

Oklahoma
STATE of the
WORKFORCE
Report 2009

a publication from

Oklahoma Employment Security Commission
Economic Research & Analysis Division
P.O. Box 52003
Oklahoma City, OK 73152-2003

Jon Brock, OESC Executive Director
Lynn Gray, Director of Economic Research & Analysis

Prepared by
John Carpenter, Public Information Officer
Lynn Gray, Director of Economic Research & Analysis

September 2009

Equal Opportunity Employer/Program
Auxiliary aids and services are available upon request to individuals with disabilities.

This publication is issued by the Oklahoma Employment Security Commission as authorized by provisions of the Oklahoma Employment Security Act.

TABLE OF CONTENTS

INTRODUCTION	1
WORKFORCE DEMAND: TODAY	2
Oklahoma’s economy: a snapshot	2
Unemployment in Oklahoma	4
Oklahoma wages by occupation	5
Education & training required for Oklahoma jobs	6
WORKFORCE DEMAND: TOMORROW	7
Oklahoma’s future employment by industry	7
Oklahoma industries adding the most jobs	9
Oklahoma’s fastest growing industries	10
Oklahoma’s future employment by occupation	11
Oklahoma occupations adding the most jobs	12
Oklahoma’s fastest growing occupations	13
Education & training requirements for future employment in Oklahoma	14

INTRODUCTION

Oklahoma State of the Workforce Report 2009

A qualified workforce is one of the most fundamental drivers of economic growth. As such, it is imperative to understand where a state's workforce stands and where it is going. This report is an attempt to help provide that understanding.

The *Oklahoma State of the Workforce Report 2009* is an informational and planning tool produced by the Economic Research & Analysis division of the Oklahoma Employment Security Commission. It examines characteristics of Oklahoma's workforce such as industrial employment, occupational employment, occupational wages, education and training requirements, and employment projections.

This report is the result of an examination of demographic, economic and labor market developments unfolding in Oklahoma and across the United States. In order to best meet future workforce challenges, these developments and their consequences must be understood by policymakers, economic developers, educators, employers, workers and the citizens of Oklahoma.

The primary source of the data and analyses contained in the report is the Economic Research & Analysis division of the Oklahoma Employment Security Commission. This report was produced with funds from the U.S. Department of Labor Employment and Training Administration. Other data sources include the U.S. Census Bureau and Oklahoma Department of Labor.

This publication addresses data for the 2008 calendar year where possible. Because the data contained in this publication came from a variety of sources, this was not always an option. When data for the 2008 calendar year was not available, data for the most recent one-year period was substituted. Please be aware of this fact when comparing data from different sections.

WORKFORCE DEMAND: TODAY

Oklahoma’s economy: a snapshot

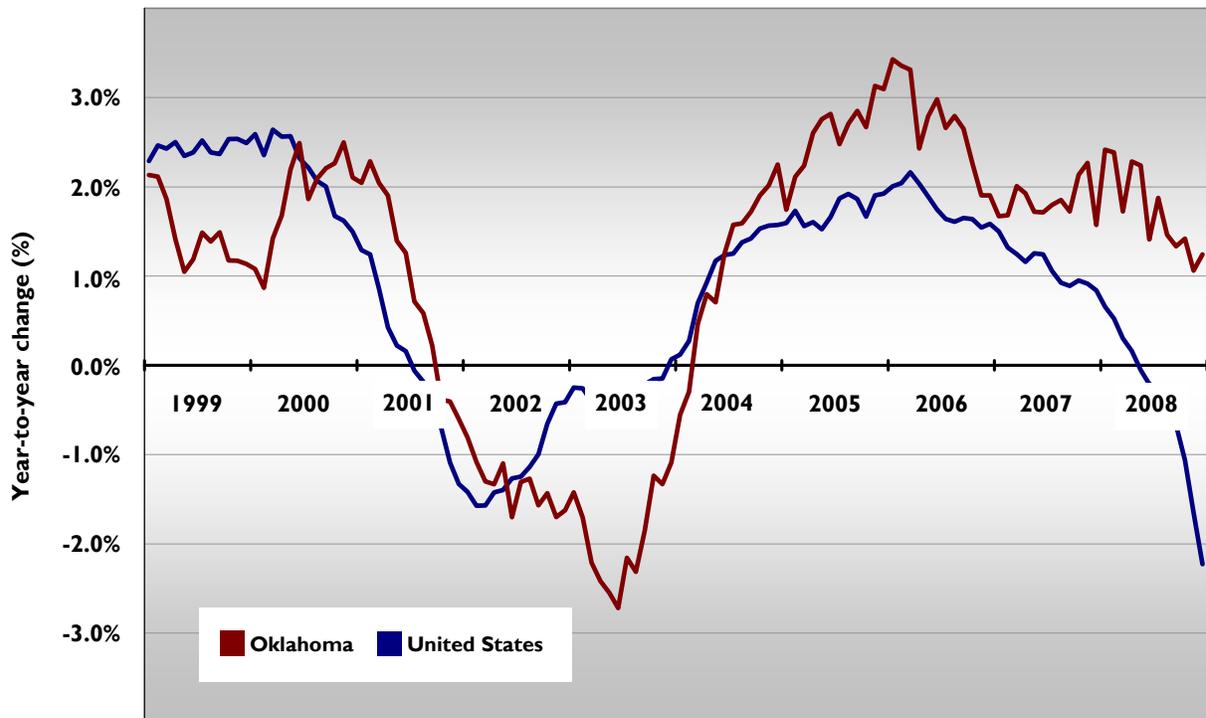
Oklahoma’s economy has seen considerable change since the state was founded in 1907. Primarily driven by agriculture through the first half of the 20th century, the state economy has transformed into a service-driven economy, following the overall trend for the United States as a whole. This change was brought on by a number of factors, including technological advances and international trade. More recently, the oil and gas industry has been a driving force behind Oklahoma’s economic performance.

