



OKLAHOMA Economic Indicators March 2024

OKLAHOMA ECONOMIC INDICATORS

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SPECIAL REPORT:

OKLAHOMA BUSINESS EMPLOYMENT DYNAMICS: 2nd Quarter 2023

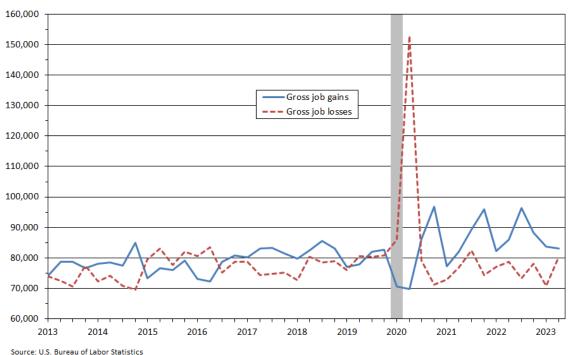
Gross Job Gains and Gross Job Losses: 2nd Quarter 2023

From December 2022 to March 2023, gross job gains from opening and expanding private-sector establishments in Oklahoma totaled 83,640, a decrease of 4,517 jobs from the previous quarter. Over this period, gross job losses from closing and contracting private-sector establishments were 70,808, a decrease of 7,261 jobs from the previous quarter, according to the Oklahoma Employment Security Commission, Economic Research and Analysis Division, and the U.S. Bureau of Labor Statistics, (see Chart 1, below and Table 1, page 6). The difference between the number of gross job gains and the number of gross job losses yielded a net employment gain of 12,832 jobs in Oklahoma's private sector during the 1st quarter of 2023.

Chart 1

Private sector gross job gains and gross job losses in Oklahoma

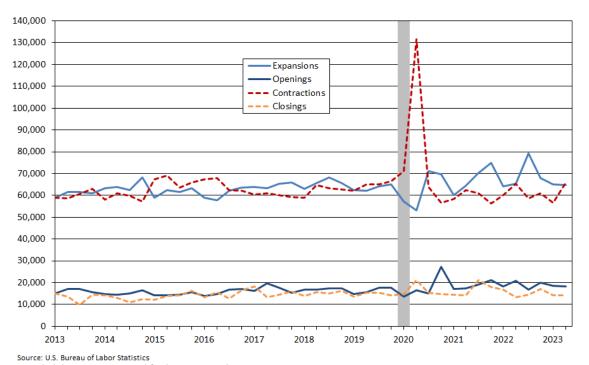
March 2013 - June 2023, seasonally adjusted



Note: Shaded area represents NBER defined recession period.

The change in the number of jobs over time is the net result of increases and decreases in employment that occur at all businesses in the economy. Business Employment Dynamics (BED) statistics track these changes in employment at private business establishments from the third month of one quarter to the third month of the next. *Gross job gains* are the sum of increases in employment from expansions at existing establishments and the addition of new jobs at opening establishments. *Gross job losses* are the result of contractions in employment at existing establishments and the loss of jobs at closing establishments. The difference between the number of gross job gains and the number of gross job losses is the net change in employment.

Chart 2 Components of private sector gross job gains and losses in Oklahoma March 2013 - June 2023, seasonally adjusted



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

Gross job gains are the sum of increases in employment due to expansions at existing establishments and the addition of new jobs at opening establishments. Gross job gains at expanding establishments in Oklahoma totaled 64,998 in the 1st quarter of 2023, a decrease of 3,016 jobs compared to the previous quarter. Opening establishments accounted for 18,642 of the jobs gained in the 1st quarter of 2023, a decrease of 1,501 jobs from the previous quarter, (see Chart 2, above).

Gross job losses are the result of contractions in employment at existing establishments and the loss of jobs at closing establishments. Contracting establishments in Oklahoma lost 56,589 jobs in the 1st quarter of 2023, a decrease of 4,317 jobs from the prior quarter. In the 1st quarter, closing establishments lost 14,219 jobs, a decrease of 2,944 jobs from the previous quarter.

Establishment Births and Deaths

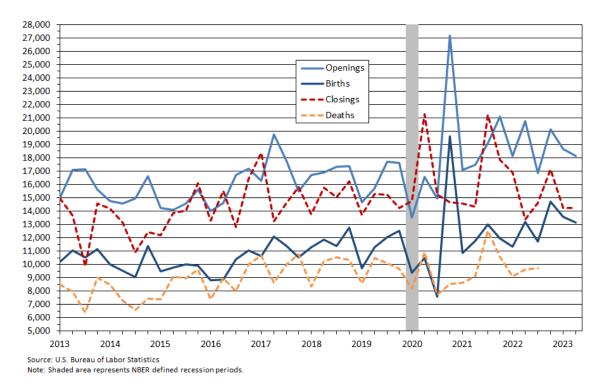
In Oklahoma, the number of private sector establishment births, (a subset of the openings data), decreased by 665, for a total of 3,635 establishments in the 1st quarter of 2023. These new establishments accounted for 13,578 jobs, a decrease of 1,117 jobs from the previous quarter, (see Chart 3, next page).

Data for establishment deaths, (a subset of the closings data), are now available through the 2nd quarter of 2022, when 9,648 jobs were lost at 2,598 establishments, an increase of 544 jobs from the 1st quarter of 2022, (see Chart 3, below).

Chart 3

Employment from private sector openings, closings, births and deaths in Oklahoma

March 2013 - June 2023, seasonally adjusted



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

In the 1st quarter of 2023, gross job gains represented 6.3 percent of private-sector employment in Oklahoma with expansions accounting for 4.9 percent of total private sector employment and openings contributing 1.4 percent. Nationally, gross job gains accounted for 6.2 percent of private sector employment in the 1st quarter of 2023. With few exceptions, Oklahoma's rates of gross job gains have generally tracked with the U.S. rates. However, beginning in the 1st quarter of 2015, the rate of Oklahoma's gross job gains slipped below the national rate for seven consecutive quarters, exceeded the U.S. rate in the following nine quarters but has lagged behind the U.S. rate in nine out of the past 17 quarters, (see Chart 4, page 4).

In the 1st quarter of 2023, gross job losses represented 5.3 percent of private-sector employment in Oklahoma, with contractions accounting for 4.2 percent and closings adding another 1.1 percent. The national rate of gross job losses was 5.4 percent in the 1st quarter of 2023. From the 3rd quarter 2013 forward, Oklahoma's rate of gross job losses has shown more volatility especially the period beginning 1st quarter 2015 through 1st quarter 2017, then tracking more with national trends from the 4th quarter of 2017 forward, (see Chart 5, page 4).

