

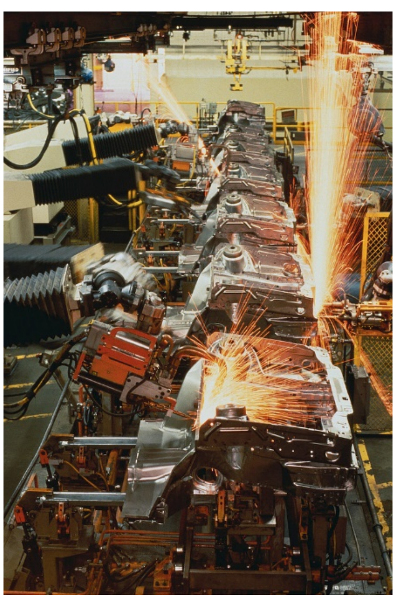


# OKLAHOMA
# Economic Indicators

## February 2024

# OKLAHOMA
# ECONOMIC INDICATORS

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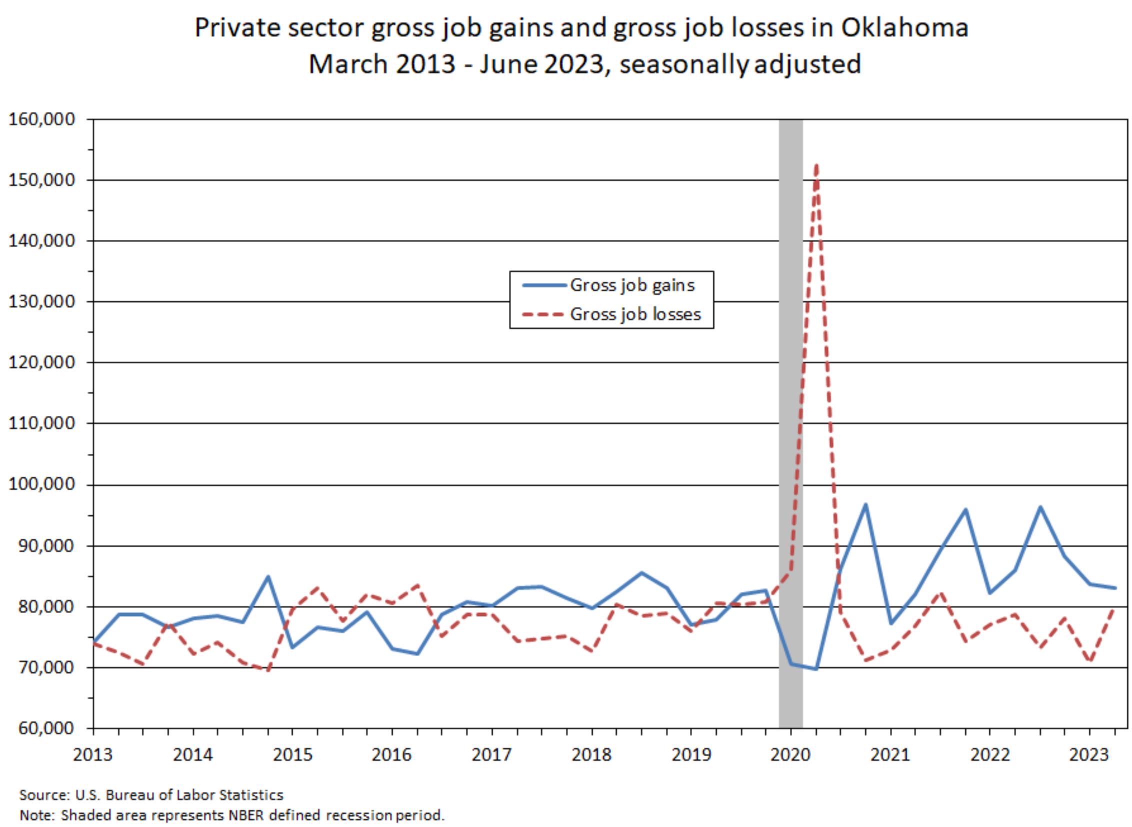
## SPECIAL REPORT:

## OKLAHOMA BUSINESS EMPLOYMENT DYNAMICS: 2nd Quarter 2023

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

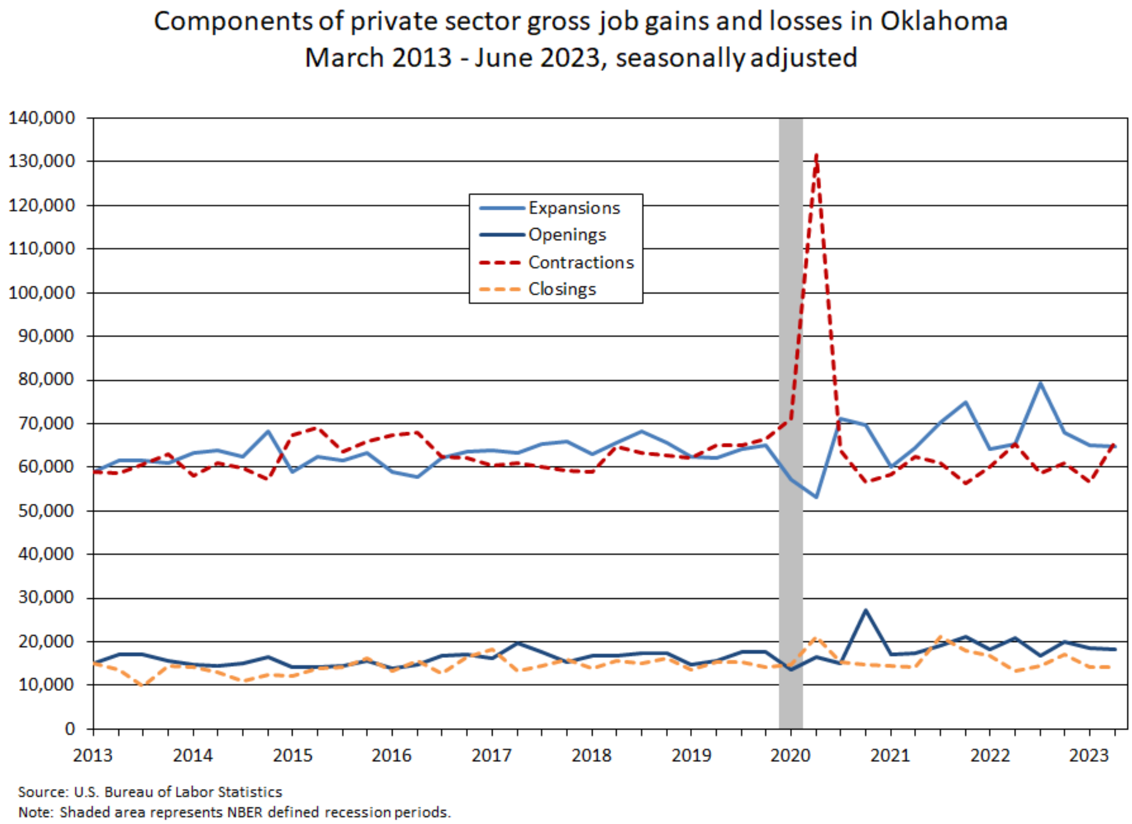
From December 2022 to March 2023, gross job gains from opening and expanding private-sector establishments in Oklahoma totaled 83,640, a decrease of 4,517 jobs from the previous quarter. Over this period, gross job losses from closing and contracting private-sector establishments were 70,808, a decrease 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**




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**




## 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).

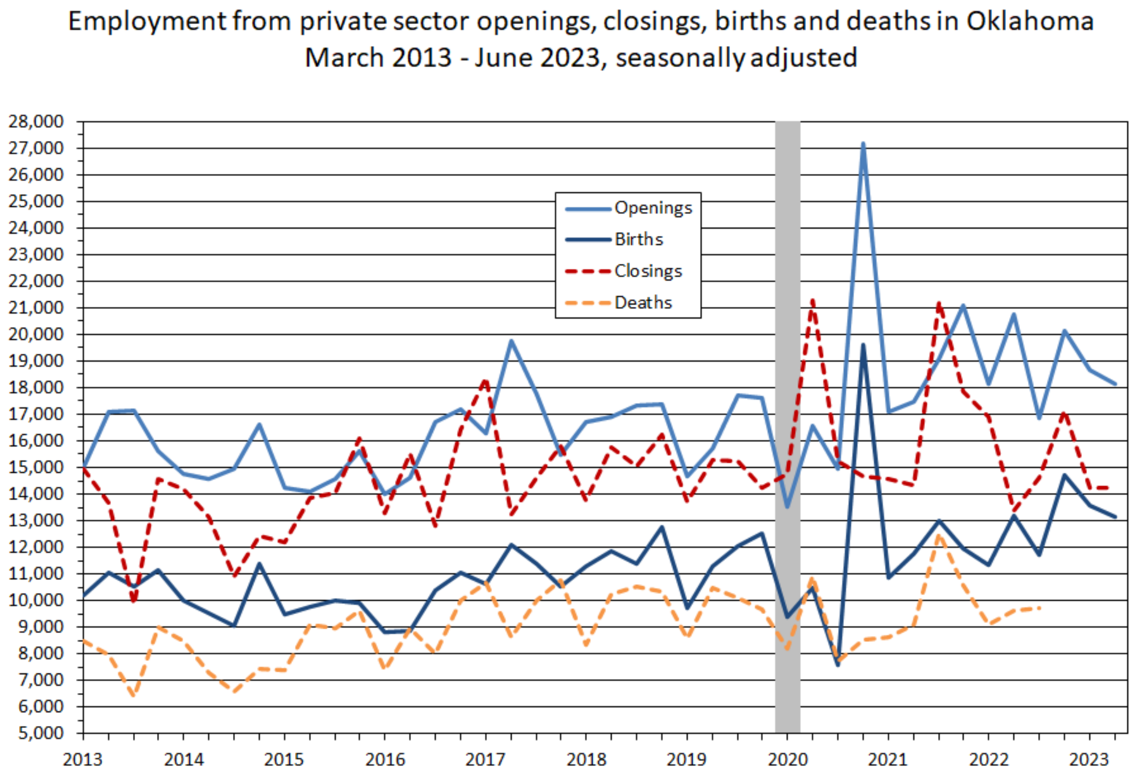
Gross job losses are the result of contractions in employment at existing establishments and the loss of jobs at closing establishments. Contracting establishments in Oklahoma lost 56,589 jobs in the 1st quarter of 2023, a decrease of 4,317 jobs from the prior quarter. In the 1st quarter, closing establishments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



Source: U.S. Bureau of Labor Statistics
Note: Shaded area represents NBER defined recession periods.

