



OKLAHOMA Economic Indicators

May 2014

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SPECIAL REPORT

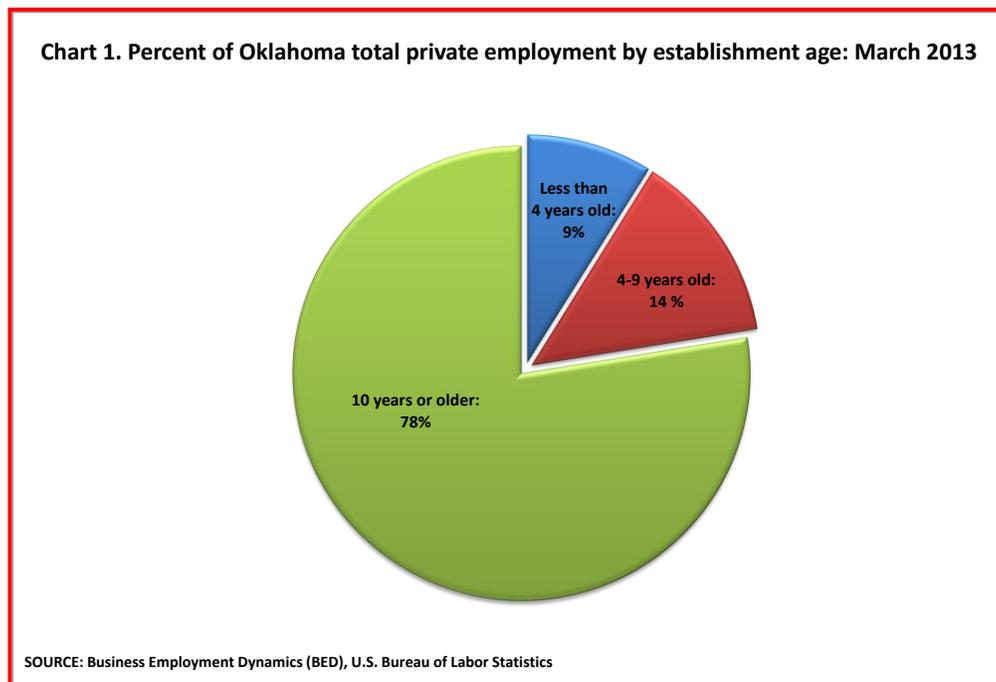
Business Establishment Survival in Oklahoma: Younger vs. Older Establishments

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 studies,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

The older establishments, more than 10 years old, which employed about 78 percent of the total private sector jobs in March 2013, were the main employers within Oklahoma's private-sector workforce. Private sector business establishments, four to nine years old, accounted for 14 percent of private-sector employment, while business establishments less than four years old accounted for around nine percent of employment, (See Chart 1, below).

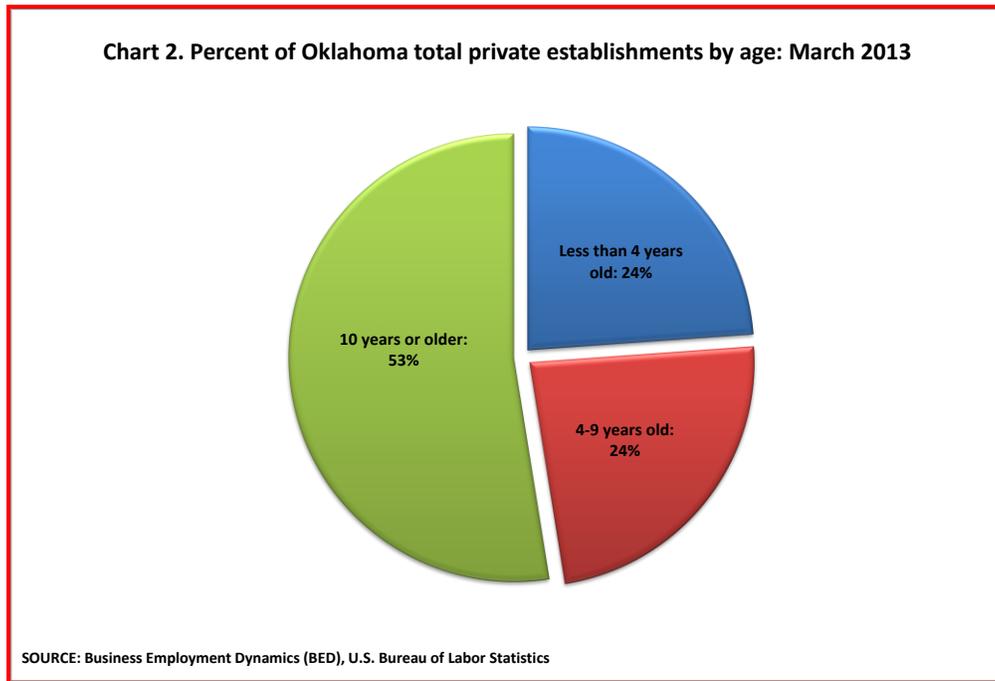


Older business establishments had the most number of total private business establishments for both the nation and state. In Oklahoma, 53 percent of the business establishments were 10 years or older. Business that were four to nine years old accounted for 24 percent of total

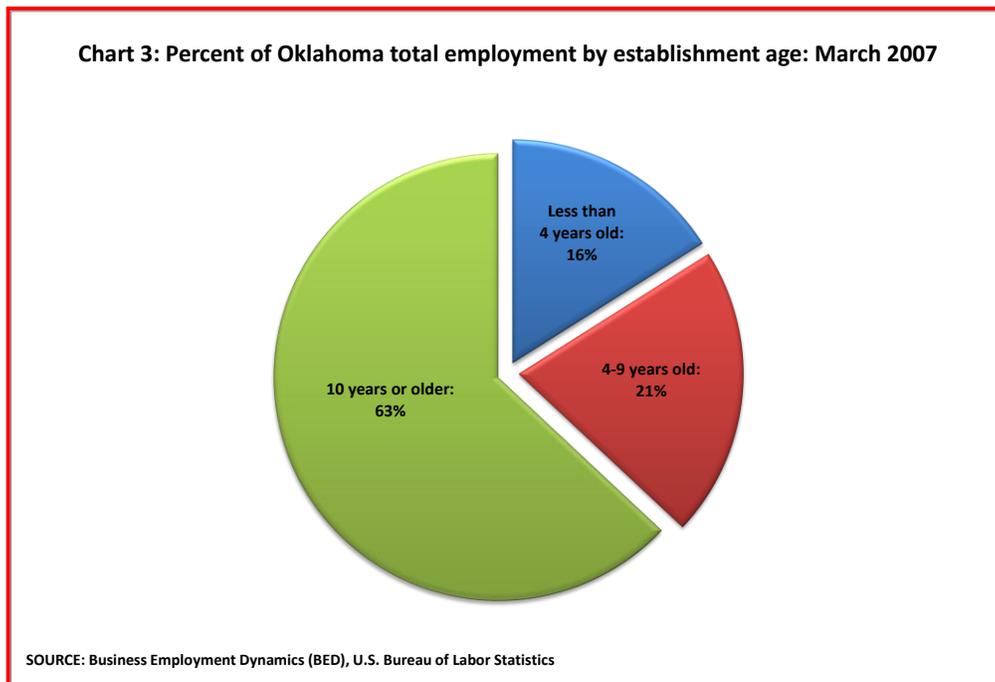
¹ Carol Leming, Akbar Sadeghi, James R. Spletzer, and David M. Talan, 'The Role of Younger and Older Business Establishments in the U.S. Labor Market', *Issues in Labor Statistics*, Office of Publications & Special Studies, U.S. Department of Labor, Bureau of Labor Statistics, Summary 10-09, August 2010.

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

private establishments, while businesses less than four year old also accounted for 24 percent. (see Chart 2, below).



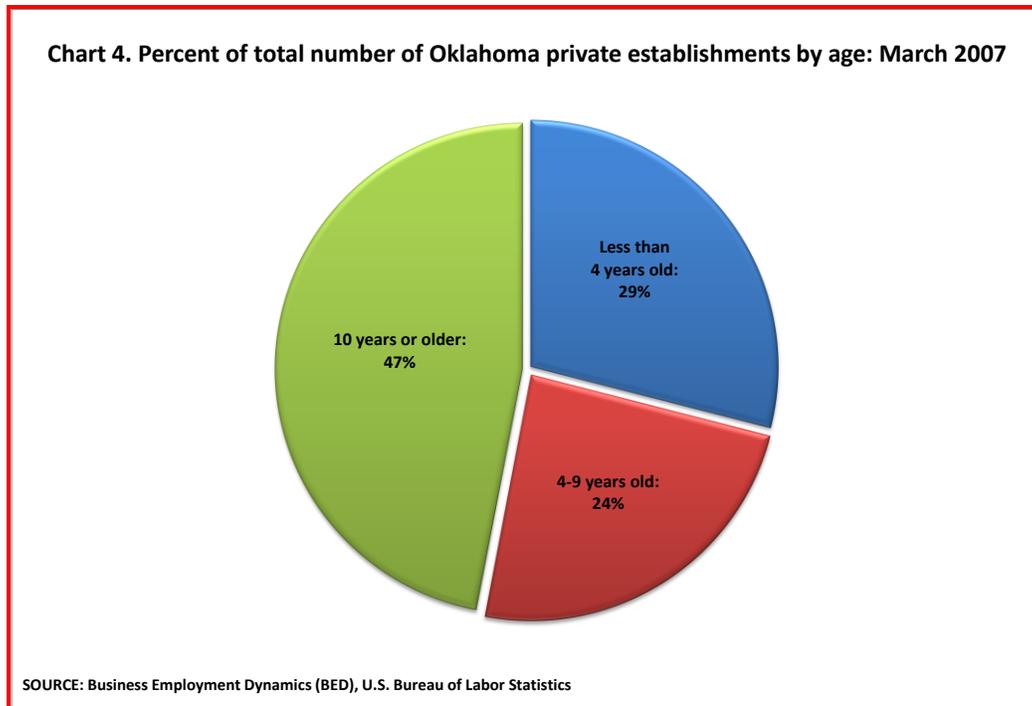
Before the ‘Great Recession’³, younger establishments, (less than 4 years old), had a larger share of private-sector employment in Oklahoma. Younger establishments accounted for 16 percent of total private-sector employment in March 2007 compared to just 11 percent in March 2012 (see Chart 3, below).



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).

By March 2013, only nine percent of total private-sector employment was attributed to the younger establishments, (see Chart 1, page 2).

Younger establishments' share of total private-sector business establishments was 24 percent in March 2013, five percentage points less than March 2007, (prior to the 'Great Recession'), at 29 percent, (see Chart 4, below).



Even though the younger establishments were an important factor in the private-sector, older establishments played a much more significant role in Oklahoma private-sector employment. The share of older establishments' private-sector employment grew nearly 15 percent from March 2007 to March 2013. Older establishments' share of total private-sector establishments also increased during that seven-year period, growing about six percent.