Chart 4

Private sector gross job gains as a percent of employment, United States and Oklahoma March 2013 - June 2023, seasonally adjusted

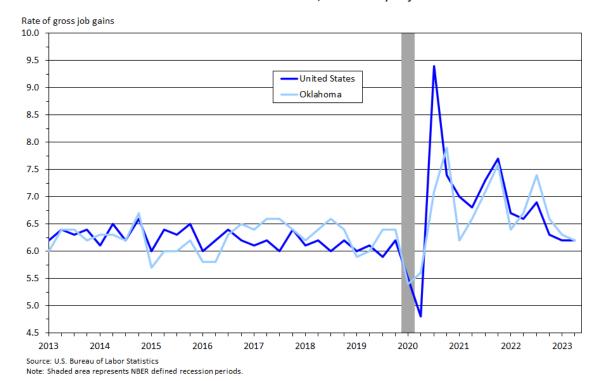
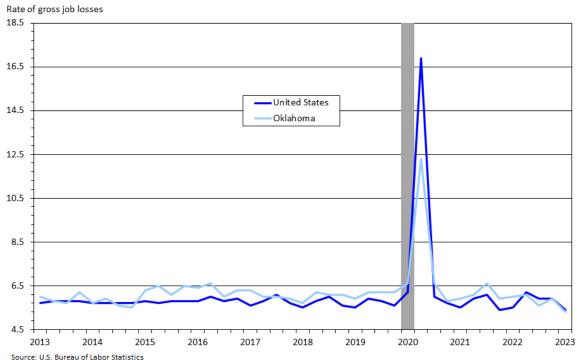


Chart 5

Private sector gross job losses as a percent of employment, United States and Oklahoma March 2013 - March 2023, seasonally adjusted



Note: Shaded area represents NBER defined recession periods.

Table 1. Oklahoma: Three-month private sector gross job gains and losses,						
seasonally adjusted						
	3 months ended					
Category	June	Sep	Dec 2022	March	June	
	2022	2022		2023	2023	
	Levels					
Gross job						
gains	86,041	96,273	88,157	83,640	82,988	
Expanding establishments	65,306	79,396	68,014	64,998	64,826	
Opening establishments	20,735	16,877	20,143	18,642	18,162	
Gross job						
losses	78,698	73,231	78,069	70,808	80,274	
Contracting establishments	65,316	58,632	60,906	56,589	66,035	
Closing establishments	13,382	14,599	17,163	14,219	14,239	
Net employment change ¹	7,343	23,042	10,088	12,832	2,714	
	Rates (percent)					
Gross job						
gains	6.7	7.4	6.6	6.3	6.2	
Expanding establishments	5.1	6.1	5.1	4.9	4.8	
Opening establishments	1.6	1.3	1.5	1.4	1.4	
Gross job						
losses	6.1	5.6	5.9	5.3	6.0	
Contracting establishments	5.1	4.5	4.6	4.2	4.9	
Closing establishments	1.0	1.1	1.3	1.1	1.1	
Net employment change ¹	0.6	1.8	0.7	1.0	0.2	

Source: U.S Bureau of Labor Statistics

¹Net employment change is the difference between total gross job gains and total gross job losses.

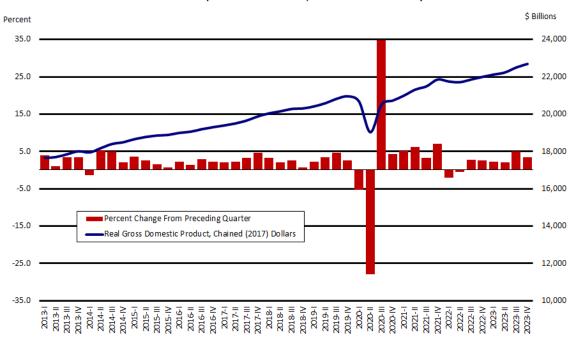
More Information

A copy of the full 1st quarter 2023 Oklahoma BED report along with technical notes and detailed tables is available on the OESC website at: <u>Business Employment Dynamics-2nd Quarter 2023</u> (oklahoma.gov)

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

Real Gross Domestic Product and Quarterly Change

1st Quarter 2013 to 4th Quarter 2023 ("Third" Estimate)
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. Each revision is based on more complete economic data.

Background

There are four major components to GDP:

- 1. Personal consumption expenditures: Individuals purchase durable goods (such as furniture and cars), nondurable goods (such as clothing and food) and services (such as banking, education, and transportation).
- 2. *Investment:* Private housing purchases are classified as residential investment. Businesses invest in nonresidential structures, durable equipment, and computer software. Inventories at all stages of production are counted as investment. Only inventory changes, not levels, are added to GDP.
- 3. *Net exports:* Equal the sum of exports less imports. Exports are the purchases by foreigners of goods and services produced in the United States. Imports represent domestic purchases of foreign-produced goods and services and are deducted from the calculation of GDP.
- 4. Government: Government purchases of goods and services are the compensation of government employees and purchases from businesses and abroad. Data show the portion

attributed to consumption and investment. Government outlays for transfer payments or interest payments are not included in GDP.

The four major categories of GDP—personal consumption expenditures, investment, net exports and government—all reveal important information about the economy and should be monitored separately. This allows one to determine the strengths and weaknesses of the economy.

Current Developments

The U.S. economy grew faster than previously estimated from October through December, driven by healthy consumer spending and business investment. Real gross domestic product (GDP) increased at an annual rate of 3.4 percent in the 4th quarter of 2023, according to the "third" estimate released by the Bureau of Economic Analysis (BEA). In the 3rd quarter, real GDP increased 4.9 percent.

Consumer spending, which accounts for more than two-thirds of U.S. economic activity, increased 3.3 percent in the 4th quarter, up from the previous estimate of 3.0 percent. Outlays on services, such as food services and accommodations as well as health care, increased 3.4 percent. Spending on durable goods, such as recreational goods and vehicles, climbed 3.0 percent. Spending on nondurable goods, such as prescription drugs, was up to 2.9 percent. Personal consumption expenditures (PCE) added 2.54 percentage points to 4th quarter GDP growth, rather than 2.00 percentage points previously reported.

Business investment accelerated to a 2.4 percent annual rate in the 4th quarter, reflecting increases in intellectual property products, structures, and equipment. Expenditures on structures, which are tied to the oil and gas sector and commercial real estate, was revised up to a 10.9 percent pace. Business outlays on equipment declined 1.1 percent rather than the 1.7 percent previously reported. Spending on intellectual property products was revised up to 4.3 percent. Nonresidential fixed investment contributed 0.50 percentage point to 4th quarter GDP.