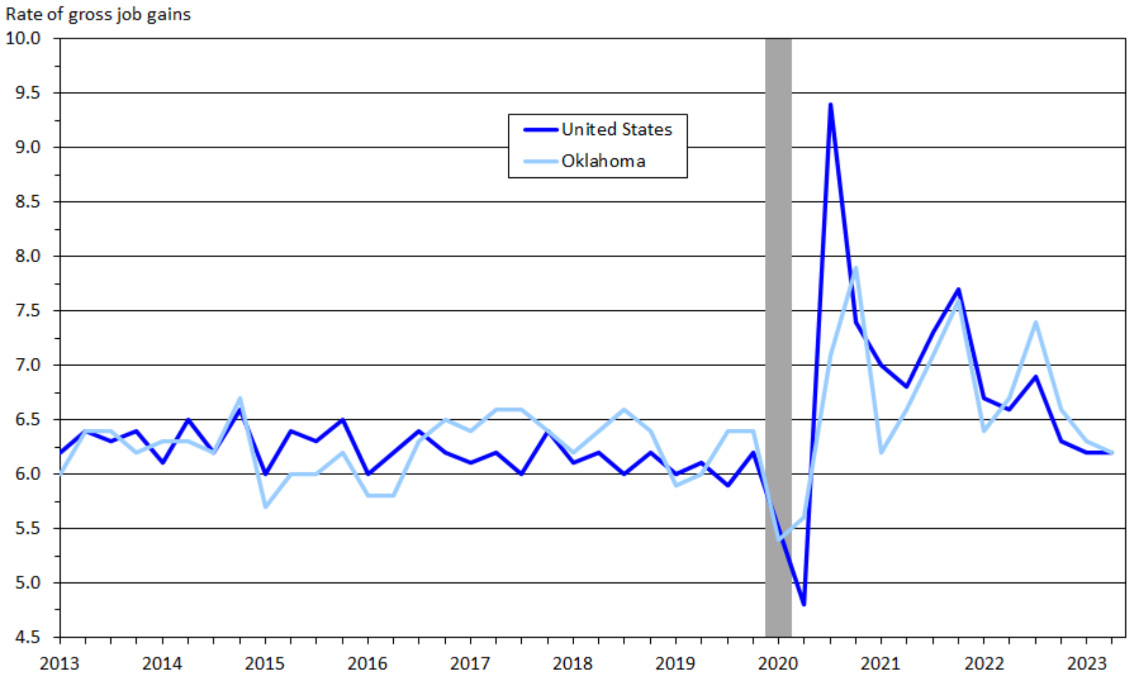
## Gross Job Gains and Gross Job Losses: Percent of Total Private Sector Employment

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

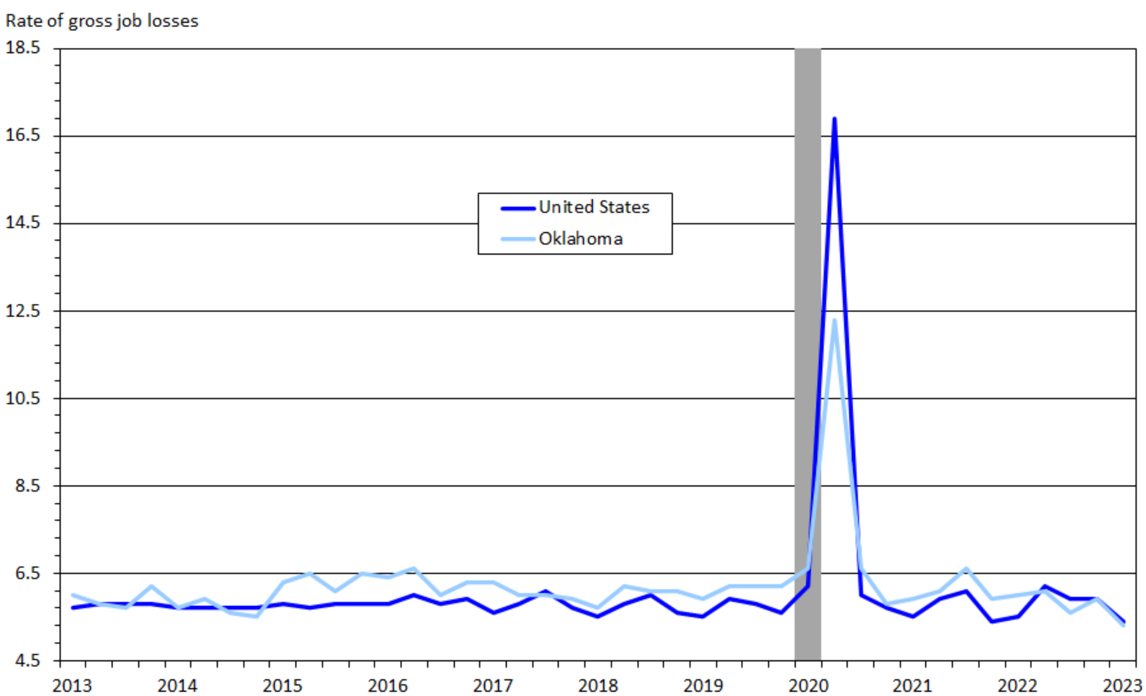
Private sector gross job gains as a percent of employment, United States and Oklahoma
March 2013 - June 2023, seasonally adjusted




Source: U.S. Bureau of Labor Statistics
Note: Shaded area represents NBER defined recession periods.

## Chart 5

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




Source: U.S. Bureau of Labor Statistics
Note: Shaded area represents NBER defined recession periods.

| Table 1. Oklahoma: Three-month private sector gross job gains and losses, seasonally adjusted | | | | | |
|---|---|---|---|---|---|
| Category | 3 months ended | | | | |
| | June 2022 | Sep 2022 | Dec 2022 | March 2023 | June 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 |

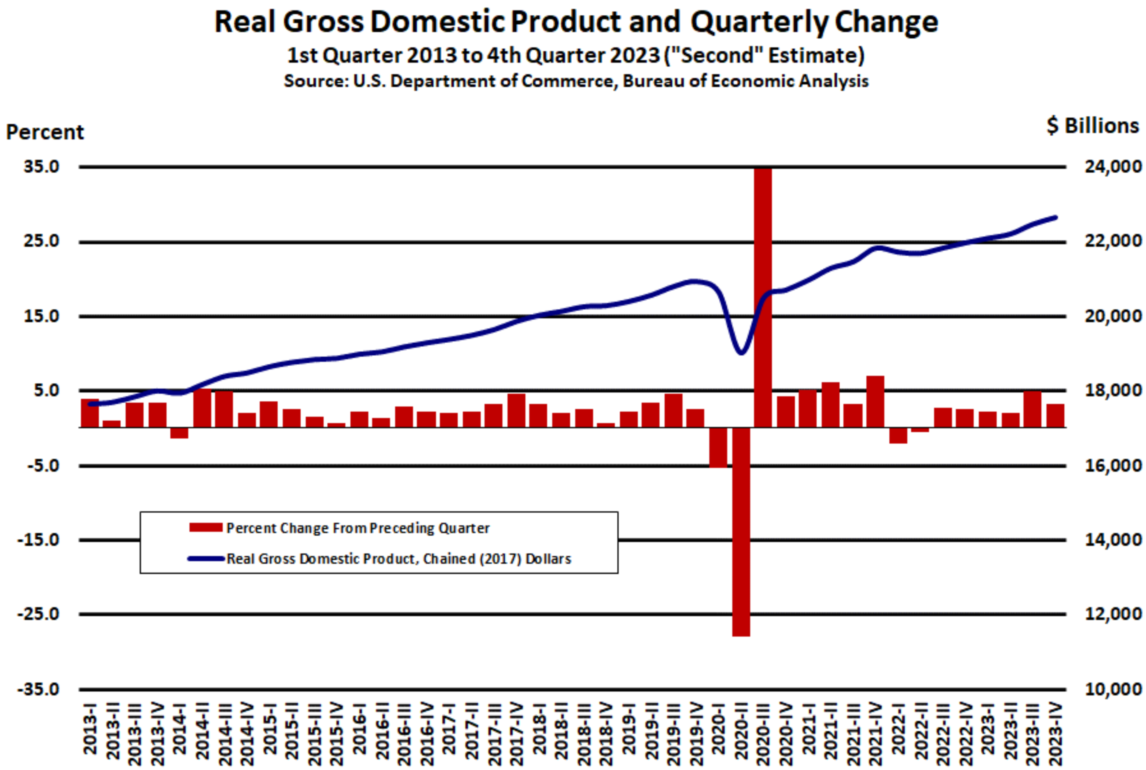
Source: U.S Bureau of Labor Statistics

[1]Net 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: [Business Employment Dynamics-2nd Quarter 2023 (oklahoma.gov)]

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




## 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 at a robust pace from October through December, driven by healthy consumer spending. Real gross domestic product (GDP) increased at an annual rate of 3.2 percent in the 4th quarter of 2023, according to the "second" 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 3.0 percent in the 4th quarter, up from the previous estimate of 2.8 percent. Spending on durable goods, such as recreational goods and vehicles, climbed 3.2 percent. Outlays on services, such as food services and accommodations as well as health care, increased 2.8 percent. Spending on nondurable goods, such as prescription drugs, was up to 3.3 percent. Personal consumption expenditures (PCE) added 2.00 percentage points to 4th quarter GDP growth.

