



OKLAHOMA Economic Indicators

September 2013

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TABLE OF CONTENTS

SPECIAL REPORT: Business Establishment Survival in Oklahoma.....	2
Real Gross Domestic Product and Quarterly Change	9
Industry Share of Oklahoma’s Economy.....	11
Metropolitan Area Contribution to State Real GDP	12
U.S. and Oklahoma Unemployment Rate.....	13
Oklahoma Initial Claims for Unemployment Insurance.....	14
U.S. and Oklahoma Nonfarm Payroll Employment	15
Oklahoma Employment Change by Industry.....	16
U.S. and Oklahoma Manufacturing Employment.....	17
Purchasing Managers’ Index (Manufacturing)	18
Oklahoma Active Rotary Rigs and Cushing, OK WTI Spot Price.....	20
Oklahoma Active Rotary Rigs and Henry Hub Natural Gas Spot Price.....	22
U.S. Total Residential Building Permits.....	24
Oklahoma Total Residential Building Permits.....	25
U.S. and Oklahoma Real Personal Income.....	26
Industry Contribution to Oklahoma Personal Income.....	27
U.S. Adjusted Retail Sales	28
Oklahoma Total Adjusted Retail Sales.....	29

SPECIAL REPORT

Business Establishment Survival in Oklahoma: Younger vs. Older Establishments

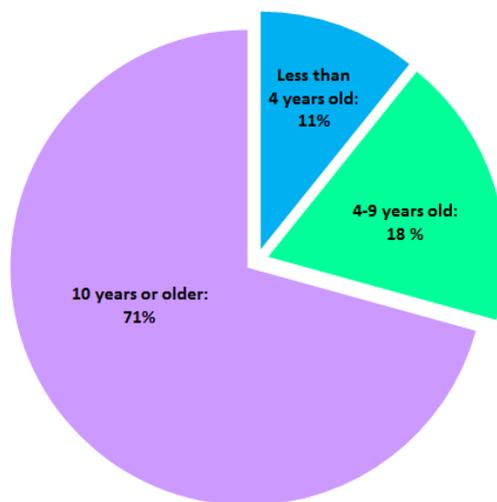
The U.S. economy is characterized by dynamic changes and constant churning of both workers and businesses. Each year, many new businesses are formed through establishment openings. At the same time, many establishments are unsuccessful and exit the market. The long-standing debate about the role and impact of small versus large businesses has expanded in recent years to consider the contributions of younger versus older businesses.¹

This analysis, which updates a previous study,² will look at new and younger business establishments' growth: how do they survive in competition, when do they likely withdraw from the market, how many job gains do new business establishments generate, and what has been the effect of the most recent 'Great Recession' on new and young business establishments in Oklahoma.

I. Oklahoma Private-Sector Establishments by Age: Younger vs. Older Establishments

In March 2012, older business establishments—those more than 10 years old—were the largest employers for Oklahoma's private-sector workforce, employing 71 percent of total private sector jobs. Private-sector business establishments 4 to 10 years old accounted for 18 percent of employment, and establishments less than 4 years old accounted for 11 percent of employment in Oklahoma, (see Chart 1, below).

Chart 1. Percent of Oklahoma total private employment by establishment age: March 2012



SOURCE: Business Employment Dynamics (BED), U.S. Bureau of Labor Statistics

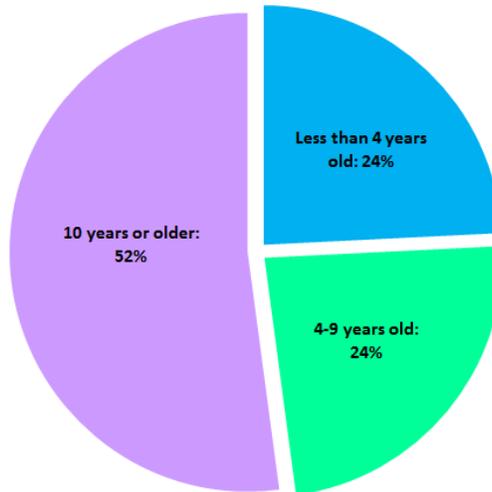
Older business establishments also accounted for the largest number of total statewide private business establishments in 2012. In Oklahoma, about half, (52 percent), of all private sector

¹ Carol Leming, Akbar Sadeghi, James R. Spletzer, and David M. Talan, 'The Role of Younger and Older Business Establishments in the U.S. Labor Market', *Issues in Labor Statistics*, Office of Publications & Special Studies, U.S. Department of Labor, Bureau of Labor Statistics, Summary 10-09, August 2010.

² Yin Zhou, 'Business Establishment Survival in Oklahoma: Younger vs. Older Business Establishments', Economic Research & Analysis Division, Oklahoma Employment Security Commission, January 2013.

business establishments were 10 years or older, 24 percent were 4 to 9 years old, and another 24 percent were less than 4 years old, (see Chart 2, below).

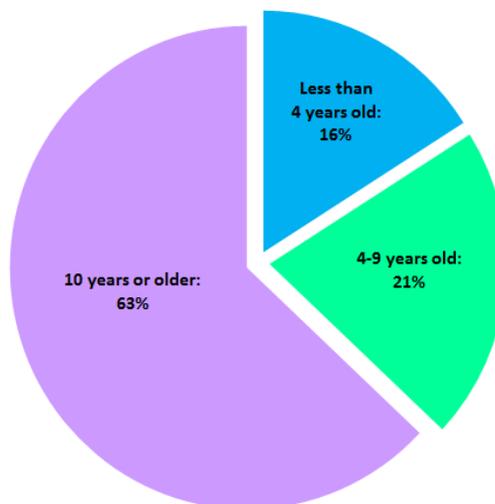
Chart 2. Percent of Oklahoma total private establishments by age: March 2012



SOURCE: Business Employment Dynamics (BED), U.S. Bureau of Labor Statistics

Before the ‘Great Recession’³, younger establishments, (less than 4 years old), had a larger share of private-sector employment in Oklahoma. Younger establishments accounted for 16 percent of total private-sector employment in March 2007 compared to just 11 percent in March 2012 (see Chart 3, below).

Chart 3: Percent of Oklahoma total employment by establishment age: March 2007



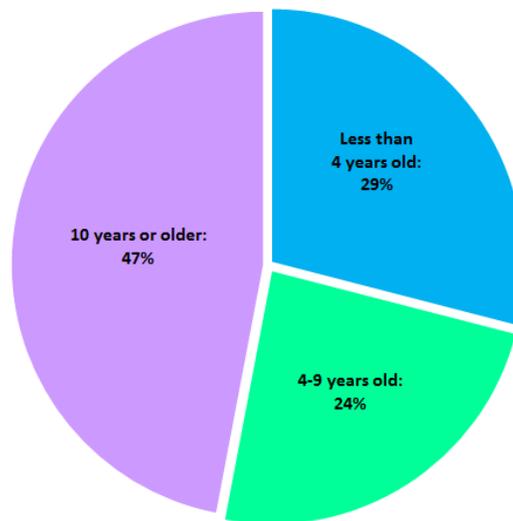
SOURCE: Business Employment Dynamics (BED), U.S. Bureau of Labor Statistics

³ The ‘Great Recession’ began in December 2007 and ended in June 2009, lasting 18 months and making it the longest of any recession since World War II, according to the National Bureau of Economic Research (NBER).

Younger establishments also held a larger share of total private-sector business establishments prior to the ‘Great Recession’—29 percent in March 2007 (see Chart 4, below).

However, older establishments played a much more significant role in Oklahoma private-sector employment. The share of older establishments’ private-sector employment grew approximately 8 percent from March 2007 to March 2012. Older establishments’ share of total private-sector establishments also increased during that five-year period, growing about 5 percent.

Chart 4. Percent of total number of Oklahoma private establishments by age: March 2007



SOURCE: Business Employment Dynamics (BED), U.S. Bureau of Labor Statistics

II. Oklahoma Private-Sector Establishment Births and Deaths

An establishment birth refers to a new opening, which is less than one year. In general, births of Oklahoma private-sector establishments have declined significantly over the past 18 years.

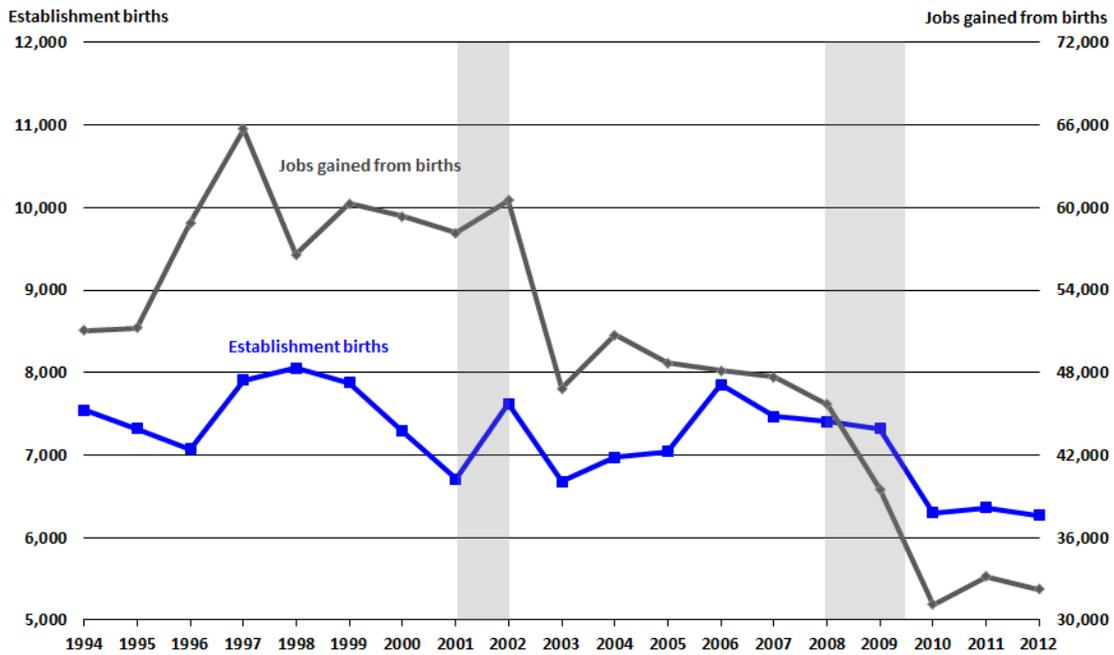
March 1998 saw the maximum number of private-sector establishment births in Oklahoma, with 8,054 new openings occurring that year. The largest employment level for newly opened establishments took place a year earlier, in March 1997, when new private-sector establishments employed 65,738 workers.