The estimated change in businesses inventory levels was lowered for the last three months of 2023. Business inventories increased at a rate of \$54.9 billion rate, down from the previously estimated \$66.3 billion pace. The change in private inventories subtracted 0.47 percentage point from GDP in the 4th quarter of 2023, rather than -0.27 percentage point as previously reported.

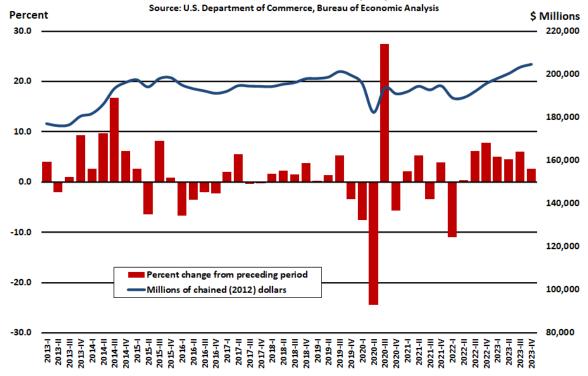
Investment in housing increased again in the 4th quarter, following nine consecutive quarters of contraction, weakened by higher mortgage rates. Residential investment, a gauge of homebuilding, increased 2.8 percent in the 4th quarter, following a 6.7 percent gain in the previous quarter. Residential fixed investment added 0.11 percentage point to 4th quarter GDP.

A narrower trade gap also contributed to 4th quarter GDP growth. Exports, which add to GDP jumped to a 6.4 percent rate while imports, which subtract, increased 2.7 percent. The narrowing trade gap added 0.32 percentage points to 4th quarter GDP.

State and local government spending rose in the 4th quarter, reflecting increases in compensation of state and local government employees and investment in structures. Federal government spending increased 2.4 percent in the 4th quarter, as national defense spending increased 0.5 percent, while nondefense spending rose 4.8 percent. Consumption outlays by state and local governments increased 6.0 percent in the 4th quarter. Government consumption expenditures and investment added 0.79 percentage point to 4th quarter GDP.

Oklahoma Real Gross Domestic Product and Quarterly Change

1st Quarter 2013 to 4th Quarter 2023, Seasonally Adjusted Annual Rates



Definition & Importance

The U.S. Bureau of Economic Analysis (BEA) recently began producing statistics of quarterly gross domestic product (GDP) by state dating back to 2005. These new statistics provide a more complete picture of economic growth across states that can be used with other regional data to gain a better understanding of regional economies as they evolve from quarter to quarter. The new data provide a fuller description of the accelerations, decelerations, and turning points in economic growth at the state level, including key information about changes in the distribution of industrial infrastructure across states.

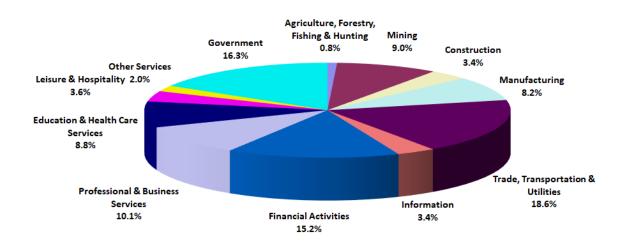
Current Developments

Real gross domestic product (GDP) by state—a measure of nationwide growth calculated as the sum of GDP of all states and the District of Columbia—increased in all 50 states and the District of Columbia in the 4th quarter of 2023, with the percent change ranging from 6.7 percent in Nevada to 0.2 percent in Nebraska, according to the U.S. Bureau of Economic Analysis (BEA). Current-dollar GDP increased in 49 states and the District of Columbia. For the year 2023, real, or inflation-adjusted, GDP also increased in 49 states and the District of Columbia.

Oklahoma's real GDP decelerated to a 2.6 percent rate in the 4th quarter of 2023, following a 6.0 percent pace in the 3rd quarter, ranking Oklahoma 37th among all other states and the District of Columbia. Statewide GDP was at a level of \$204.7 billion (in constant 2012 dollars) in the 4th quarter, up \$1.4 billion from the 3rd quarter level of \$203.3 billion.

Industry Share of Oklahoma's Economy, 4th Quarter 2023

(by percentage of Gross Domestic Product)
Source: U.S. Department of Commerce, Bureau of Economic Analysis



In the 4th quarter of 2023, real GDP for the nation grew at an annual rate of 3.4 percent. Real GDP increased in 18 of the 23 industry groups for which BEA prepares quarterly state estimates. Nondurable-goods manufacturing, retail trade, and durable-goods manufacturing were the leading contributors to growth in real GDP nationally in the 4th quarter.

Construction, which increased in 45 states and the District of Columbia, was the leading contributor to growth in 3 states including Nevada, the state with the largest increase in real GDP. In Oklahoma, construction was the second-leading contributor to 4th quarter GDP growth, adding 0.54 percentage point.

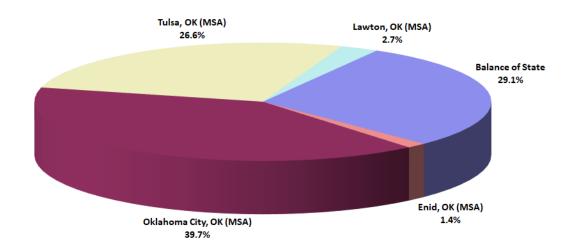
Retail trade, which increased in all 50 states and the District of Columbia, was the leading contributor to growth in 14 states including Utah, the state with the third-largest increase in real GDP. Retail trade was the leading contributor to growth in Oklahoma in the 4th quarter adding 0.69 percentage point.

Agriculture, forestry, fishing, and hunting, which increased nationally and in 32 states, was the leading contributor to growth in Idaho, the state with the second-largest increase in real GDP. In contrast, this industry was the leading offset to growth in Nebraska and Kansas, the states with the smallest increases in real GDP. Agriculture, forestry, fishing, and hunting was also the leading offset to 4th quarter GDP in Oklahoma, subtracting 1.34 percentage points from statewide GDP growth.

In Oklahoma, mining, quarrying, and oil and gas extraction was the third-leading contributor to 4th quarter GDP growth, adding 0.53 percentage point.

Metropolitan Area Contribution to State Real Gross Domestic Product 2022

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



Definition & Importance

Metropolitan Statistical Areas (MSA) are 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.

