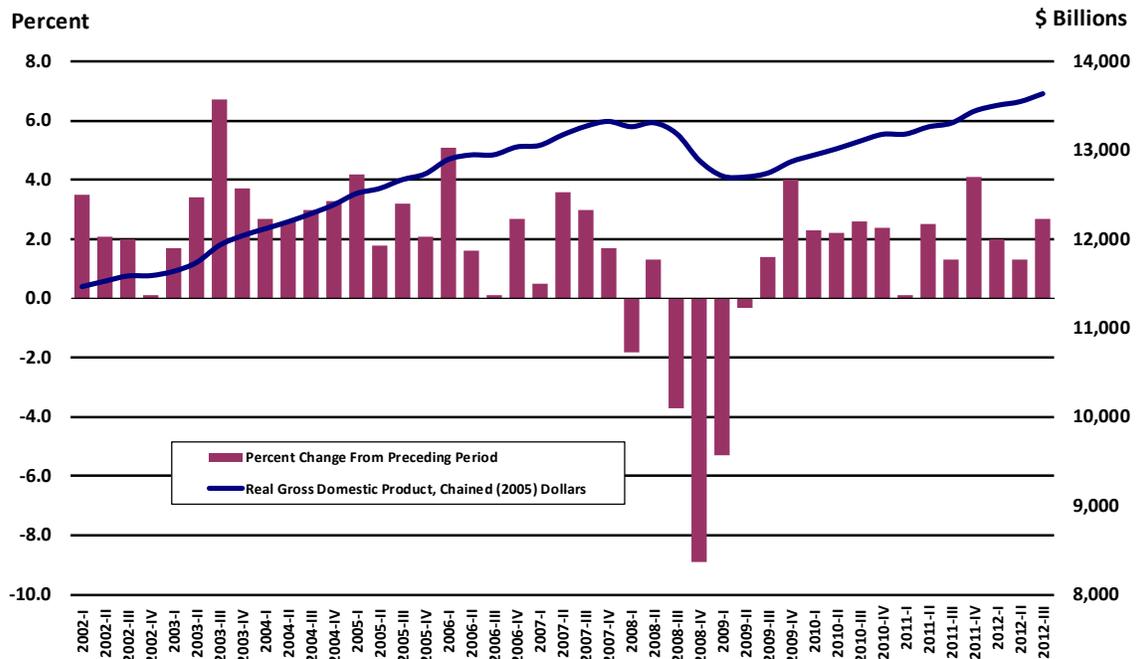
Detailed forecast tables are available at:

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

There you will find industry and occupational projections for the current 2010-2020 round as well as the 2011-2013 short-term industry and occupational projections along with past rounds of long-term and short-term projections.

## 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 expanded at its fastest pace since late 2011 in the 3rd quarter as growing inventories, strong federal spending and robust exports led to an upward revision. Real gross domestic product (GDP) increased at an annual rate of 2.7 percent in the third quarter of 2012, according to the "second" estimate released by the Bureau of Economic Analysis (BEA). The upward revisions to inventory gains and exports helped offset downward adjustments to consumer spending and business investment.

Consumer spending grew at a weaker 1.4 percent rate in the 3rd quarter, down from the 2 percent rate estimated a month ago and nearly in line with the 1.5 percent rate in the 2nd quarter. Spending on durable goods was revised upward to 8.7 percent, while nondurable goods spending was revised downward to 1.1 percent. Services spending was also revised downward to 0.3 percent.

The change in real private inventories was the primary driver of the 3rd-quarter adjustment in real GDP. The new data show the change in private inventories contributed 0.77 of a percentage point to GDP growth, (instead of the 0.1 percentage-point drag initially estimated). Businesses spending on equipment and software fell at an annual rate of 2.7 percent in the 3rd quarter, the first decline since the depths of the recession in spring 2009.

The recovering housing market and continued strength in homebuilding also added to 3rd quarter growth. Real residential fixed investment increased 14.2 percent in the 3rd quarter, compared with an 8.5 percent pace in the previous quarter.

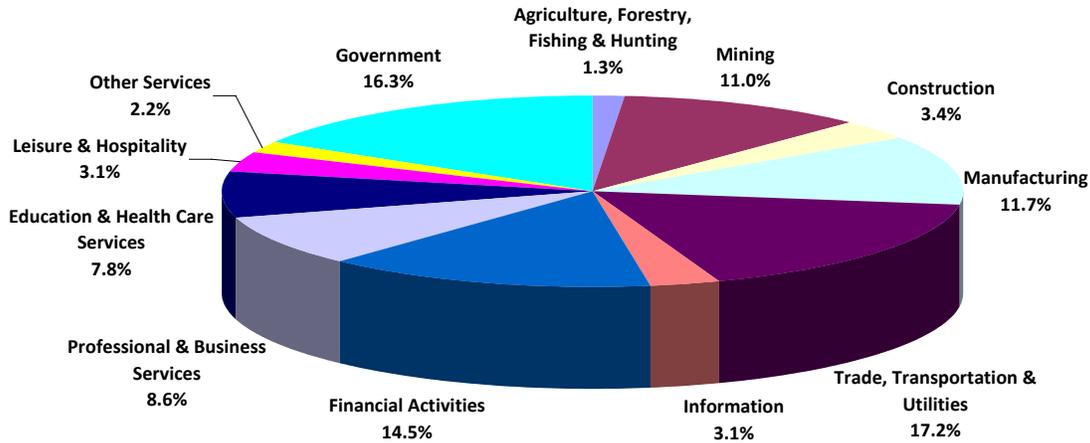
Output during the 3rd quarter was also revised up to show a smaller trade deficit as export growth outpaced the rise in imports. Net exports of goods and services contributed 0.14 percentage point to GDP growth instead of subtracting 0.18 percentage point, as previously thought.

After declining in nine of the past ten quarters, total government spending increased at a 3.5 percent annual rate in the 3rd quarter, driven by a big jump in defense spending. Real federal government consumption expenditures and gross investment increased 9.5 percent in the 3rd quarter. National defense spending increased 12.9 percent while nondefense spending increased 3.0 percent. Real state and local government consumption expenditures and gross investment decreased 0.4 percent in the 3rd quarter.

## 2011 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

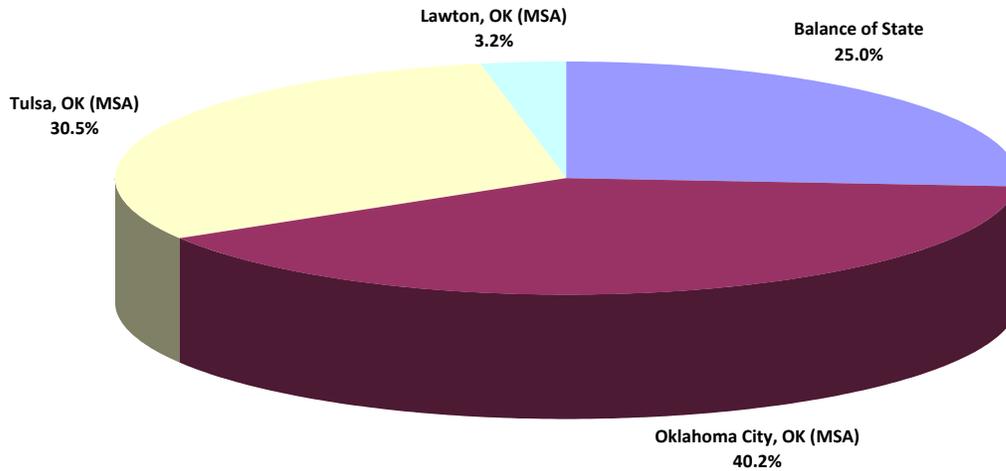
Oklahoma was among 43 states and the District of Columbia experiencing growth in real GDP in 2011, according to the advance estimate from the Bureau of Economic Analysis (BEA). Oklahoma's 2010 advance estimate was revised upward from 1.0 percent to 2.0 percent while the state's 2009 GDP was further revised downward reflecting depressed energy prices during that period.