II. Oklahoma Private-Sector Establishment Births and Deaths

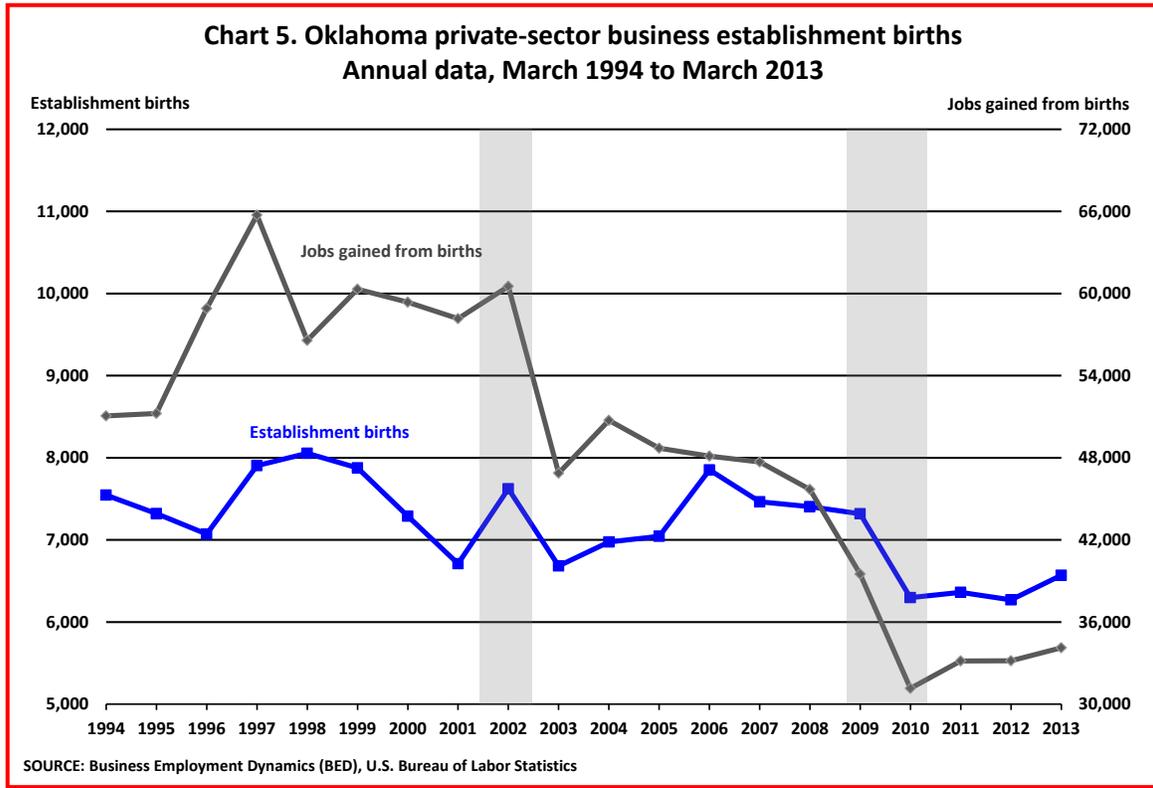
An establishment birth refers to a new opening, which is less than one year. Generally, the births for private-sector establishments of Oklahoma have dropped significantly over the past 19 years.

March 1998 saw the largest number of private-sector establishment births in Oklahoma, with 8,054 new establishment openings occurring that year. However, the largest level of employment for newly-opened establishments occurred in March 1997, with 65,738 workers.

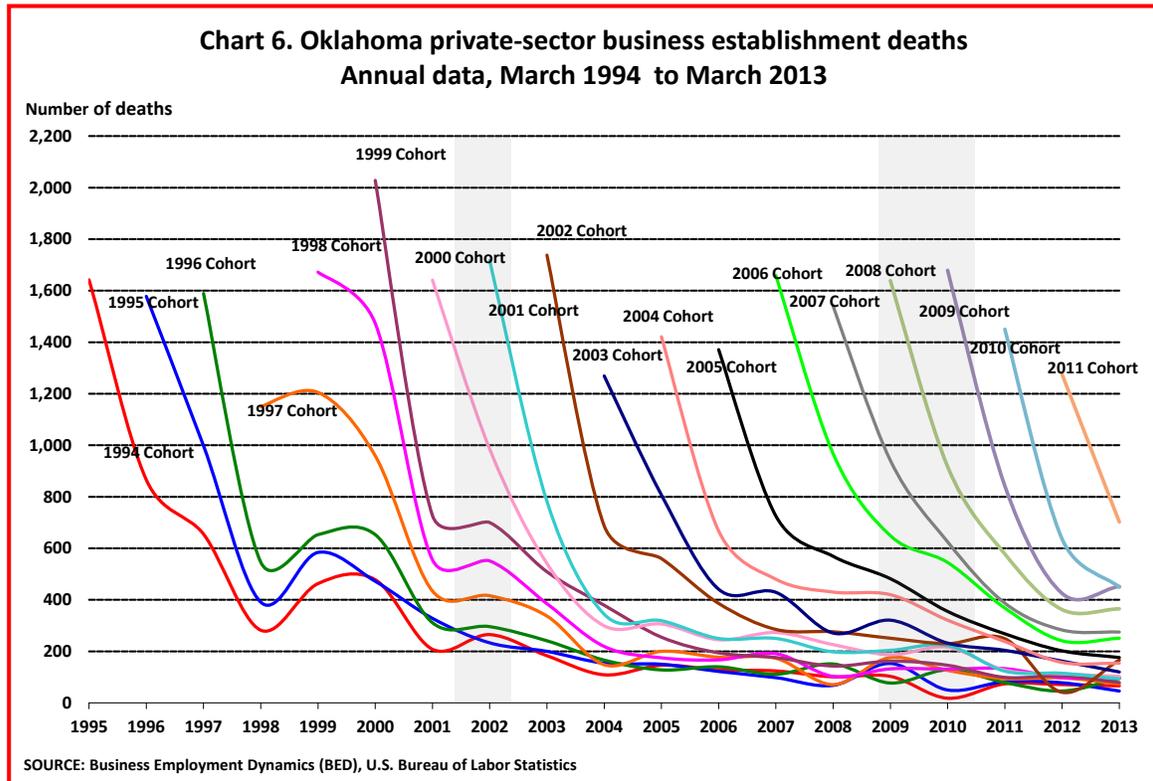
In the 2000's, the peak point for the new private-sector business establishment openings in Oklahoma was March 2006. With a total of 7,853 private-sector establishments opened, with an employment level of 48,129 workers. During March 2008, new job openings began to fall. However, the statewide economy saw promise as 34,120 jobs were reported in March 2013. In addition, newly-opened establishments rose from 6,271 in the previous year to 6,569.

March 2004 marked the beginning of a consistent decline in private-sector establishment employment, reaching the lowest level of employment for the past 19 years in March 2010, with an employment level of 31,147 employees. However, that trend began to reverse during the following year.

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 2013.



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



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

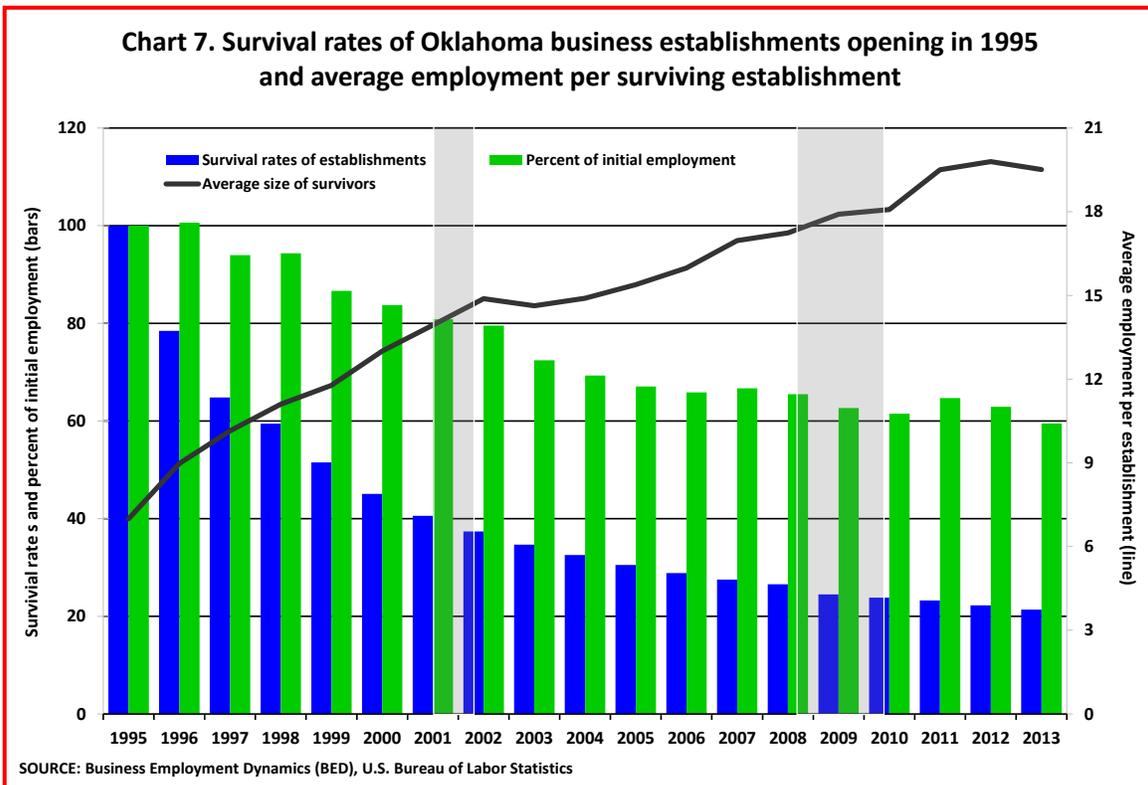
During the period between 2006 and 2011, there were major declines in establishment births. Especially, the largest decline was between March 2009 and 2010, where the effects of the last recession started and ended in Oklahoma. There were major declines in job gains from births between 2008 and 2010 and 2002 and 2003. This can be attributed to the reduction of jobs in the new openings establishments.

Deaths of private-sector business establishments should also be examined. The typical life-cycle of a newly-opened establishment in Oklahoma is about two to three years after birth. If a business establishment's death happens, it is likely to occur during the early stages of the business's existence. In Chart 6, (page 5), the trends of private-sector establishment deaths over the past 19 years are plotted from March 1994 to March 2013.