GDP by metropolitan area is the sub-state counterpart of the Nation's gross domestic product (GDP), the BEA's featured and most comprehensive measure of U.S. economic activity. GDP by metropolitan area is derived as the sum of the GDP originating in all the industries in the metropolitan area. Nationally, metropolitan statistical areas represent approximately 90 percent of total GDP. In Oklahoma, the four MSAs of Oklahoma City, Tulsa, Lawton, and Enid accounted for 72.2 percent of total state GDP in 2021.

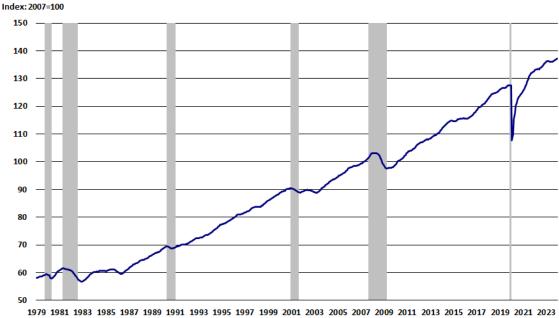
Current Developments

Real gross domestic product (GDP) increased in 285 out of 384 metropolitan areas in 2022, according to the U.S. Bureau of Economic Analysis (BEA). The percent change in real GDP by metropolitan area ranged from 10.1 percent in Kokomo, IN to -8.8 percent in Greeley, CO. Real GDP for U.S. metropolitan areas increased 2.1 percent in 2022.

In 2022, all of Oklahoma's four metropolitan areas experienced negative GDP growth. Oklahoma City MSA real GDP declined 0.6 percent in 2022 to a level of \$76.1 billion, ranking it 318th among 385 metro areas. Lawton MSA real GDP decreased 1.8 percent in 2022 to a level of \$5.2 billion, and ranked 347th among U.S. metro areas. Tulsa MSA declined 2.2 percent to \$51.0 billion and ranked 364th. Enid MSA real GDP decreased 2.4 percent to a level of \$2.7 and ranked 369th among 385 U.S. metropolitan areas in 2022.

Coincident Economic Activity Index for Oklahoma, 1979-2024

Source: Federal Reserve Bank of Philadelphia, retrieved from FRED, Federal Reserve Bank of St. Louis Index: 2007=100



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

Definition & Importance

The <u>Federal Reserve Bank of Philadelphia</u> produces leading indexes for each of the 50 states. The indexes are calculated monthly and are usually released a week after the release of the coincident indexes. The Bank issues a release each month describing the current and future economic situation of the 50 states with special coverage of the Third District: Pennsylvania, New Jersey, and Delaware.

The leading index for each state predicts the six-month growth rate of the state's coincident index. In addition to the coincident index, the models include other variables that lead the economy: state-level residential housing permits (1 to 4 units), state initial unemployment insurance claims, delivery times from the Institute for Supply Management (ISM) manufacturing survey, and the interest rate spread between the 10-year Treasury bond and the 3-month Treasury bill.

Current Developments

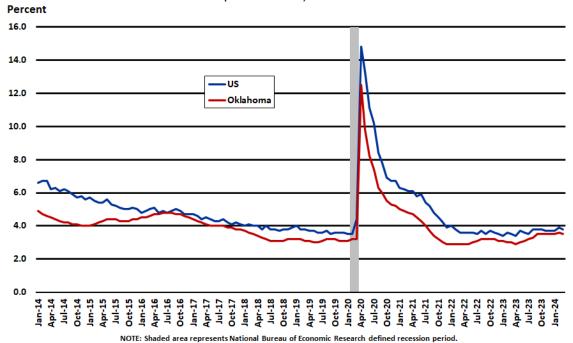
The Federal Reserve Bank of Philadelphia has released the coincident indexes for the 50 states for March 2024. Over the past three months, the indexes increased in 44 states, decreased in five states, and remained stable in one, for a three-month diffusion index of 78. Additionally, in the past month, the indexes increased in 41 states, decreased in two states, and remained stable in seven, for a one-month diffusion index of 78. For comparison purposes, the Philadelphia Fed has also developed a similar coincident index for the entire United States. The Philadelphia Fed's U.S. index increased 0.7 percent over the past three months and 0.3 percent in March.

In the three months to March, the coincident index for Oklahoma increased 0.5 percent. The level of payroll employment increased over the past three months, while the unemployment rate was unchanged. However, average hours worked in manufacturing decreased. Overall, Oklahoma's economic activity as measured by the coincident index has risen 1.1 percent over the past 12 months.

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

January 2014 to March 2024

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



Definition & Importance

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

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

Current Developments

The U.S. unemployment rate edged lower in March, as the labor force participation rate moved higher. The unemployment rate declined 0.1 percentage point to 3.8 percent in March, according to the Bureau of Labor Statistics (BLS). The unemployment rate has been in a narrow range of 3.7 percent to 3.9 percent since August 2023.

Oklahoma's seasonally adjusted unemployment rate moved down 0.1 percentage point to 3.5 percent in March 2024. Over the year, the state's seasonally adjusted unemployment rate was 0.5 percentage point higher than March 2023.

In February, McIntosh County posted Oklahoma's highest county unemployment rate of 6.7 percent. Seminole County reported the second-highest rate for the month, followed by Haskell County. Dewey County reported the lowest county unemployment rate of 2.4 percent in February. Unemployment rates in February were higher than a year earlier in 75 counties and lower in 2 counties.

U.S. and Oklahoma Nonfarm Payroll Employment (Seasonally Adjusted) Index: January 2001=100

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

125.0

120.0

115.0

110.0

Oklahoma (01/01=100)

105.0

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

Jan-20 Jul-20 Jul-20 Oct-20 Jan-21 Jul-21 Jul-22 Jul-22 Jul-23 Jul-24 Jul-26 Jul-27 Ju

Jan-14
Apr-14
Jul-14
Oct-14
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Oct-17
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Oct-19
Oct-19
Oct-19

Definition & Importance

90.0

Nonfarm payroll employment data is produced by the <u>Current Employment Statistics (CES)</u> program of the Bureau of Labor Statistics (BLS). The CES Survey is a monthly survey of approximately 145,000 businesses and government agencies representing approximately 697,000 worksites throughout the United States. 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

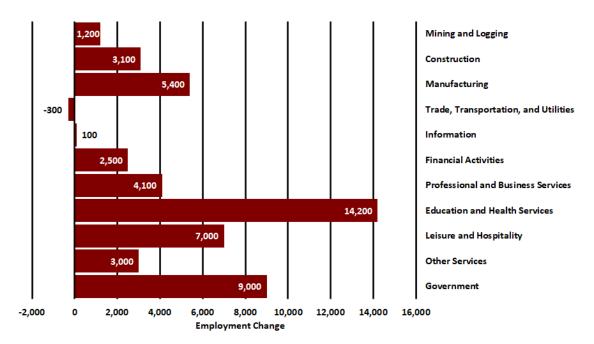
The U.S. payroll job growth surged in March, signaling the labor market remains strong. Total nonfarm payroll employment rose by 303,000 in March, higher than the average monthly gain of 231,000 over the prior 12 months, according to the Bureau of Labor Statistics (BLS). Job gains occurred in health care (72,000 jobs), government (71,000 jobs), and construction (39,000 jobs).