Oklahoma registered a real GDP of \$134.2 billion in 2011, a 1.0 percent gain from the revised \$132.8 billion in 2010. U.S. real GDP by state grew 1.5 percent in 2011 after a 3.1 percent increase in 2010. Real GDP increased in all eight BEA regions in 2011, although growth slowed in most regions. The Southwest region, which includes Oklahoma, grew the fastest at 2.7 percent, led by Texas with a 3.3 percent increase.

Durable-goods manufacturing was the leading contributor to real GDP growth in 26 states including Oklahoma, where it contributed 0.54 percentage points to overall growth. Other industries adding to 2011 GDP growth in Oklahoma were wholesale trade (0.29 percent); health care & social assistance (0.26 percent); mining (0.24 percent); and professional, scientific & business services (0.20 percent). Subtracting from Oklahoma GDP growth were agriculture, forestry, fishing & hunting (-0.26 percent); utilities (-0.19 percent); real estate, rental & leasing (-0.17 percent); government (-0.13 percent); and nondurable goods manufacturing (-0.11 percent).

## Metropolitan Area Contribution to State Real Gross Domestic Product 2010

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.

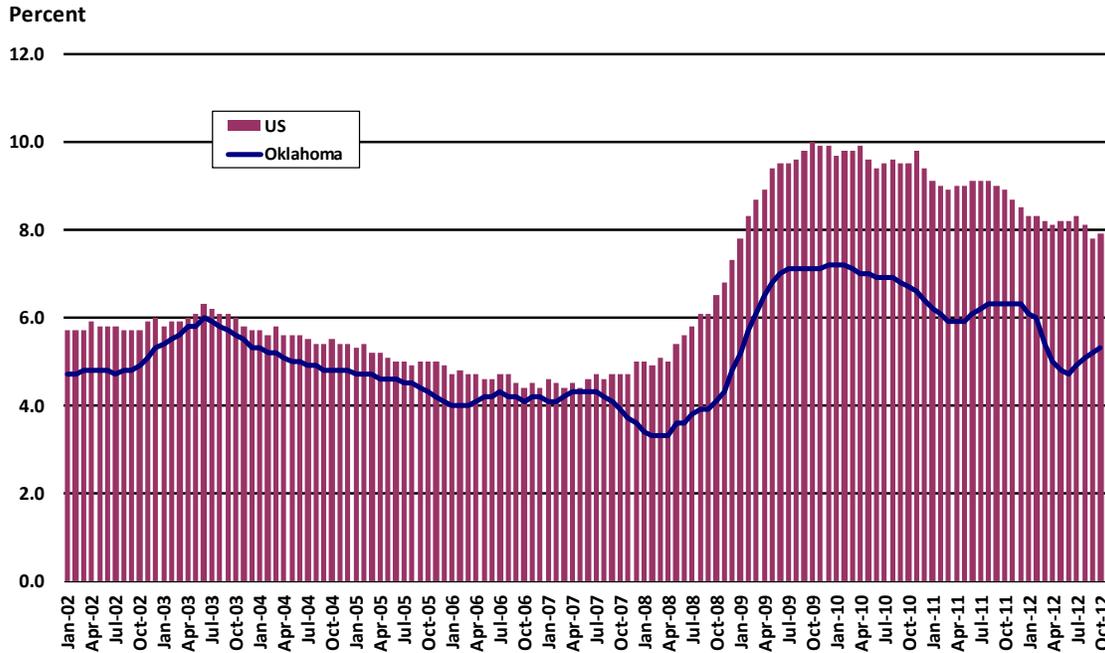
### Current Developments

Real U.S. GDP by metropolitan area increased 2.5 percent in 2010 after declining 2.5 percent in 2009, according to the most current statistics from the U.S. Bureau of Economic Analysis (BEA). The economic growth was widespread as real GDP increased in 304 of 366 (83 percent) metropolitan areas, led by national growth in durable-goods manufacturing, trade, and financial activities.

In terms of growth in real GDP, Lawton MSA ranked 15th out of the 366 U.S. metropolitan areas growing by 6.9 percent to \$4.21 billion in 2010. Oklahoma City MSA ranked 205th growing by 1.7 percent to \$53.7 billion followed by Tulsa MSA ranked at 329th declining by -0.6 percent to \$40.7 billion.

## 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.

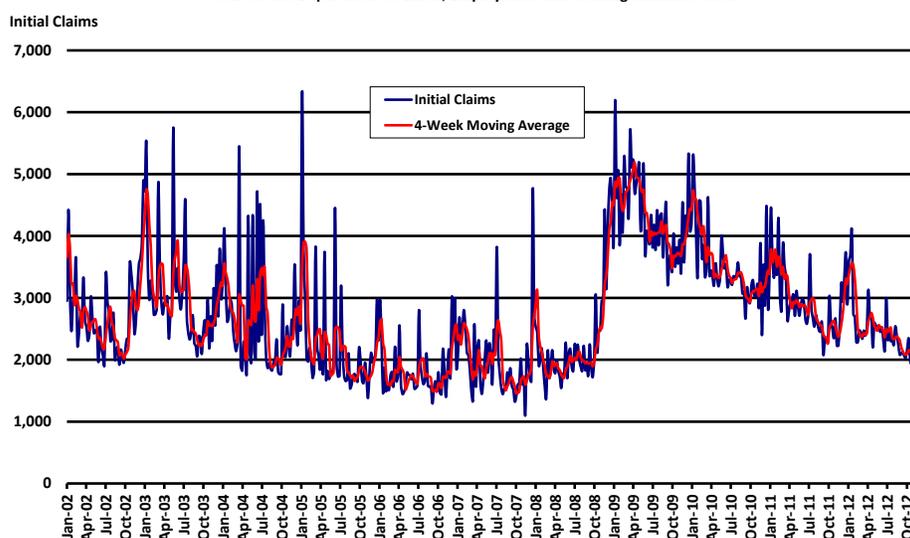
### Current Developments

The unemployment rate fell to a four-year low in November from 7.9 percent in October but mostly because more people stopped looking for work and weren't counted as unemployed. The unemployment rate edged down to 7.7 percent in November, according to the Bureau of Labor Statistics (BLS). The civilian labor force fell by 350,000 to 155.3 million in November, and the labor force participation rate edged down to 63.6 percent.