After reporting strong growth throughout the 1970s, Oklahoma’s economy experienced a setback in the 1980s in the form of the oil bust. The state

lost jobs each year between 1986 and 1988 and again in 1991. Oklahoma began gaining back jobs in the 1990s. The state had recovered by 1994, and employment surpassed the 1.6 million mark in 2000. The 2001 recession restricted growth to a degree, but state employment began growing again in 2003 and reached an all-time high in 2008.

As can be seen in Chart 1, Oklahoma’s employment continued to expand on an annualized basis during 2008. Looking at the past 10 years, Oklahoma’s employment growth has mostly been in line with the national trend except for the last few months of 2008.

CHART 1: Year-to-year employment growth, Oklahoma & United States (1999-2008)



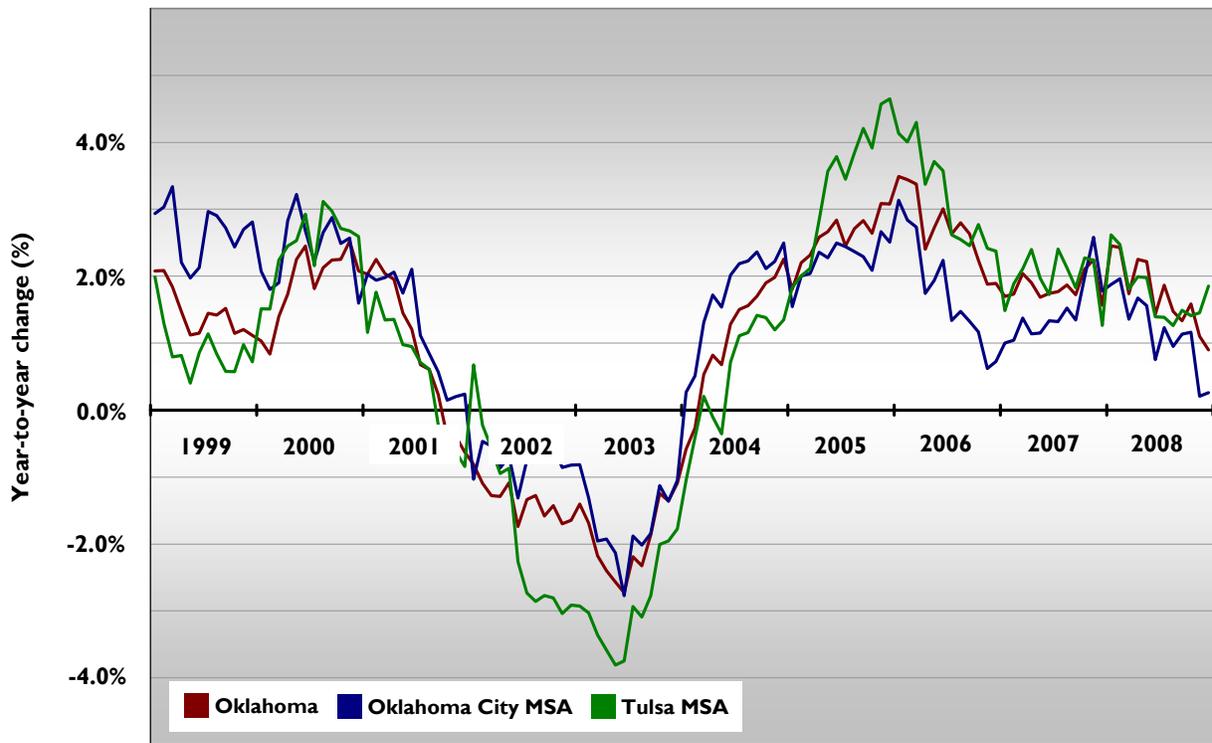
Source: Current Employment Statistics (CES) program

To focus in a little more closely, let's compare employment growth for the state with that for Oklahoma's two metropolitan statistical areas (MSAs), Oklahoma City and Tulsa. MSAs are large population centers and adjacent communities that show a high degree of economic and social integration with that center. All MSAs contain one or more whole counties.

and Tulsa MSAs, where more than six of every 10 Oklahomans worked in 2008, followed along with the state trend for the most part. The Tulsa MSA experienced the largest swing, topping out at 4.6 percent in December 2005 along with a low of -3.8% in May 2003. The Oklahoma City MSA held more closely to the employment growth patterns of the state as a whole.

As can be seen from Chart 2, the Oklahoma City

CHART 2: Year-to-year employment growth, Oklahoma & state MSAs (1999-2008)



Source: Current Employment Statistics (CES) program

Unemployment in Oklahoma

Between 1999 and 2008 the Oklahoma unemployment rate was consistently lower than that for the United States as a whole.