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

The BED establishment age series traces cohorts of new businesses for a measurement of survival yearly. Chart 7, (below), details the survival rates for the cohort in March 1995 of new Oklahoma business establishments opening in March 1995. In Chart 7, the proportion of all business establishment openings in March 1995 surviving in any given year is represented by the 'establishments' bars. Approximately 21 percent of businesses that opened in March 1995 remained in business in 2013, employing about 59 percent of the cohort's initial employment. The first three years of a newly-opened business establishment are critical because it is the survival rate for a business. For every 100 private-sector establishments born in March 1995 in Oklahoma, 22 failed to survive past the first year, 35 failed to survive past the second year, and 41 failed to survive past the third year after opening

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



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

The ‘average size of survivors’ line, in Chart 7, is computed by dividing the surviving cohort employment levels by the total number of surviving establishments, which reflects the number of employees hired by surviving establishments on average. The trend line displays how the cohort of Oklahoma establishments opening in March 1995 averaged to the size seven workers per establishments. By March 2001, the surviving establishments’ size has almost tripled by around 19.5 workers in March 2013. The surviving establishments’ size grew quickly within the birth stages in its first three years.

There may be two possible reasons as to why the average size of surviving establishments increases over time: 1) the employment levels are likely to increase within their early levels at the surviving establishments; 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

Because the first three years appear are the most crucial to business survival, we will look at how the past two recessions impacted the survival rates for new private-sector establishments in their early stages in Oklahoma?

Table 4, (below), outlines the first three years of new private-sector business establishments opening since March 1999 as it pertains to the survival rate. The bolded survival rates indicate those affected by the recessions. During their early stages, the following cohorts were affected

Table 4. Survival rates of new establishments Oklahoma 1999-2012

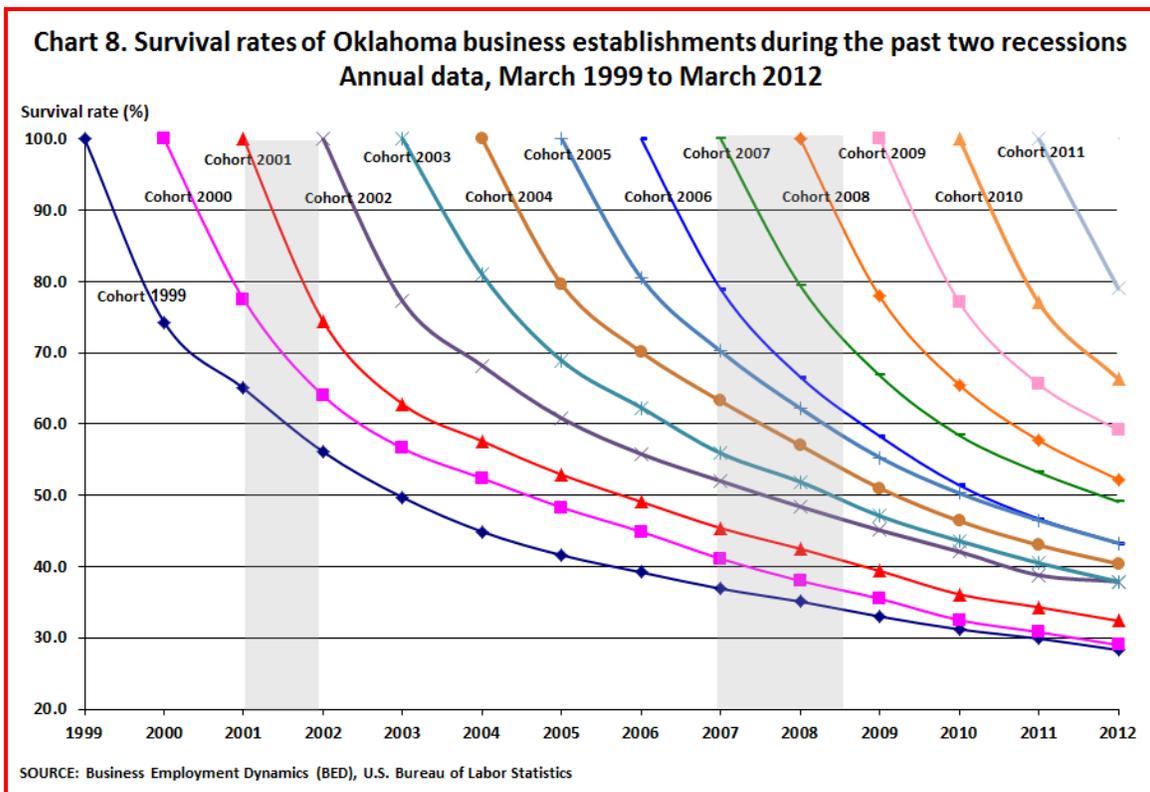
Annual Births Year Ended	Percent Surviving		
	1 year	2 years	3 years
Periods			
March 1999	74.3	65.0	56.1
March 2000	77.5	64.0	56.6
March 2001	74.4	62.8	57.6
March 2002	77.2	68.2	60.8
March 2003	81	68.9	62.3
March 2004	79.6	70.1	63.2
March 2005	80.5	70.2	62.2
March 2006	78.9	66.6	58.3
March 2007	79.4	66.8	58.4
March 2008	77.9	65.5	57.7
March 2009	77.1	65.6	59.7
March 2010	77.0	66.9	59.7
March 2011	80.0	68.9	\
March 2012	79.4	\	\
Average (non-recession)	78.4	67.2	59.7
Average (recession)	77.2	65.7	58.8

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

⁴ Leming, Sadeghi, Spletzer, and Talan, *op. cit.*
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by the recession which occurred between March and November 2001: 1999 (that is, establishments born in March 1999), 2000 and 2001. Similarly, the following cohorts were affected by the most recent ‘Great Recession:’ 2005, 2006, 2007, 2008, and 2009. In the first-year survival rates impacted by the recession, the average level was about one percentage point lower compared to that of the non-recession average. A similar situation occurred for the second and third year average survival rates when the levels are compared to the non-recessionary averages. While the past two recessions appear to have made an impact on the survival rates for new business establishments during their first three years, the negative effect is relatively small when it is compared to that of the non-recessionary survival rates (see Table 4, page 9).

Chart 8, (below), shows 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 for the older cohorts of 1999, 2000, and 2001 seem to be less affected by the ‘Great Recession’ than the younger cohorts of 2007, 2008, and 2009.



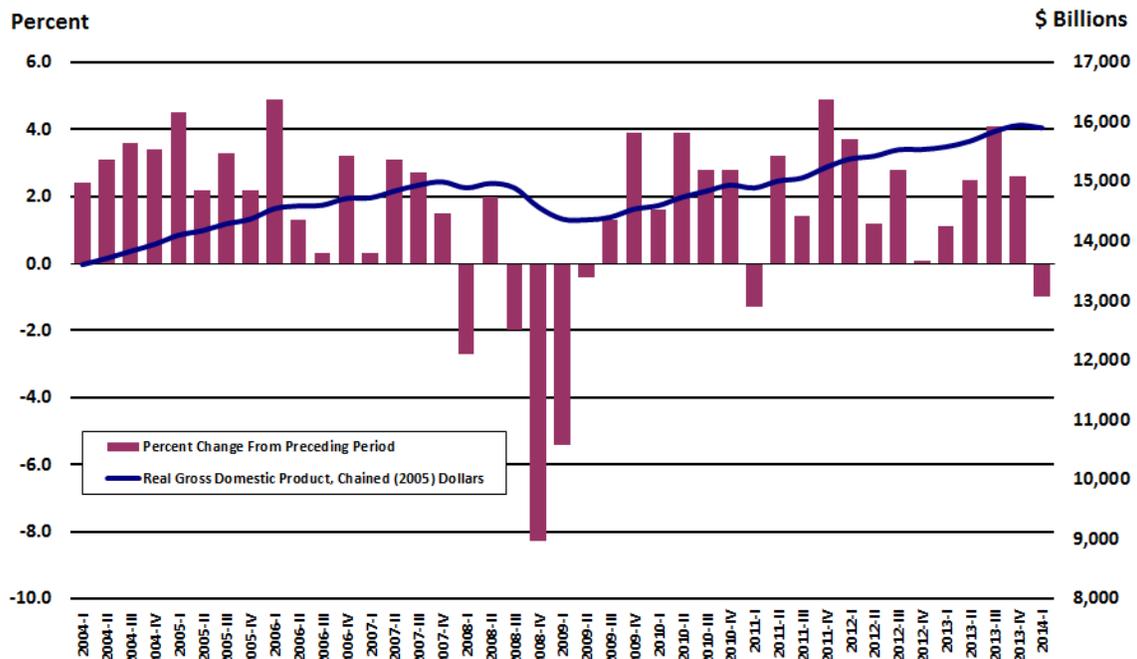
NOTE: Shaded areas represent National Bureau of Economic Research defined recession periods.

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: A copy of the full report is posted on the OESC website at:
http://www.ok.gov/oesc_web/documents/lmiestsurvival2014.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. economy shrank for the first time in three years in the 1st quarter as businesses increased inventories more slowly than previously estimated and adverse winter weather hampered activity. Real gross domestic product fell at an annual rate of 1.0 percent in the 1st quarter according to the "second" estimate released by the Bureau of Economic Analysis (BEA). In the 4th quarter, real GDP increased 2.6 percent.

Consumer spending was particularly robust in the 1st quarter, jumping 3.1 percent despite the bitterly cold winter weather. Spending on durable goods increased 1.4 percent, while nondurable goods increased 0.4 percent. Services spending, which includes items like health care and utilities, increased 4.3 percent.

Contraction in 1st quarter GDP primarily reflected a sharp slowdown in business inventories, which subtracted 1.6 percentage points from growth. That was a full percentage point more than the initial estimate. Business investment in structures fell at an annual rate of 7.5 percent in the 1st quarter, also worse than the initial estimate. Investment in equipment decreased 3.1 percent, in contrast to an increase of 10.9 percent in the previous quarter.

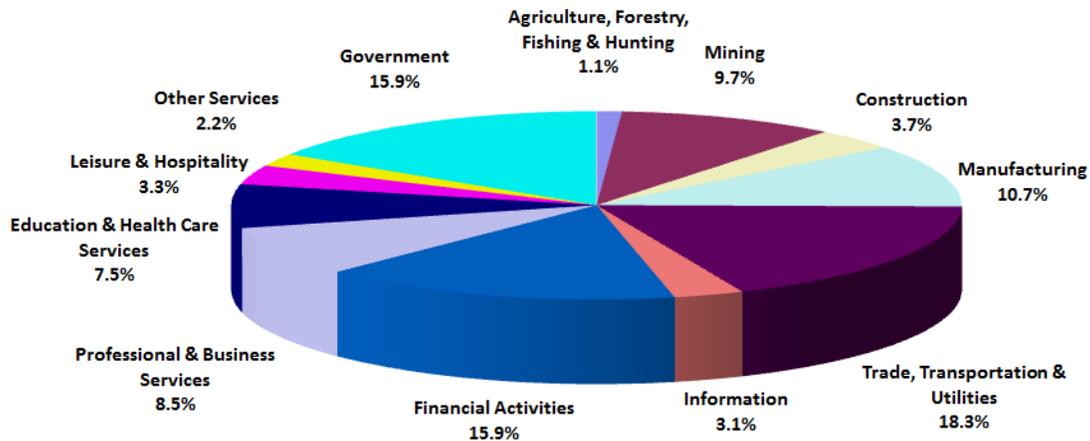
The housing market also trimmed GDP, although fixed residential investment was a smaller drag on 1st-quarter growth than initially estimated. Residential fixed investment dipped 5.0 percent, less than the initial estimate of 5.7 percent, and subtracted 0.16 percentage point from GDP growth.