Consecutive years of declining new private-sector establishment employment began in March 2004. By March 2012, new private-sector establishments employed 31,147 workers—the minimum employment level over the past 18 years. That trend appears to have reversed the following year.

In March 2001, a newly opened private-sector establishment hired nine workers on average, but that number dropped to five by March 2009, 2010, 2011, and 2012, the period of time during and after the ‘Great Recession’.

Chart 5, below, plots the growth trends for Oklahoma’s newly opened business establishments using annual data for private-sector establishment births and jobs gained from births from March 1994 to March 2012.

Chart 5. Oklahoma private-sector business establishment births
Annual data, March 1994 to March 2012

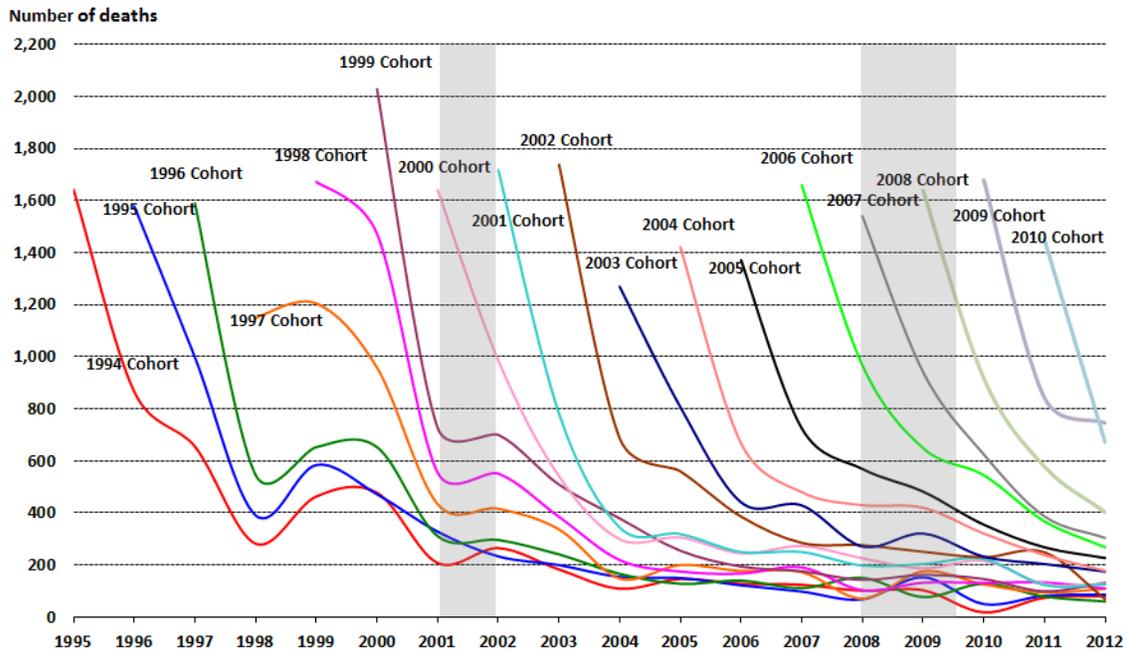


SOURCE: Business Employment Dynamics (BED), U.S. Bureau of Labor Statistics

NOTE: Shaded areas represent National Bureau of Economic Research defined recession periods.

Typically, in Oklahoma, a great number of private-sector establishments disappear during the first two or three years after birth. In other words, establishment deaths predominantly happen during the early stages of the establishment's existence. Chart 6 plots the trends of Oklahoma private-sector establishment deaths over the past 18 years, from March 1994 to March 2012.

Chart 6. Oklahoma private-sector business establishment deaths
Annual data, March 1994 to March 2012



SOURCE: Business Employment Dynamics (BED), U.S. Bureau of Labor Statistics

NOTE: Shaded areas represent National Bureau of Economic Research defined recession periods.

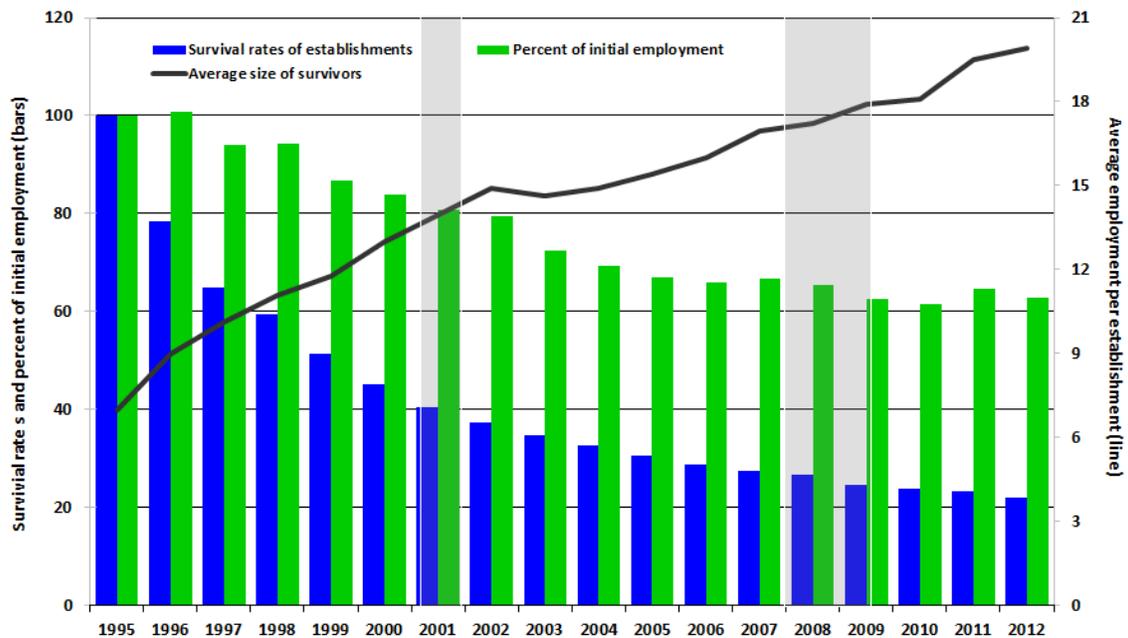
III. Survival Rates of Oklahoma Private-Sector Establishments by Age

Chart 7 shows survival rates for the cohort of new Oklahoma business establishments opening in March 1995. In Chart 7, the ‘establishments’ bars indicate what proportion of all business establishment openings in March 1995 survived to a given year. Only 22 percent of the establishments that opened in March 1995 were still in business in 2012, employing 60 percent of the cohort’s initial employment. In terms of survival, the first three years seem extremely critical to newly opened establishments. For every 100 private-sector establishments born in March 1995 in Oklahoma, 22 failed to survive after the first year, 35 failed to survive after the second year, and 41 failed to survive the third year after opening (see Chart 7, next page).

In Chart 7, the ‘employment’ bars represent employment levels at the surviving establishments as a percent of the cohort’s initial employment.

The ‘average size of survivors’ line in Chart 7 is calculated by dividing the surviving cohort employment levels by the total number of surviving establishments, reflecting how many employees are hired by surviving establishments on average. This line shows that for the cohort of Oklahoma establishments opening in March 1995, the average size of establishments was seven workers. By March 2001, surviving establishments’ size had doubled to an average of 14 workers employed by each surviving establishment. In particular, the surviving establishments’ size grew quickly during their first three years.

Chart 7. Survival rates of Oklahoma business establishments opening in 1994 and average employment per surviving establishment



SOURCE: Business Employment Dynamics (BED), U.S. Bureau of Labor Statistics

NOTE: Shaded areas represent National Bureau of Economic Research defined recession periods.

The size of surviving establishments, in general, tended to grow over time, increasing from seven employees to about 20 employees from March 1995 to March 2012. Two possible reasons put forward as to why the average size of surviving establishments increases over time are: 1) employment levels at the surviving establishments are likely to grow from their initial levels, and 2) if smaller establishments are more likely to die and larger establishments are more likely to

survive, the declining number of smaller establishments and growing number of larger establishments will increase the average size of surviving establishments.⁴

IV. Survival Rates and the Recessions

Since the first three years appear to be especially critical to business survival, how have the past two recessions impacted the survival rates of new private-sector establishments in Oklahoma in their early stages?

Table 1, below, summarizes the survival rates for the first three years of new private-sector business establishments opening since March 1999. The survival rates in bold indicate those affected by the recessions. During their early stages, the cohorts 1999, (establishments born in March 1999), 2000 and 2001 were affected by the recession occurring between March and November 2001. Likewise, the cohorts 2005, 2006, 2007, 2008, and 2009 were affected by the most recent ‘Great Recession’.

For first-year survival rates affected by the recessions, the average level is only about one percentage point lower than the non-recession average. This is also the case with the second and third year average survival rates when compared with the non-recessionary averages. While the past two recessions appear to have lowered the survival rates of new business establishments during their first three years, this negative effect is not considerably different from non-recessionary survival rates (see Table 4, next page).