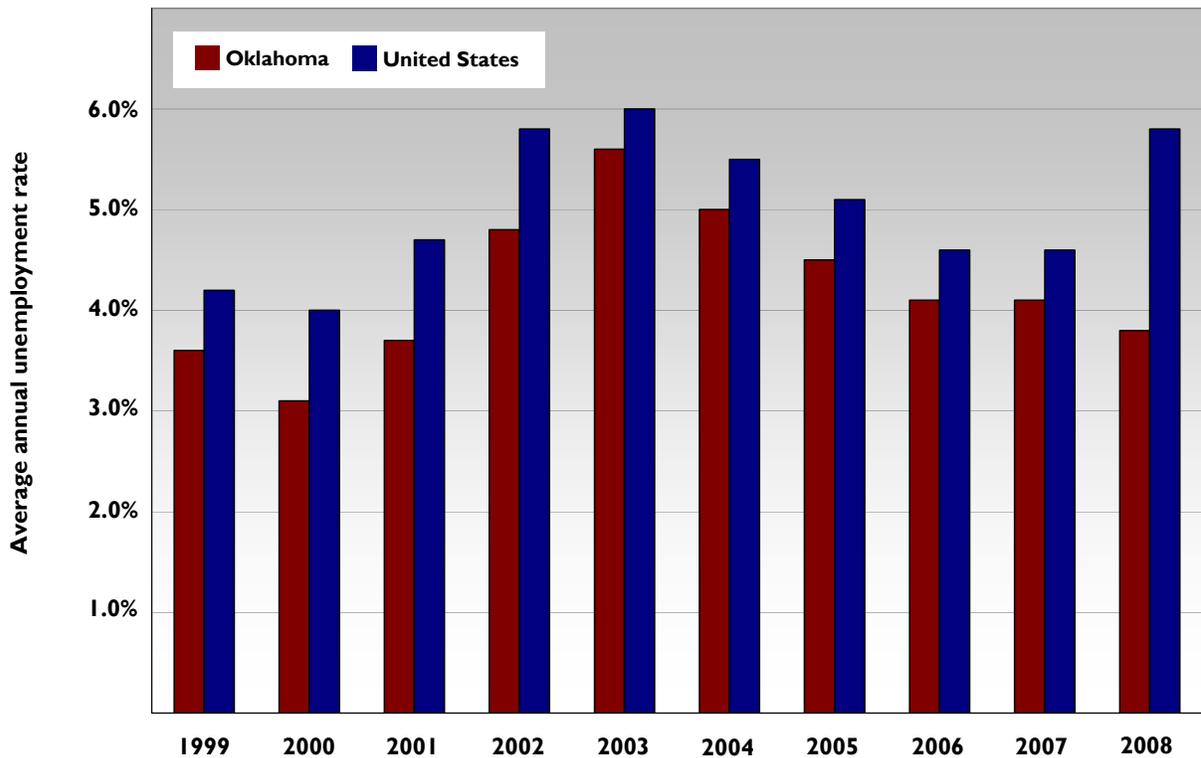
During this 10-year period, unemployment rate lows were reported in 2000, while highs came only a few years later in 2003. For the state, the average annual unemployment rates ranged between a low of 3.1 percent and a high of 5.6 percent. The U.S. unemployment rate bottomed out at 4.0 percent and hit a high of 6.0 percent over the same time span. Both rates followed similar patterns of gains and losses across this 10-year span.

Unemployment rates

An unemployment rate for an area is calculated by dividing the number of persons in the area who are both unemployed and actively seeking work by the number of persons in the area's civilian labor force. Self-employed and military personnel are not included in this measure.

For more information on unemployment rates, visit <http://www.bls.gov/lau/>.

CHART 3: Unemployment rates, Oklahoma & United States (1999-2008)



Source: Local Area Unemployment Statistics (LAUS) program

Oklahoma wages by occupation

The Standard Occupational Classification (SOC) system divides occupations into one of 22 major occupational groups. Using this system, we can compare Oklahoma occupational wages to wages for the same occupations across the nation.

When looking at the data, it is apparent that for the most part national occupational wages run higher than those for Oklahoma. This can be attributed in part to the lower cost of living in Oklahoma.

Only one major group, **farming, fishing & forestry occupations**, managed to outpace the U.S. average median wage, topping it by more than 8 percent.

Other major groups to average at least 90 percent of U.S. median wages were **architecture & engineering occupations; installation, maintenance & repair occupations; production occupations; and transportation & material moving occupations.**

A number of occupations reported mean wages that were 80 or less of the comparable U.S. wage, including **management occupations; computer & mathematical occupations; legal occupations; and arts, design, entertainment, sports & media occupations.**

TABLE I: Mean annual wage by occupational group, Oklahoma & United States (2008)