The trade deficit was slightly larger than previously believed in the 1st quarter. Real exports of goods and services decreased 6.0 percent in the 1st quarter. But real imports of goods and services, which subtracts from the GDP growth, rose at a 0.7 percent pace, compared with the initial estimate that they declined at a 1.4 percent rate.

Federal spending was a slight boost to overall economic growth in the 1st quarter, but state and local government cutbacks created a larger drag. Real federal government consumption expenditures and gross investment increased 0.7 percent in the 1st quarter. National defense spending decreased 2.4 percent. Nondefense spending increased 5.9 percent. However, real state and local government consumption expenditures and gross investment decreased 1.8 percent in the 1st quarter. Total government spending subtracted 0.15 percentage point from GDP for the quarter, compared with an initial estimate of a 0.09 percentage point subtraction from growth.

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

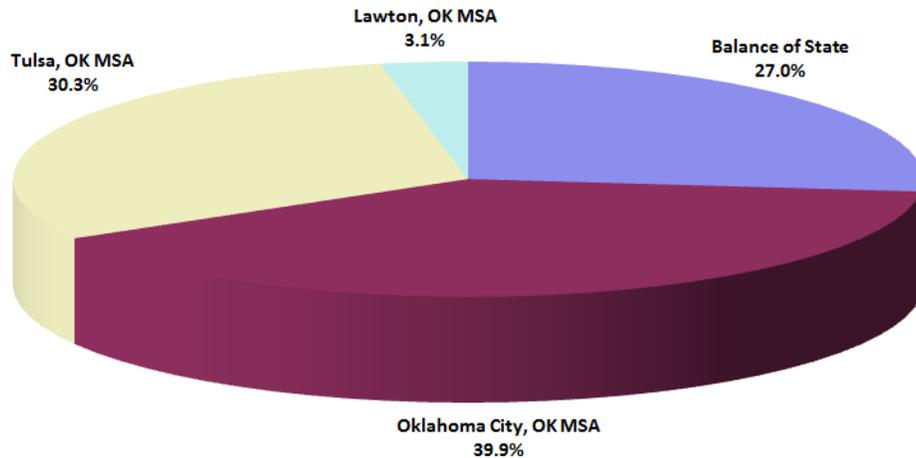
Oklahoma, along with 48 states and the District of Columbia, saw growth in real GDP in 2012, according to the advance estimate from the Bureau of Economic Analysis (BEA). Oklahoma's 2011 advance estimate was revised upward from 1.0 percent to 1.9 percent. Oklahoma's real GDP growth rate of 2.1 percent 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 2011

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



Definition & Importance

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

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

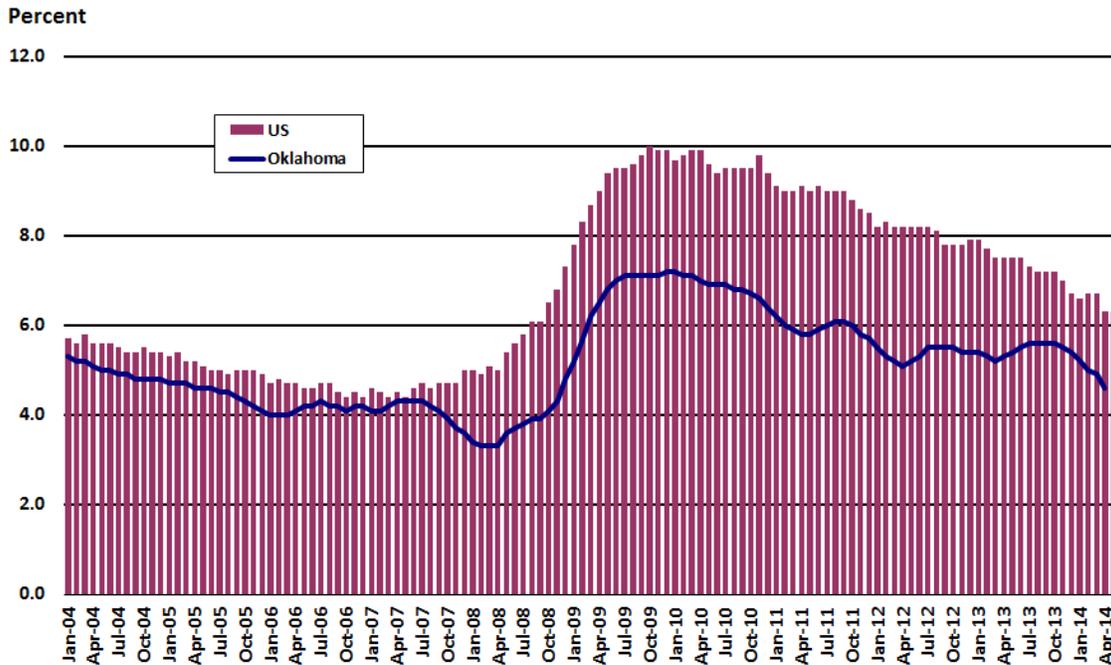
Current Developments

Real GDP increased in 242 of the nation's 366 metropolitan areas in 2011 led by growth in professional and business services, durable-goods manufacturing, and trade, according to the U.S. Bureau of Economic Analysis. Real GDP in metropolitan areas increased 1.6 percent in 2011 after increasing 3.1 percent in 2010.

In terms of growth in real GDP, all Oklahoma metropolitan areas grew in 2011. Lawton MSA grew by 0.9 percent to \$4.2 billion and ranked 169th (out of the 366 U.S. metropolitan areas). Oklahoma City MSA grew by 2.0 percent to \$53.5 billion and ranked 97th. Tulsa MSA grew at a rate of 0.5 percent to \$40.7 billion and ranked at 209th.

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

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



Definition & Importance

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

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

Current Developments

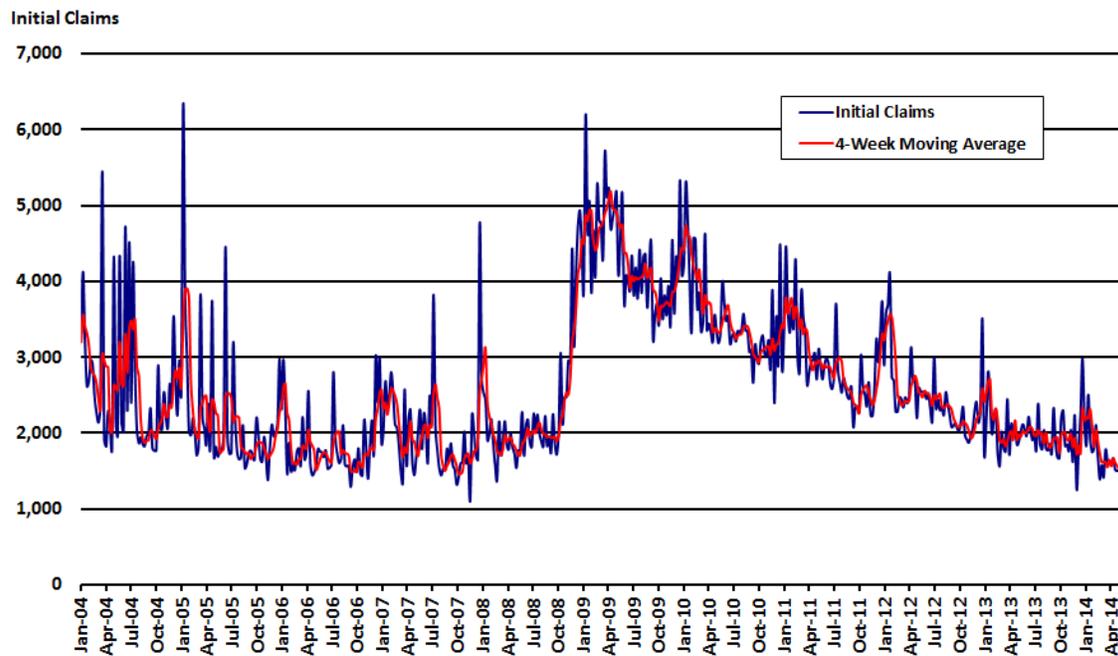
The U.S. jobless rate held at a nearly six-year low in May as the economy gained traction. The unemployment rate held steady at 6.3 percent in May, according to the Bureau of Labor Statistics (BLS). The civilian labor force participation rate was unchanged in May, at 62.8 percent.

Oklahoma's unemployment rate once again reached a five-year low in April. The statewide seasonally adjusted unemployment rate for Oklahoma plunged to 4.6 percent in April, a decrease of 0.03 percentage point over the month and the 11th lowest jobless rate among all states.

Unemployment rates dropped over the month in all 77 Oklahoma counties in April. Latimer County claimed Oklahoma's highest county unemployment rate of 7.3 percent while the month's lowest county unemployment rate belonged to Dewey County at 1.8 percent.

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

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



Definition & Importance

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

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

Current Developments

The number of Americans filing claims for new jobless benefits fell in the last week of May and remained near pre-recession levels. In the week ending May 24, the advance figure for seasonally adjusted initial claims was 300,000, a decrease of 27,000 from the previous week's revised level, according to figures released by the U.S. Labor Department (DOL). The less volatile 4-week moving average declined by 11,250 to 311,500. That was the lowest level for the average since August 2007.

Weekly claims have been bouncing around in recent weeks, but have been below 350,000 since March.