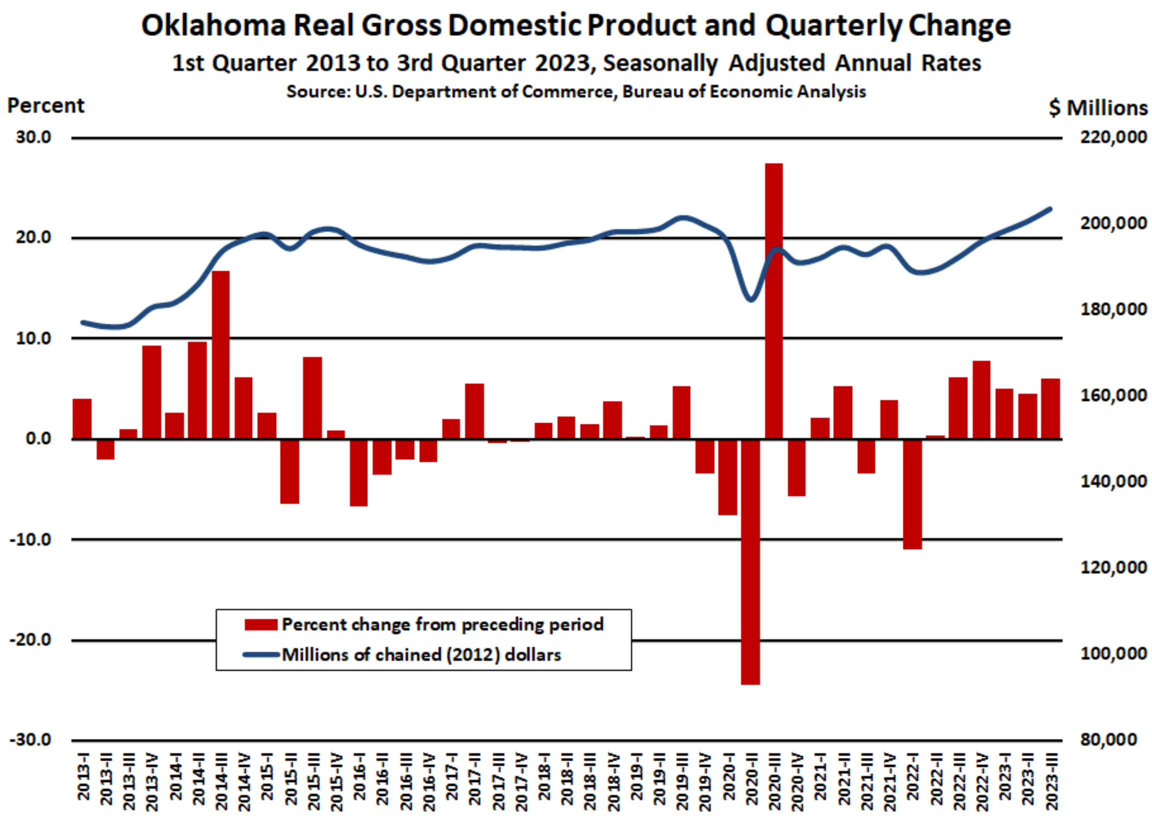
Business investment accelerated to a 2.4 percent annual rate in the 4th quarter, reflecting increases in intellectual property products, structures, and equipment. Expenditures on structures, which are tied to the oil and gas sector and commercial real estate, grew at a 7.5 percent pace. Business outlays on equipment declined 1.7 percent rather than increasing 1.0 percent previously reported. Spending on intellectual property products increased 3.3 percent. Nonresidential fixed investment contributed 0.32 percentage point to 4th quarter GDP.

The change in businesses inventory levels remained at a healthy pace in the last three months of 2023. Business inventories increased at a rate of $66.3 billion in the 4th quarter, down from $82.7 billion reported earlier. The change in private inventories subtracted 0.27 percentage point from GDP in the 4th quarter of 2023 rather than contributing 0.07 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 2.9 percent in the 4th quarter, following a 6.7 percent bounce 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 2.3 percent in the 4th quarter, as national defense spending increased 0.4 percent, while nondefense spending rose 4.7 percent. Consumption outlays by state and local governments increased 5.4 percent in the 4th quarter. Government consumption expenditures and investment added 0.73 percentage point to 4th quarter GDP, up from 0.56 percentage points reported earlier.




**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**

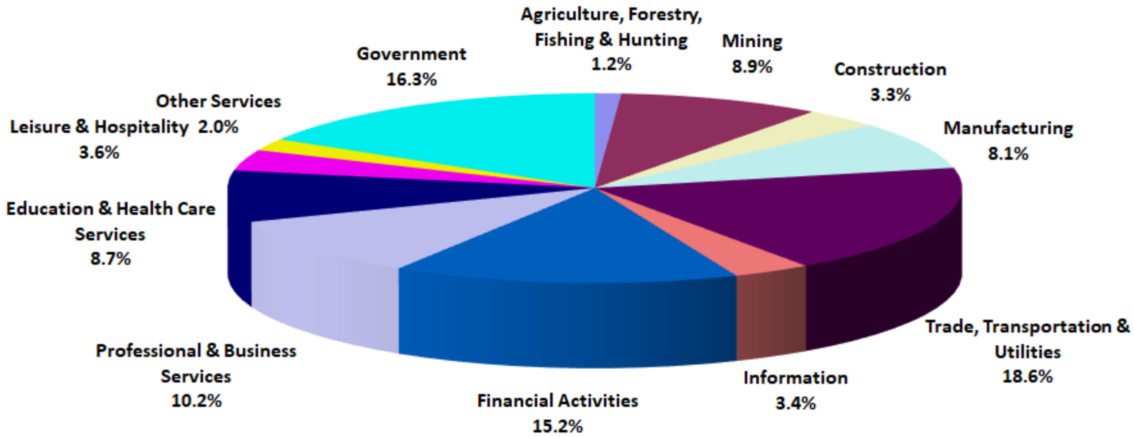
Real gross domestic product (GDP) by state—a measure of nationwide growth calculated as the sum of GDP of all states and the District of Columbia—increased in all 50 states and the District of Columbia in the 3rd quarter of 2023, with the percent change ranging from 9.7 percent in Kansas to 0.7 percent in Arkansas, according to statistics released today by the U.S. Bureau of Economic Analysis (BEA). Current-dollar GDP increased in all 50 states and the District of Columbia in the 3rd quarter, with the percent change ranging from 12.8 percent in Texas to 4.1 percent in Arkansas.

Oklahoma's real GDP accelerated to a 6.0 percent rate in the 3rd quarter of 2023, following a 4.5 percent pace in the 2nd quarter, ranking Oklahoma 9th among all other states and the District of Columbia. Statewide GDP was at a level of $203.3 billion (in constant 2012 dollars) in the 3rd quarter, up $2.9 billion from the 2nd quarter level of $200.4 billion.

## Industry Share of Oklahoma's Economy, 3rd Quarter 2023

**(by percentage of Gross Domestic Product)**

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




In the 3rd quarter of 2023, real GDP for the nation grew at an annual rate of 4.9 percent. Real GDP also increased in 15 of the 23 industry groups for which BEA prepares quarterly state estimates. Retail trade; information; and nondurable goods manufacturing were the leading contributors to the increase in real GDP nationally in the 3rd quarter.

Agriculture, forestry, fishing, and hunting, which decreased nationally and in 33 states, was the leading contributor to growth in Kansas and Nebraska, the states with the largest and third-largest increases in real GDP. In contrast, this industry was the leading offset to growth in Arkansas and Mississippi, the states with the smallest increases in real GDP. In Oklahoma, agriculture, forestry, fishing, and hunting was the second-leading contributor to 3rd quarter GDP growth, adding 1.18 percentage points.

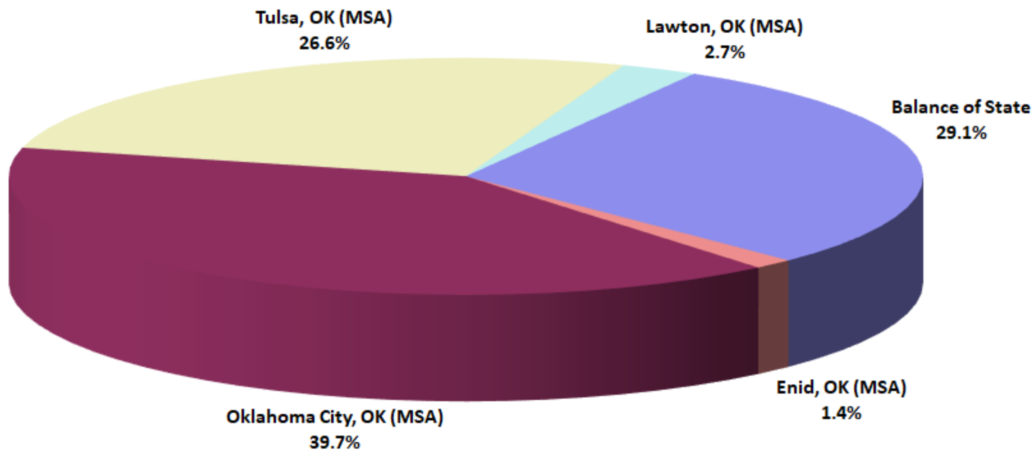
Retail trade was the leading contributor to growth in 39 states, including Texas and Idaho, the states with the second- and fourth-largest increases in real GDP. Retail trade was the leading contributor to growth in Oklahoma in the 3rd quarter adding 1.45 percentage points.

Nondurable-goods manufacturing was the leading contributor to growth in three states, including Louisiana, the state with the fifth-largest increase in real GDP. In the 3rd quarter, nondurable goods manufacturing contributed 0.55 percentage point to statewide GDP growth.

In Oklahoma, mining, quarrying, and oil and gas extraction was the third-leading contributor to 3rd quarter GDP growth, adding 1.12 percentage points.