Major occupational group	Mean Annual Wage		Okla. as % of U.S.
	Okla.	U.S.	
Management occupations	\$74,698	\$110,310	67.7%
Business & financial operations occupations	\$50,905	\$64,720	78.6%
Computer & mathematical occupations	\$56,622	\$74,500	76.0%
Architecture & engineering occupations	\$65,420	\$71,430	91.5%
Life, physical & social science occupations	\$55,682	\$64,280	86.6%
Community & social services occupations	\$35,072	\$41,790	83.9%
Legal occupations	\$68,229	\$92,270	73.9%
Education, training & library occupations	\$38,065	\$48,460	78.5%
Arts, design, entertainment, sports & media occupations	\$35,407	\$50,670	69.8%
Healthcare practitioners & technical occupations	\$56,677	\$67,890	83.4%
Healthcare support occupations	\$22,786	\$26,340	86.5%
Protective service occupations	\$34,300	\$40,200	85.3%
Food preparation & serving related occupations	\$17,116	\$20,220	84.6%
Building & grounds cleaning & maintenance occupations	\$20,245	\$24,370	83.0%
Personal care & service occupations	\$19,469	\$24,120	80.7%
Sales & related occupations	\$28,717	\$36,080	79.5%
Office & administrative support occupations	\$27,488	\$32,220	85.3%
Farming, fishing & forestry occupations	\$25,520	\$23,560	108.3%
Construction & extraction occupations	\$34,936	\$42,350	82.4%
Installation, maintenance & repair occupations	\$37,616	\$41,230	91.2%
Production occupations	\$29,907	\$32,320	92.5%
Transportation & material moving occupations	\$28,855	\$31,450	91.7%

Source: Bureau of Labor Statistics, Occupational Employment Statistics (OES) program

Education and training required for Oklahoma jobs

When looking at education and training needs for job openings in Oklahoma, we can divide these requirements into 11 different categories. These categories represent the minimum education and/or training required to perform the duties of an occupation. These categories can be classified as postsecondary awards or work-related training.

In 2006, more than seven out of every 10 job openings did not require postsecondary education or training. These openings required only work experience in a related field or on-the-job training. All activities necessary to do jobs that require on-the-job training can be learned while working in the occupation. Only about 30 percent of the job openings required some level of postsecondary education or training.

More than one-third of Oklahoma job openings required **short-term on-the-job training** in 2006, while more than one out of every five job openings needed **moderate-term on-the-job training**. When combined, these two categories accounted for more than half of all jobs in 2006.

Just over 10 percent of job openings asked for a **bachelor’s degree**, and only 0.6 percent required a **doctoral degree**.

Education & training requirements

Education and training requirements can be divided into 11 categories.

Postsecondary awards

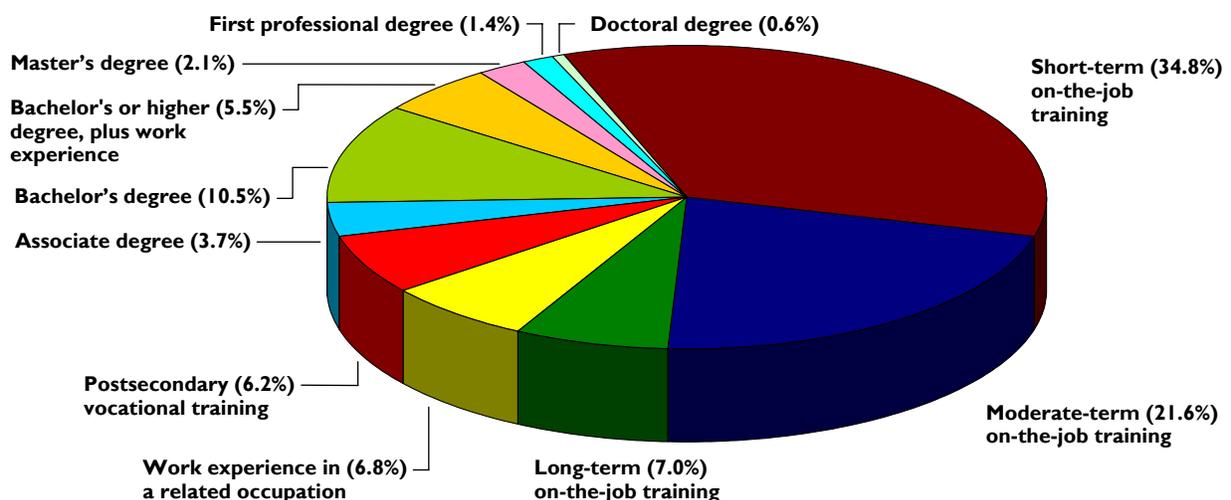
- **First professional degree**
- **Doctoral degree**
- **Master’s degree**
- **Bachelor’s or higher degree, plus work experience**
- **Bachelor’s degree**
- **Associate degree**
- **Postsecondary vocational award**

Work-related training

- **Work experience in a related occupation**
- **Long-term on-the-job training**
- **Moderate-term on-the-job training**
- **Short-term on-the-job training**

For more information on education and training requirements, visit <http://www.bls.gov/emp/>.

CHART 4: Minimum education & training requirements for Oklahoma jobs, 2006



Source: OESC Economic Research & Analysis, Oklahoma Employment Outlook 2016

WORKFORCE DEMAND: TOMORROW

When looking at future workforce demand, one must first know how the economy will change. A good way to do this is through employment projections. These projections take a variety of factors into consideration. Oklahoma, like all other states and the United States as a whole, is changing from a goods-producing economy to a service-providing economy, and the types of jobs available

will reflect this change. The aging baby boomer generation will require a larger and better staffed health care industry. Constantly improving technology will continue to provide employers with alternatives to human workers. It is important to note that although we can identify many of the factors that will impact the state, it is difficult to predict exactly what will happen.

Oklahoma future employment by industry

Oklahoma is projected to add 174,240 jobs during the 2006-to-2016 period. The three supersectors expected to account for most of the state's job growth are **educational & health services**, **professional & business services**, and **leisure & hospitality**. When combined, these three

supersectors will account for 59.6 percent of all job growth between 2006 and 2016.