Oklahoma's seasonally adjusted nonfarm employment added 2,200 jobs (0.1 percent) over the month in March, to a level of 1,779,100 while the February estimate was upwardly revised to 1,776,900. In March, six of Oklahoma's supersectors added jobs, as education and health services (2,100 jobs) followed by government (1,000 jobs) reported the largest job gains over the month. Construction (-700 jobs) and mining and logging (-500 jobs) posted the largest over-the-month job losses in March.

Oklahoma Employment Change by Industry, 2022-2023

Annual Averages (Not Seasonally Adjusted)

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



Definition & Importance

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

Current Developments

Oklahoma's annual average nonfarm employment added jobs in 2023, as the pace of hiring decelerated. Total nonfarm employment added a non-seasonally adjusted 49,200 jobs (2.9 percent) in 2023. For comparison, in the previous year annual average nonfarm employment added 55,200 jobs (3.3 percent).

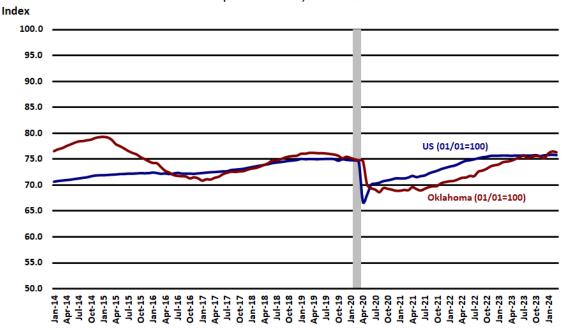
In 2023, 10 of 11 of Oklahoma's supersectors reported job gains. Education and health services saw the largest job gain adding 14,200 jobs (5.8 percent), as health care and social assistance (12,800 jobs) accounted for most of the job gains. Leisure and hospitality added 7,000 jobs (4.0 percent) and manufacturing added a non-seasonally adjusted 5,400 jobs (4.0 percent). Other sectors adding jobs in 2023 were professional and business services (4,100 jobs), construction (3,100 jobs), other services (3,000 jobs), financial activities (2,500 jobs), mining and logging (1,200 jobs), and information (100 jobs). Trade, transportation and utilities (-300 jobs) was the only declining sector in 2023.

Government employment added 9,000 jobs (0.9 percent) over the year in 2023, as local government (5,800 jobs) accounted for most of the job gains.

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

Index: January 2001 = 100

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



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

Definition & Importance

Manufacturing employment data is also produced by the Bureau of Labor Statistics' Current Employment Statistics (CES) program. Manufacturing and production are still important parts of both the U.S. and Oklahoma economies. According to the <u>2020 County Business Patterns</u>, the manufacturing sector was the 5th-largest employer, employing 12.0 million workers in the United States—and the top 10 average annual employee payroll at \$61,520. In Oklahoma, manufacturing accounts for one of the largest shares of private output and employment in the state. In addition, many manufacturing jobs are among the highest paying jobs in the state. In order to account for the size disparity between the U.S. and Oklahoma employment levels, we have indexed the data with January 2001 as the starting value.

Current Developments

U.S. manufacturing employment was flat in March, as layoffs by companies has reduced factory headcount. Manufacturing employment held steady at 12,956,000 in March, according to the Bureau of Labor Statistics. Employment in manufacturing has shown little net change over the year.

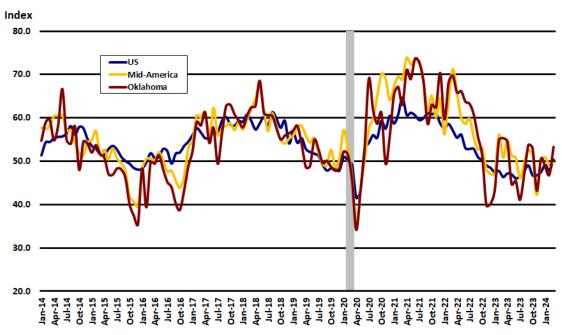
Oklahoma manufacturing employment added a seasonally adjusted 100 jobs (0.1 percent) over the month in March to a level of 141,200. In March, durable goods manufacturing employment added 200 jobs, while non-durable goods manufacturing employment shed 100 jobs over the month.

Over the year, statewide manufacturing employment picked up a seasonally adjusted 3,100 jobs (2.2 percent) compared to March 2023, as durable goods manufacturing gained 3,400 jobs (3.7 percent), while non-durable goods manufacturing employment declined by 300 jobs (-0.6 percent) over the year.

Purchasing Managers' Index (Manufacturing)

January 2014 to March 2024

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



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

Definition & Importance

Economists consider the Institute for Supply Management's Purchasing Managers' Index (PMI™) a key economic indicator. The Institute for Supply Management (ISM®) surveys more than 300 manufacturing firms on employment, production, new orders, supplier deliveries, and inventories. The ISM® manufacturing index is constructed so that any level at 50 or above signifies growth in the manufacturing sector, which accounts for about 12 percent of the U.S. economy. A level above 43 or so, but below 50, indicates that the U.S. economy is still growing even though the manufacturing sector is contracting. Any level below 43 indicates that the economy is in recession.

For the region, since 1994, the Creighton Economic Forecasting Group at Creighton University has conducted a monthly survey of supply managers in nine states (including Arkansas, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, and South Dakota), to produce leading economic indicators for the Mid-America economy using the same methodology as the national survey by the ISM®.

Current Developments

U.S. manufacturing activity expanded for the first time in 1 1/2 years in March, as production rebounded sharply and new orders increased. The Manufacturing PMI® registered 50.3 percent in March, up 2.5 percentage points from the 47.8 percent recorded in February, and the highest and first reading above 50 since September 2022, according to the latest Manufacturing ISM® Report On Business®.