## Metropolitan Area Contribution to State Real Gross Domestic Product 2022

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




**Definition & Importance**

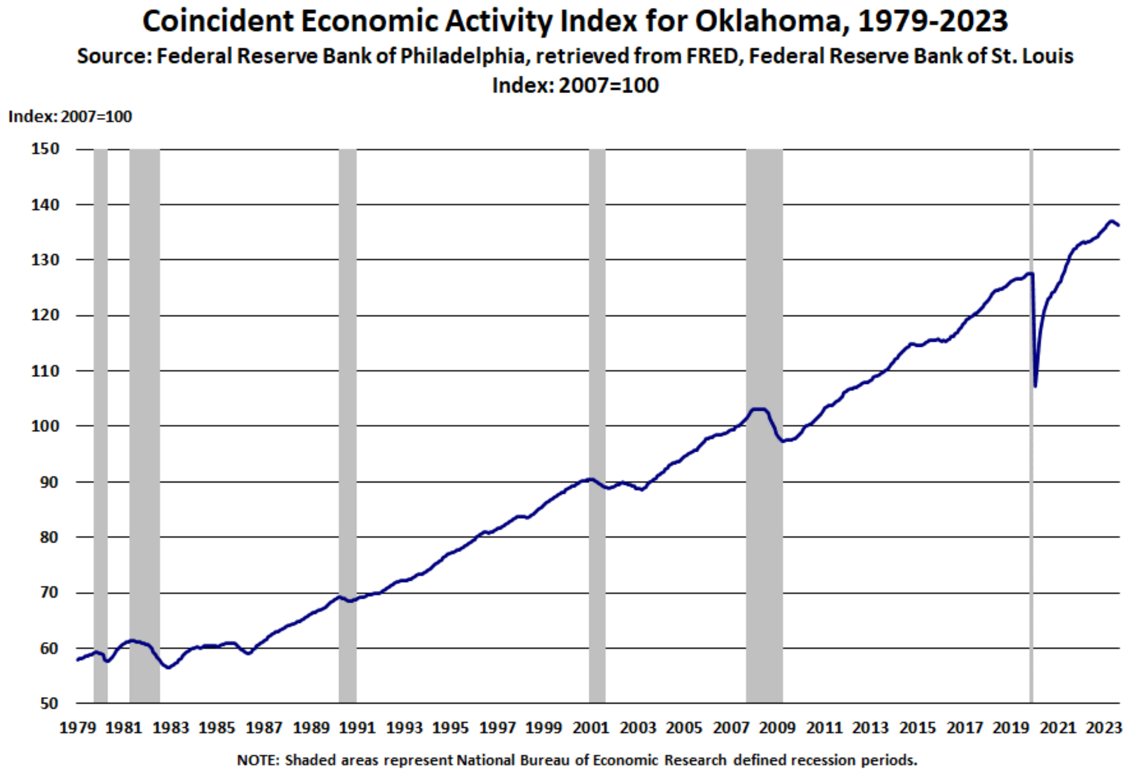
Metropolitan Statistical Areas (MSA) are county-based definitions developed by the Office of Management and Budget for federal statistical purposes. A metropolitan area is defined as a geographic area consisting of a large population nucleus together with adjacent communities having a high degree of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




**Definition & Importance**

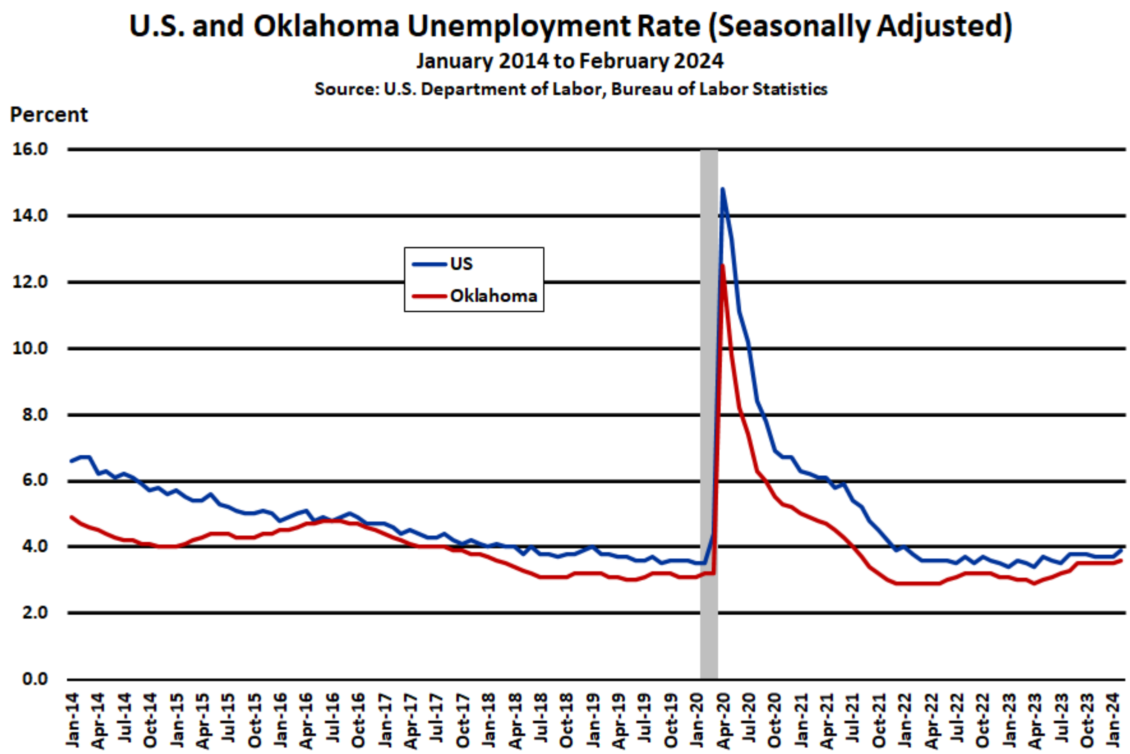
The Federal Reserve Bank of Philadelphia produces leading indexes for each of the 50 states. The indexes are calculated monthly and are usually released a week after the release of the coincident indexes. The Bank issues a release each month describing the current and future economic situation of the 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 December 2023. Over the past three months, the indexes increased in 25 states, decreased in 22 states, and remained stable in three, for a three-month diffusion index of 6. Additionally, in the past month, the indexes increased in 26 states, decreased in 16 states, and remained stable in eight, for a one-month diffusion index of 20. 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 0.2 percent in December.

In the three months to December, the coincident index for Oklahoma decreased 0.3 percent. The level of payroll employment, and average hours worked in manufacturing increased over the past three months. However, the unemployment rate increased during the three-month period. Overall, Oklahoma's economic activity as measured by the coincident index has risen 1.6 percent over the past 12 months.



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

**Definition & Importance**

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

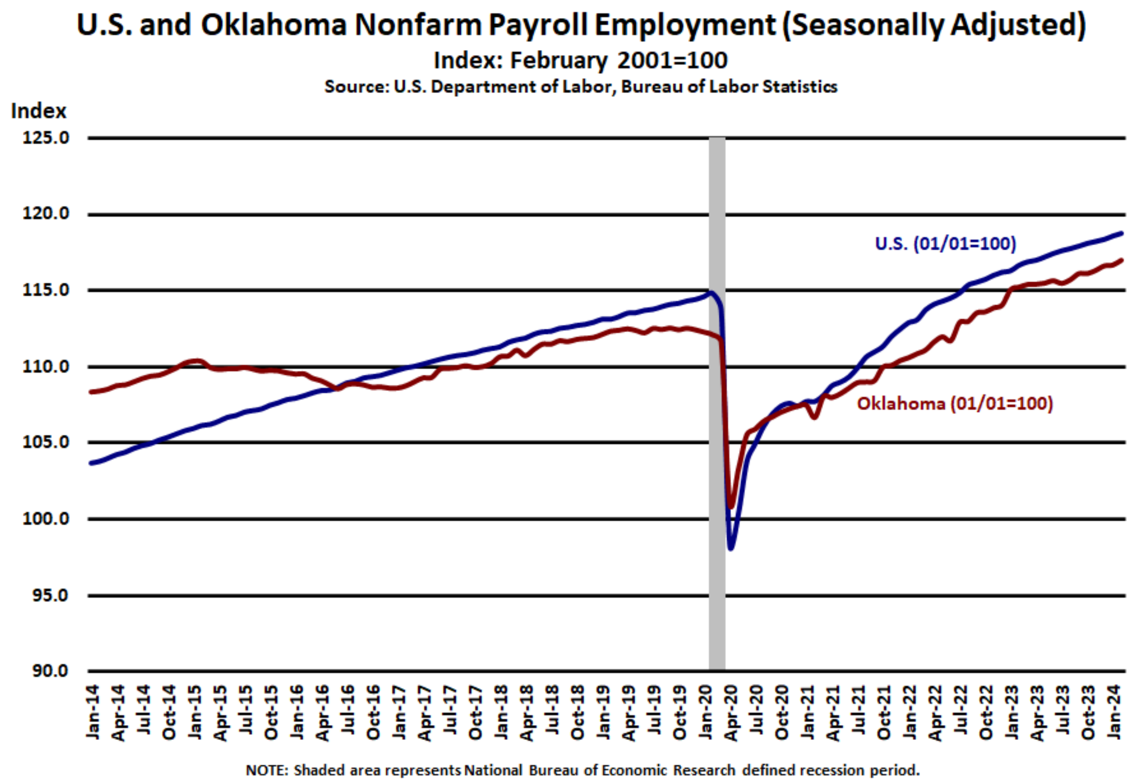
The unemployment rate is a lagging indicator of economic activity. During a recession, many people leave the labor force entirely. As a result, the jobless rate may not increase as much as expected. This means that the jobless rate may continue to increase in the early stages of recovery because more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

**Current Developments**

The U.S. unemployment rate climbed higher in February, as more people entered the workforce. The unemployment rate rose by 0.2 percentage point to 3.9 percent in February, according to the Bureau of Labor Statistics (BLS). The unemployment rate had ranged from 3.4 percent to 3.9 percent since March 2022.

Oklahoma's seasonally adjusted unemployment rate moved up 0.1 percentage point to 3.6 percent in February 2024. Over the year, the state's seasonally adjusted unemployment rate was 0.6 percentage point higher than February 2023.

In January, McIntosh County posted Oklahoma's highest county unemployment rate of 6.2 percent. Latimer County reported the second-highest rate for the month, followed by Seminole County. Dewey and Grant Counties reported the lowest county unemployment rate of 2.3 percent in January. Unemployment rates in January were higher than a year earlier in 72 counties, lower in 3 counties and unchanged in 2 counties.