Oklahoma's seasonally adjusted unemployment rate edged up to 5.3 percent in October, ranking it the 7th lowest jobless rate among states. Some of the recent rise in state unemployment rates can be attributed to a growing labor force including people resuming a search for work after being jobless for an extended period. The state's seasonally adjusted unemployment rate was down by 1.0 percentage points over the year.

## 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

Applications for U.S. unemployment benefits fell for the third straight week to lowest reading in one month. In the week ending December 1, the advance figure for seasonally adjusted initial claims was 370,000, a decrease of 25,000 from the previous week's revised figure of 395,000, according to the U.S. Department of Labor (DOL). The four-week moving average of applications for unemployment aid, a less volatile gauge, declined to 408,000, an increase of 2,250 from the previous week's revised average of 405,750.

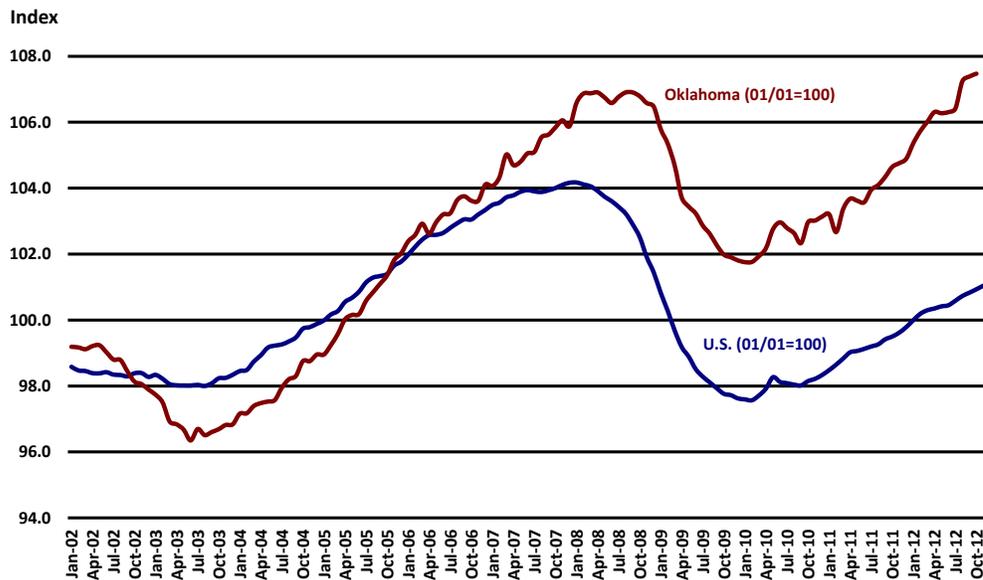
Oklahoma's initial jobless claims was at 2,292 for the week ending November 24, an increase of 238 from the previous week's figure of 2,054. The less volatile four-week moving average edged up 95 from the previous week's 1,954 to 2,055.

Oklahoma continued UI claims fell by 159 for the same file week ending. Continued claims for unemployment insurance dropped to 21,041 from 21,200 in the week earlier.

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

Index: January 2001=100

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



### 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

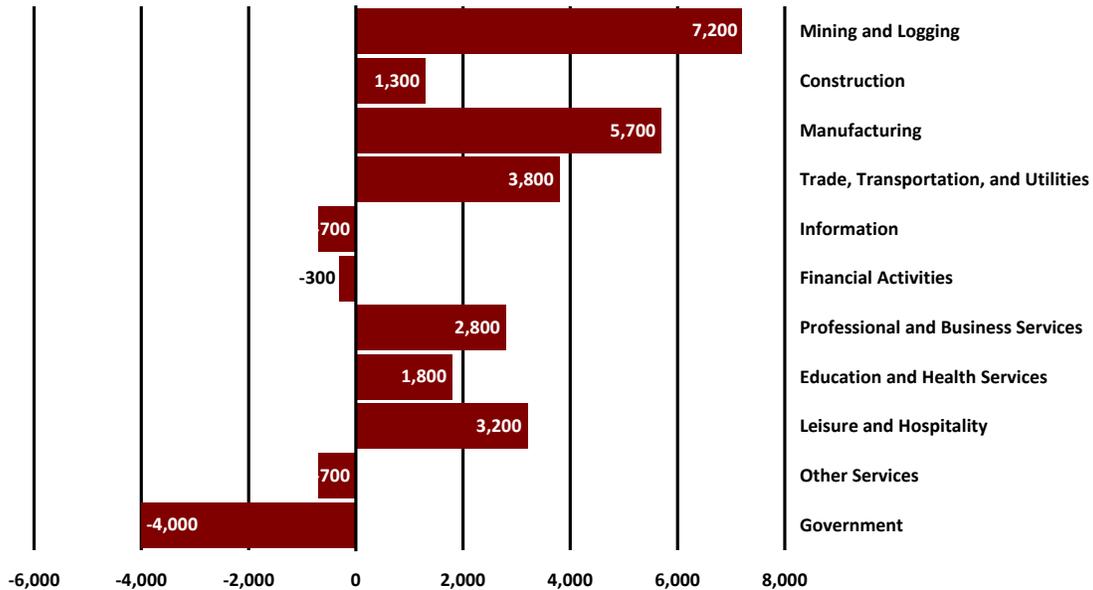
U.S. job growth picked up in November as the labor market shrugged off Superstorm Sandy, the latest sign of a steady economic recovery. Total nonfarm payroll employment increased by 146,000 in November, according to the Bureau of Labor Statistics (BLS). The change in total nonfarm payroll employment for September was revised downward from 148,000 to 132,000 (-16,000), and the change for October was also revised downward from +171,000 to +138,000 (-33,000).

Oklahoma's seasonally adjusted nonfarm employment added 1,300 jobs (+0.1 percent) in October with six of Oklahoma's 11 statewide supersectors reporting job losses. Mining & logging, construction, manufacturing, financial activities, educational & health services, and other services all shed jobs in October. Information reported no change over the month. Professional & business services (+2,300 jobs), and leisure & hospitality (+2,200 jobs) provided the largest job gains in October.

## Oklahoma Employment Change by Industry

2010 - 2011

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 annual averages to compare year-over-year employment changes.

### Current Developments

After back-to-back years of job losses, nonfarm employment in Oklahoma turned around in 2011. Nonfarm employment grew at a healthy 1.3 percent growth rate in 2011, adding approximately 20,000 jobs.