The **educational & health services** supersector is expected to add more than 48,000 jobs during the projection period. **Educational services** will

TABLE 2: Oklahoma industrial employment (2006-2016)

Major industrial group	Employment		Change		Share	
	2006	2016	Jobs	Pct.	2006	2016
Total employment	1,687,270	1,861,510	174,240	10.3%	100.0%	100.0%
SE & UFW, primary job	115,600	123,160	7,560	6.5%	6.9%	6.6%
Natural resources & mining	74,520	80,190	5,670	7.6%	4.4%	4.3%
Construction	70,410	81,540	11,130	15.8%	4.2%	4.4%
Manufacturing	149,300	148,570	-730	-0.5%	8.9%	8.0%
Trade, transportation & utilities	284,030	299,970	15,940	5.6%	16.8%	16.1%
Information	29,810	31,880	2,070	6.9%	1.8%	1.7%
Financial activities	83,700	91,180	7,480	8.9%	5.0%	4.9%
Professional & business services	175,930	209,940	34,010	19.3%	10.4%	11.3%
Educational & health services	340,430	388,700	48,270	14.2%	20.2%	20.9%
Leisure & hospitality	137,110	158,660	21,550	15.7%	8.1%	8.5%
Other services (except government)	62,590	68,170	5,580	8.9%	3.7%	3.7%
Government	163,840	179,550	15,710	9.6%	9.7%	9.7%

Source: OESC Economic Research & Analysis, Oklahoma Employment Outlook 2016

produce 18,580 new jobs, while **health services** will add 29,690 jobs. The **health services** growth is the result of the gradually aging population and its increased future health care needs coupled with advances in new technologies that increase life expectancies.

Professional & business services is projected to gain more than 34,000 jobs between 2006 and 2016. This large gain will result in a growth rate of more than 19 percent, the highest among all supersectors. The **professional, scientific & technical services** and **administrative & support services** industries will provide the growth during the period, spurred on by business demand for computer networks, technological solutions to business challenges and a variety of employment services to address complex business issues.

Leisure & hospitality is expected to grow by more than 21,000 jobs during the 2006-to-2016 period. The **accommodation & food services** industries will provide more than four out of every five jobs gained during the projection period, driven almost entirely by **food services & drinking places**. **Amusement, gambling & recreation industries** will contribute much of the rest of the expansion, as tribal casinos and resorts drive growth.

Although **trade, transportation & utilities** is expected to add the fourth largest total of new jobs, the supersector's growth rate is below the state's projected overall job growth rate of 10.3 percent. Movement in **retail trade** will provide more than half of the growth, driven mostly by job gains in **general merchandise stores**. **Wholesale trade** industries will contribute 3,900 jobs of the growth, with **transportation & warehousing** making up the remaining 3,800 jobs.

Government employment is expected to grow by more than 15,000 jobs between 2006 and 2016.

Local government, excluding education & hospitals will account for 12,550 new jobs during the period. Growth in state government and local government will be driven by public education demands and the increasing need to augment community, health and protective services once provided to a greater degree by the federal government.

Construction will expand at a faster rate than the overall job market, growing by 11,130 jobs, or 15.8 percent, between 2006 and 2016. Although all of its industries will expand over the period, **specialty trade contractors** is expected to provide a majority of the job growth. Projects that will help drive growth include building nursing homes, medical treatment facilities and schools.

Financial activities is expected to expand by nearly 9 percent for the period. Although all industries will add jobs, **credit intermediation & related activities** and **rental & leasing services** will be the leaders.

Natural resources & mining will grow by more than 5,600 jobs, or 7.6 percent, during the projection period. Employment gains will be due almost entirely to **support activities for mining**, an industry that will add more than 4,500 jobs between 2006 and 2016. This growth will be due to Oklahoma's strong oil and natural gas industry.

Other services (except government) will add more than 5,500 jobs during the forecast period, a gain of nearly 9 percent. More than 40 percent of the growth will come from the **repair & maintenance** industry. The only industry losing jobs for the forecast period will be **private households**.

Information is expected to expand the least between 2006 and 2016. This supersector will grow by just over 2,000 jobs. **Information's** dominant industry, **telecommunications**, is expected to contribute more than 1,800 jobs.

The only supersector expected to lose jobs over the forecast period is **manufacturing**, which will contract by 730 jobs between 2006 and 2016, a loss of less than 0.5 percent. This small loss, however, is not representative of the changes taking place within **manufacturing**. While a large number of jobs will be lost from industries such as **printing & related support activities**, other industries, like **food manufacturing**, will post solid growth between 2006 and 2016. The overall outlook for **manufacturing** is continuing demand-driven growth coupled with productivity-led employment declines.

Oklahoma industries adding the most jobs

Between 2006 and 2016, the 10 industries reporting the largest number of jobs gained will account for nearly 70 percent of all jobs added. The industry expected to add the most jobs is **administrative & support services**. This industry will expand by more than 19,000 jobs during the period.

Administrative & support services includes areas such as **employment services, business support services** and **services to buildings**.

Next on the list is **educational services**, an industry expected to expand by more than 18,500 jobs during the period. Factors affecting this industry will be an increased number of jobs at post-secondary and professional schools, added emphasis on structured activities for children, and educational reforms. Following closely behind will be the **food services & drinking places** industry.