**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 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**

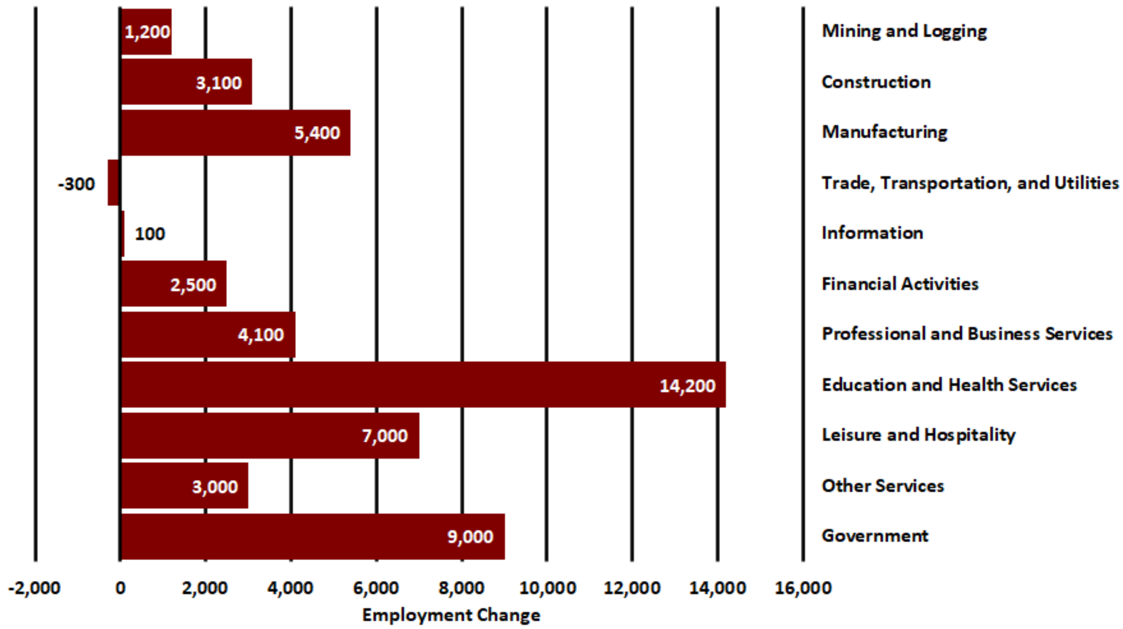
The U.S. labor market grew at a robust pace in February, marking the 38th consecutive month of job growth. Total nonfarm payroll employment rose by 275,000 in February, above the average monthly gain of 230,000 over the prior 12 months, according to the Bureau of Labor Statistics (BLS). In February, job gains occurred in health care (67,000 jobs), in government (52,000 jobs), in food services and drinking places (42,000 jobs), in social assistance (24,000 jobs), and in transportation and warehousing (20,000 jobs).

Oklahoma's seasonally adjusted nonfarm employment added 4,700 jobs (0.3 percent) over the month in February, to a level of 1,774,800 while the January estimate was downwardly revised to 1,770,100. In February, eight of Oklahoma's supersectors added jobs, as government (1,200 jobs) followed by construction (1,000 jobs) reported the largest job gains over the month. Trade, transportation, and utilities (-400 jobs) followed by manufacturing (-100 jobs) posted the largest over-the month job losses in February.

## 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**

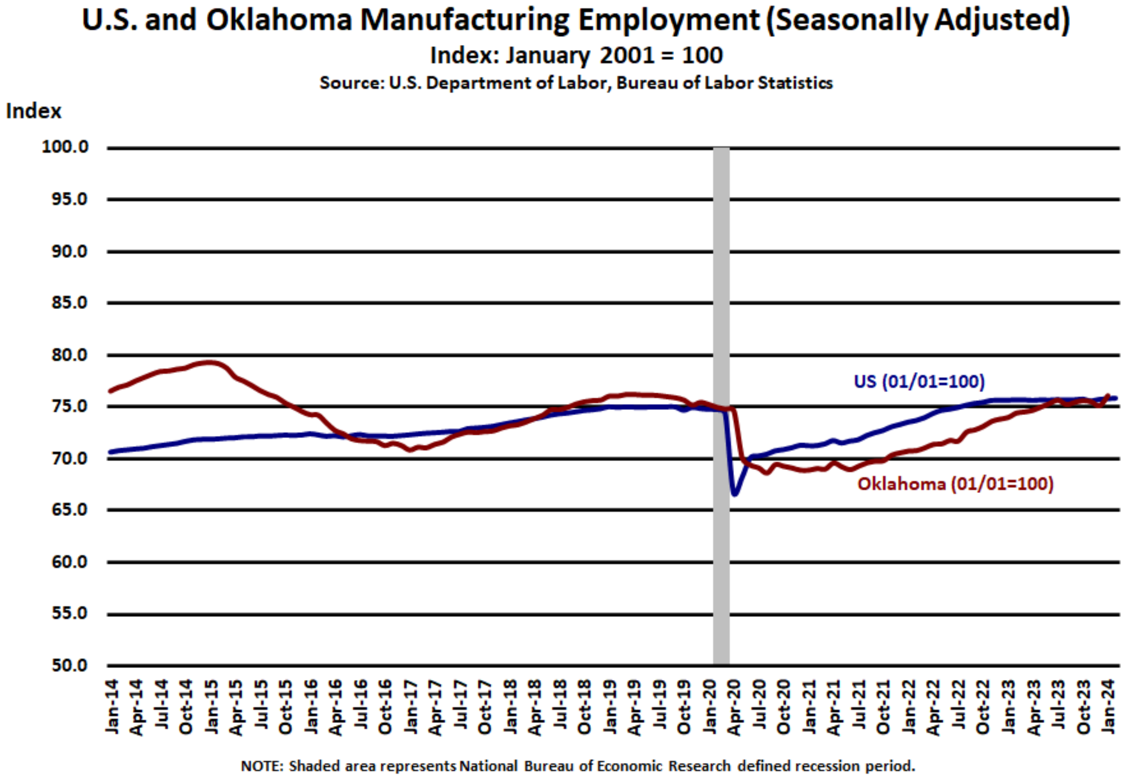
Employment growth by industry identifies the types of jobs being created in the state. Conversely, industries with a declining employment trend indicate those which are becoming less important in the state's economy. There may also be industries which behave more cyclically, growing during expansion 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.




**Definition & Importance**

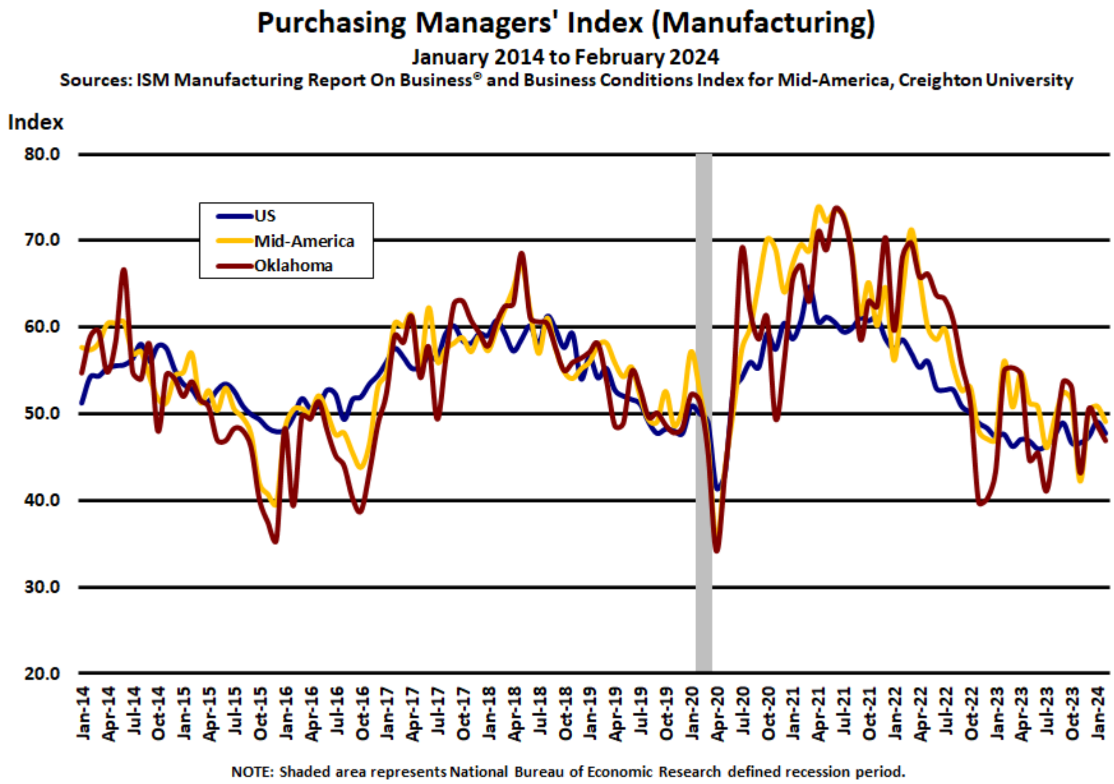
Manufacturing employment data is also produced by the Bureau of Labor Statistics' Current Employment Statistics (CES) program. Manufacturing and production are still important parts of both the U.S. and Oklahoma economies. According to the *2020 County Business Patterns*, the manufacturing sector was 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 payrolls slumped further in February, as layoffs by companies reduced factory headcount. Manufacturing employment dropped by 4,000 in February, according to the Bureau of Labor Statistics. Employment in manufacturing has shown little net change over the year.

Oklahoma manufacturing employment shed a seasonally adjusted 100 jobs (-0.1 percent) over the month in February to a level of 141,300. In February, durable goods manufacturing employment accounted for all the job losses, while non-durable goods manufacturing employment was unchanged over the month.

Over the year, statewide manufacturing employment picked up a seasonally adjusted 3,500 jobs (3.9 percent) compared to February 2023, as durable goods manufacturing gained 3,500 jobs (1.1 percent), while non-durable goods manufacturing employment was unchanged over the year.




**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 slumped further in February, with a measure of factory employment falling to a seven-month low amid layoffs. The Manufacturing PMI® registered 47.8 percent in February, down 1.3 percentage points from the 49.1 percent recorded in January, according to the latest Manufacturing ISM® *Report On Business®*. It was the 16th consecutive month that the PMI stayed below 50, which indicates contraction in manufacturing.