**Table 1. Survival rates of new establishments
Oklahoma 1999-2011**

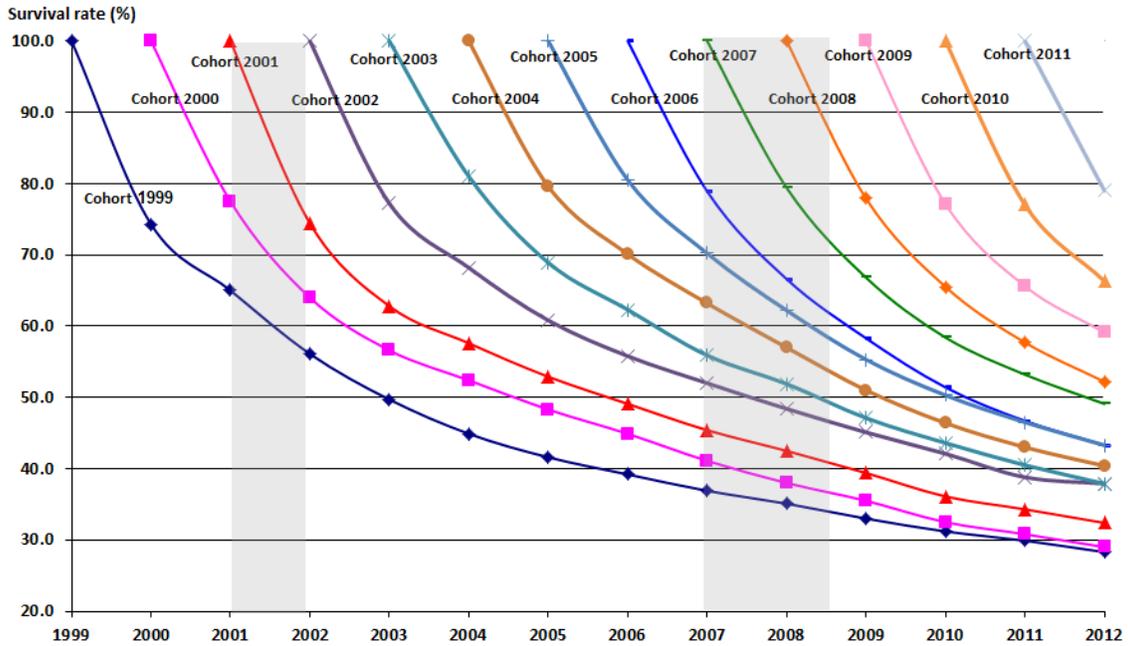
Annual Births Year Ended	Percent Surviving		
	1 year	2 years	3 years
March 1999	74.3	65.0	56.1
March 2000	77.5	64.0	56.6
March 2001	74.4	62.8	57.6
March 2002	77.2	68.2	60.8
March 2003	81	68.9	62.3
March 2004	79.6	70.1	63.2
March 2005	80.5	70.2	62.2
March 2006	78.9	66.6	58.3
March 2007	79.4	66.8	58.4
March 2008	77.9	65.5	57.7
March 2009	77.1	65.6	59.1
March 2010	77.0	66.3	\
March 2011	79.0	\	\
Average (non-recession)	78.3	67.1	59.6
Average (recession)	77.2	65.7	58.8

SOURCE: Business Employment Dynamics (BED), U.S. Bureau of Labor Statistics

Chart 8 plots the survival rates of Oklahoma private-sector business establishments during the past two recessions for all of the cohorts since March 1999. The establishment survival rates of the older cohorts (1999, 2000, and 2001) appear to be much less affected by the ‘Great Recession’ than the younger cohorts (2007, 2008, and 2009).

⁴ Leming, Sadeghi, Spletzer, and Talan, *op. cit.*

Chart 8. Survival rates of Oklahoma business establishments during the past two recessions
Annual data, March 1999 to March 2012



SOURCE: Business Employment Dynamics (BED), U.S. Bureau of Labor Statistics

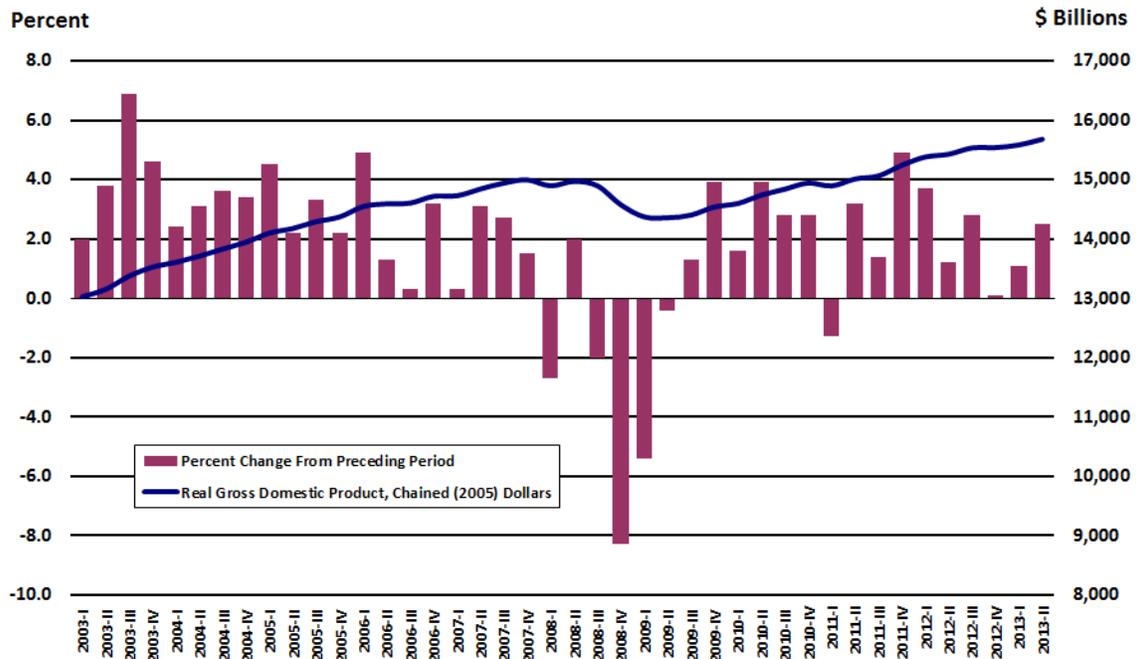
NOTE: Shaded areas represent National Bureau of Economic Research defined recession periods.

The role young businesses play continues to be evaluated as a factor in understanding job creation in the state and national economies. The past two recessions, and especially the ‘Great Recession’ seem to have reduced establishment birth and survival rates and hindered employment growth among young business establishments in Oklahoma. New establishments in Oklahoma are also opening with fewer employees, part of an ongoing ten-year trend. The result is that younger business establishments in Oklahoma have a less prominent role in the state’s private sector in 2012 than they did prior to the ‘Great Recession’.

NOTE: The full report is posted on the OESC website at:
http://www.ok.gov/oesc_web/documents/lmiestsurvival2013.pdf

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. economic growth in the 2nd quarter was unchanged from a prior estimate made last month. Real gross domestic product increased at an annual rate of 2.5 percent in the 2nd quarter of 2013, according to the "third" estimate released by the Bureau of Economic Analysis (BEA). GDP growth this spring was more than double the 1.1 percent rate from January through March.

Consumer spending was unchanged at 1.8 percent rate in the 2nd quarter, marking a slowdown from the 2.3 percent pace of growth in the 1st quarter. Durable goods expenditures increased 6.2 percent, compared with an increase of 5.8 percent in the previous quarter. Nondurable goods spending increased 1.6 percent, compared with an increase of 2.7 percent in the 1st quarter. Spending on services increased 1.2 percent, compared with an increase of 1.5 percent.

Companies restocked warehouse shelves a bit less than previously estimated. The change in real private inventories added 0.41 percentage point to the 2nd-quarter change in real GDP, after adding 0.93 percentage point to the 1st-quarter change. Business investment on structures was revised up to a 17.6 percent rate. Spending on equipment increased 3.3 percent, compared with an increase of 1.6 percent in the 1st quarter.

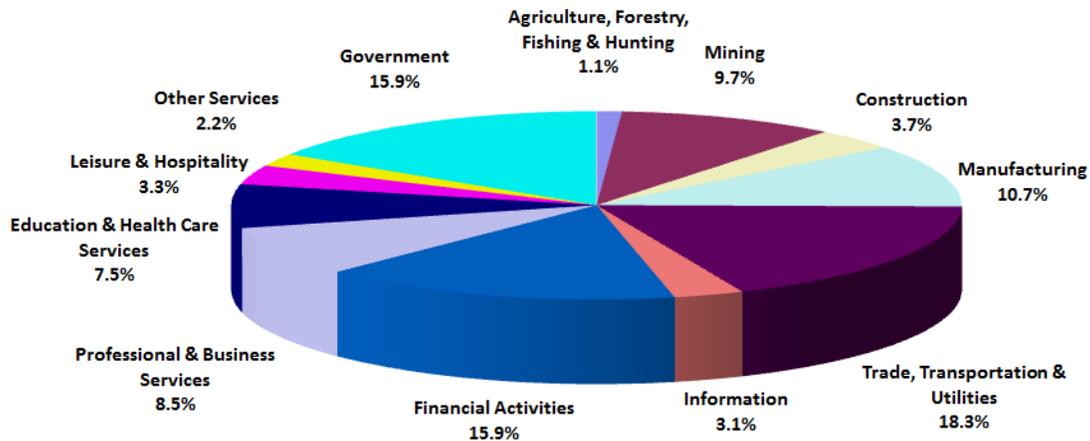
The recovery in the housing sector saw real residential fixed investment rise 14.2 percent in the 2nd quarter, compared with an increase of 12.5 percent in the previous quarter.

Exports did not grow as fast as previously thought in the 2nd quarter. Real exports grew at a revised 8.0 percent annual rate, down from the 8.6 percent rate reported earlier. Real imports of goods and services increased 6.9 percent.

State and local spending, meanwhile, actually rose in the 2nd quarter (instead of falling as previously thought). Still, overall government spending declined and was a drag on the economy. Spending by the federal government shrank at a 1.6 percent annual rate. National defense spending decreased 0.6 percent, while nondefense spending decreased 3.1 percent. State and local government expenditures rose 0.4 percent instead of shrinking 0.5 percent as previously reported.