Professional, scientific & technical services will expand by 14,470 jobs, and **local government, excluding education & hospitals** will add more than 12,500 jobs. **Specialty trade contractors** is the only goods-producing industry in the 10 industries adding the most jobs for 2006-to-2016.

Of the top 10 industries to add the most jobs, three are classified as **health services** industries: **hospitals, ambulatory health care, and nursing & residential care facilities**. These industries will account for 23,610 new jobs between 2006 and 2016. When combined with **educational services**, the other component of the **educational & health services** supersector, these industries will provide nearly one-quarter of the jobs gained over the projection period.

TABLE 3: 10 industries adding the most jobs, Oklahoma (2006-2016)

Industry	Employment		Change	
	2006	2016	Jobs	Pct.
Administrative & support services	98,740	117,760	19,010	19.3%
Educational services	157,250	175,830	18,580	11.8%
Food services & drinking places	110,340	126,500	16,160	14.6%
Professional, scientific & technical services	61,450	75,910	14,470	23.5%
Local government, excluding education & hospitals	79,840	92,390	12,550	15.7%
Specialty trade contractors	43,820	52,410	8,590	19.6%
Hospitals	63,490	71,890	8,400	13.2%
Self-employed workers, primary job	113,700	121,580	7,880	6.9%
Ambulatory health care services	61,200	68,900	7,700	12.6%
Nursing & residential care facilities	34,370	41,880	7,510	21.8%

Source: OESC Economic Research & Analysis, Oklahoma Employment Outlook 2016

Oklahoma’s fastest growing industries

When examining industrial growth rates, it is important to remember that they fall into one of two categories. The first contains industries with a small number of jobs. Any growth in this type of industry will appear significant. The other category is composed of larger industries. The gain of a few jobs will have less effect on the growth rate of an industry in this category.

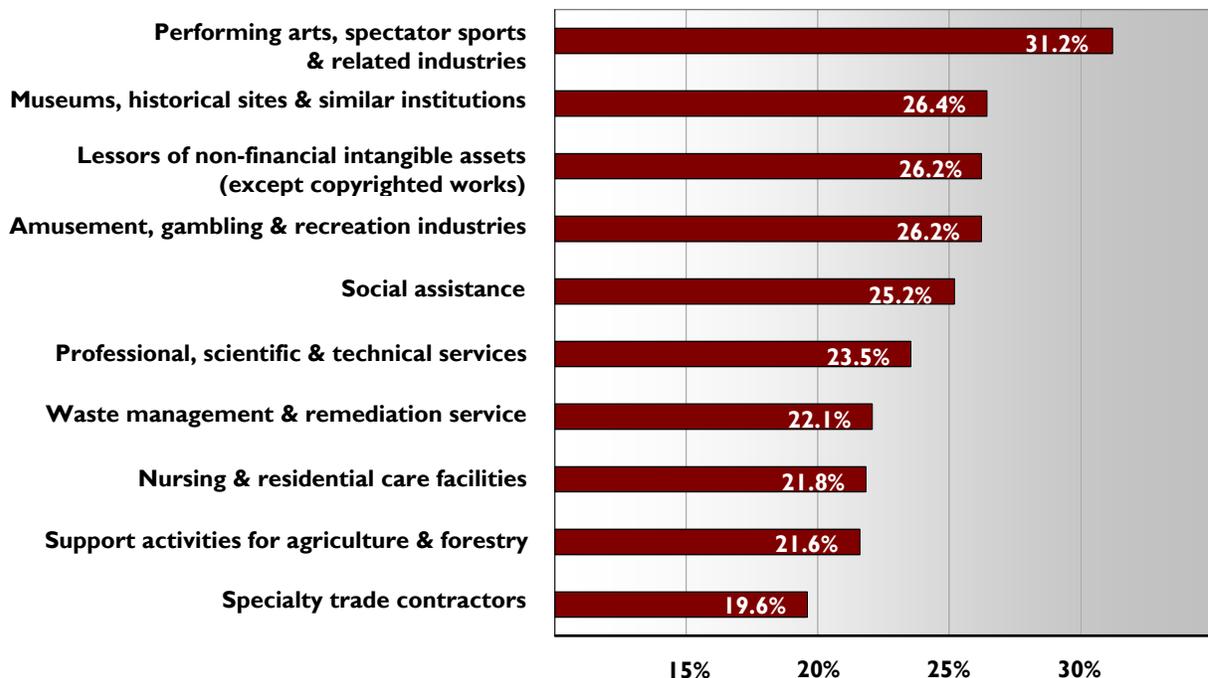
Three of the four industries with the highest growth rates are recreation-related industries: **performing arts, spectator sports & related industries; museums, historical sites & similar institutions; and amusement, gambling & recreational industries.**

Other smaller industries in the 10 industries with

the fastest growth rates include **lessors of nonfinancial intangible assets (except copyrighted works), waste management & remediation services, and support activities for agriculture & forestry.**

Three of the industries with the fastest growth also made the list of 10 industries adding the most jobs: **professional, scientific & technical services, nursing & residential care facilities, and specialty trade contractors.** All three of these industries fall into the large industry category and, when combined, are the source of more than 70 percent of the new jobs provided by the 10 fastest growing industries. The fourth large industry on the list, **social assistance**, is expected to grow the fastest among the larger industries.