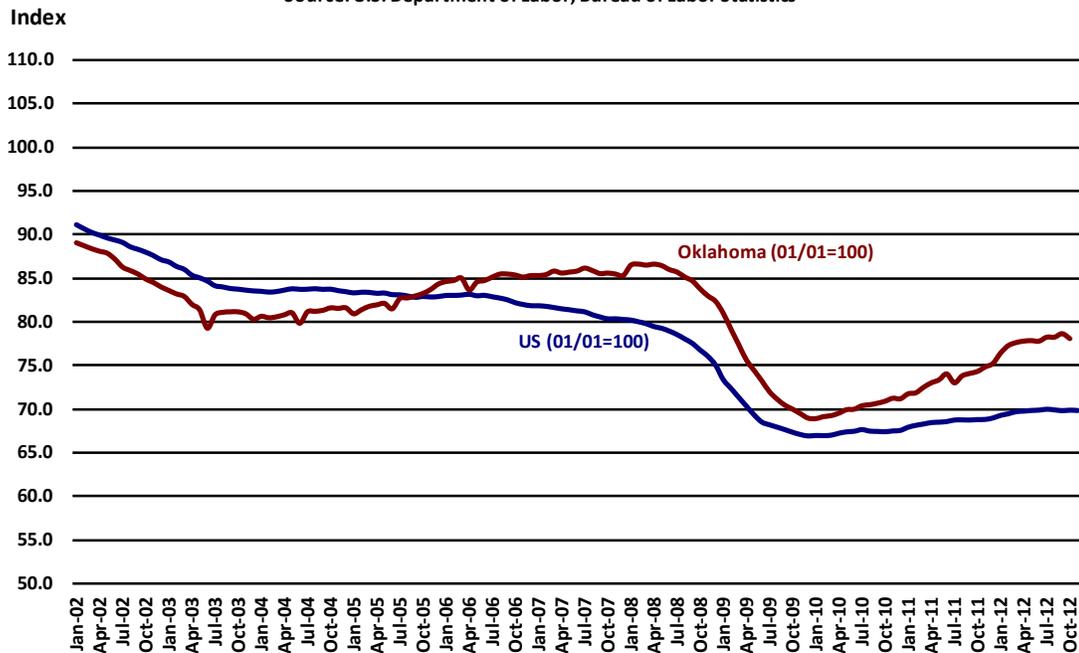
Job gains were registered in seven out of Oklahoma's 11 statewide supersectors. Mining & logging saw the largest employment increase adding 7,200 jobs with the bulk of hiring occurring in support activities for mining. Manufacturing followed with an addition of 5,700 jobs and almost all of the growth coming from durable goods manufacturing. The broad trade, transportation & utilities group added 3,800 employees with most of the growth in wholesale trade. Leisure & hospitality added 3,200 jobs with nearly all of the job gains being in accommodation and food services. Professional and business services employment grew by 2,800 driven by job gains in administrative and support & waste management and remediation services and employment services. Education & health services added 1,800 jobs with nearly all the job growth in ambulatory health care services.

By far, the largest job losses were seen in government which shed approximately 4,000 jobs with almost all of the losses coming from local government.

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

Index: January 2001 = 100

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



### 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.

At one time, manufacturing made up 38 percent of the nation's employment. However, manufacturing employment in the United States has been declining since 1979, as productivity, technology gains, and the transfer of manufacturing to locations outside the United States have reduced the demand for traditional manufacturing employment. Furthermore, current shifts in the industry away from heavy sectors, such as automobiles and basic chemicals toward higher-tech products like computer chips are also accelerating manufacturing's long-term shrinkage.

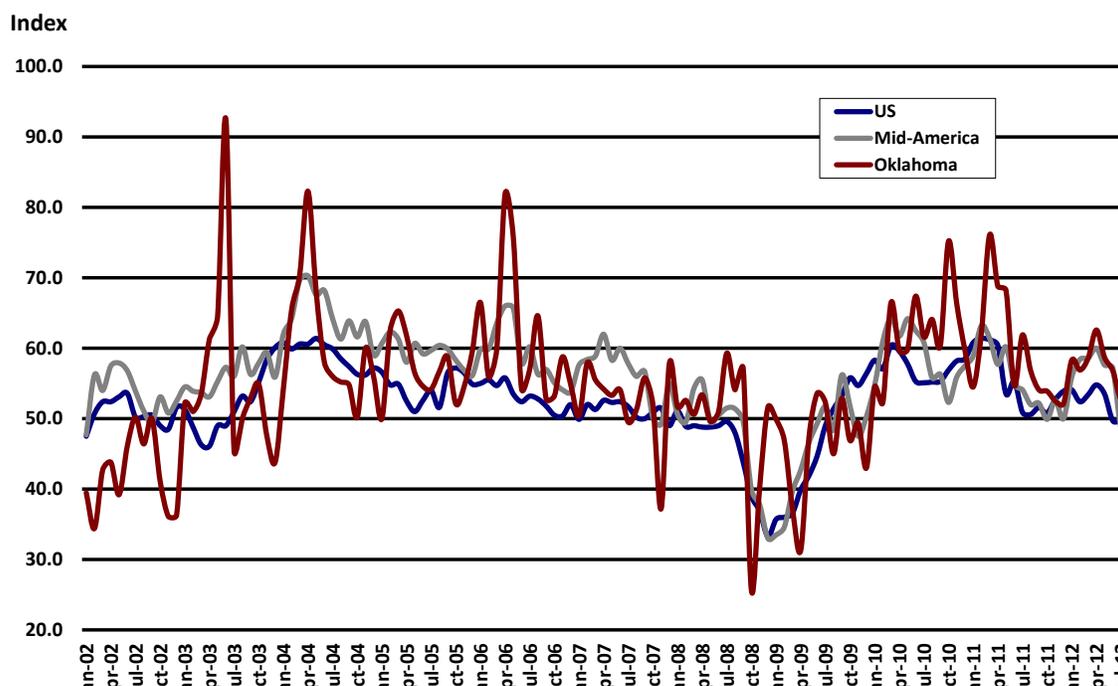
### Current Developments

U.S. factory employment was little changed in November and has changed little since this past spring. Overall, manufacturing jobs fell 7,000 in November, according to the Bureau of Labor Statistics (BLS). Manufacturing employment was pushed down by a loss of 12,000 jobs in food manufacturing that likely reflects the layoff of workers at Hostess. Auto manufacturers added nearly 10,000 jobs in November.

Oklahoma's manufacturing employment growth edged up in October adding 700 jobs (0.5 percent) over the month. All of October's manufacturing employment growth was in non-durable goods manufacturing. Over the year, manufacturing has added approximately 8,000 jobs (or 6.1 percent).

## 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

U.S. manufacturers contracted in November and activity fell to the lowest level since July 2009, as new orders sank and employment plans were scaled back. The PMI™ registered 49.5 percent, a decrease of 2.2 percentage points from October's reading of 51.7 percent, indicating contraction in manufacturing for the fourth time in the last six months, according to the Institute for Supply Management (ISM). Eight of the 18 U.S. manufacturing industries surveyed by ISM reported growth in October.

The ISM's new-orders index sank to 50.3 percent from 54.2 percent, although the production index edged up to 53.7 percent from 52.4 percent. The employment gauge declined to 48.4 percent from 52.1 percent, the lowest level since September 2009.

Going forward, the economy may rely more on housing as manufacturing slows. With six months of stagnation in manufacturing, construction gains, reflecting a rebound in housing, are helping to pick up some of the slack.

Another economic slump may be developing in the Midwest and Plains states, according to a survey of business leaders. For the fourth time in the past five months, the monthly Mid-America Business Conditions Index, a leading economic indicator for a nine-state region, remained below growth neutral. The Business Conditions Index climbed to a weak 48.0 in November from October's 46.5 reading, pointing to slightly negative growth for the region in the next three to six months, according to the Creighton Economic Forecasting Group.

