



## Oklahoma > Natural resources > Transitioning to high-tech

The state's unemployment rate has stayed below the national average over the past ten years. Post-recession, Oklahoma's unemployment rose to 7.3 percent from December 2009 to March 2010, and has since slowly declined. Per capita real GDP in 2010 was a moderate \$35,600.

### Industry in Oklahoma

Oklahoma's natural resource wealth and its unique economy cushioned it during the recession. Oklahoma is the third-largest producer of natural gas in the country and ranks 5<sup>th</sup> in crude oil production. Not surprisingly, natural resources have been a major contributor to Oklahoma's real GDP, generating 12 percent in 2010, but the industry employed only around 6 percent of the state workforce. The state has recently been boosting revenues by increasing natural gas production.

Other leading sectors by real output in 2010 included government and public education services (17.5%), financial services (14.8%), wholesale and retail trade services (12.2%) and manufacturing (11.4%). The largest employers in 2008 were government and public education services (20.1%), wholesale and retail trade services (13.9%), and professional and business services (11.3%). The fastest employment growth through 2020 is expected for educational services, healthcare services and professional and business services, while manufacturing is expected to grow by less than 1 percent.

The State of Oklahoma is the largest employer, followed (in order) by Wal-Mart, Tinker Air Force Base, U.S. Army Field Artillery Center/Fort Sill, the U.S. Postal Service, Oklahoma State University, the University of Oklahoma, American Airlines and its Maintenance and Engineering Center, Tulsa Public Schools, and the Cherokee Nation of Oklahoma. The 2010 Inc.com 500|5000 list included 34 Oklahoma-based companies, including the financial services company Debt Free Associates.

The state has a number of high-tech and innovative industries to supplement its traditional natural resource base. The state's aerospace industry employs approximately 150,000, or one in ten state workers.<sup>77</sup> There are an estimated 300 aerospace-related companies in Oklahoma, including American Airlines Maintenance and Engineering Center in Tulsa and the Oklahoma City Air Logistics Center at Tinker Air Force Base.<sup>78</sup>

Furthermore, the state is expanding beyond nonrenewable sources of energy, harnessing the wind that ravaged the state during the Dust Bowl era.<sup>79</sup> Wind energy is a growing industry with the potential to produce close to 10 percent of the nation's wind-generated electricity by 2030, according to National Renewable Energy Laboratory research. The state also has

77. <http://www.ok.gov/OAC/documents/aerospace-brochure-trifold-lowres.pdf>

78. [http://www.okcommerce.gov/Libraries/Documents/Why\\_Aerospace\\_Firms\\_Choose\\_Oklahoma\\_1508061964.pdf](http://www.okcommerce.gov/Libraries/Documents/Why_Aerospace_Firms_Choose_Oklahoma_1508061964.pdf)

79. Engage Oklahoma: Profiles in Economic Development 2011. OK Dept. of Commerce, and The Journal Record.

a sizeable bioscience sector supported by research and development centers such as Samuel Roberts Noble Foundation in Ardmore, Presbyterian Health Foundation Research Park in Oklahoma City, and the Oklahoma Technology and Research Park in Stillwater. Much of the bio-scientific research is focused on plant genomics and transgenetics for crop improvements, autoimmune disease and immunology, cardiology and cardiovascular research, infectious disease microbiology, and vision research and ophthalmic neuroscience.<sup>80</sup>

## Occupations in Oklahoma

The largest occupational clusters in Oklahoma vary in their postsecondary education demand. As of 2008 they included sales and office support (26.1%), blue collar (25.1%), food and personal services (15.8%), and managerial and professional office (12.5%). In keeping with regional and national trends, the fastest-growing occupational cluster is healthcare (27%). Food and personal services is also a top-growing occupational cluster, expected to provide 20 percent more jobs by 2020. STEM and managerial and professional occupations will grow by 19 percent. Sales and office support and blue-collar positions, however, are projected to grow by far less, with 15 percent and 16 percent growth, respectively, over the next decade.

### 57% OF JOBS IN OKLAHOMA WILL REQUIRE POSTSECONDARY EDUCATION AND TRAINING IN 2020 (DOWN FROM 55% IN 2010)

Table 18: Snapshot of Education Demand for Total Jobs in Oklahoma (2010 And 2020)

	2010	2020	% in 2020
High school or less	743,800	872,700	43%
Some college	432,800	507,800	25%
Associate's	141,000	165,400	8%
Bachelor's	284,500	333,800	17%
Graduate	110,000	129,000	6%
<b>Total</b>	<b>1,712,100</b>	<b>2,008,700</b>	<b>100%</b>

By the year 2020, 57 percent of all jobs in the state will require some postsecondary training. Between 2010 and 2020 the state will create 608,900 job vacancies both from new jobs and from retirement. There will be 344,400 job vacancies for individuals with postsecondary credentials, in contrast to 264,500 for high school graduates and high school dropouts.

Oklahoma ranks 11<sup>th</sup> in the South in the proportion of its 2020 jobs requiring a bachelor's degree, 14<sup>th</sup> in jobs that will require a graduate degree, and 11<sup>th</sup> in jobs for high school dropouts.

80. Area Development Online 2009