CHART 5: 10 industries with the fastest growth rates, Oklahoma (2006-2016)



Source: OESC Economic Research & Analysis, Oklahoma Employment Outlook 2016

Oklahoma’s future employment by occupation

Turning to occupational employment, Oklahoma is expected to continue growing during the projection period. Two major occupational divisions, **service occupations** and **professional & related occupations**, are expected to provide more than half of all jobs gained over the forecast period. These two divisions will also be the source of more than two out of every five jobs added each year between 2006 and 2016.

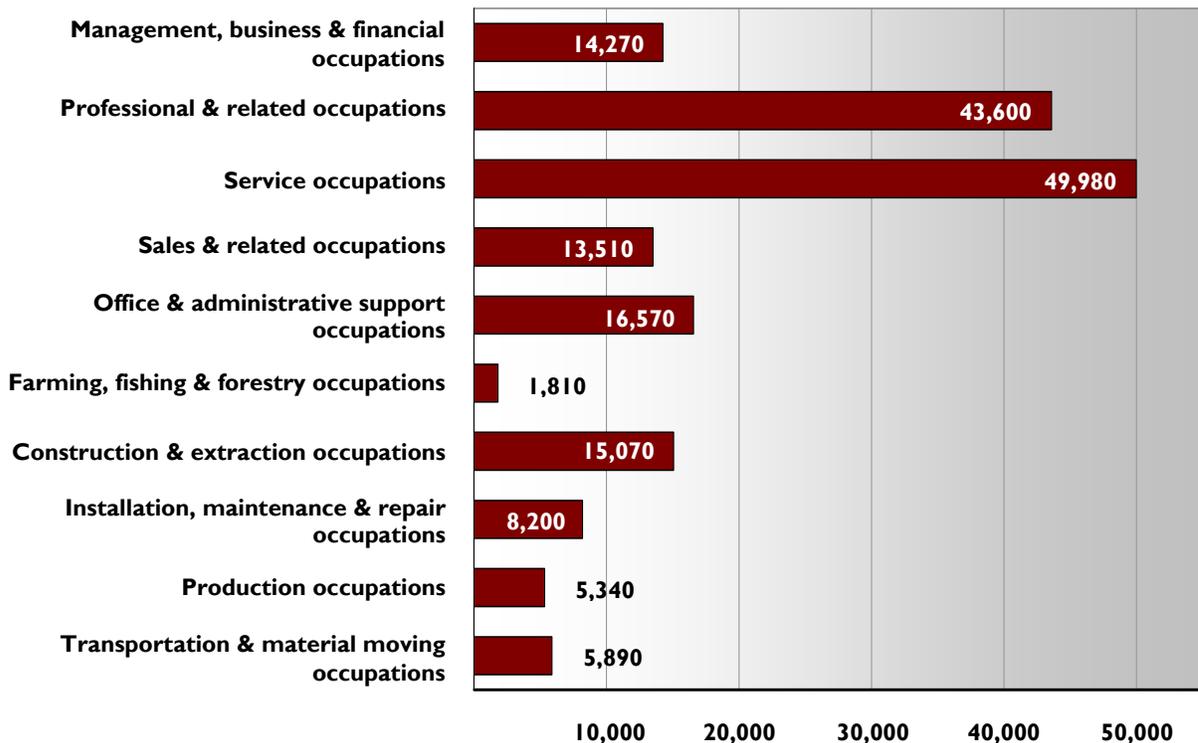
The **service occupations** group is expected to add nearly 50,000 new jobs during the projection period, the most of any major occupational division. The division is also expected to post the highest growth rate and add the most jobs each

year among the major occupational divisions.

Following right behind will be **professional & related occupations**. This major division is expected to post a similar job gain and growth rate as **service occupations**, but will provide nearly 1,900 fewer jobs per year on average. Growth in these two groups will be driven by factors associated with an aging population in Oklahoma.

Three other occupational groups are expected to report moderate growth: **sales & related occupations**, **office & administrative support occupations**, and **construction & extraction occupations**.

CHART 6: Change in employment by occupational group, Oklahoma (2006-2016)



Source: OESC Economic Research & Analysis, Oklahoma Employment Outlook 2016

Oklahoma occupations adding the most jobs

From 2006 to 2016, the 30 occupations adding the most jobs per year will represent nearly 40 percent of total employment and provide an average of more than two out of every five job openings each year. **Retail Salespersons** and **Cashiers**, two **sales & related occupations**, will provide the most job openings per year between 2006 and 2016,

averaging 2,160 jobs per year and 2,020 jobs per year, respectively. Although **sales & related occupations** claimed the top two spots on the list, **service occupations** contributed eight of the top 30 demand occupations, followed by **office & administrative support occupations** (7) and **professional & related occupations** (6).

TABLE 4: Occupations adding the most jobs per year, Oklahoma (2006-2016)