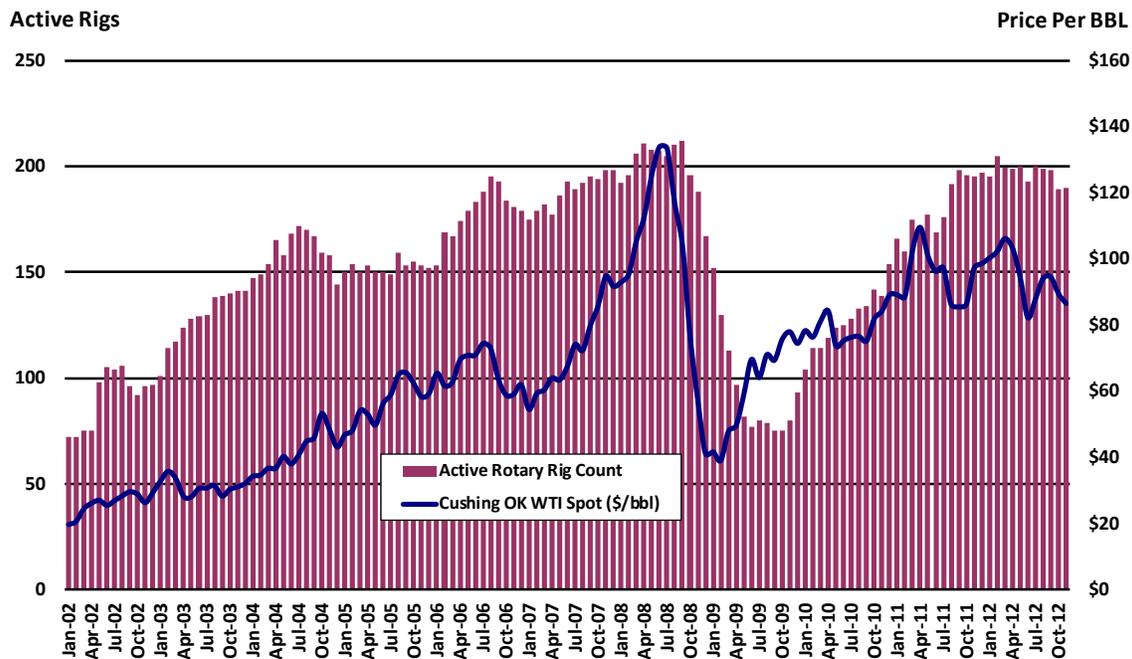
The November survey also noted that there was a great deal of economic variation among the nine states with Iowa, North Dakota and Oklahoma outperforming the remaining states.

The Business Conditions Index for Oklahoma fell for November but still remained the second-highest reading in the nine-state region. The leading economic indicator from the supply managers' survey sank to 56.1 from October's 63.3. Components of the November survey were new orders at 63.6, production or sales at 62.4, delivery lead time at 42.0, inventories at 60.5, and employment at 52.1.

"Growth stemming from a very strong energy sector continues to push state economic growth higher. In addition, both durable and nondurable goods producers continue to expand at a solid pace. For example, metal manufacturing and machinery production are growing at a healthy rate in the state. Our surveys over the past several months project healthy but somewhat slower growth for the next three to six months," said Dr. Ernie Goss, director of Creighton University's Economic Forecasting Group.

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

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**

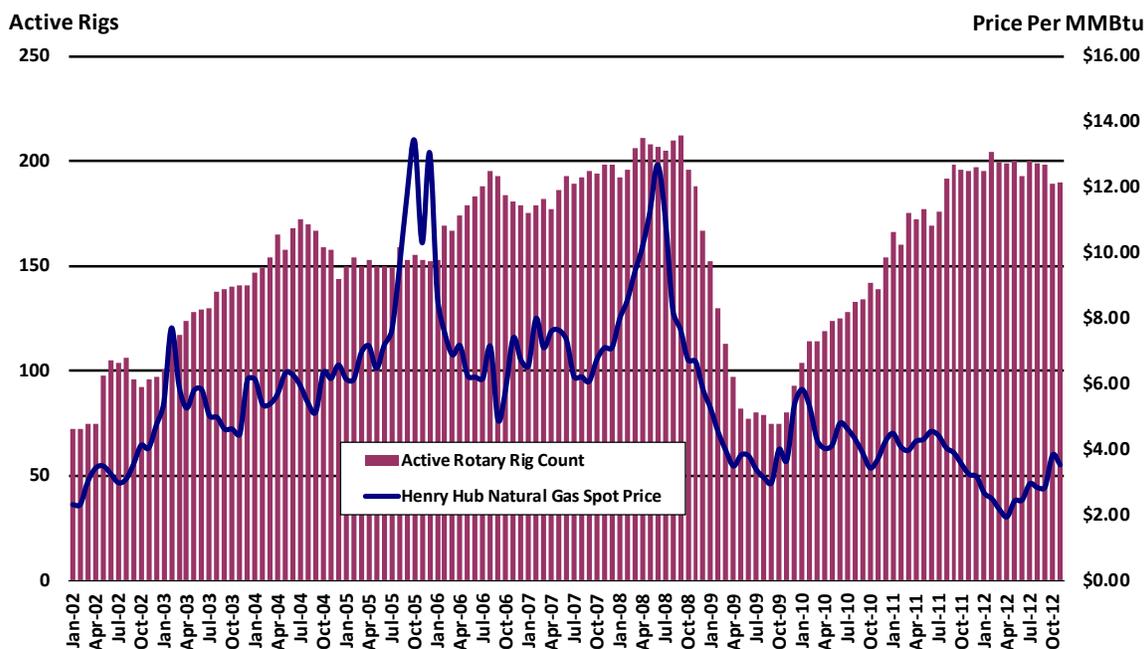
According to the Energy Information Administration's latest *Annual Energy Outlook*, crude oil production, particularly from tight oil plays, is expected to rise sharply over the next decade. The advent and continuing improvement of advanced crude oil production technologies will continue to increase projected domestic supply. Domestic production of crude oil should increase sharply, with annual growth averaging 234 thousand barrels per day (bpd) from 2011 through 2019, when production reaches 7.5 million bpd. The growth largely results from a significant increase in onshore crude oil production, particularly from shale and other tight formations. After about 2020, production begins declining gradually to 6.1 million bpd in 2040 as producers develop sweet spots first and then move to less productive or less profitable drilling areas.

Crude oil prices slipped in November as WTI-Cushing spot prices averaged \$86.53 per barrel, down \$2.96 from October's average of \$89.49 per barrel.

Oklahoma's rotary rig activity averaged 190 in November, edging up one rig from the previous month's count of 189 rigs. Over the year, November's active rotary rig count in Oklahoma was down by five rigs.