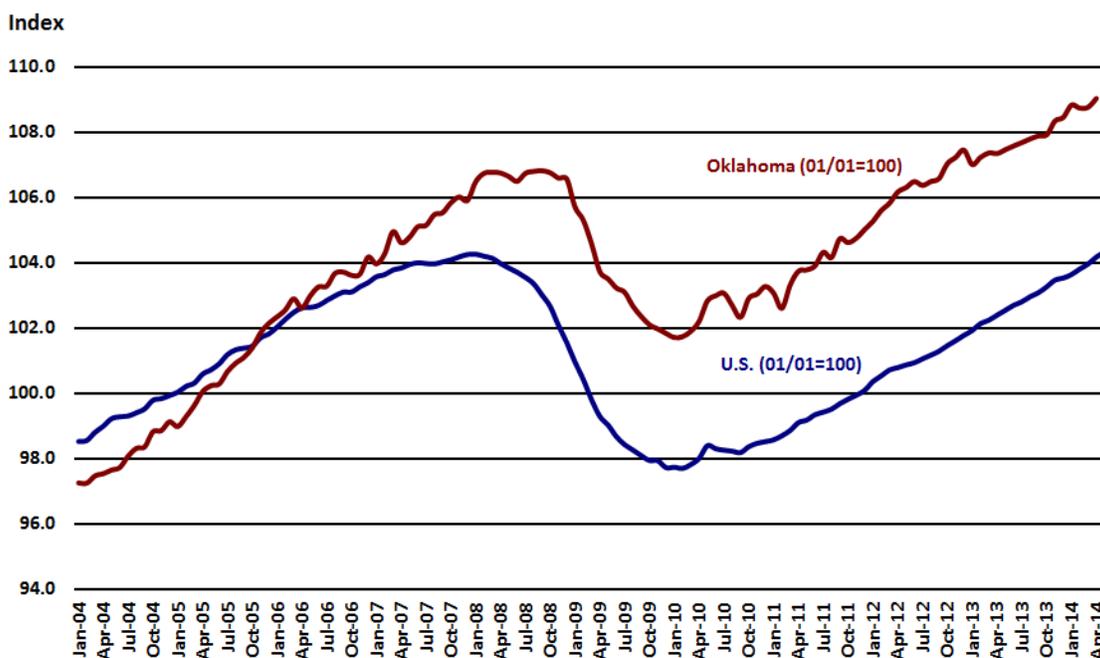
Statewide initial claims for unemployment insurance moved up a bit in May but remain at pre-recession levels. For the file week ending May 17, initial jobless claims were at a level of 1,703, up by 89 from the previous week. For the same file week ending, the four-week moving average was nearly unchanged from 1,575 to 1,587.

Over the month, statewide initial claims rose by 187 from 1,516 to 1,703 while the less volatile 4-week moving average moved down by 20 from 1,607 to 1,587.

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

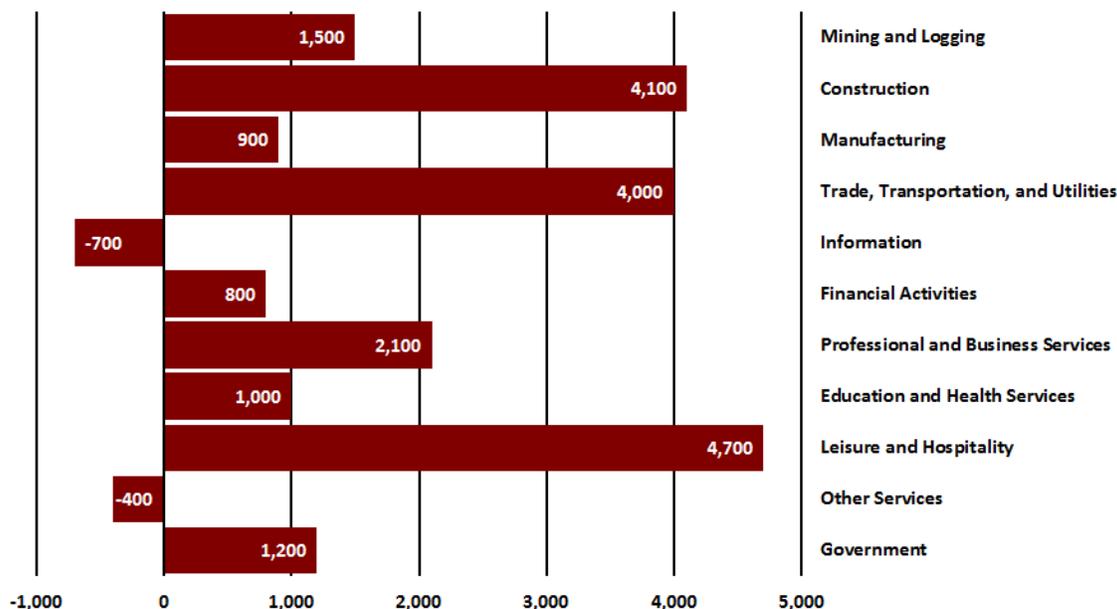
The U.S. economy added jobs at a steady pace in May, providing suggesting that the five-year-long recovery accelerated this spring. Total nonfarm payroll employment rose by 217,000 in May, according to the Bureau of Labor Statistics (BLS). In May, service sector jobs once again led job growth with professional and business services health care and social assistance, food services and drinking places, and transportation and warehousing.

The job market has now reached a significant milestone: Nearly five years after the Great Recession ended, the economy has finally regained all the jobs lost in the downturn.

Oklahoma's seasonally adjusted nonfarm employment added 4,100 jobs (0.2 percent) in April. Seven of Oklahoma's 11 supersectors reported job gains in April, with leisure & hospitality (+1,800 jobs) leading the way. Construction (-1,100 jobs) had the largest job loss for the month. Over the year, state nonfarm employment grew by 25,600 jobs (1.6 percent). Leisure & hospitality (8,900 jobs) provided the largest annual gain.

Oklahoma Employment Change by Industry 2012 - 2013

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



Definition & Importance

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

Current Developments

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

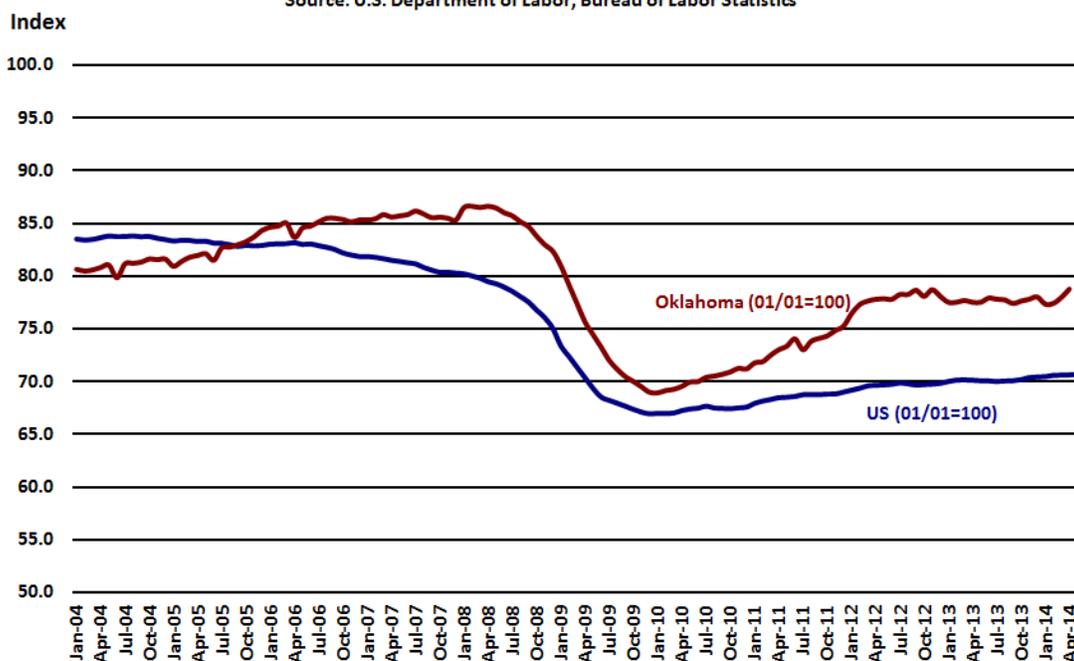
Employment growth in 2012 was wide-ranging with nine out of the 11 statewide industry supersectors reporting job gains. The broad trade, transportation & utilities industry recorded the largest employment increase adding 6,700 jobs with nearly half the hiring in wholesale trade. Mining had another strong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

Job losses were in financial activities (-500) and other services (-200).

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

Index: January 2001 = 100

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



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

Manufacturers hired an additional 10,000 employees on net in May, its strongest monthly increase in three months, according to the Bureau of Labor Statistics (BLS). Durable goods firms increased employment by 17,000 in May, but nondurable goods manufacturers shed 7,000 jobs on net. The largest increases by sector were transportation equipment (6,400 jobs, with 5,000 from motor vehicles and parts), machinery (2,700 jobs), chemicals (2,200 jobs), furniture and related products (1,900 jobs), and fabricated metal products (1,800 jobs).

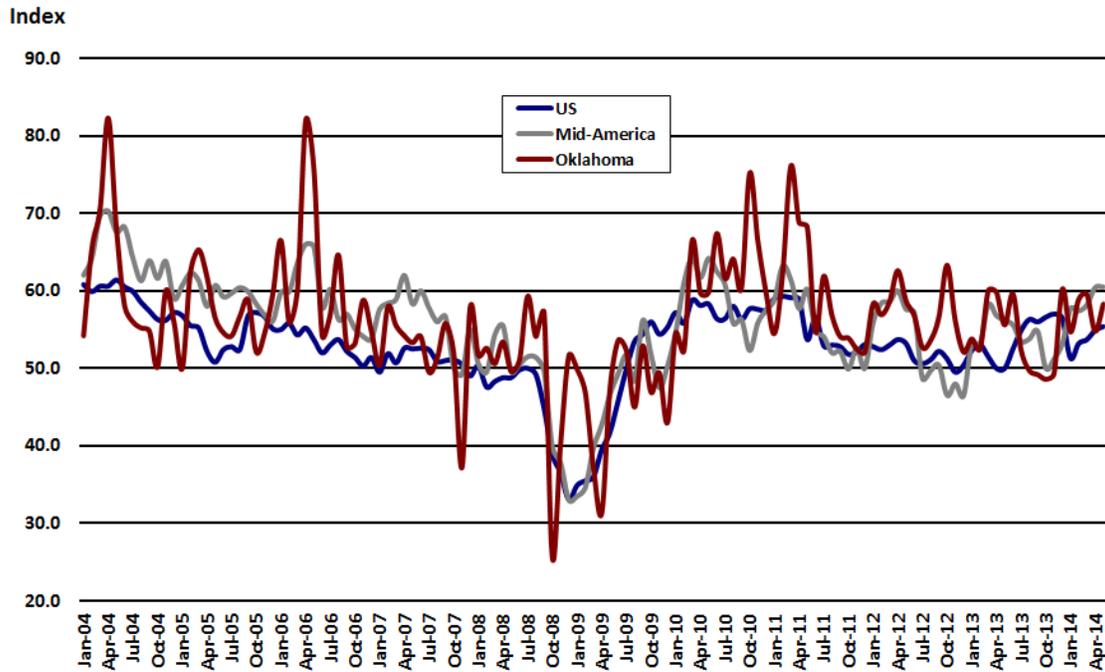
Oklahoma manufacturers added a non-seasonally adjusted 1,400 jobs (1.0 percent) in April. Job gains were mostly in durable goods manufacturing (+1,000 jobs).

Over the year, Oklahoma manufacturing employment added a non-seasonally adjusted 2,200 jobs for a 1.6 percent growth rate. Manufacturing job gains were evenly divided between durable and non-durable goods manufacturing.