Occupation	Employment			Avg. annual openings
	2006	2016	Growth	
Retail salespersons	49,560	55,900	12.8%	2,160
Cashiers	41,960	42,170	0.5%	2,020
Waiters & waitresses	27,610	31,470	14.0%	1,890
Customer service representatives	23,590	29,370	24.5%	1,240
Combined food preparation & serving, including fast food	27,120	32,970	21.6%	1,100
Office clerks, general	37,370	41,130	10.1%	1,070
Registered nurses	25,680	30,890	20.3%	950
Laborers & freight, stock & material movers, hand	25,320	25,610	1.2%	840
Postsecondary teachers	19,540	23,810	21.9%	760
Janitors & cleaners, except maids & housekeeping cleaners	24,950	27,630	10.7%	750
Truck drivers, heavy & tractor-trailer	24,740	27,660	11.8%	740
Bookkeeping, accounting & auditing clerks	27,030	29,890	10.6%	710
General & operations managers	28,510	28,710	0.7%	710
Elementary school teachers, except special education	16,710	19,480	16.6%	650
Personal & home care aides	11,070	15,320	38.4%	620
Cooks, fast food	14,950	16,750	12.0%	590
Child care workers	13,180	15,090	14.5%	570
Nursing aides, orderlies & attendants	20,440	24,010	17.5%	540
Accountants & auditors	16,410	18,760	14.3%	530
Executive secretaries & administrative assistants	19,480	21,480	10.3%	510
Farmworkers & laborers, crop, nursery & greenhouse	16,050	17,080	6.4%	510
First-line supervisors/managers of retail sales workers	17,500	18,850	7.7%	510
Team assemblers	18,340	19,440	6.0%	500
Licensed practical & licensed vocational nurses	13,600	14,710	8.2%	490
Tellers	8,340	9,500	13.9%	480

Source: OESC Economic Research & Analysis, Oklahoma Employment Outlook 2016

Oklahoma's fastest growing occupations

Oklahoma employment is expected to grow by more than 10 percent between 2006 and 2016. The 30 occupations predicted to grow at the fastest rates during the period all more than double this growth rate. **Professional & related occupations** are expected to make up nearly half of the 30 occupations with the fastest growth rates between

2006 and 2016. **Service occupations** will provide 10 of the remaining occupations on the list. Two of the top three fastest growing occupations are related to veterinary medicine. Three more are concerned with the information technology field, while four others work in the gaming industry.

TABLE 5: Occupations with fastest growth rates, Oklahoma (2006-2016)

Occupation	Employment			Avg. annual openings
	2006	2016	Growth	
Veterinary technologists & technicians	620	940	51.6%	60
Network systems & data communications analysts	2,090	3,090	47.9%	150
Veterinarians	800	1,140	42.5%	50
Computer software engineers, applications	2,180	3,030	39.0%	120
Personal & home care aides	11,070	15,320	38.4%	620
Gaming surveillance officers & gaming investigators	330	450	36.4%	20
Gaming & sports book writers & runners	510	680	33.3%	30
Home health aides	7,510	10,000	33.2%	320
Pharmacy technicians	3,690	4,890	32.5%	240
Forensic science technicians	130	170	30.8%	10
Gaming supervisors	390	510	30.8%	20
Gaming dealers	750	980	30.7%	40
Slaughterers & meat packers	2,160	2,810	30.1%	140
Criminal justice & law enforcement teachers, postsecondary	100	130	30.0%	10
Surveyors	470	610	29.8%	30
Library science teachers, postsecondary	70	90	28.6%	10
Industrial engineers	1,440	1,840	27.8%	80
Security & fire alarm systems installers	1,030	1,310	27.2%	50
Manicurists & pedicurists	150	190	26.7%	10
Correctional officers & jailers	5,510	6,970	26.5%	280
Sales representatives, services, all other	3,610	4,560	26.3%	180
Biochemists & biophysicists	230	290	26.1%	20
Computer systems analysts	3,650	4,570	25.2%	190
Political science teachers, postsecondary	160	200	25.0%	10
Animal trainers	520	650	25.0%	30

Source: OESC Economic Research & Analysis, Oklahoma Employment Outlook 2016

Education & training requirements for future employment in Oklahoma

In 2006, more than 70 percent of job openings did not require postsecondary education. These openings required only **work experience in a related field** or **on-the-job training**. By 2016, this number is expected to drop slightly to just below 70 percent. All activities necessary to do the jobs that require on-the-job training can be learned while working in the occupation.

This movement means that the share of job openings requiring some level of postsecondary education or training will increase from just below to just above 30 percent of all job openings. Of the 30 occupations requiring some level of postsecondary education or training with the fastest growth rates, 26 are classified as **professional & related** occupations.

TABLE 6: Employment by education & training requirements, Oklahoma (2006-2016)

Education & training requirement	Employment		Distribution		Change	
	2006	2016	2006	2016	Number	Pct.
TOTAL, all occupations	1,687,270	1,861,510	100.0%	100.0%	174,240	10.3%
Short-term on-the-job training	587,520	640,550	34.8%	34.4%	53,030	9.0%
Moderate-term on-the-job training	363,800	398,090	21.6%	21.4%	34,290	9.4%
Long-term on-the-job training	117,780	132,590	7.0%	7.1%	14,810	12.6%
Work experience in a related occupation	114,180	123,870	6.8%	6.7%	9,690	8.5%
Postsecondary vocational training	105,320	117,840	6.2%	6.3%	12,520	11.9%
Associate degree	62,090	72,630	3.7%	3.9%	10,540	17.0%
Bachelor's degree	176,320	200,450	10.5%	10.8%	24,130	13.7%
Bachelor's degree or higher, plus work experience	92,190	97,600	5.5%	5.2%	5,410	5.9%
Master's degree	35,080	40,310	2.1%	2.2%	5,230	14.9%
First professional degree	22,940	25,450	1.4%	1.4%	2,510	10.9%
Doctoral degree	10,100	12,180	0.6%	0.7%	2,080	20.6%

Source: OESC Economic Research & Analysis, Oklahoma Employment Outlook 2016