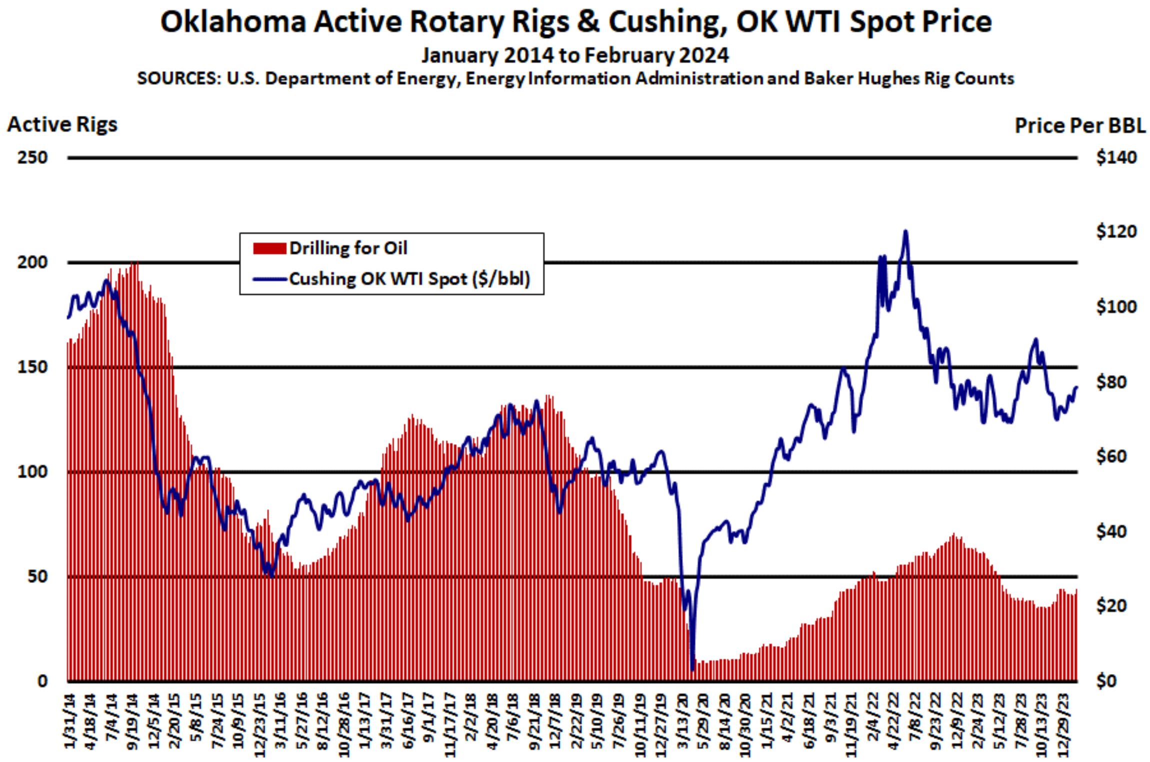
The ISM survey's forward-looking new orders sub-index dropped to 49.2 last month after rebounding to 52.5 in January. The survey's gauge of factory employment dropped to 45.9, the lowest reading since July, from 47.1 in January. Inflation at the factory gate remained moderate in February, as the survey's measure of prices paid by slipped to 52.5 from 52.9 in January. The survey's measure of supplier deliveries rose to 50.1 from 49.1 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. 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, dropped to 49.1 from 50.9 in January.

"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 only 14.3 percent expecting a 2024 economic expansion," 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.

For a third time in the past four months, the state's Business Conditions Index sank below growth neutral to 46.9 from January's 48.7. Components of the overall February were: new orders at 40.2; production or sales at 44.1; delivery lead time at 55.4; inventories at 52.7; and employment at 42.2.

"Over the past 12 months, according to U.S. Bureau of Labor Statistics data, the state's job openings sank by 14,000, or 11.9 percent, while layoffs fell by 1,100, or 19.5 percent," noted Goss.




**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 set in the domestic spot market at Cushing, Oklahoma.

**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 2022, accounting for over 4 percent of the nation's crude oil production (at 445,000 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 *Short-Term Energy Outlook* (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.

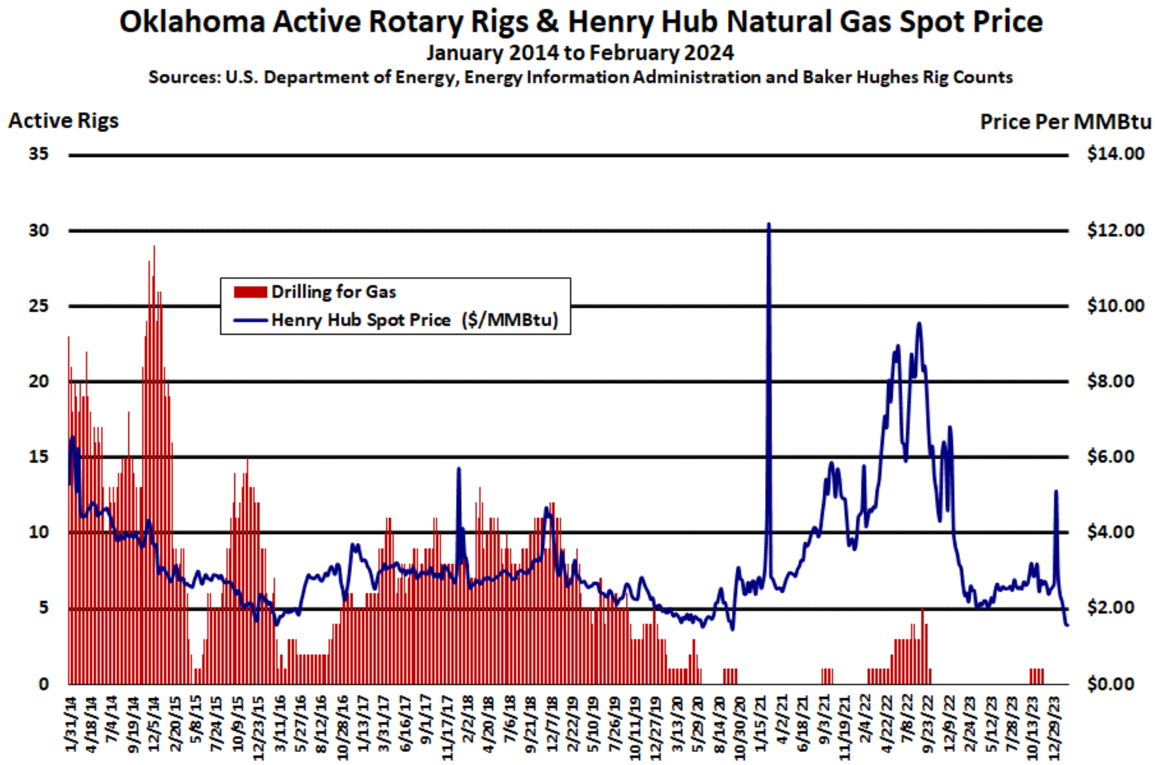
Because of falling inventories, EIA now expects that international benchmark Brent crude oil spot price will average $88 per barrel (bbl) in 2nd quarter 2024, up $4/bbl from the February STEO. EIA expects the Brent crude price will average $87/bbl this year.

Crude production in Oklahoma increased over the month in December—the most recently reported monthly data point. Statewide field production of crude oil was at a preliminary level of 13,003,000 bbl in December, up 378,000 bbl (3.0 percent) from the November level of 12,625,000 bbl, according to data reported by the EIA. Compared to a year ago, Oklahoma crude production was up 183,000 bbl (1.4 percent) from the December 2022 production level of 12,820,000 bbl. For 2023, statewide crude production was at a level of 157,242,000 bbl, up 5,707,000 bbl (3.8 percent) from the 2022 production level of 151,535,000 bbl.

West Texas Intermediate (WTI-Cushing) crude oil for delivery at Cushing, Oklahoma, averaged below $77.25/bbl in February, up $3.10/bbl from January’s average of $74.15/bbl.

The U.S. oil-directed rig count picked up 6 rigs to 503 over the week ending February 23, 2024, according to oil field services company Baker Hughes. Compared to a year ago, the nation’s total rig count was 127 less than 621 rigs reported on February 24, 2023.

For the week ending February 23, 2024, Oklahoma’s total active rig count was up 2 to 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 18 from 62 active rigs reported operating on February 24, 2023.




## 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 are the 3rd-largest in the nation, after Texas and Pennsylvania. 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**

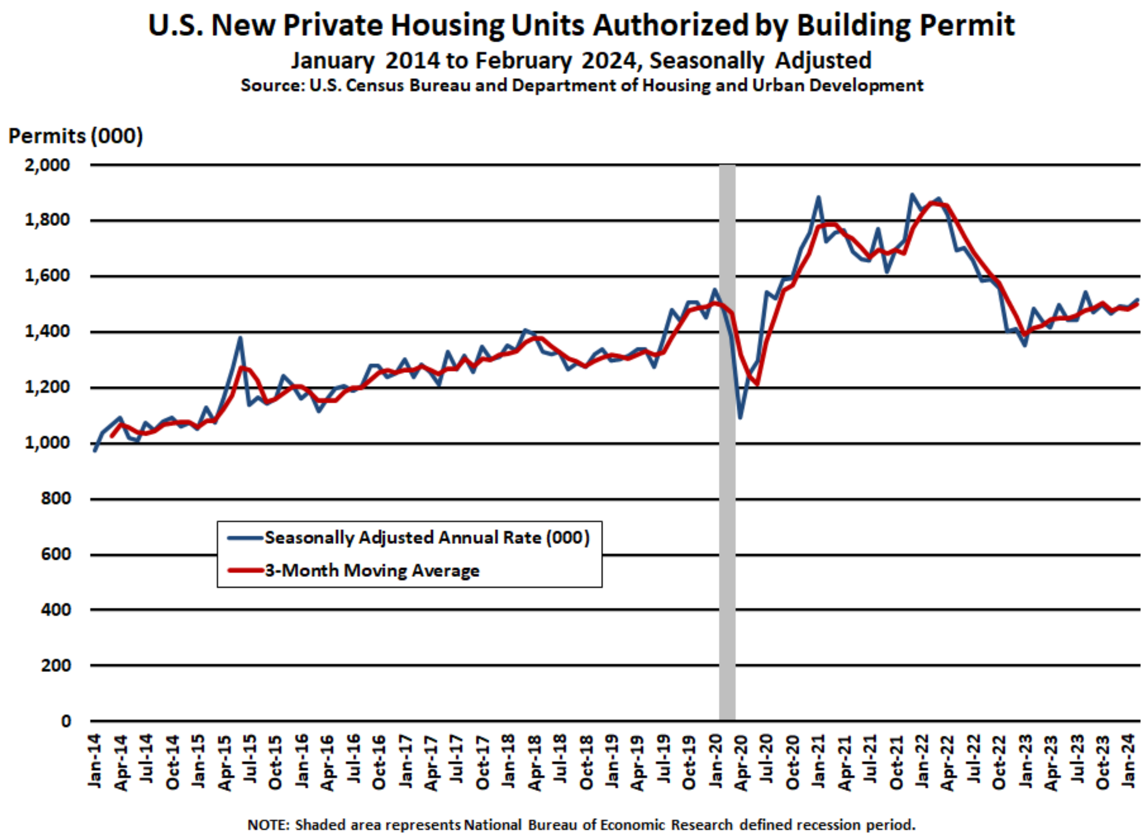
In the March *Short-Term Energy Outlook* (STEO), The U.S. Energy Information Administration (EIA) forecasts that U.S. dry natural gas production will remain unchanged in March from February at just under 104 billion cubic feet per day (Bcf/d). EIA expects lower natural gas prices to cause slight declines in natural gas production the remainder of the year, and does not expect that natural gas production will return to its December 2023 record of 106 Bcf/d during the forecast period. Forecast U.S. dry natural gas production averages 103 Bcf/d in 2024, down slightly from 2023. Production increases to 104 Bcf/d in 2025, driven by expected growth in associated natural gas production in the Permian Basin and growth in LNG export demand.