2012 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

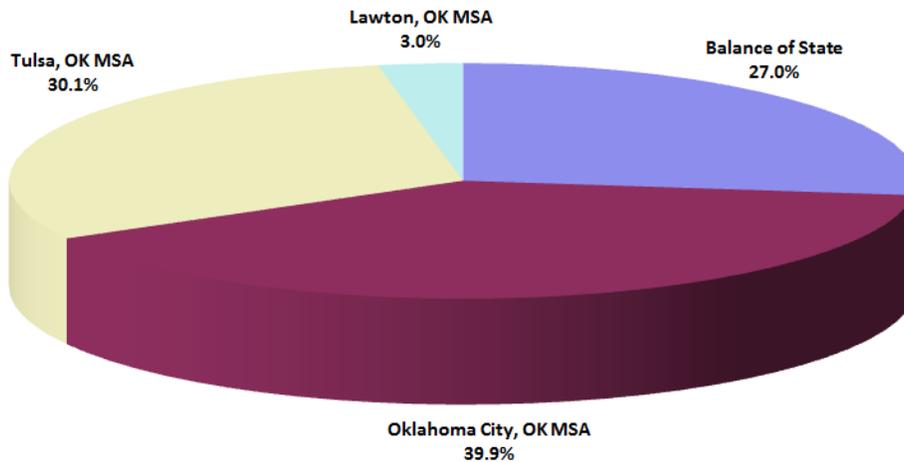
Oklahoma, along with 48 states and the District of Columbia, saw growth in real GDP in 2012, according to the advance estimate from the Bureau of Economic Analysis (BEA). Oklahoma's 2011 advance estimate was revised upward from 1.0 percent to 1.9 percent. Oklahoma's real GDP growth rate of 2.1 percent ranked it 23rd among all other states. In 2011, Oklahoma ranked 20th based on the revised 1.9 percent growth rate.

Oklahoma had a real GDP of \$138.3 billion in 2012, up from \$135.5 billion the year before. 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 2012, with growth accelerating in seven of eight regions. The Great Lakes region was the only region where growth decelerated relative to growth in 2011. The Southwest region, which includes Oklahoma, grew the fastest (4.1 percent), led by Texas with a 4.8 percent increase..

Durable-goods manufacturing was the largest contributor to U.S. real GDP by state growth in 2012, including Oklahoma, where it contributed 0.78 percentage points to overall growth. Other industries adding to 2012 GDP growth in Oklahoma were wholesale trade (0.37 percent); retail trade (0.33 percent); real estate, rental & leasing (0.32 percent); finance & insurance (0.25 percent); accommodation & food services (0.12 percent) and government (0.12 percent). Subtracting from state GDP growth were mining (-0.72 percent) and management of companies (-0.15 percent).

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 (MSAs) 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 73 percent of total state GDP in 2012.

Current Developments

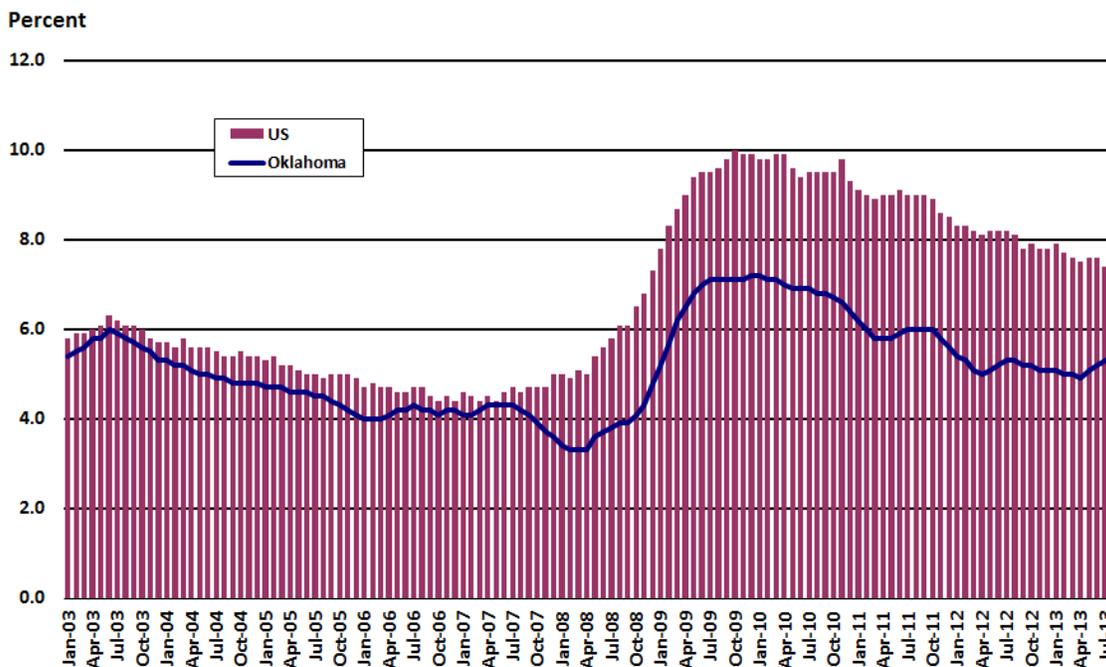
Real GDP increased in 305 of the nation's 381 metropolitan areas in 2012, led by growth in durable-goods manufacturing, trade, and financial activities, according to the U.S. Bureau of Economic Analysis (BEA). Real GDP in metropolitan areas increased 2.5 percent in 2012 after increasing 1.7 percent in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

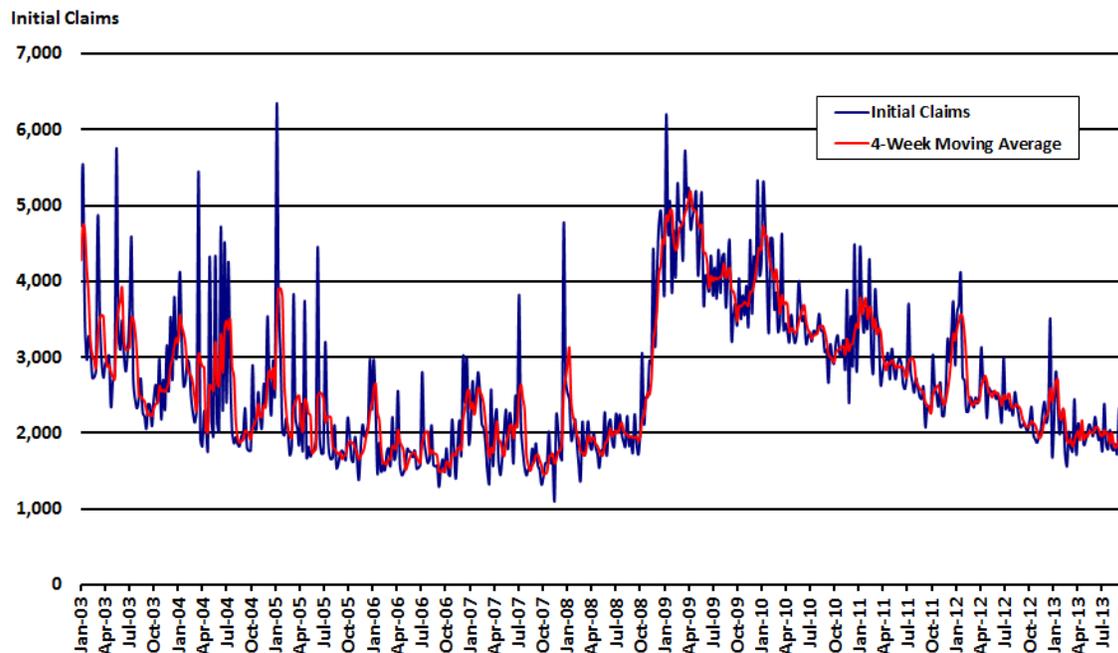
Current Developments

The Bureau of Labor Statistics website is currently not being updated due to the suspension of Federal government services. The last update to the site was Monday, September 30. During the shutdown period BLS will not collect data, issue reports, or respond to public inquiries. Updates to the site will start again when the Federal government resumes operations. Revised schedules will be issued as they become available.

Oklahoma's seasonally adjusted unemployment rate held steady at 5.3 percent in August 2013. Over the year, the state's seasonally adjusted unemployment rate mirrored the rate reported for August 2012.

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

Fewer Americans than expected filed applications for unemployment benefits in the last week of September, a sign that U.S. employers were maintaining staffing levels in the days leading up to the government shutdown. In the week ending September 28, the advance figure for seasonally adjusted initial claims was 308,000, an increase of 1,000 from the previous week's revised figure of 307,000, according to the U.S. Department of Labor. The less volatile 4-week moving average was 305,000, a decrease of 3,750 from the previous week's revised average of 308,750.

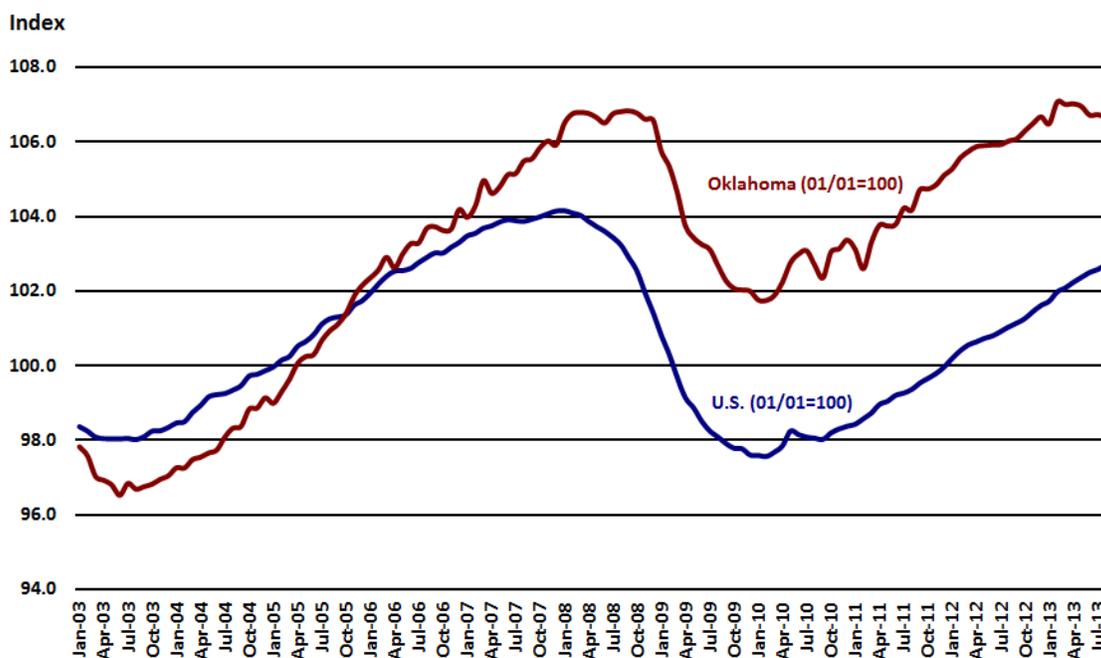
Oklahoma initial jobless claims fell to the lowest weekly level since May 2008 in the second week of September. For the file week ending September 14, initial claims dropped to 1,682 from the previous week's 1,892 claims. For the same file week ending, the less volatile initial claims four-week moving average was at 1,941 or ten more than the previous week.