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

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 and 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. If inventories are high and rising in a period of strong demand, prices may not need to increase at all, or as much. 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**

The United States becomes a larger exporter of natural gas than previously projected by the Energy Information Administration (EIA) in the most recent *Annual Energy Outlook*. U.S. natural gas production is projected to increase throughout the projection period, outpacing domestic consumption by 2020 and spurring net exports of natural gas. Higher volumes of shale gas production are central to higher production volumes and an earlier transition to net exports than was previously forecast. U.S. exports of LNG from domestic sources rise to approximately 1.6 trillion cubic feet by 2027—double the 0.8 trillion cubic feet previously projected. The EIA expects that the United States will become a net exporter of LNG in 2016, according to the EIA.

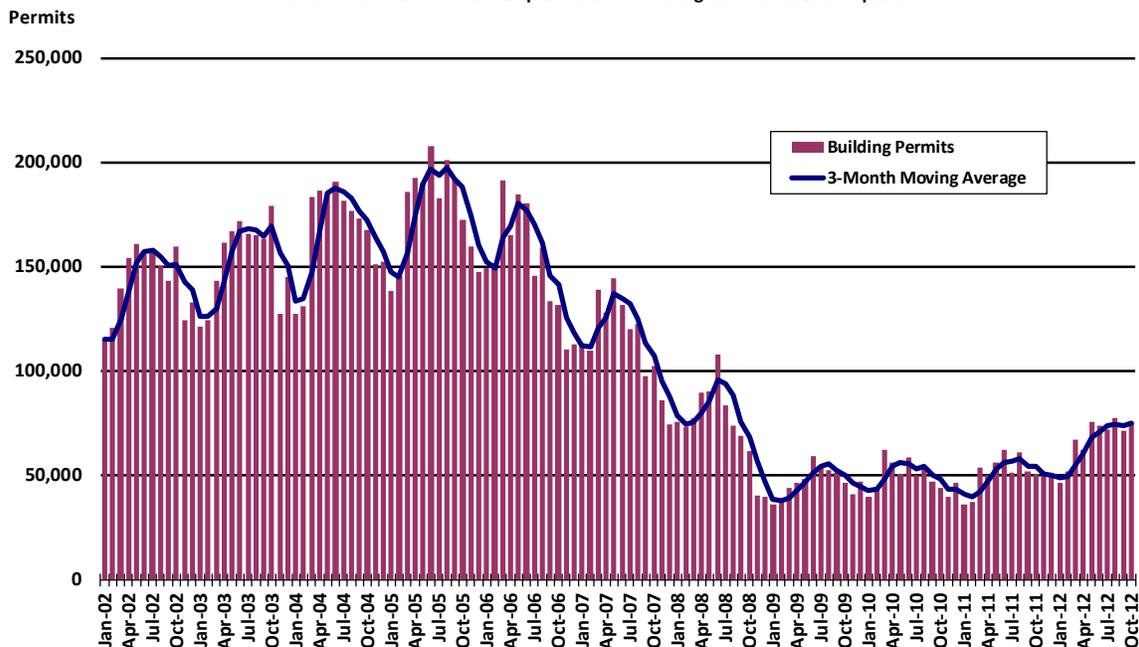
Natural gas prices generally rose during November as the weather has gotten colder. Henry Hub spot prices averaged \$3.53 per million British thermal units (MMBtu) for the month in November, down 30 cents per MMBtu from October's average of \$3.83 per MMBtu.

In Oklahoma, gas-directed rotary rig activity was at 24 (13 percent) for the week ending November 30th, while oil-directed rigs were at 164 (87 percent).

## U.S. Total Residential Building Permits, 2002-2012

Not 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 outsize 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

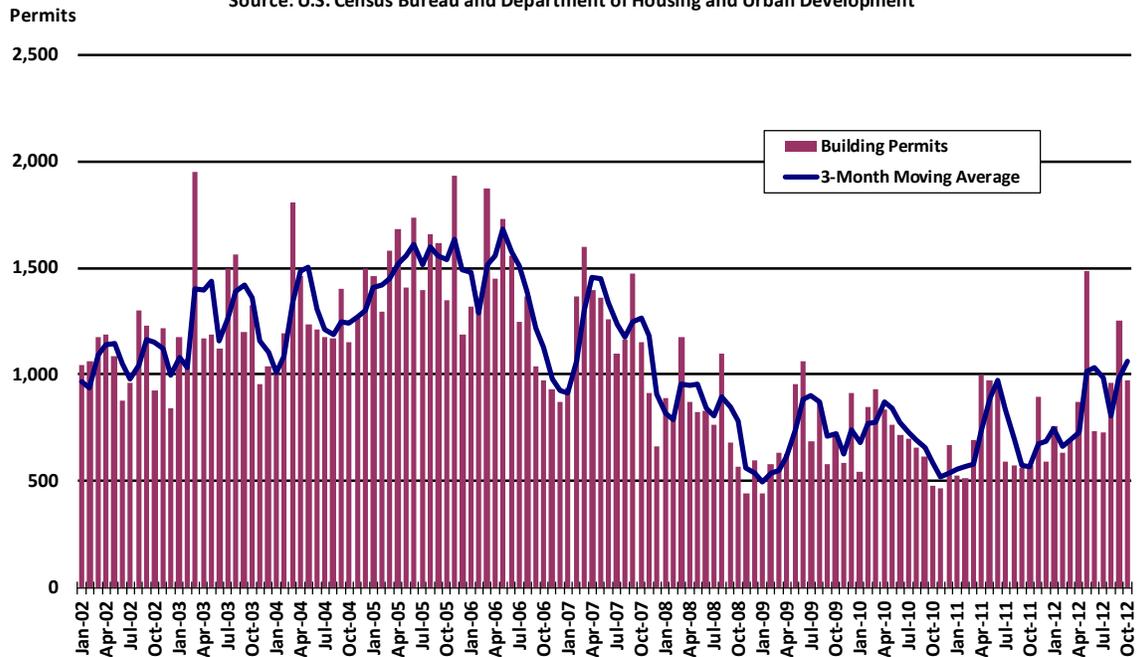
Builders maintained their busy pace in October as housing starts rose to their highest rate in more than four years, although permits for future construction fell. Privately-owned housing units authorized by building permits Building permits fell 2.7 percent to an 866,000-unit pace in October after jumping 11.1 percent the prior month, according to the U.S. Census Bureau and the Department of Housing and Urban Development. Privately-owned housing starts increased 3.6 percent to a seasonally adjusted annual rate of 894,000 units—the highest since July 2008.

The drop in residential permitting in October was concentrated in the multifamily segment and likely will be short-lived. Permits to build single-family homes rose 2.2 percent last month to a 562,000-unit pace, while permits for multi-family homes fell 10.6 percent to a 304,000-unit rate.

## Oklahoma Total Residential Building Permits, 2002-2012

Not Seasonally Adjusted

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



Oklahoma residential permitting pulled back a bit in October with most of the activity being in single-family construction. Total unadjusted residential building permits slipped 22.5 percent from the previous month, according to figures from the U.S. Census Bureau and the Department of Housing and Urban Development. October single-family permitting activity accounted for 86.8 percent of all residential permitting activity in October and improved 20.1 percent from September's permitting level. After robust activity in September, multi-family permits were off 77.5 percent in October.