Oklahoma natural gas production increased over the month in December. Statewide natural gas gross withdrawals were at a preliminary level of 235,217 million cubic feet (MMcf) in December, up 5,663 MMcf (2.5 percent) from the previous month's level of 229,554 MMcf. Over the year, statewide natural gas production was down 1,212 MMcf (-0.5 percent) from the December 2022 level of 236,429 MMcf.

The Henry Hub spot price averaged $1.72/MMBtu in February, a record low adjusted for inflation, down from $3.18/MMBtu in January. 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 February 23, 2024, Baker Hughes Company reported 120 active natural gas-directed rigs in the United States, down 1 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 February 23, 2024, unchanged over the month, according to Baker Hughes.




**Definition & Importance**

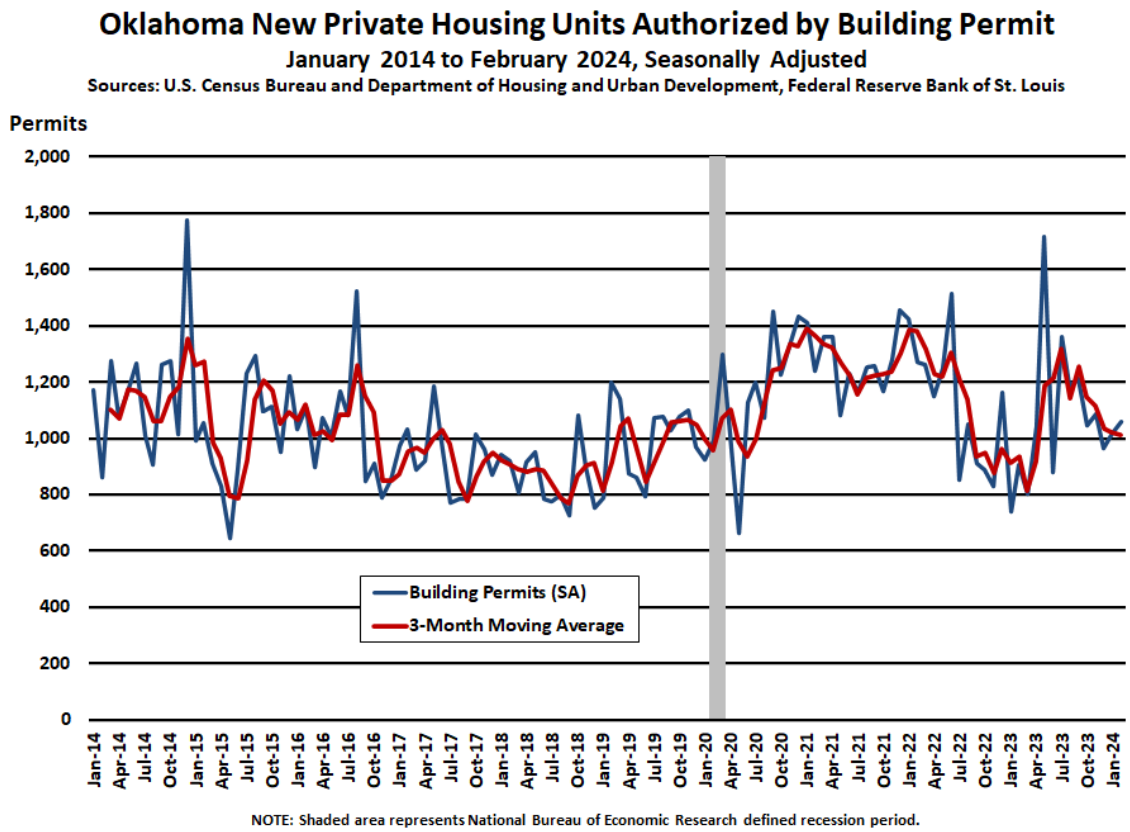
The U.S. Census Bureau and the Department of Housing and Urban Development jointly provide monthly national and regional data on the number of new housing units authorized by building permits; authorized, but not started; started; under construction; and completed. The data are for new, privately-owned 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, rebounded in February to the highest level since August. Privately-owned housing units authorized by building permits in February were at a seasonally adjusted annual rate of 1,518,000, 1.9 percent above the revised January rate of 1,489,000 and 2.4 percent above the February 2023 rate of 1,482,000, 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 figure of 1,665,100.

Single-family permits, which account for the bulk of homebuilding, increased 1.0 percent to a seasonally adjusted pace of 1.031 million units in February. Permits for multi-family housing projects rose 2.4 percent to a rate of 429,000 units.




## Definition & Importance

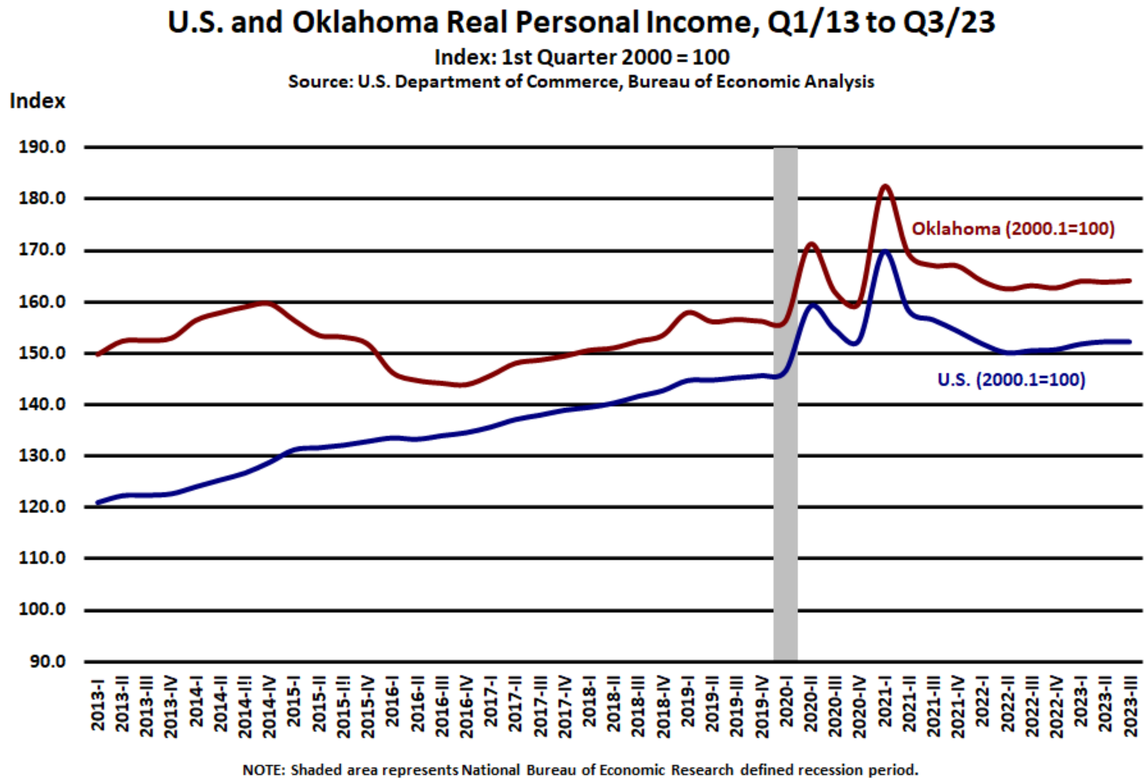
The data services of the Federal Reserve Bank of St. Louis produce a seasonally adjusted series including monthly state level data on the number of new housing units authorized by building permits. These adjustments are made using the X-12 Procedure of SAS to remove the seasonal component of the series 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 rose again in February. Total residential permitting in February was at a seasonally adjusted level of 1,058, up 40 (3.9 percent) from the January level of 1,019, and up 152 (16.7 percent) from the February 2023 level of 907 permits, according to figures from the U.S. Census Bureau and the Federal Reserve Bank of St. Louis.

In February, permitting for single family homes was at a seasonally adjusted level of 902 units, up 18 (2.0 percent), from a level of 885 in the previous month. Multi-family permitting was at a seasonally adjusted level of 133 in February, unchanged from the previous month’s level. Single-family permitting accounted for 85.3 percent of total residential permitting activity in February while the more volatile multi-family permitting accounted for 12.6 percent.

Statewide residential construction declined in 2023. Total residential permitting for 2023 was at a seasonally adjusted level of 12,940 permits, 614 fewer permits (-4.5 percent) less than the 13,553 total permits issued during 2022.




**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 and personal income both rose in January, and prices rose marginally. Personal income increased $233.7 billion (1.0 percent at a monthly rate) in January, according to estimates by the Bureau of Economic Analysis (BEA). Disposable personal income (DPI), personal income less personal current taxes, increased $67.6 billion (0.3 percent) and personal consumption expenditures (PCE) increased $43.9 billion (0.2 percent). The PCE price index increased 0.3 percent. Excluding food and energy, the PCE price index increased 0.4 percent.