Many state businesses are expected to pay less into Oklahoma's unemployment insurance (UI) trust fund in 2014. Due to recovery in the fund over the past few years, the state UI trust fund recently topped \$1.0 billion for the first time ever. A higher UI trust fund balance will translate into savings for Oklahoma employers. For 2014, the contributions of most Oklahoma employers will drop considerably due in part to the solvency of the UI trust fund.

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

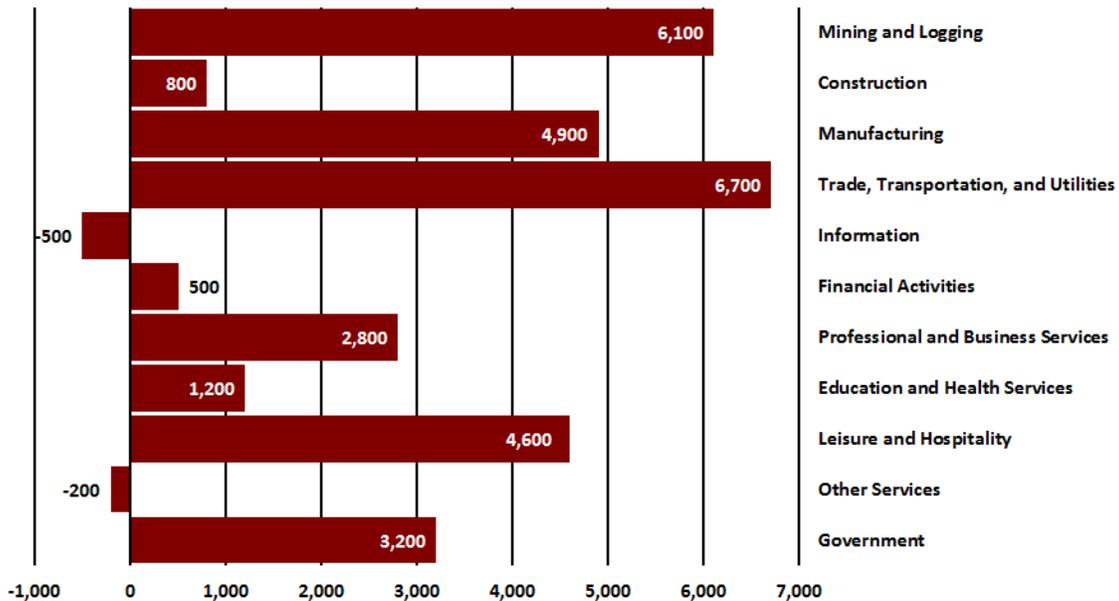
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Oklahoma seasonally adjusted nonfarm employment dropped by 900 jobs (-0.1 percent) in August. Leisure & hospitality (+1,300 jobs) reported the largest monthly job gain for August. Construction (-3,000 jobs) lost the most jobs for the month.

Over the year, state nonfarm employment grew by 9,800 jobs (+0.6 percent) compared to August 2012. Leisure & hospitality also provided the month's largest over-the-year gain (+8,400 jobs). Mining & logging (-5,000 jobs) and other services (-3,400 jobs) again accounted for most of the year-to-year job losses.

Oklahoma Employment Change by Industry 2011 - 2012

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. Total nonfarm employment grew at a robust 1.9 percent growth rate in 2011, adding approximately 30,100 jobs.

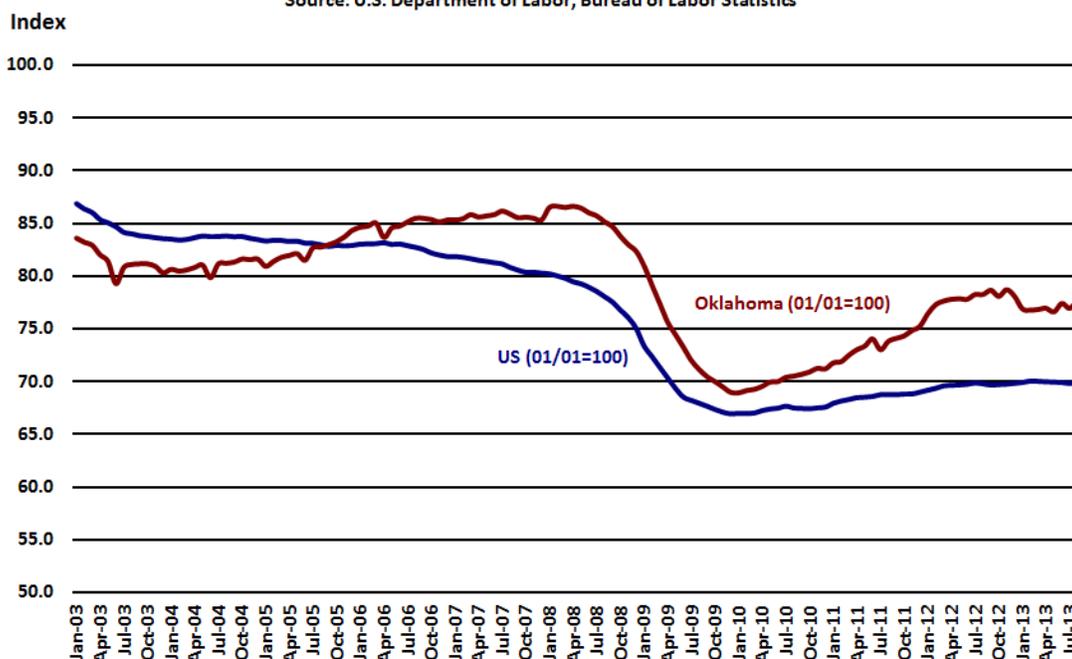
Employment growth in 2012 was wide-ranging with nine out of the 11 statewide industry supersectors reporting job gains. The broad trade, transportation & utilities industry recorded the largest employment increase adding 6,700 jobs with nearly half the hiring in wholesale trade. Mining had another strong 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.

Over-the-year job losses were seen 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



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

The Bureau of Labor Statistics website is currently not being updated due to the suspension of Federal government services. The last update to the site was Monday, September 30. During the shutdown period BLS will not collect data, issue reports, or respond to public inquiries. Updates to the site will start again when the Federal government resumes operations. Revised schedules will be issued as they become available.

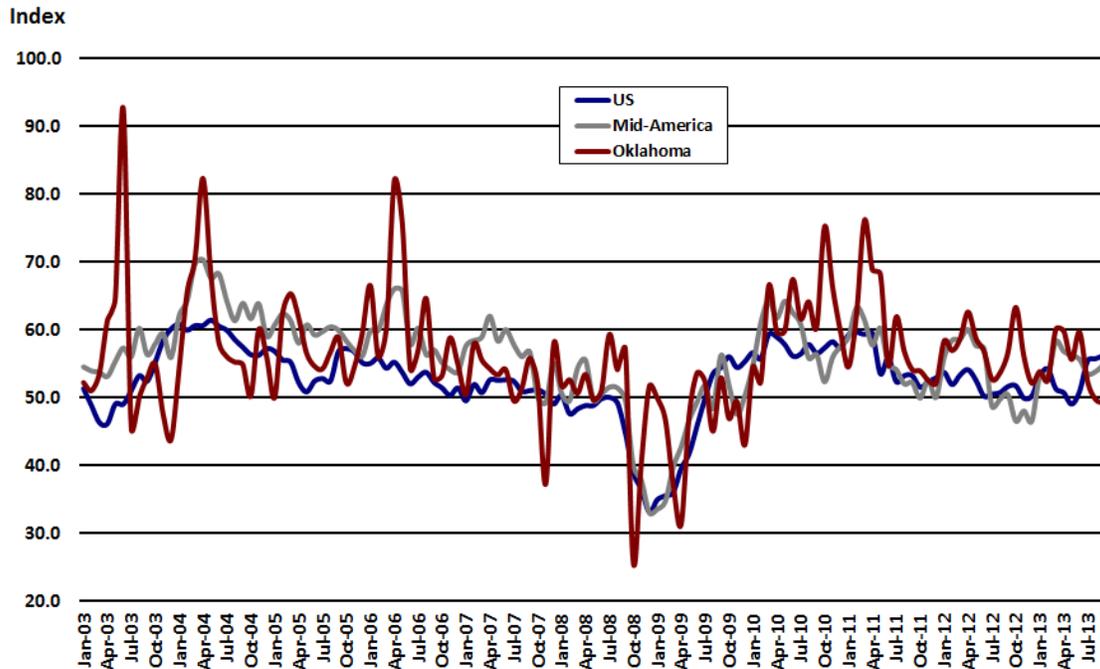
Factory employment growth in Oklahoma edged up in August to a non-seasonally adjusted 300 jobs (-0.2 percent). Durable goods manufacturing employment accounted for all of the job gains in August.

Over the year, Oklahoma manufacturing employment has added a non-seasonally adjusted 900 jobs for a 0.7 percent growth rate. Durable goods manufacturing employment added 1,600 jobs (1.7 percent) but was partially offset by non-durable goods which shed 700 jobs (-1.7 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

In a report that takes on special importance due to the government shutdown, manufacturing activity in the U.S. expanded at the fastest rate since April 2011 in September. The PMI™ registered 56.2 percent, an increase of 0.5 percentage point from August's reading of 55.7 percent, according to the latest Manufacturing ISM Report On Business®. September's PMI™ reading is the highest of the year, leading to an average PMI™ reading of 55.8 percent for the 3rd quarter.

New orders decreased in September by 2.7 percentage points to 60.5 percent. At the same time, production increased by 0.2 percentage point to 62.6 percent. Employment was up a solid 2.1 points to 55.4 percent, the highest reading for the year.

Of the 18 manufacturing industries, 11 reported growth in September while six industries reported contraction.