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

Purchasing Managers' Index (Manufacturing)

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



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

American manufacturers grew in May at the fastest rate of 2014, according to an index that was corrected twice after the Institute for Supply Management (ISM) confirmed that the wrong seasonal adjustment had been mistakenly applied to the initial report. The May PMI® rose to 55.4 percent last month from 54.9 percent in April, according to the latest Manufacturing ISM Report On Business®. Initially, the ISM reported its index fell to 53.2 percent in May.

The biggest changes occurred in indexes for new orders and production. The new orders index, initially reported as having fallen to 53.3 percent, was revised to 56.9 percent in May. And the production index was corrected to show a 61 percent reading instead of 55.2 percent as initially reported. The employment index also declined, but not as much as the original report stated.

The price index, which tracks how much companies pay for supplies and raw materials, rose sharply in May and was just a below a three-year high.

The Mid-America Business Conditions Index, a leading economic indicator for the nine-state region, reached its highest level in more than three years in May. The Business Conditions Index, which ranges between 0 and 100, expanded in May to 55.6 from 55.1 in April, according to the Creighton Economic Forecasting Group. That's the fifth straight month that the index was greater than 50, a level that indicates an expanding economy over the next three to six months.

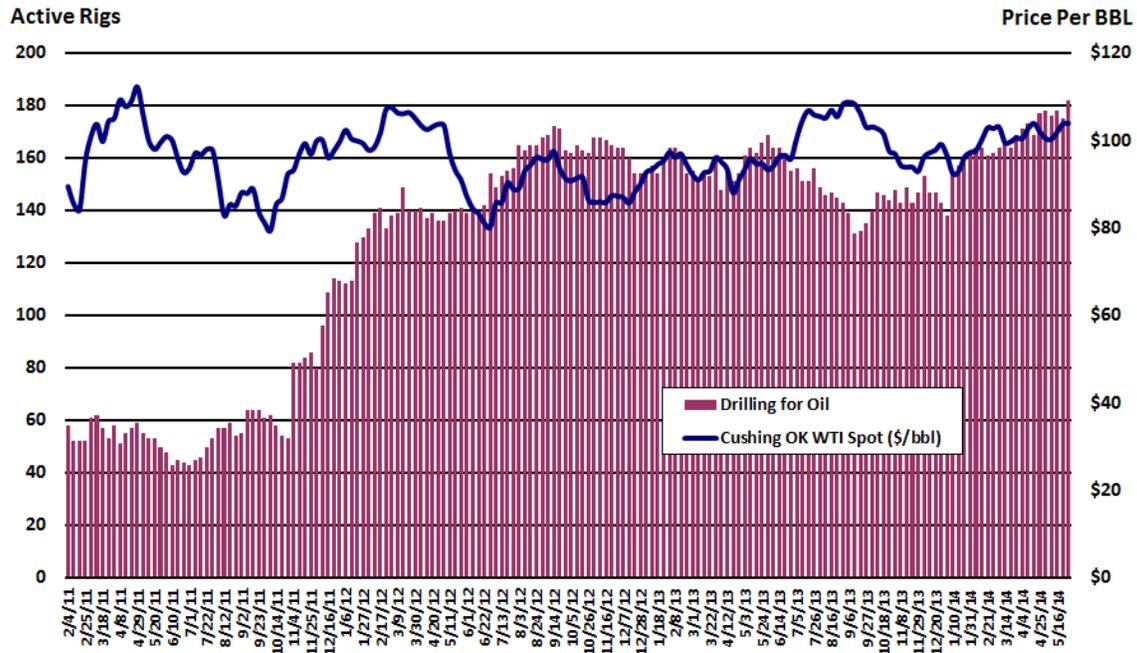
Oklahoma's leading economic indicator continues to point to healthy gains for the next three to six months. Oklahoma's Business Conditions Index for May expanded to a solid 58.3 from last month's 54.8 reading. Components of the May survey of supply managers were new orders at 67.4, production or sales at 64.8, delivery lead time at 50.6, inventories at 51.6, and employment at 56.9.

"Despite healthy gains for manufacturers in the state over the past year, Oklahoma's manufacturing sector has approximately 8.3 percent fewer manufacturing workers today than before the national recession began. On the other hand, the manufacturing wage rate in the state has expanded by a solid 4.6 percent from one year ago. Our surveys over the past several months point to solid improvements for manufacturing and the overall state economy for the next three to six months with solid wage gains," said Dr. Ernie Goss, director of Creighton University's Economic Forecasting Group.

Oklahoma Active Rotary Rigs & Cushing, OK WTI Spot Price

February 2011 to May 2014

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



Definition & Importance

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

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

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

Background

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

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

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

Current Developments

The United States exported 246,000 barrels per day (bbl/d) of crude oil in March 2014 (the latest data available from the U.S. Census Bureau), the highest level of exports in 15 years, according to a recent report from the U.S. Energy Information Administration (EIA). Exports have increased sharply since the start of 2013 and have exceeded 200,000 bbl/d in four of the last five months. The increase in crude exports is largely the result of rising U.S. crude production, which was 8.2 million bbl/d in March.

State crude oil production reached its highest level in over 25 years in March. Total field production of 10,489,000 barrels ranked Oklahoma 5th among all states in March. Crude production in March was 1,295,000 barrels more than February's level of 9,194,000 barrels.

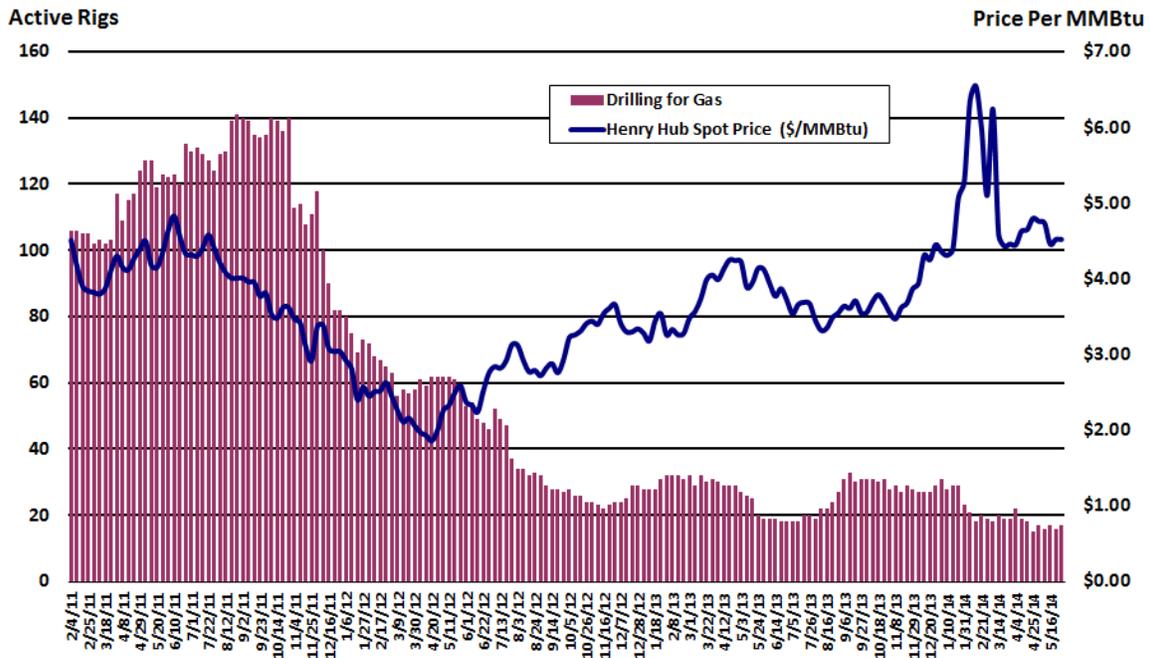
WTI-Cushing began the month at \$99.69 per barrel, climbing to \$104.31 before settling at \$103.40 per barrel and averaging \$102.18 per barrel for the month of May. Over the year, WTI-Cushing average monthly spot prices were 8.1 percent higher than the April 2013 average price of \$94.51 per barrel.

Oklahoma's overall rotary rig activity has been growing since last fall. May's average rotary rig count stood at 194 three more than April's average of 191. Over the year, May's active rotary rig count in Oklahoma was six more than 188 in May 2013. Oil-directed active rotary rigs advanced to a level of 182, (for the week ended May 30, 2014), representing approximately 91 percent of total rig activity in the state in May.

Oklahoma Active Rotary Rigs & Henry Hub Natural Gas Spot Price

February 2011 to May 2014

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



Definition & Importance

The U.S. Energy Information Administration (EIA) provides weekly information on natural gas stocks in underground storage for the U.S., and three regions of the country. The level of inventories helps determine prices for natural gas products. Natural gas product prices are determined by supply and demand—like any other good or service. During periods of strong economic growth, one would expect demand to be robust. If inventories are low, this will lead to increases in natural gas prices. If inventories are high and rising in a period of strong demand, prices may not need to increase at all, or as much. However, during a period of sluggish economic activity, demand for natural gas may not be as strong. If inventories are rising, this may push down oil prices.

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

Background

Oklahoma is one of the top natural gas producers in the United States with production typically accounting for almost one-tenth of the U.S. total. More than a dozen of the 100 largest natural gas fields in the country are found in Oklahoma and proven reserves of conventional natural gas have been increasing in recent years.

Most natural gas in Oklahoma is consumed by the electricity generation and industrial sectors. About three-fifths of Oklahoma households use natural gas as their primary energy source for home heating. Nevertheless, only about one-third of Oklahoma’s natural gas output is

consumed within the state. The remaining supply is sent via pipeline to neighboring states, the majority to Kansas, including the natural gas trading hubs in Texas and Kansas.

Current Developments

U.S. net imports of natural gas into the United States fell 14 percent in 2013, continuing a decline that began in 2007, according to a recent report from the U.S. Energy Information Administration (EIA). Robust natural gas production in the United States likely displaced imports, which decreased by 8 percent in 2013 to 2,883 billion cubic feet (Bcf). Based on preliminary data for 2013, domestic dry natural gas production increased by 1 percent to 24,282 Bcf, a new record. Abundant production of natural gas helped reduce U.S. reliance on foreign natural gas and helped maintain a high price differential between domestic and foreign markets outside of North America, increasing interest in the potential export of U.S. liquefied natural gas (LNG).

Oklahoma natural gas production was at a level of 190,464 MMcf in February. That is the highest monthly level of production since January 1991. Oklahoma natural gas production for 2013 was 2,143,989 MMcf, 6.0 percent more than the 2012 total of 2,023,461 MMcf, also its highest annual level since 1991.

Natural gas spot prices slipped a bit in May, with prices falling for most of the month. The Henry Hub spot price began the month at \$4.79 per MMBtu and finished the month at \$4.49 per MMBtu, for a \$0.30 or 7 percent decline. May's monthly average price of \$4.58 per MMBtu was 8 cents (-1.7 percent) less than the April monthly average but \$0.54 (or 13.4 percent) more than May 2013.