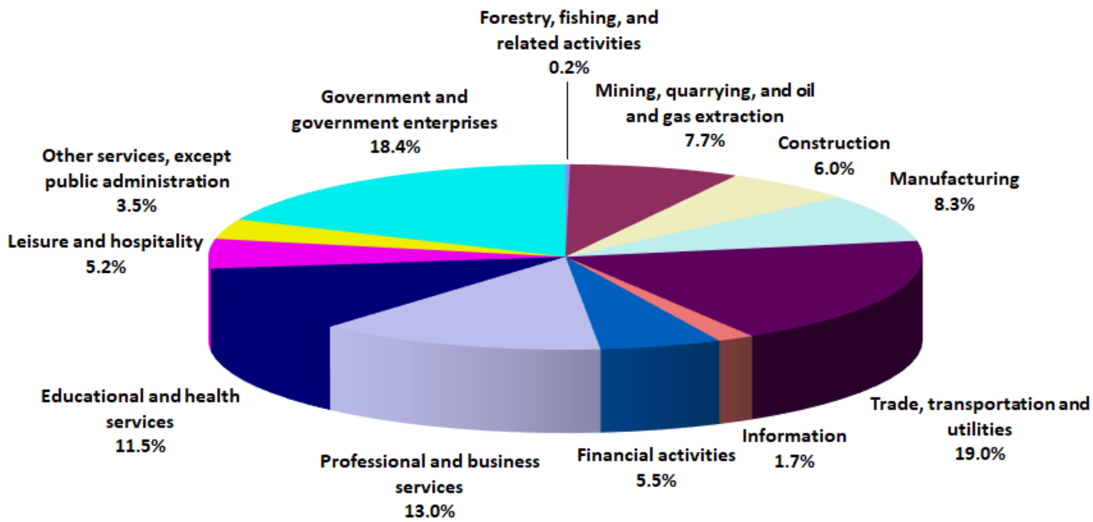
In January, spending on services rose 0.4 percent, driven by spending on housing and utilities; and financial services and insurance. Outlays on goods dropped 1.1 percent as purchases of durable goods, such as motor vehicles and parts, fell 2.1 percent, while non-durable goods spending, such as prescription drugs and gasoline decreased 0.5 percent.

The personal savings rate—personal saving as a percentage of disposable personal income—was slightly higher at 3.8 percent in January, but off a full percentage point from where it was as recently as June 2023.

## Oklahoma Nonfarm Industry Contribution to Earnings

Third 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.

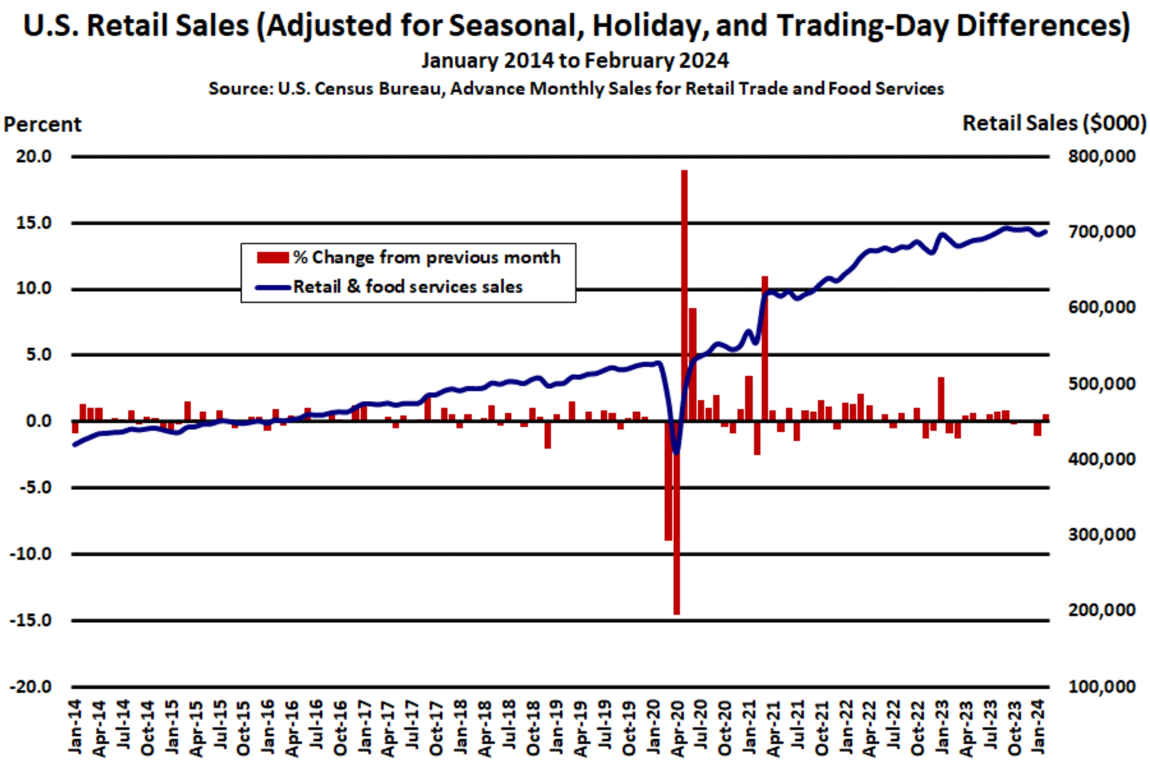
**Current Developments**

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 49 states and the District of Columbia in the 3rd quarter of 2023, with the percent change ranging from 5.2 percent in Texas to 0.0 percent in Arkansas, according to estimates by the U.S. Bureau of Economic Analysis (BEA).

Oklahoma's personal income accelerated to a 4.3 percent rate in the 3rd quarter of 2023, to a level of $238.2 billion, ranking the state 7th among all states. For the 2nd quarter of 2023, Oklahoma's personal income was revised upward to $235.7 billion (2.3 percent) from the previous estimate of $235.4 billion (1.7 percent).

Earnings increased in all 50 states and the District of Columbia, while growing 5.9 percent nationally. The percent change in earnings ranged from 8.3 percent in Texas to 1.3 percent in North Dakota. Earnings was the leading contributor to growth in personal income in 35 states and the District of Columbia. In Oklahoma, earnings increased 7.6 percent in the 3rd quarter of 2023.

Earnings increased in 20 of the 24 industries for which BEA prepares quarterly estimates. State and local government; construction; and professional, scientific, and technical services were the leading contributors to the overall growth in earnings nationally. In Oklahoma, mining, quarrying, and oil and gas extraction; state and local government; and construction were the leading contributors to the overall growth in earnings in the 3rd quarter of 2023.




**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.

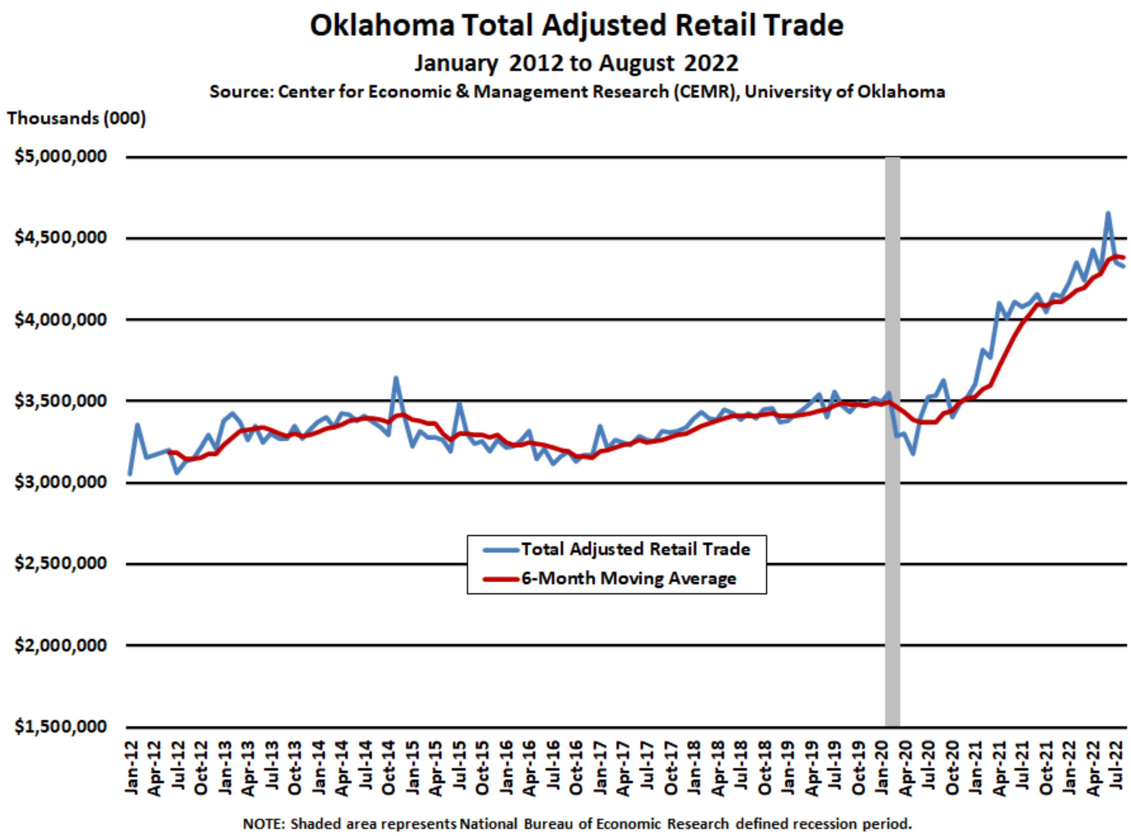
**Current Developments**

Americans picked up their spending in February after pulling back the previous month. Advance estimates of U.S. retail and food services sales for February 2024, adjusted for seasonal variation and holiday and trading-day differences, but not for price changes, were $700.7 billion, up 0.6 percent from the previous month, and up 1.5 percent above February 2023, according to the U.S. Census Bureau. Total sales for the December 2023 through February 2024 period were up 2.1 percent from the same period a year ago The December 2023 to January 2024 percent change was revised from down 0.8 percent to down 1.1 percent.

Sales at motor dealerships climbed 1.8 percent in February, following a 2.2 percent decline in the previous month. Receipts at gas stations rose 0.9 percent over the month on higher pump prices. Excluding sales from gas stations and auto dealers, sales rose 0.3 percent in February.

Sales at building materials and garden suppliers jumped 2.2 percent, and electronics and appliance stores had a solid 1.5 percent increase. Expenditures at restaurants (0.4 percent) suggested that spending at services remains strong. Online sales had a decline of 0.1 percent.

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 was flat in February, following a revised 0.3 percent gain in the previous month.




**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.*