The ISM survey's forward-looking new orders sub-index increased to 51.4 last month from 49.2 in February. The survey's measure of manufacturing employment increased to 47.4 from 45.9 in February, still below growth neutral as sizeable layoff activity continued. Output at factories rebounded, with the production sub-index surging to 54.6 from 48.4 in the prior month. Inflation at the factory gate picked up in March, as the survey's measure of prices paid by manufacturers rose to 55.8 from 52.5 in February. The survey's measure of supplier deliveries slipped to 49.9 from 50.1 in the prior month. A reading above 50 indicates slower deliveries.

After climbing above growth neutral for December and January, the Creighton University Mid-America Business Conditions Index, a leading economic indicator for the nine-state region stretching from Minnesota to Arkansas, slumped below the 50.0 growth neutral threshold for February and March. The Business Conditions Index, which uses the identical methodology as the national Institute for Supply Management (ISM) and ranges between 0 and 100 with 50.0 representing growth neutral, increased to 49.6 from 49.1 in February.

"The overall index, much like the U.S. reading, has hovered around growth neutral for last three months. Additionally, supply managers remained pessimistic regarding the 2024 outlook with approximately 68 percent expecting a 2024 economic recession," said Ernie Goss, Ph.D., director of Creighton University's Economic Forecasting Group and the Jack A. MacAllister Chair in Regional Economics in the Heider College of Business.

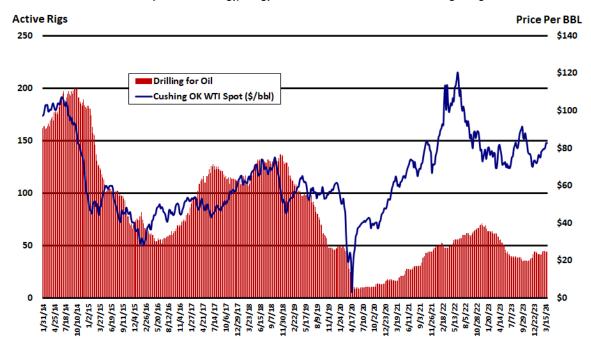
Oklahoma's Business Conditions Index expanded to a solid 53.3 from February's 46.9. Components of the overall March index were: new orders at 48.6; production or sales at 51.3; delivery lead time at 55.4; inventories at 60.3; and employment at 50.7.

"According to the latest month's U.S. Bureau of Labor Statistics data, there were 1.7 job openings for every unemployed worker in the state. This is down from 2.5 openings for each unemployed worker recorded 12 months earlier," noted Goss.

Oklahoma Active Rotary Rigs & Cushing, OK WTI Spot Price

January 2014 to March 2024

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.

The benchmark price in the domestic spot market for the U.S. crude oil known as West Texas Intermediate (WTI-Cushing) is set at Cushing, Oklahoma, which is home to about 14 percent of the nation's commercial crude oil storage capacity. Rig counts typically follow changes in the WTI price with about a four-month lag.

Background

The discovery of oil transformed Oklahoma's economy. By the time Oklahoma became a state in 1907, it was the largest oil producer in the nation. Excluding federal offshore areas, Oklahoma was the 6th-largest crude oil producer among the states in 2023, accounting for over 4 percent of the nation's crude oil production (at 419,000 barrels per day). Crude oil wells and gathering pipeline systems are concentrated in central Oklahoma. The state's largest producing field, and the 11th largest in the United States, the Sho-Vel-Tum field, in eastern Stephens and western Carter Counties has continuously produced crude oil since its discovery in 1905.

The city of Cushing, in central Oklahoma, is home to about 14 percent of the nation's commercial crude oil storage capacity and 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. As of January 2022, those refineries had a combined distillation capacity of more than 524,000 barrels per day—roughly 3 percent of the total U.S. refining capacity.

Current Developments

In the March <u>Short-Term Energy Outlook</u> (STEO), the U.S. Energy Information Administration (EIA) increased their forecast prices for crude oil and petroleum products for the remainder of 2024 following the announcement that OPEC+ will extend the existing voluntary production cuts through the 2nd quarter of 2024. EIA now forecasts significantly less global oil production than world oil consumption through the first half of 2024, requiring draws on world petroleum stocks (inventory). Stock draws tend to increase oil prices.

Because of falling inventories, EIA now expects that international benchmark Brent crude oil spot price will average \$88 per barrel (bbl) in 2nd quarter 2024, up \$4/bbl from the February STEO. EIA expects the Brent crude price will average \$87/bbl this year.

Crude production in Oklahoma decreased over the month in January—the most recently reported monthly data point. Statewide field production of crude oil was at a preliminary level of 12,063,000 bbl in January, down 937,000 bbl (-7.2 percent) from the December level of 13,000,000 bbl, according to data reported by the EIA. Compared to a year ago, Oklahoma crude production was down 1,324,000 bbl (-9.9 percent) from the January 2023 production level of 13,387,000 bbl. For 2023, statewide crude production was at a level of 157,239,000 bbl, up 5,702,000 bbl (3.8 percent) from the 2022 production level of 151,537,000 bbl.

West Texas Intermediate (WTI-Cushing) crude oil for delivery at Cushing, Oklahoma, averaged \$81.28/bbl in March, up \$4.03/bbl from February's average of \$77.25/bbl.

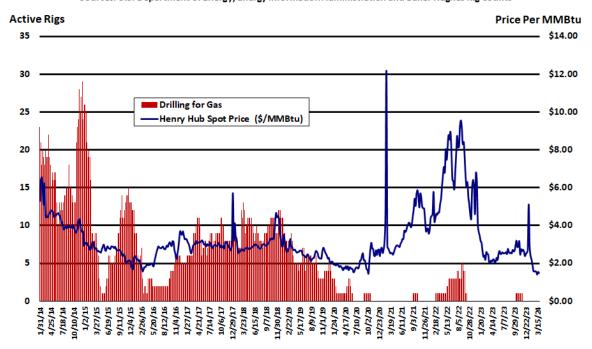
The U.S. oil-directed rig count shed 3 rigs to 506 over the week ending March 28, 2024, according to oil field services company Baker Hughes. Compared to a year ago, the nation's total rig count was 86 less than 592 rigs reported on March 31, 2023.

For the week ending March 28, 2024, Oklahoma's total active rig count held steady at a level of 44, according to Baker Hughes. Oil-directed rigs accounted for 100 percent of total rig activity in December. Over the year, Oklahoma's active rig count was down 15 from 59 active rigs reported operating on March 31, 2023.