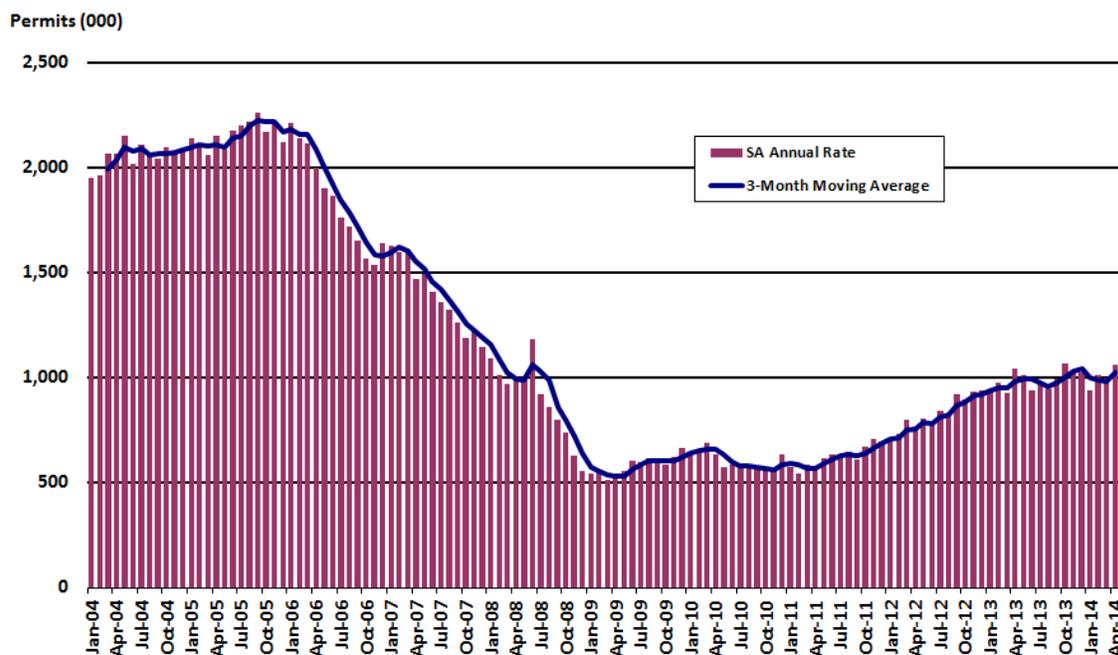
According to data reported by Baker Hughes, Oklahoma's natural gas rotary rig count remained low in May. For the week ended May 30, the state natural gas-directed drilling rig count was at a level of 17 active rigs, accounting for less than 10 percent of total drilling activity. Over the year, Oklahoma's natural gas-directed rotary rig count was down two rigs from 19 rigs reported for the week ended May 31, 2013.

The U.S. natural gas rotary rig count totaled 1,866 as of May 30, up 9 rigs from the previous week. The number of active natural gas-directed rigs increased by 1, to 326. The number of active oil-directed rigs increased by 8, to 1,536.

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

Seasonally Adjusted

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



Definition & Importance

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

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

Current Developments

Building permits issued for home construction, a gauge of future activity, topped a 1 million annual rate for the third month in a row in April. Privately-owned housing units authorized by building permits in April were at a seasonally adjusted annual rate of 1,080,000 or 8.0 percent above the revised March rate of 1,000,000 and 3.8 percent above the April 2013 estimate of 1,040,000, according to the U.S. Census Bureau and the Department of Housing and Urban Development.

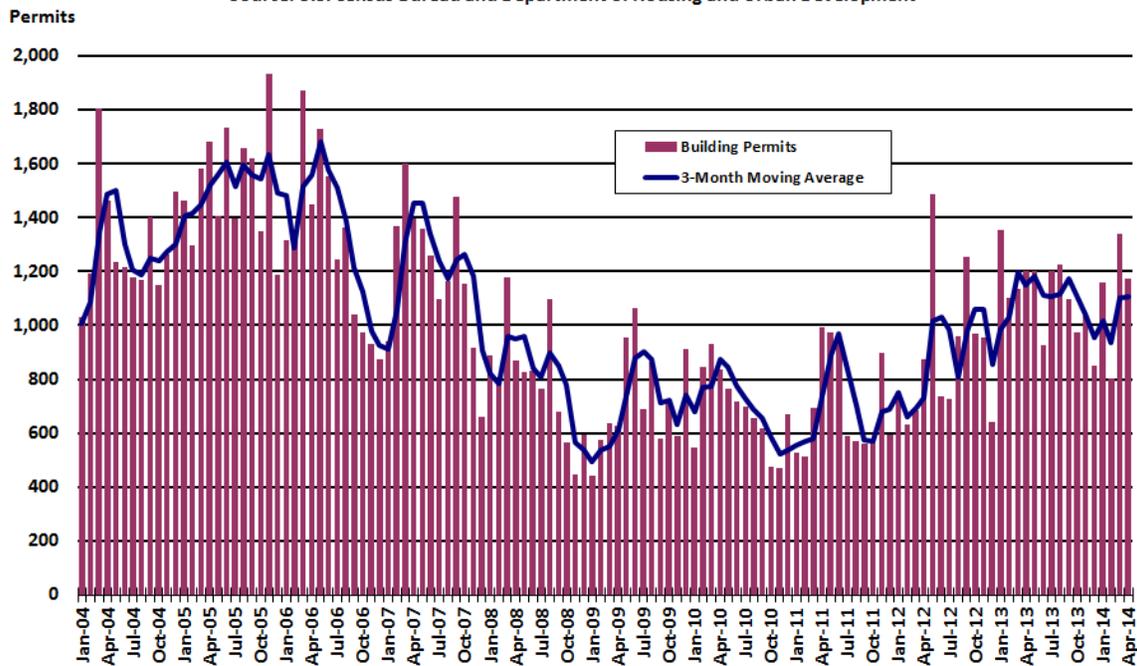
Permits for single-family homes were only up 0.3 percent to an annual pace of 602,000 in April. Again, strength was in the multifamily component which was up 19.5 percent at an annual rate of 413,000.

U.S. homebuilders' confidence in the housing market rose modestly in April but remained at low levels for the third straight month, according to the National Association of Home Builders/Wells Fargo builder sentiment index. The index edged up to 47 in April from 46 in March.

Oklahoma Total Residential Building Permits, 2004-2014

Not Seasonally Adjusted

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



Statewide residential permitting activity eased a bit in April but remained at a very healthy level. Total residential building permitting for April was at an unadjusted level of 1,173 units, a 12.5 percent decline from a two-year high seen in March, according to figures from the U.S. Census Bureau and the Department of Housing and Urban Development.

In March, single-family permitting accounted for 82.6 percent of residential permitting activity while multi-family permitting added 16.5 percent. Permits for single-family homes were at a non-seasonally adjusted level of 969 or 3 percent over March's level of 941 permits. Applications for apartments were at a non-seasonally adjusted level of 186 after reaching a high of 373 in March.

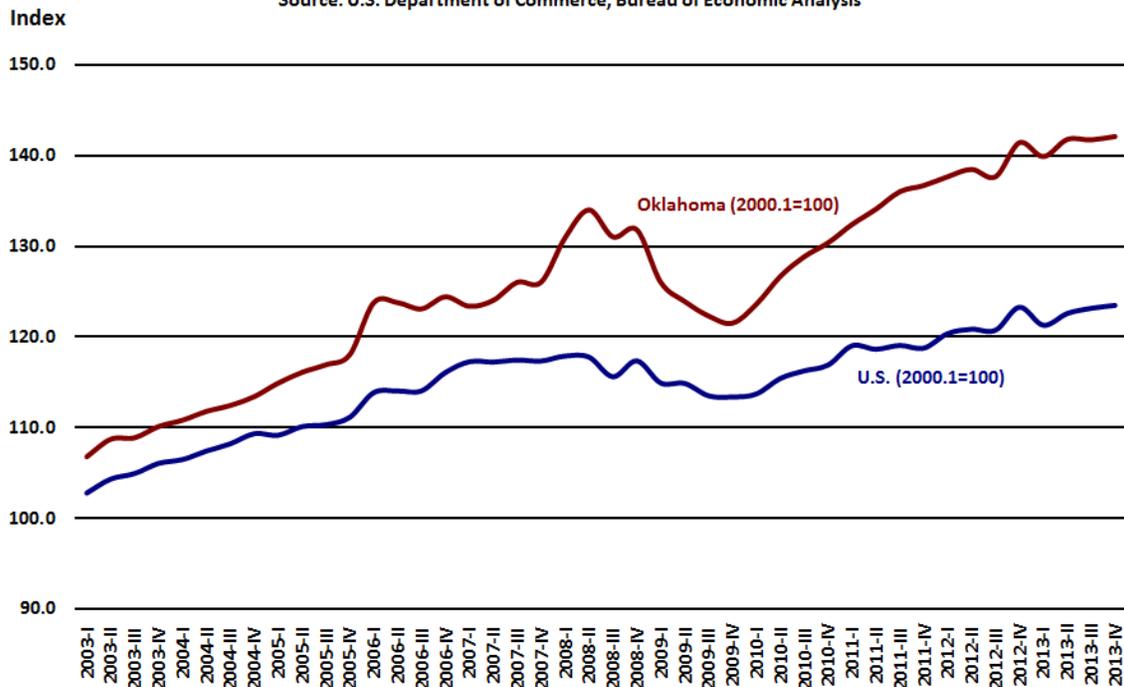
Over the year, total unadjusted residential permitting was down 31 permits or -2.6 percent less than April 2013. Single-family permits were down 236 or -18.2 percent, multi-family permitting helped make up for that loss with 183 more permits than April 2013.

Year to date, total non-adjusted residential building permitting activity is 6.7 percent (-320) lower than the first four months of 2013.

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

Consumer spending unexpectedly fell in April after the biggest surge in almost five years as incomes slowed. Personal income increased \$43.7 billion, or 0.3 percent, and disposable personal income (DPI) increased \$44.6 billion, or 0.3 percent, in April, according to the Bureau of Economic Analysis (BEA). Personal consumption expenditures (PCE) increased \$16.3 billion, or 0.1 percent. Personal consumption expenditures (PCE) decreased \$8.1 billion, or 0.1 percent. Personal income rose a healthy 0.5 percent in March after a 0.4 percent gain the month before.