The monthly Mid-America Business Conditions Index, a leading economic indicator for a nine-state region, rose for a second straight month in September. The Business Conditions Index, which ranges between 0 and 100, increased in September to 54.8 from August's 53.8 reading, according to the Creighton Economic Forecasting Group. "Despite all of the domestic economic uncertainty, the Mid-America survey points to positive growth for the final quarter of 2013," noted Ernie Goss, Ph.D., director of Creighton University's Economic Forecasting Group

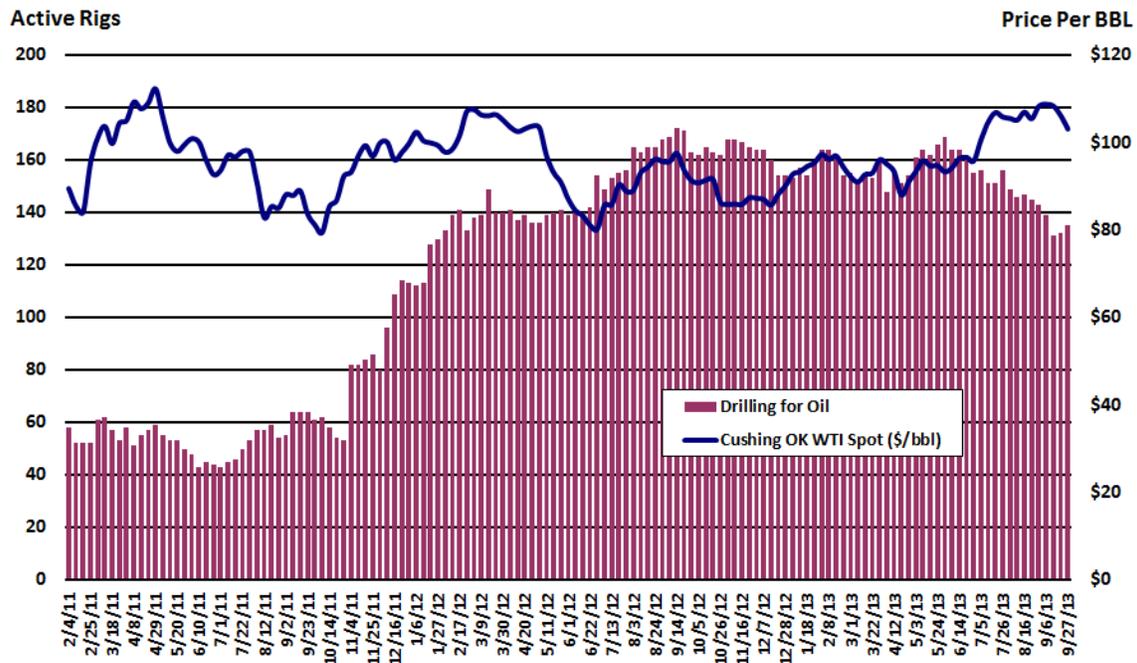
The Business Conditions Index for Oklahoma dipped below growth neutral for the second consecutive month in September to 49.2, down from 49.7 in August. Components of the September survey of supply managers in the state were new orders at 57.6, production or sales at 48.8, delivery lead time at 39.9, inventories at 52.0, and employment at 47.4.

"As in August, pullbacks in business activity for non-durable goods producers, including food processors, more than offset slight gains for durable goods manufacturers," said Dr. Ernie Goss.

Oklahoma Active Rotary Rigs & Cushing, OK WTI Spot Price

February 2011 to September 2013

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



Definition & Importance

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

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

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

Background

Oklahoma produces a substantial amount of oil, with annual production typically accounting for more than 3 percent of total U.S. production in recent years. Crude oil wells and gathering pipeline systems are concentrated in central Oklahoma. Two of the 100 largest oil fields in the United States are found in Oklahoma.

The city of Cushing, in central Oklahoma, is a major crude oil trading hub connecting Gulf Coast producers to Midwest refining markets. In addition to Oklahoma crude oil, the Cushing hub receives supply from several major pipelines that originate in Texas. Traditionally, the Cushing Hub has pushed Gulf Coast and Mid-Continent crude oil supply north to Midwest refining markets. However, production from those regions is in decline, and an underused crude oil pipeline system has been reversed to deliver rapidly expanding heavy crude oil supply produced in Alberta, Canada to Cushing, where it can access Gulf Coast refining markets. For this reason,

Cushing is the designated delivery point for the New York Mercantile Exchange (NYMEX) crude oil futures contracts. Crude oil supplies from Cushing that are not delivered to the Midwest are fed to Oklahoma's five refineries, which have a combined distillation capacity of over 500 thousand barrels per day—roughly 3 percent of the total U.S. refining capacity.

Current Developments

The U.S. Energy Information Administration (EIA) estimates that the United States will be the world's top producer of petroleum and natural gas hydrocarbons in 2013, surpassing Russia and Saudi Arabia. For the United States and Russia, total petroleum and natural gas hydrocarbon production, in energy content terms, is almost evenly split between petroleum and natural gas. Saudi Arabia's production, on the other hand, heavily favors petroleum.

According to the EIA, since 2008, U.S. petroleum production has increased 7 quadrillion Btu, with dramatic growth in Texas and North Dakota. Natural gas production has increased by 3 quadrillion Btu over the same period, with much of this growth coming from the eastern United States. Russia and Saudi Arabia each increased their combined hydrocarbon output by about 1 quadrillion Btu over the past five years.

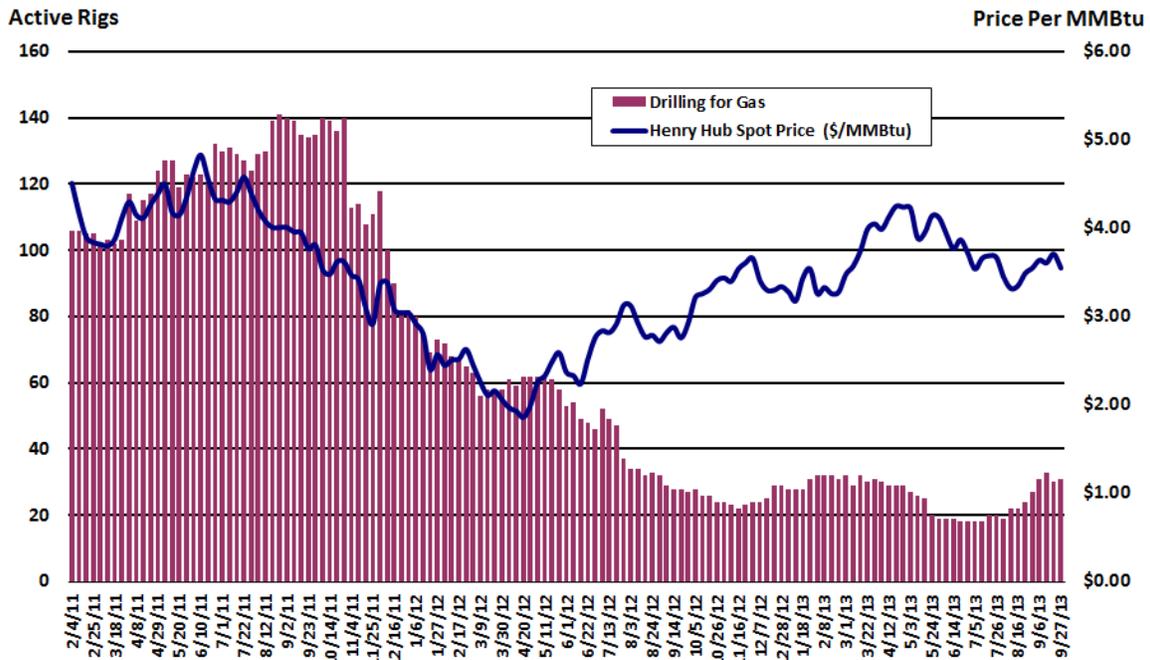
Cushing-WTI prices held steady in September. After starting the month at \$108.67 per barrel, WTI-Cushing spot prices settled at \$102.36 per barrel by month end. The average WTI-Cushing spot price was \$106.29 in September, \$0.28 lower than the August average of \$106.57 per barrel. Over the year, the current WTI-Cushing spot price is \$11.78 more than the August 2012 average of \$94.51 per barrel.

Oklahoma's overall rotary rig activity for September averaged 166—the lowest monthly average since February 2011. Over the year, September's active rotary rig count in Oklahoma fell by 32 rigs. Oil-directed active rotary rigs dropped to a level of 135, (for the week ended September 27, 2013), accounting for approximately 81 percent of total rig activity in the state.

Oklahoma Active Rotary Rigs & Henry Hub Natural Gas Spot Price

February 2011 to September 2013

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

Growth in natural gas production from the Marcellus region of Pennsylvania, West Virginia, and Ohio has lowered the spot price of natural gas at the TCO Appalachia trading point in recent years, according to a report from the U.S. Energy Information Administration (EIA). Forward market prices for natural gas indicate that this production growth will continue, driving the price in this region below the benchmark Henry Hub price early next year.

The EIA report noted that natural gas prices in the Mid-Atlantic have traditionally been more expensive than Henry Hub, reflecting the cost of moving natural gas from the production in the Gulf region to consumers along the east coast. Increased production from the Marcellus region began changing that relationship in 2011.

Natural gas working inventories ended September at an estimated 3.52 trillion cubic feet (Tcf), 0.17 Tcf below the level at the same time a year ago and 0.04 Tcf above the previous five-year average (2008-12). The EIA expects that the Henry Hub natural gas spot price, which averaged \$2.75 per million British thermal units (MMBtu) in 2012, will average \$3.71 per MMBtu in 2013 and \$4.00 per MMBtu in 2014.

The Henry Hub natural gas spot price decreased 16 cents from \$3.64 per million British thermal units (MMBtu) at the first of September to \$3.52 per MMBtu by month's end.