Oklahoma Active Rotary Rigs & Henry Hub Natural Gas Spot Price

January 2014 to March 2024

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's proved natural gas reserves and marketed production were the 5th-largest in the nation in 2022. The state has 8 percent of the nation's total proved reserves and contains all or part of 14 of the 100 largest U.S. natural gas fields, as measured by proved reserves. Annual natural gas production was at an all-time high of almost 3.2 trillion cubic feet in 2019. The state has 8 percent of the nation's total proved reserves and contains all or part of 14 of the 100 largest U.S. natural gas fields, as measured by proved reserves. In 2022, Oklahoma was the nation's 5th-largest producer of marketed natural gas. Statewide annual natural gas production was at an all-time high of more than 3.0 trillion cubic feet in 2019.

In 2022, Oklahoma was the nation's 6th-largest consumer of natural gas on a per capita basis. The electric power sector and the industrial sector together use slightly more than four-fifths of the natural gas delivered to consumers in Oklahoma, and the residential and commercial sectors consume almost all the rest.

Current Developments

In the March <u>Natural Gas Monthly</u> report, the U.S. Energy Information Administration (EIA) noted that in 2023, 89.1 billion cubic feet per day (Bcf/d) of natural gas was consumed in the United States—the most on record. Since 2018, U.S. natural gas consumption has increased by an average of 4 percent annually. Monthly natural gas consumption set new records every month from March 2023 through November 2023. U.S. natural gas consumption has risen in the electric power sector as coal-fired electric-generating capacity has declined.

Oklahoma natural gas production was down over the month in January. Statewide natural gas gross withdrawals were at a preliminary level of 226,254 million cubic feet (MMcf) in January, down 9,287 MMcf (-3.9 percent) from the previous month's level of 235,541 MMcf. Over the year, statewide natural gas production was down 15,183 MMcf (-6.3 percent) from the January 2023 level of 241,437 MMcf.

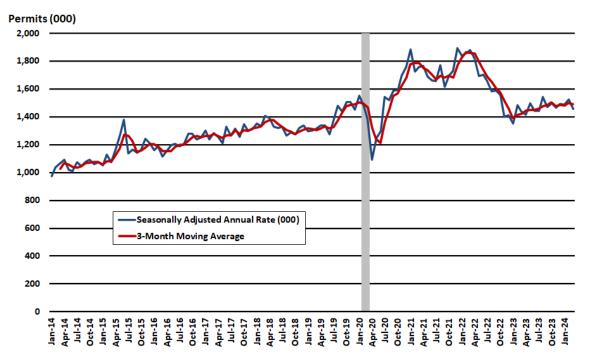
The Henry Hub spot price averaged \$1.49/MMBtu in March, a record low adjusted for inflation, down from \$1.72/MMBtu in February. EIA expects the Henry Hub spot price to remain below \$2.00 per million British thermal units (MMBtu) in 2Q24 as the winter heating season ends with natural gas inventories 37 percent above the five-year average.

For the week ending on March 28, 2024, <u>Baker Hughes Company</u> reported 112 active natural gas-directed rigs in the United States, unchanged from the previous week. The natural gas-directed rig count fluctuated between 150 rigs and 162 rigs for the first four months of 2023 and then began to decline in May, falling to a low of 113 rigs on September 8.

Oklahoma drillers reported no active natural gas-directed rigs for the week ending March 28, 2024, unchanged over the month, according to Baker Hughes.

U.S. New Private Housing Units Authorized by Building Permit

January 2014 to March 2024, Seasonally Adjusted
Source: U.S. Census Bureau and Department of Housing and Urban Development



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

Definition & Importance

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

While home construction represents a small portion of the housing market, it has an outsize impact on the economy. Each home built creates an average of three jobs for a year and about \$130,000 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

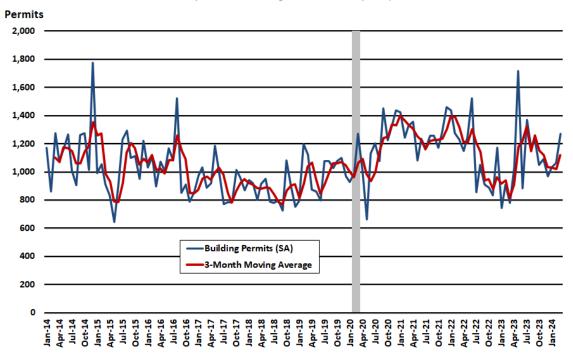
U.S. building permits, a sign of future construction, fell to an eight-month low in March, as homebuilder confidence came in flat in April amid rising mortgage rates. Privately-owned housing units authorized by building permits in March were at a seasonally adjusted annual rate of 1,458,000, 4.3 percent below the revised February rate of 1,523,000, but 1.5 percent above the March 2023 rate of 1,437,000, according to the U.S. Census Bureau and the U.S. Department of Housing and Urban Development. An estimated 1,469,800 housing units were authorized by building permits in 2023, 11.7 percent below the 2022 level of 1,665,100.

Single-family permits, which account for the bulk of homebuilding, dropped 5.7 percent to a seasonally adjusted pace of 973,000 units in March. Permits for multi-family housing projects was unchanged at a rate of 433,000 units.

Oklahoma New Private Housing Units Authorized by Building Permit

January 2014 to March 2024, Seasonally Adjusted

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



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

Definition & Importance

The data services of the Federal Reserve Bank of St. Louis produce a seasonally adjusted series including monthly state level data on the number of new housing units authorized by building permits. These adjustments are made using the X-12 Procedure of SAS to remove the seasonal component of the series so that non-seasonal trends can be analyzed. This procedure is based on the U.S. Bureau of the Census X-12-ARIMA Seasonal Adjustment Program.

Current Developments

Statewide residential permitting climbed to the highest level in eight months in March, boosted by a surge of apartment permits. Total residential permitting in March was at a seasonally adjusted level of 1,269, up 206 (19.4 percent) from the February level of 1,063, and up 491 (63.0 percent) from the March 2023 level of 779 permits, according to figures from the U.S. Census Bureau and the Federal Reserve Bank of St. Louis.

In March, permitting for single family homes was at a seasonally adjusted level of 815 units, down 83 (-9.3 percent), from a level of 898 in the previous month. Multi-family permitting was at a seasonally adjusted level of 454 in March, up 290 from the previous month's level of 165. Single-family permitting accounted for 64.2 percent of total residential permitting activity in March while the more volatile multi-family permitting accounted for 35.8 percent.

Statewide residential construction declined in 2023. Total residential permitting for 2023 was at a seasonally adjusted level of 12,955 permits, 607 fewer permits (-4.5 percent) less than the 13,562 total permits issued during 2022.