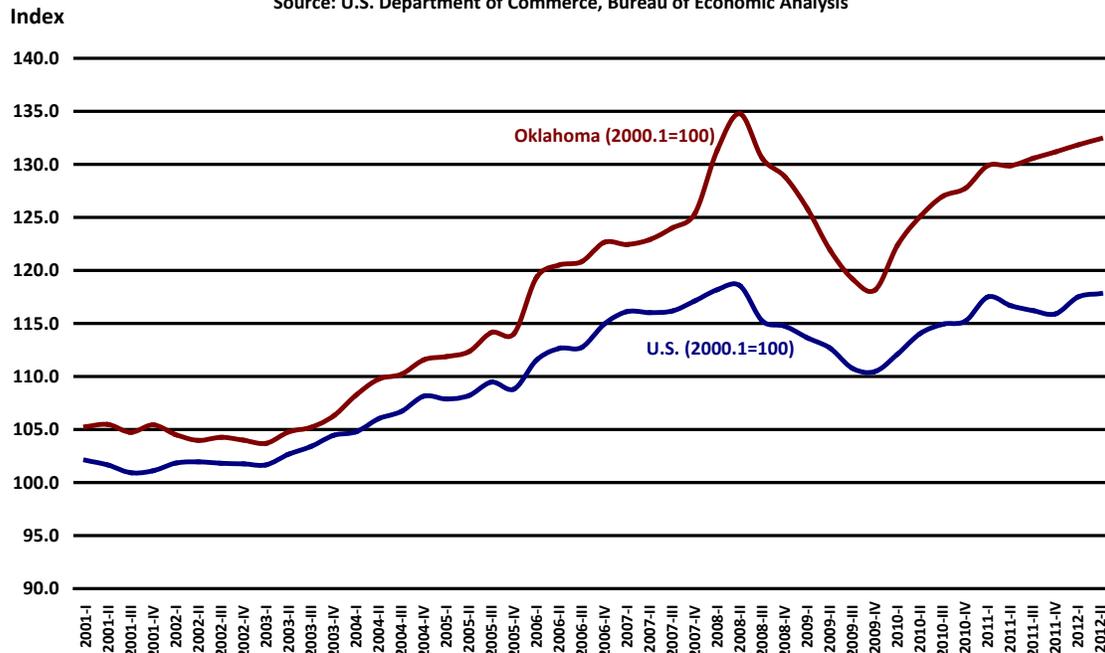
Over the year, total residential permitting was 70.5 percent above October 2011. Single-family permitting was up 94.7 percent while the more volatile multi-family component was down 10.3 percent.

Residential permitting activity in 2012 continues to outpace 2011. Year to date, total residential permitting activity was 30.9 percent above the first ten months of 2011. Single-family permitting was 31.9 percent greater than 2011 while multi-family activity was 34.9 percent more.

## 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

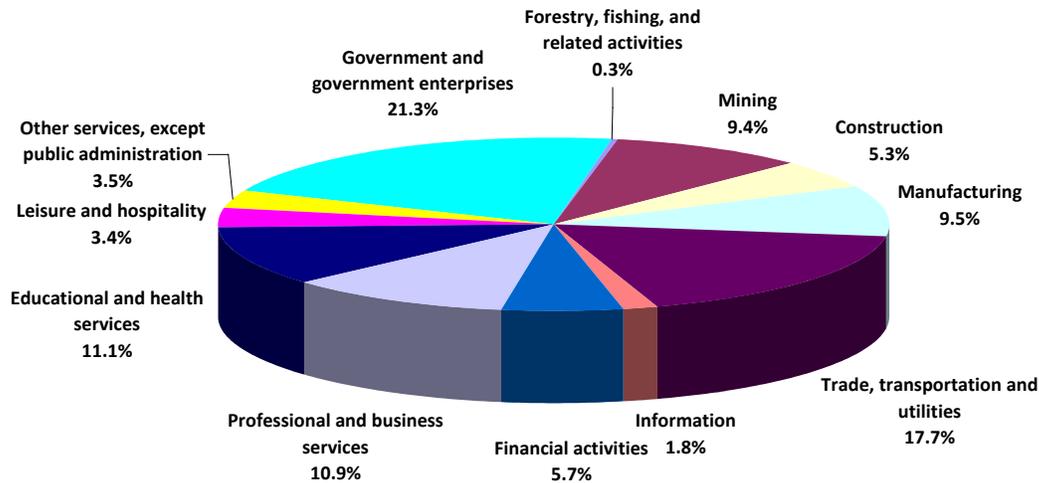
Personal income and spending dipped in October as Hurricane Sandy took a big bite out of paychecks in the Northeast. Personal income increased \$0.4 billion, or less than 0.1 percent, and disposable personal income (DPI) increased \$0.8 billion, or less than 0.1 percent, in October, according to the Bureau of Economic Analysis (BEA). The October estimates of personal income and outlays reflect the effects of Hurricane Sandy, which made landfall in the United States on October 29 and affected 24 states. The BEA estimated that the October decrease in private wages and salaries reflected work interruptions caused by Hurricane Sandy and reduced wages and salaries by \$18.2 billion.

Hurricane Sandy also weighed down on spending. Personal consumption expenditures (PCE) decreased \$20.2 billion, or 0.2 percent, compared to a 0.8 percent surge in September, according to the BEA. By components for spending, durable goods fell 1.9 percent, following a 2.0 percent boost the prior month. Nondurables dipped 0.2 percent, following a 1.4 percent surge in September. Services edged up 0.1 percent in October after a 0.3 percent boost the prior month.

## Oklahoma Nonfarm Industry Contribution to Earnings

Second Quarter 2012

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 growth slowed to 1.0 percent in the 2nd quarter of 2012, from 1.7 percent in the 1st quarter, according to estimates by the U.S. Bureau of Economic Analysis (BEA). Growth slowed in 39 states plus the District of Columbia, accelerated in 10 states, and was unchanged in Nevada. Personal income growth ranged from 2.1 percent in North Dakota to 0.4 percent in New Mexico.