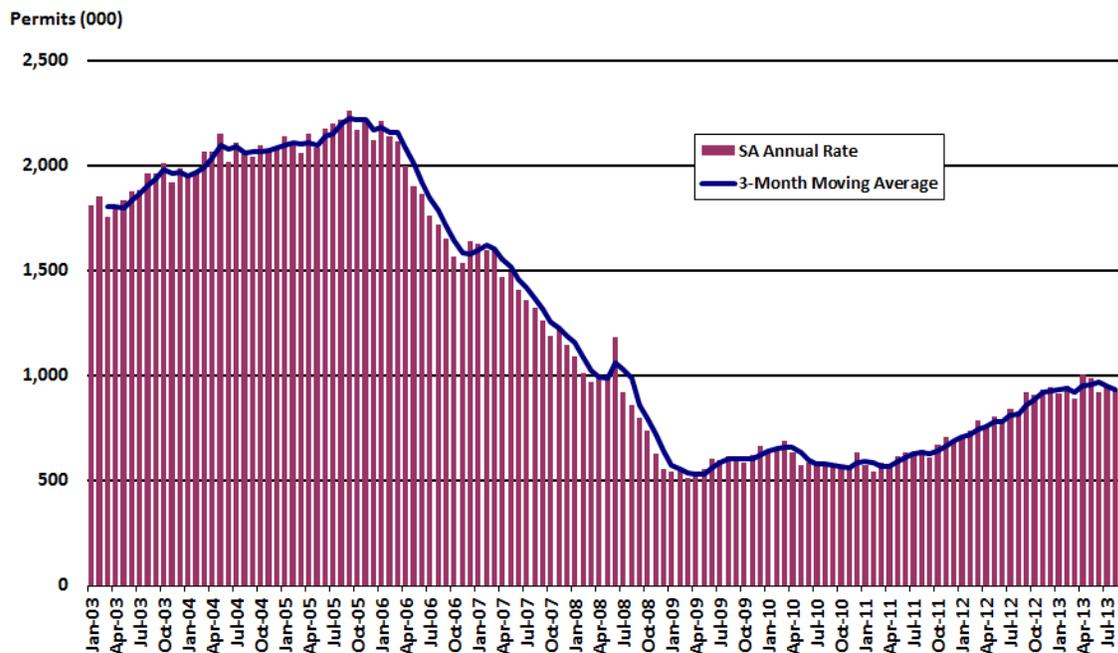
According to data reported by Baker Hughes, Oklahoma's natural gas rotary rig count held steady in August. For the week ended September 27, the state natural gas-directed drilling rig count stood at 31 and accounted for about 19 percent of total drilling activity. Over the year, Oklahoma's natural gas-directed rotary rig count was up by 4 from 27 rigs reported for the week ended September 28, 2012.

Nationally, the Baker Hughes U.S. natural gas rotary rig count totaled 386 active units as of Friday, September 27, a decrease of 15 rigs from the previous week. The oil rig count increased by 8 to 1,369.

U.S. Total Residential Building Permits, 2003-2013

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

U.S. single-family home starts rose in August and permits for future construction hit a five-year high, suggesting that despite higher mortgage rates, housing continues to be a driver of economic growth. Privately-owned housing units authorized by building permits in August were at a seasonally adjusted annual rate of 918,000, or 3.8 percent below the revised July rate of 954,000, but 11.0 percent above the August 2012 estimate of 827,000, according to the U.S. Census Bureau and the Department of Housing and Urban Development.

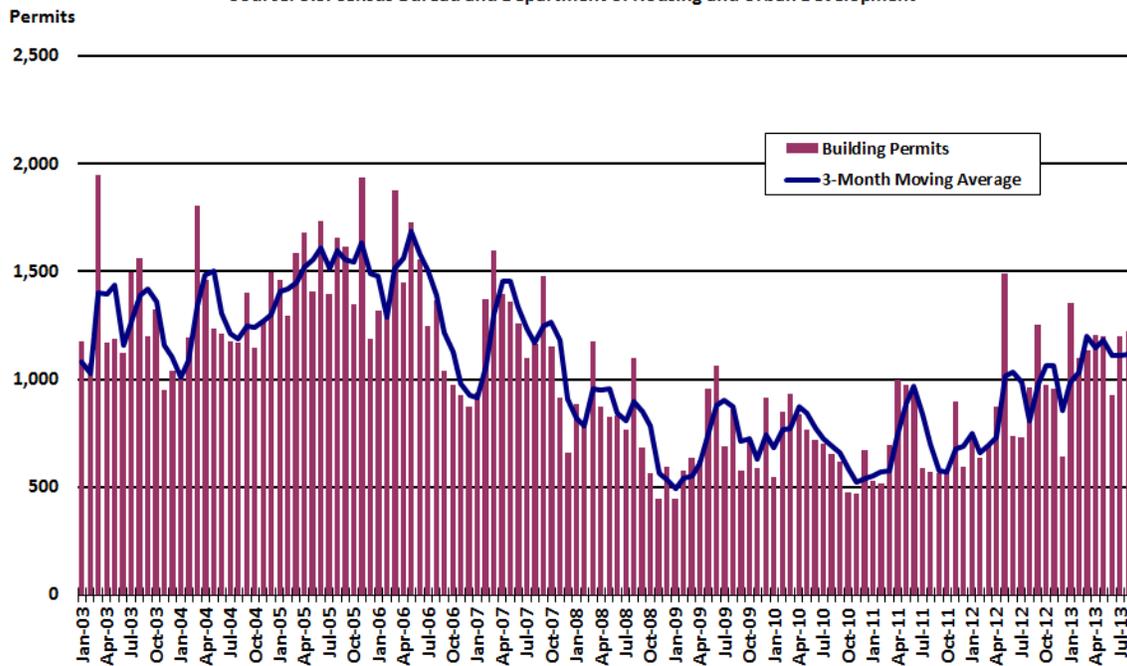
Permits for single-family homes rose 3 percent to their highest level since May 2008. However, permits for multifamily homes dropped 13.2 percent in August, pushing down overall permits 2.9 percent to a 926,000-unit seasonally adjusted annual pace.

Mortgage rates have risen more than a full percentage point since early May. While higher mortgage rates have slowed the pace of home sales, demand for housing is expected to keep residential construction supported.

Oklahoma Total Residential Building Permits, 2003-2013

Not Seasonally Adjusted

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



Applications for single-family residential homes once again drove overall permitting activity in August. Total unadjusted residential building permits for August rose 2.2 percent from July, according to figures from the U.S. Census Bureau and the Department of Housing and Urban Development. Single-family permitting accounted for 80.2 percent of residential permitting activity in August while multi-family accounted for 18.8 percent. Over the year, total unadjusted residential permitting was 27.7 percent over August 2012. That's 77 more single-family permits than August 2012, and 220 more multi-family units.

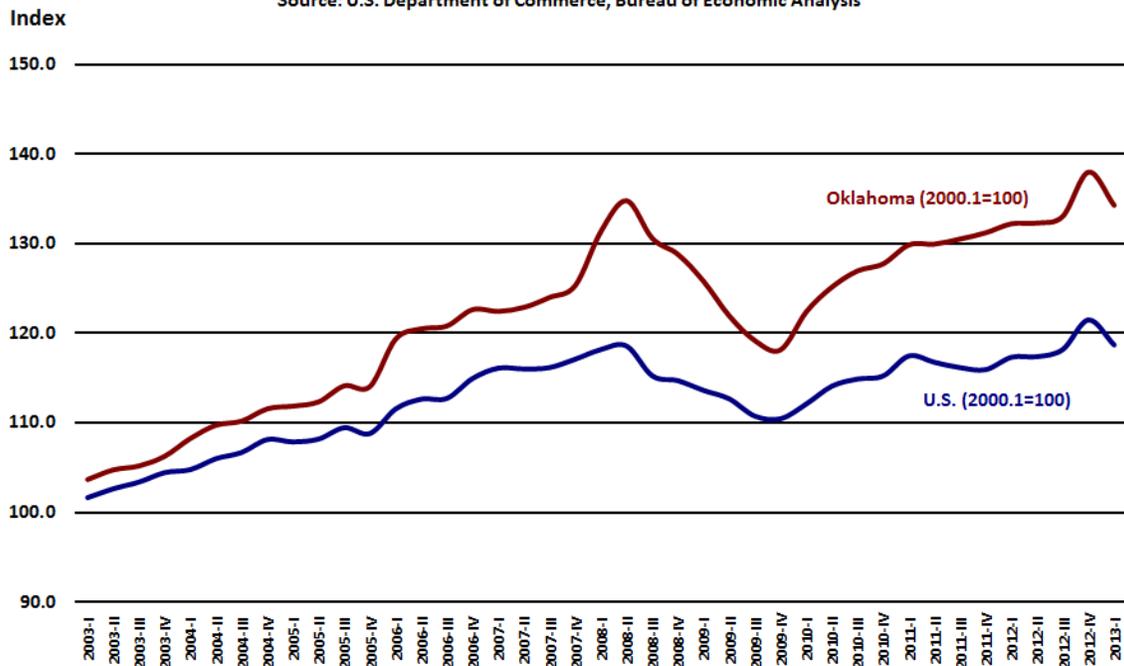
Year-to-date, Oklahoma residential permitting activity in 2013 was 36.3 percent greater than the first eight months of 2012. That pace is also the highest level of residential permitting in Oklahoma in the past five years.

Officials in Moore say the city has issued a record number of building permits since the May 20 tornado that devastated the community. The city has issued 218 storm rebuilding permits since the tornado struck. The Federal Emergency Management Agency (FEMA) estimated that 1,300 homes were destroyed by the EF5 tornado that also killed two dozen people. Additionally, in the May 28 through June 2 severe storms, more than 538 homes and businesses were impacted in Canadian and Oklahoma counties alone, including 52 destroyed, 193 with major damage, and 159 with minor damage. Oklahoma Insurance Department officials estimate up to \$2 billion in damage may have occurred in the affected areas.

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

Americans spent more liberally in August, as their income grew at the fastest pace in six months. Personal income increased \$57.2 billion, or 0.4 percent, and disposable personal income (DPI) increased \$56.2 billion, or 0.5 percent, in August, according to the Bureau of Economic Analysis (BEA). Personal consumption expenditures (PCE) increased \$34.5 billion, or 0.3 percent.

Higher wages drove incomes to the biggest gain since February, a positive sign for growth in the second half of the year. Private wages and salaries rose 0.5 percent, while the government wages and salaries rose 0.2 percent.