U.S. and Oklahoma Real Personal Income, Q1/13 to Q4/23 Index: 1st Quarter 2000 = 100

Index

190.0

180.0

170.0

150.0

120.0

100.0

100.0

100.0

100.0

100.0

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

Definition & Importance

Personal income is a broad measure of economic activity and one for which relatively current data are available. Personal income includes earnings, property income such as dividends, interest, and rent and transfer payments, such as retirement, unemployment insurance, and various other benefit payments. It is a measure of income that is available for spending and is seen as an indicator of the economic well-being of the residents of a state. Earnings and wages make up the largest portion of personal income.

To show the vastly different levels of total personal income for the U.S. and Oklahoma on the same chart, these data have been converted to index numbers. This chart shows a comparison of Oklahoma and U.S. growth in real personal income with 1st quarter 2000 as the base year.

Current Developments

Consumer spending jumped in February, but much of the spending was funded from savings as income rose modestly, while prices moderated. Personal income increased \$66.5 billion (0.3 percent at a monthly rate) in February, according to estimates by the Bureau of Economic Analysis (BEA). Disposable personal income (DPI), personal income less personal current taxes, increased \$50.3 billion (0.2 percent) and personal consumption expenditures (PCE) increased \$145.5 billion (0.8 percent). The PCE price index increased 0.3 percent. Excluding food and energy, the PCE price index increased 0.3 percent.

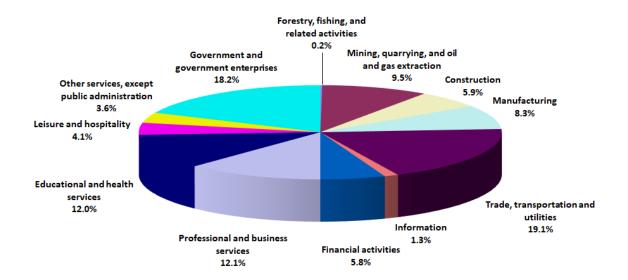
In February, spending on services increased 0.9 percent, driven by spending on financial services and insurance; transportation services; and housing and utilities. Outlays on goods rose 0.5 percent as purchases of durable goods, such as motor vehicles and parts, climbed 1.4 percent, while non-durable goods spending, such as prescription drugs and gasoline increased 0.1 percent.

The personal savings rate—personal saving as a percentage of disposable personal income—was slightly higher at 3.6 percent in February, down from a revised 4.1 percent rate in the previous month.

Oklahoma Nonfarm Industry Contribution to Earnings

4th Quarter 2023

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



Definition & Importance

Quarterly estimates of state personal income are seasonally adjusted at annual rates by the Bureau of Economic Analysis (BEA). Quarterly personal income estimates are revised on a regular schedule to reflect more complete information than the data that were available when the estimates were initially prepared and to incorporate updated seasonal factors.

Current Developments

State personal income—a measure of nationwide income calculated as the sum of personal income of all states and the District of Columbia—increased in all 50 states and the District of Columbia in the 4th quarter of 2023, with the percent change ranging from 6.7 percent in Nevada to 0.8 percent in Iowa and North Dakota, according to estimates by the U.S. Bureau of Economic Analysis (BEA).

Oklahoma's personal income decelerated to a 4.6 percent rate in the 4th quarter of 2023, to a level of \$240.3 billion, ranking the state 34th among all states. For the 3rd quarter of 2023, Oklahoma's personal income was little changed at \$238.19 billion (4.2 percent) from the previous estimate of \$238.18 billion (4.3 percent).

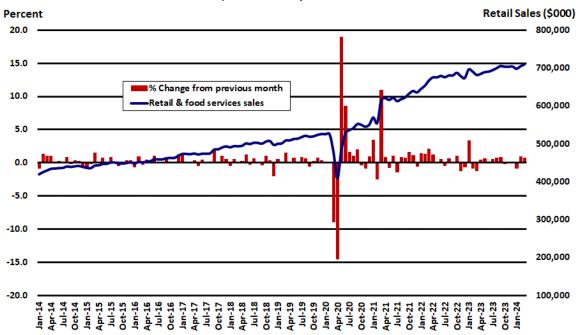
Earnings increased in 48 states and the District of Columbia, while growing 4.6 percent nationally. The percent change in earnings ranged from 8.5 percent in Nevada to -0.8 percent in North Dakota. Earnings was the leading contributor to growth in personal income in 46 states and the District of Columbia. In Oklahoma, earnings increased 4.7 percent in the 4th quarter of 2023.

Earnings increased in 20 of the 24 industries for which BEA prepares quarterly estimates. Construction earnings increased in 48 states and the District of Columbia. This industry was the leading contributor to growth in personal income in Nevada and Idaho, the states with the largest and third-largest increases in personal income. In Oklahoma, construction was also the leading contributor to the overall growth in earnings (0.63 percentage point) in the 4th quarter of 2023.

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

January 2014 to March 2024

Source: U.S. Census Bureau, Advance Monthly Sales for Retail Trade 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

Americans boosted their spending for the second straight month in March, as a strong jobs market and rising wages have fueled household spending. Advance estimates of U.S. retail and food services sales for March 2024, adjusted for seasonal variation and holiday and trading-day differences, but not for price changes, were \$709.6 billion, up 0.7 percent from the previous month, and up 4.0 percent above March 2023, according to the U.S. Census Bureau. Total sales for the January 2024 through March 2024 period were up 2.1 percent from the same period a year ago. The January 2024 to February 2024 percent change was revised from up 0.6 percent to up 0.9 percent.

Sales at motor dealerships dropped 0.7 percent in March, following a 2.5 percent gain in the previous month. Receipts at gas stations climbed 2.1 percent over the month on higher pump prices. Excluding sales from gas stations and auto dealers, sales rose 1.0 percent in March.

Sales at general merchandise stores rose 1.1 percent, while online sales jumped 2.7 percent. Sales at building materials & garden suppliers rose 0.7 percent, and health & personal care stores had a 0.4 percent increase. Spending at restaurants (0.4 percent) suggested that spending at services remains strong.

The less volatile "core" or retail-control group sales which are used to calculate gross domestic product, and strips out automobiles, gasoline, building materials, and food services sales increased 1.1 percent in Mach, following a revised 0.3 percent gain in the previous month.

Oklahoma Total Adjusted Retail Trade

January 2012 to August 2022

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



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

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

NOTE: As of August 2022, the Center for Economic and Management Research (CEMR) Price College of Business, at the University of Oklahoma discontinued publication of the Oklahoma Business Bulletin and the Oklahoma Monthly Retail Sales Series. We are currently exploring options for replacing this dataset.

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