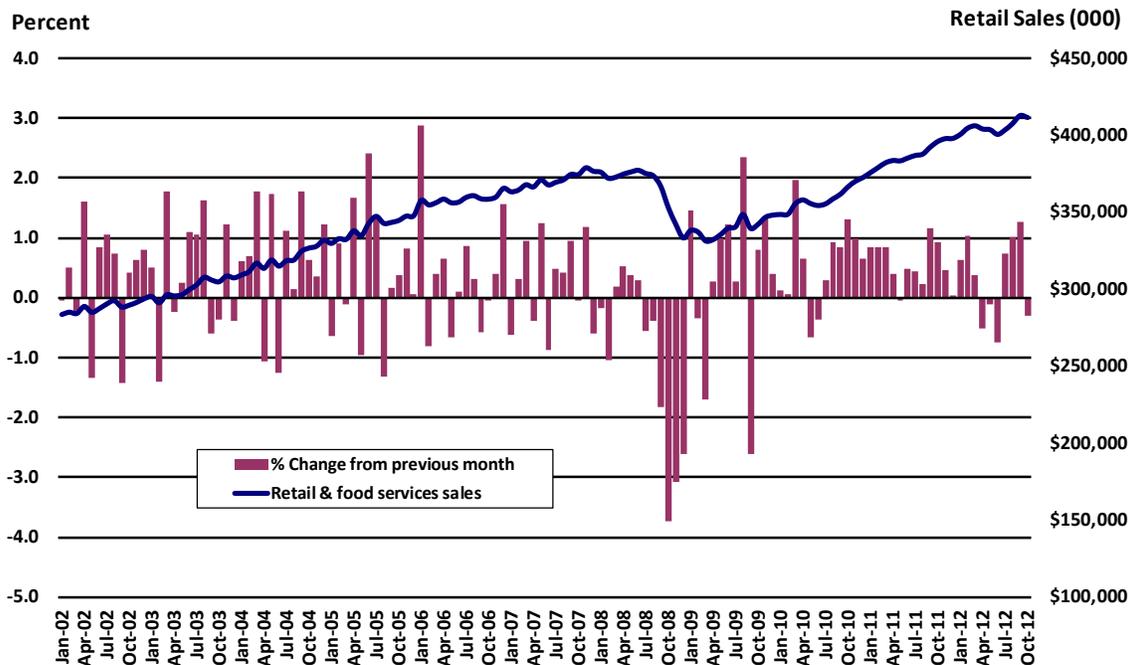
Oklahoma's personal income growth rate of 1.2 percent ranked seventh in the April through June period and above the national rate of 1.0 percent. In the previous quarter, Oklahoma's personal income grew at 0.8 percent. The BEA estimated Oklahoma's total personal income was \$148.2 billion in the 2nd quarter, compared to \$146.5 billion in the 1st quarter. In 2011, Oklahoma's personal income number was revised upward by \$1.5 billion, or 1.1 percent.

Earnings contributed 0.78 percent to Oklahoma's personal income growth in the 2nd quarter. Earnings increased in 19 of 24 Oklahoma industries with the largest percentage (-7.2 percent), and dollar decline (-\$88 million) in farm earnings. Declines in earnings were also seen in nondurable goods manufacturing (-1.6 percent); educational services (-0.7 percent); construction (-0.4 percent); and military (-0.4 percent).

Industries reporting earnings growth were led by forestry, fishing, and related activities growing by 4.5 percent. Significant earnings growth was also reported in wholesale trade (3.6 percent); real estate and rental and leasing (3.6 percent); management of companies and enterprises (2.6 percent); arts, entertainment, and recreation (2.4 percent); transportation and warehousing (2.2 percent); and professional, scientific, and technical services (2.2 percent).

## 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

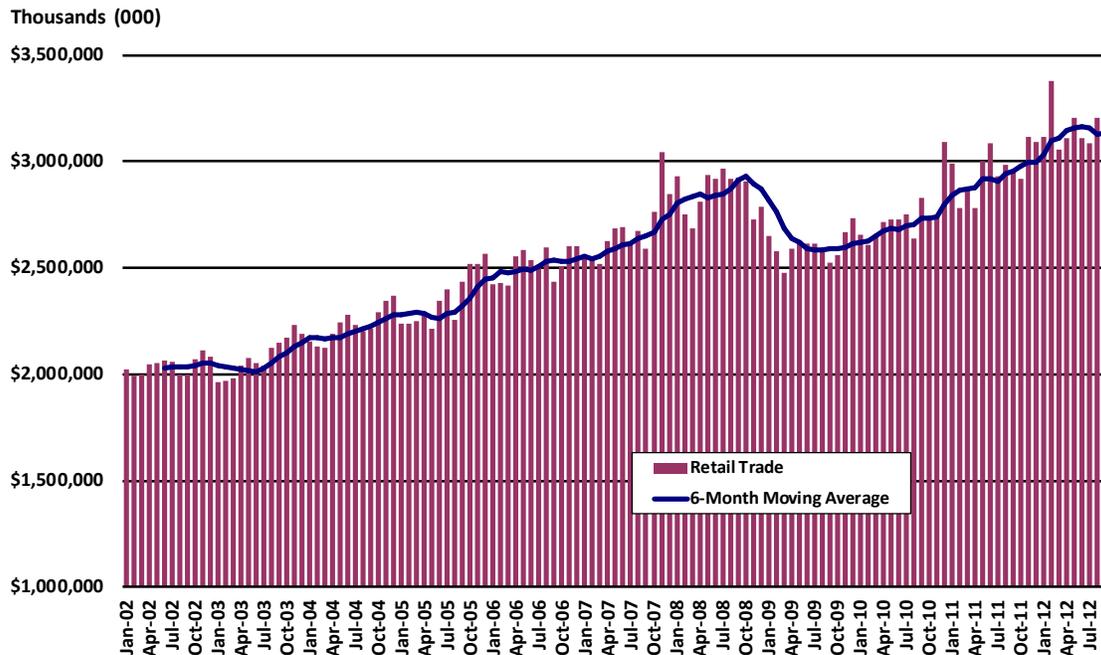
Retail sales in the U.S. fell in October by the sharpest amount since June, likely hurt by the effects of Hurricane Sandy. Advance estimates of U.S. retail and food services sales for October, adjusted for seasonal variation and holiday and trading-day differences, but not for price changes, were \$411.6 billion, a decrease of 0.3 percent from the previous month, but 3.8 percent above October 2011, according to the U.S. Census Bureau. The August to September 2012 percent change was revised upward from 1.1 percent to 1.3 percent. Sales in August were revised down to a 1.0 percent increase from a prior reading of 1.2 percent.

Auto dealers' sales sank 1.5 percent in October, marking the biggest drop in more than a year as dealers on the East Coast reported disruptions in business at the end of October and some sales were not completed because of the deadly superstorm. Excluding automobile sales, retail sales were unchanged in October. Gasoline station sales advanced 1.4 percent in October, following a 2.5 percent spike the prior month. Excluding both autos and gasoline, sales dropped 0.3 percent, following a 1.0 percent boost in September.

The only retailers aside from gas stations to post higher sales were grocers and stores that sell music, books, sporting goods and other hobby items. Grocery store sales were up 0.8 percent from the previous month while sporting goods, hobby, book & music store sales advanced 0.5 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

Monthly retail sales slipped in September as Oklahoma consumers took a break from strong back-to-school shopping activity in August. Total adjusted retail sales for September was at a level of \$3,079,101,793 or 4.0 percent above August's sales figure of \$3,206,806,551 and 4.3 percent above September 2011.

Durable goods sales advanced 0.4 percent in September with the largest gains seen in lumber & hardware (+4.0 percent), auto accessories & repair (+1.9 percent), and furniture (+0.03 percent). Declining sales were seen in electronics & music stores (-5.3 percent), miscellaneous durable goods (-4.5 percent), and used merchandise (-2.7 percent). Over the year, durable goods sales were 8.3 percent more than September 2011.

Total nondurable goods sales fell 5.3 percent in September with the largest decline in estimated gasoline sales (-22.0 percent). Other declines were seen in apparel sales (-3.3 percent), drugs (-2.6 percent), liquor (-2.0 percent), general merchandise (-2.0), and miscellaneous non-durable goods (-1.6 percent). Advancing non-durable categories were eating & drinking sales (1.9 percent) and food sales (+1.3 percent). Compared to September 2011, non-durable goods sales improved 3.1 percent.