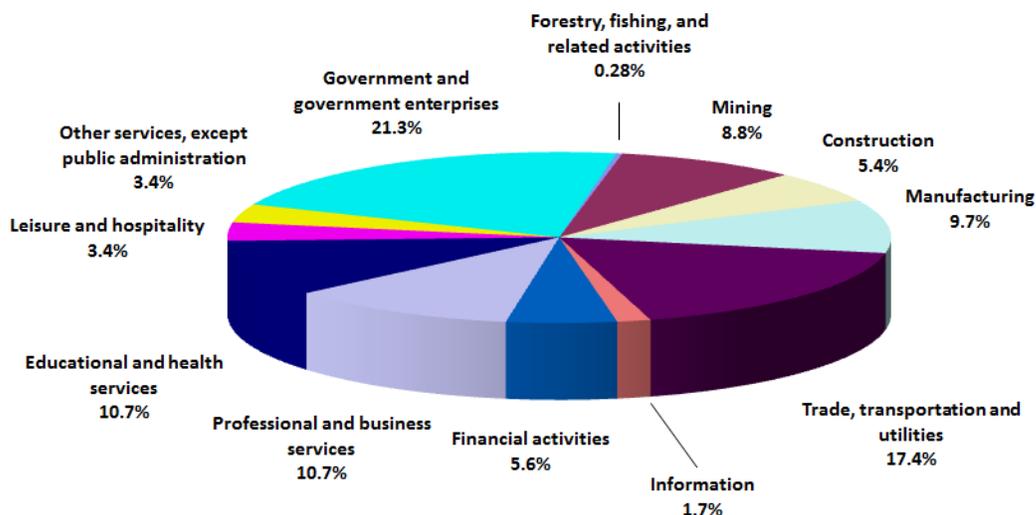
August's personal income figures would have been higher if not for the forced federal furloughs to meet the spending cuts known as the 'sequester'. Government wages were reduced by \$7.3 billion in August and \$7.7 billion in July due to furloughs that impacted several federal government agencies, according to the BEA.

In August, Americans also put away a little more of their incomes in savings. The savings rate climbed for the third straight month and is now at 4.6 percent, still low historically.

Oklahoma Nonfarm Industry Contribution to Earnings

First Quarter 2013

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 declined an average 1.2 percent in the 1st quarter of 2013 after growing 2.7 percent in the 4th quarter of 2012, according to the most recent estimates by the U.S. Bureau of Economic Analysis (BEA). Personal income declines ranged from 0.1 percent in Iowa to 2.5 percent in Wyoming. The only state showing an increase in personal income in the 1st quarter was South Dakota, which grew 1.6 percent.

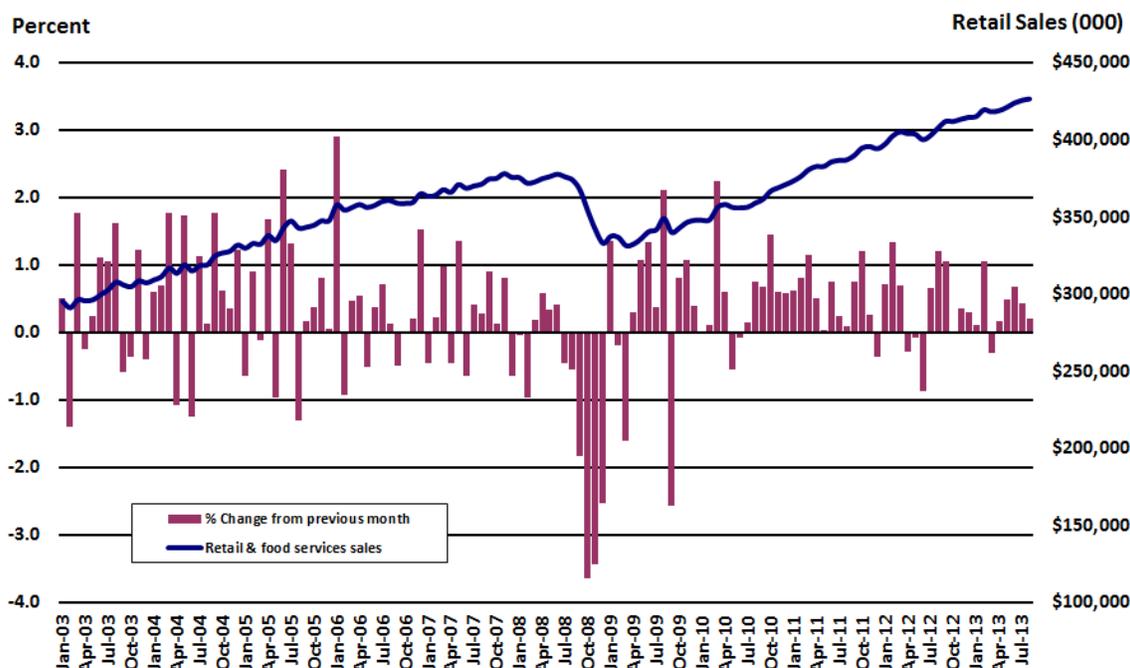
The BEA noted that the decline in 1st-quarter personal income reflected the effects of several special factors including the expiration at the beginning of 2013 of the “payroll tax holiday” (a temporary two-percentage point reduction in the personal contribution rate for social security). Also, in anticipation of 1st-quarter changes to the individual income tax rates, many people accelerated the receipt of income, including personal dividends and bonuses, into the 4th quarter to avoid higher rates.

After experiencing 11 consecutive quarters of growth, personal income in Oklahoma plunged in the 1st quarter. Oklahoma's personal income totaled \$151.6 billion in the 1st quarter of 2013, down from \$154.2 billion in the 4th quarter of 2012 for a 1.6 percent decline. That ranked Oklahoma 43rd (out of 50 states) for income growth in the 1st quarter and well below the national average.

In Oklahoma, earnings from construction was the largest contributor to 1st-quarter personal income growth, adding 0.13 percentage points to the percent change in state personal income. Professional, scientific, and technical services earnings added 0.12 percentage points. Mining recorded the biggest drag on earnings subtracting 0.37 percentage points.

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

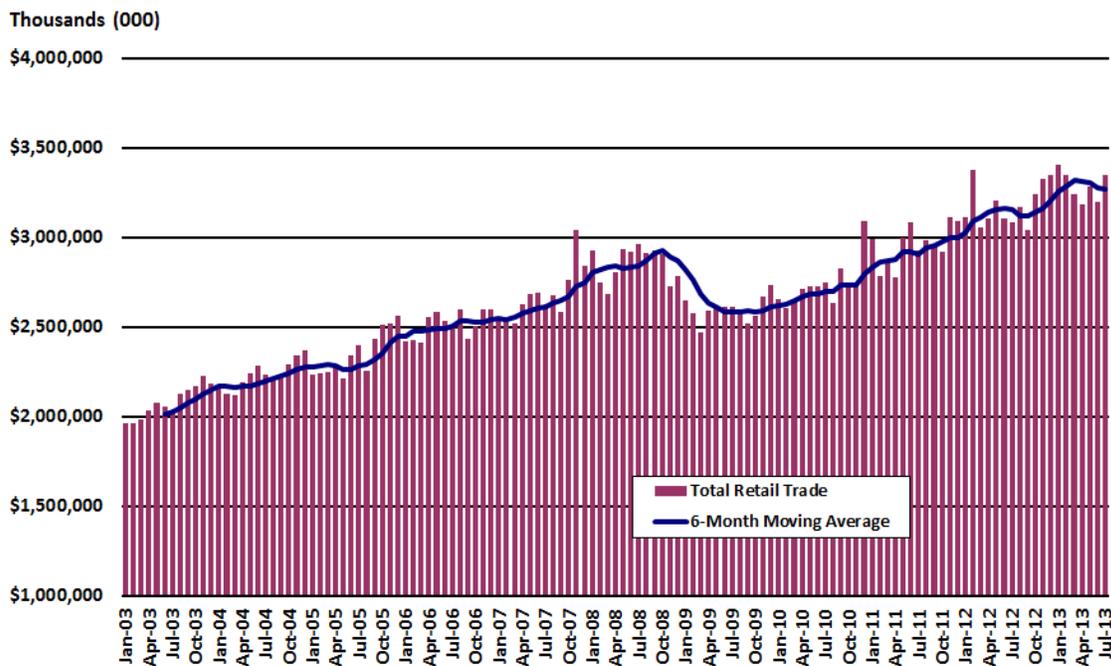
Retail sales rose modestly in August as Americans bought more cars, furniture and electronics, but held back on most other retail purchases. Advance estimates of U.S. retail and food services sales for August, adjusted for seasonal variation and holiday and trading-day differences, but not for price changes, were \$426.6 billion, an increase of 0.2 percent from the previous month, and 4.7 percent above August 2012, according to the U.S. Census Bureau. Total sales for the June through August 2013 period were up 5.4 percent from the same period a year ago. The June to July 2013 percent change was revised from +0.2 percent to +0.4 percent.

For August, sales strength clearly was in motor vehicle sales, jumping 0.9 percent. Automakers reported that their sales in August topped \$16 billion at an annual pace for the first time since November 2007, just before the recession began. Toyota, Ford, Nissan, Honda, Chrysler and General Motors all posted double-digit gains over last August.

"Core" retail sales, purchases excluding autos, gasoline and building materials, increased just 0.2 percent, or less than half July's 0.5 percent gain. Within the core, the numbers were mixed. On the strong side were furniture & home furnishing (likely due to recent gains in home sales), electronics & appliances (possible boost from back to school) and miscellaneous store retailers. On the downside were building materials & garden equipment (-0.9 percent), clothing & accessories (-0.8 percent), and sporting goods & hobbies (-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

Statewide retail trade jumped in July as Oklahomans ate out more and spent more on auto accessories & repairs and building materials. Total adjusted retail sales for July 2013 were at a level of \$3.35 billion—a 4.8 percent increase from June and 8.6 percent greater than June 2012. For the first three months of 2013, total adjusted retail trade was 4.4 percent more than the same period in 2012.

Durable goods sales improved 0.6 percent in July with the largest increase seen in auto accessories & repair (+3.0 percent), followed by lumber & hardware (+1.5 percent), and furniture (+0.3 percent). Declining sales were seen in miscellaneous durable goods (-3.3 percent), and used merchandise (-1.7 percent). Over the year, durable goods sales were 15.2 percent more than July 2012.

Total nondurable goods sales grew 6.3 percent in July with the largest monthly gain in estimated gasoline sales (+37.1 percent). Eating & drinking sales were also strong in July (-3.7 percent). Declining sales were seen in apparel (-1.9 percent); food (-1.4 percent); liquor (-1.0 percent); general merchandise (-0.9 percent); and drugs (-0.2 percent). Over the year, non-durable goods sales advanced 6.6 percent.