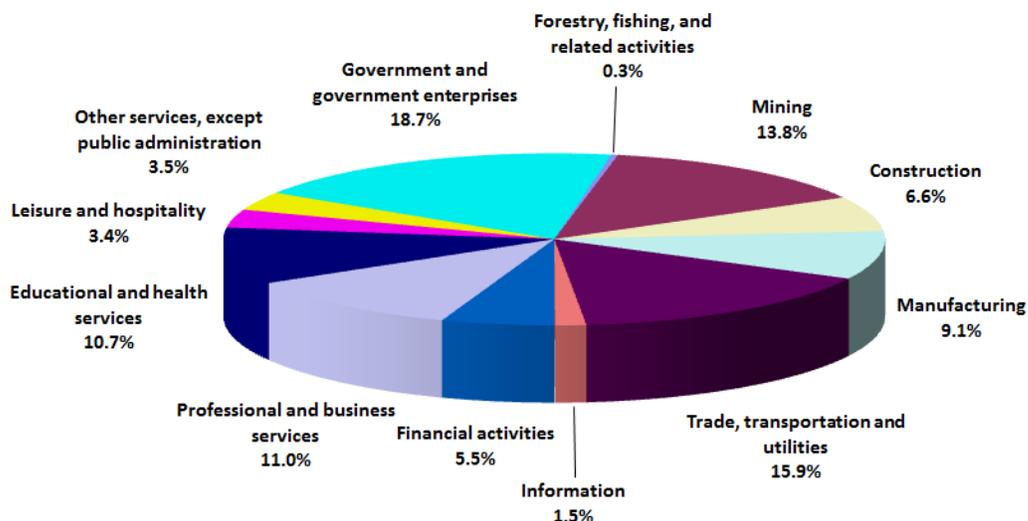
Wages and salaries growth decelerated to 0.2 percent in April, the smallest gain this year, after 0.6 percent advance in March. The saving rate increased to 4 percent from 3.6 percent.

Spending on durable goods decreased 0.5 percent adjusted for inflation, reflecting a pause in auto sales, following a 3.7 percent surge in March. Purchases of non-durable goods, which include gasoline, fell 0.3 percent. Household outlays on services dropped 0.2 percent on a decline in utilities and healthcare after a 0.5 percent rise in March. The core price measure, which excludes food and fuel, rose 0.2 percent from the prior month and was up 1.4 percent from April 2013.

Oklahoma Nonfarm Contribution to Earnings

Fourth 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

Average state personal income growth slowed to 2.6 percent in 2013 from 4.2 percent in 2012, according to estimates released by the U.S. Bureau of Economic Analysis (BEA). State personal income growth ranged from 1.5 percent in West Virginia to 7.6 percent in North Dakota, with every state growing more slowly in 2013 than in 2012. Inflation, as measured by the national price index for personal consumption expenditures, slowed to 1.1 percent in 2013 from 1.8 percent in 2012.

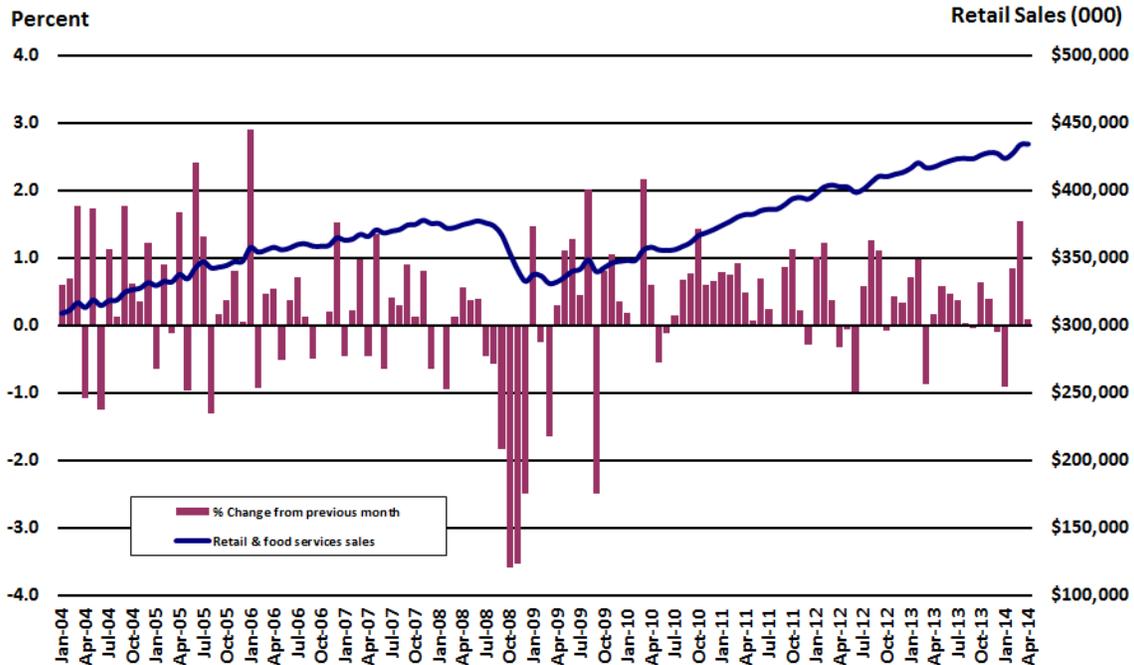
According to the BEA, slower personal income growth reflected the effects of several special factors including the expiration at the beginning of 2013 of the “payroll tax holiday” (a temporary two-percentage point reduction in the personal contribution rate for social security) and the acceleration of the receipt of income, especially personal dividends and salary bonuses, into 2012 in anticipation of changes in individual income tax rates for 2013. The expiration of the payroll tax holiday increased contributions for government social insurance, a subtraction in the calculation of personal income.

Oklahoma's 3.3 percent growth rate in personal income easily topped the national average and ranked the state 7th among all other states in 2013. Earnings in the state rose to \$160.1 billion (+3.3 percent) in 2013 from nearly \$155 billion in 2012. Construction earnings grew by \$954 million, adding 0.62 percent to total earnings followed by mining which grew by \$698 million and added 0.45 percent.

In the 4th quarter, personal income in the state grew 0.5 percent to \$161.8 billion, 26th highest in the nation.

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

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



Definition & Importance

Retail sales measure the total receipts at stores that sell merchandise and related services to final consumers. Sales are by retail and food services stores. Data are collected from the Monthly Retail Trade Survey conducted by the U.S. Bureau of the Census. Essentially, retail sales cover the durables and nondurables portions of consumer spending. Consumer spending accounts for roughly two-thirds of the U.S. GDP and is therefore essential to Oklahoma's economy. Retail sales account for around one-half of consumer spending and economic recovery calls for consumption growth.

Current Developments

U.S. retail sales barely rose in April after strong gains in the prior two months, with consumers shopping less online and cutting back on purchases of furniture and electronics. Advance estimates of U.S. retail and food services sales for April, adjusted for seasonal variation and holiday and trading-day differences, but not for price changes, were \$434.6 billion, an increase of 0.1 percent from the previous month, and 4.0 percent above April 2013, according to the U.S. Census Bureau. The February 2014 to March 2014 percent change was revised from 1.2 percent to 1.5 percent—the biggest one-month jump since March 2010.

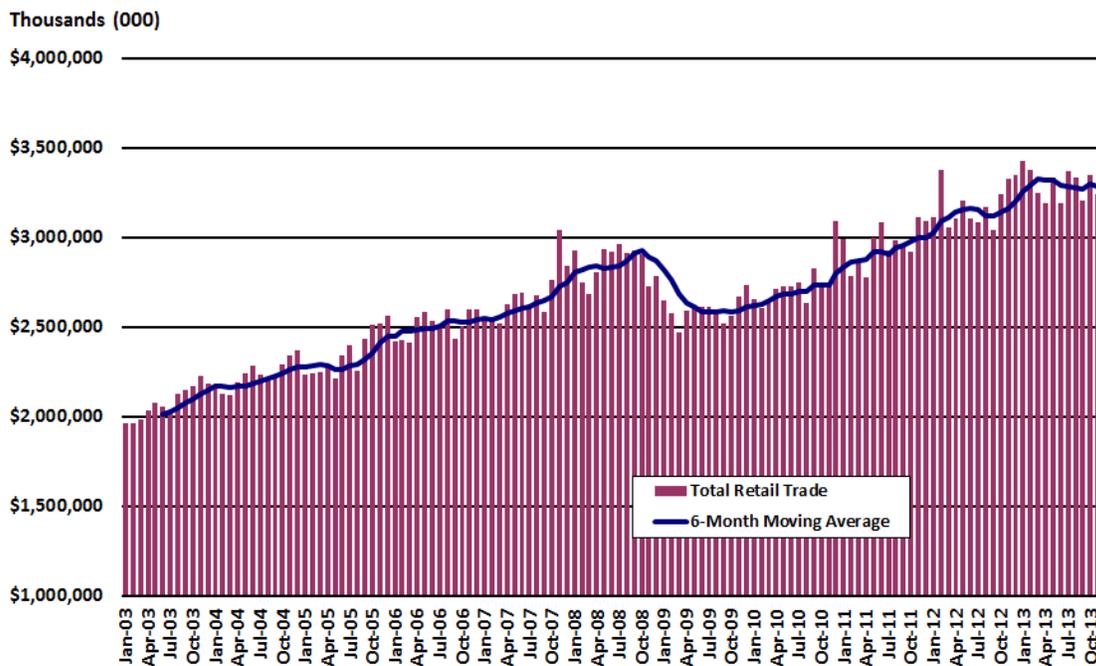
An unusually late Easter might have caused some sales in April to be shifted into March because of seasonal adjustments.

Excluding motor vehicles, sales were flat after a 1.0 percent boost in March. Gasoline sales were up notably in April. Excluding autos and gasoline, retail sales slipped 0.1 percent after spiking 1.4 percent in March.

The less volatile "core" retail sales, excluding automobile and gasoline sales, dipped 0.1 percent in April. In the core, department store sales jumped 1.8 percent with strength also seen in clothing & accessories (1.2 percent), and health & personal care (0.6 percent). Weakness was led by declines in electronics & appliance stores (-2.3 percent), and miscellaneous store retailers (-2.3 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

Holiday shopping pushed Oklahoma retail trade to a strong finish in December. Total adjusted retail sales for December 2013 were at a level of \$3.42 billion—a 5.5 percent gain from November and 2.0 percent greater than December 2012. For 2013, total adjusted retail trade, at \$39.7 billion, was 3.9 percent greater than 2012.

Durable goods sales increased 1.4 percent in December with all durable goods categories advancing. The largest increase was seen in miscellaneous durable goods (+2.5 percent); followed by lumber & hardware (+1.8 percent), and electronics & music store sales (+1.5 percent).

Total nondurable goods sales surged 7.0 percent in December with the largest monthly gain in the volatile estimated gasoline sales (+35.0 percent). Liquor sales were also strong in December (+1.7 percent); apparel sales (+1.4 percent); and general merchandise sales (+1.2 percent). Declining sales were seen in drugs (-0.3 percent); eating & drinking (-0.2 percent), and miscellaneous non-durables (-0.2 percent). Over the year, non-durable goods sales advanced 1.0 percent.