

Labor Market Information



Oklahoma Employment Outlook 2012

Oklahoma Employment Security Commission

Oklahoma

Employment Outlook 2012

Oklahoma Employment Security Commission
Economic Research and Analysis Division
Will Rogers Memorial Office Building
2401 N. Lincoln Blvd./P.O. Box 52003
Oklahoma City, OK 73152-2003

Jon Brock, *OESC Executive Director*
Auther Jordan, *Director - Economic Research & Analysis*
Wayne Everson, *Program Chief - Economic Research & Analysis*
Lynn Gray, *Managing Economist and Interim Program Chief*
Economic Research & Analysis

Prepared by
Deergha Raj Adhikari, *Ph. D., Economist*
Huifen (Shirley) Zhang, *Lead LMI Analyst*
John Carpenter, *Public Information Officer*

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Introduction

Oklahoma Employment Outlook 2012 has been designed to provide an overview of Oklahoma's industry- and occupation-related actual employment in 2002, projected employment in 2012, employment growth between 2002 and 2012, and annual percentage growth in employment during that period. This publication also gives an account of the annual percentage growth in U.S. total employment during the same period for comparison. In the first part of this book, the industry employment statistics and analyses by 20 major industry groups have been presented. In the second part, each industry group has been divided into sub-industry sectors, and the statistics on actual employment in 2002, projected employment in 2012, employment growth between 2002 and 2012, and annual percentage growth in employment during that period as well as projection analyses have been presented. In the third part of this report, analyses of Oklahoma's employment projection by occupation and an analysis of Oklahoma's Occupations with Largest Employment, Occupations with Largest Number of Openings, Fastest Growing Occupations, and Occupations in Decline have been furnished. The fourth part of this report lays out a listing and analyses of employment opportunities facing workers with varying job skills. In the fifth part, an account of Oklahoma's Top 20 industries with largest number of employment in 2002, Top 20 industries with largest number of employment in 2012, Top 20 largest industries to create new employment during 2002-2012, and Top 20 fastest growing industries (in employment) has been presented along with the actual employment numbers and employment growth rates. For comparison, the U.S. Top 20 fastest growing industries (in employment) have also been listed with the corresponding employment growth rates. Finally, in part VI, this report provides the occupational profile table, the alphabetical index for occupations, explanations for occupational education and training categories, and technical notes.

In 1992, Oklahoma's total employment was 1,196,570 jobs. By 2000, it had grown to 1,489,700, but it declined by almost 50,000 from 2000 and 2002. This drop was accounted for in these projections and is the reason that the 2012 estimate is lower than the 2010 projection the OESC published two years ago in *Workforce Oklahoma Outlook 2010*. During the ten-year span from 2002 to 2012, Oklahoma's total employment is expected to increase by 206,620, or at a rate of just over 1.4 percent. This is lower than Oklahoma's 2.0 percent employment growth rate in the 1990s, but is in line with the corresponding growth rate estimate for the U.S. as a whole (1.4 percent).

The data on U.S. actual and projected employment is obtained from the U.S. Department of Labor's Monthly Labor Review, whereas data for Oklahoma is obtained from the Current Employment Statistics (CES) and Covered Employment and Wages (ES-202) programs. The data on employment and employment change has been rounded to the nearest 10. However, unrounded data has been used to calculate the Average Annual Percentage Changes. The Average Annual Percentage Changes in employment between 1992 and 2002 and between 2002 and 2012 have been calculated by subtracting the employment figure for the beginning year from that for the ending year, dividing the result by the figure for the beginning year, and finally dividing the result by 10.

In some of the pie charts, share of employment or share of new employment for some of the industries or occupations may show a "0%" entry. This simply means that the particular industry/occupation either has a negligible share in total employment or is actually shrinking in the projection period.

While interpreting the percentage numbers in the pie charts, the readers are advised to match the number at the position of 12 in a clock with the industry/occupation at the top of the adjoining list, the number next to it in a clockwise direction to the second industry/occupation from the top of the list and so on.

Acknowledgements

Employment projections are funded by the U.S. Department of Labor, Employment and Training Administration. The State Projections Workgroup provided guidelines, software, technical support and other information needed to develop these projections. The ES-202, CES and OES staffs provided historical employment data and staffing patterns. Appreciation is extended to the thousands of Oklahoma employers from whom these data were collected through the BLS/ETA state cooperative programs and who contributed to the quality of the data. The LMI staff assisted in reviewing the projections and providing constructive suggestions.

Special thanks go to the following economists who, upon our request, reviewed our key industry projections: Dr. Syed Ahmed, School of Business, Cameron University; Dr. Robert C. Dauffenbach, Michael F. Price College of Business, University of Oklahoma; Dr. Mickey Hepner, Department of Economics, University of Central Oklahoma; Dr. Fred Jungman, Northwestern Oklahoma State University; Dr. Michael Metzger, Department of Economics, University of Central Oklahoma; Ms. Amy Polonchek, Oklahoma Department of Commerce; Dr. William Robert Reed, Department of Economics, University of Oklahoma; Dr. Dan Rickman, Department of Economics and Legal Studies, Oklahoma State University; Mr. Tom Smith, Rural Enterprises of Oklahoma; Mr. Bob Ball, Tulsa Metro Chamber; Dr. Mark C. Snead, Department of Economics and Legal Studies, Oklahoma State University; Dr. Steve Steib, Department of Economics, University of Tulsa; and Dr. Craig Walker, Paul Dickinson School of Business, Oklahoma Baptist University.

1. Oklahoma Employment Projection by Industry (2002–2012)

Oklahoma's total employment is projected to increase by 206,620 jobs between 2002 and 2012. *Health Care and Social Assistance* is expected to be the largest contributor by adding 42,060 jobs, or 20.36 percent of the job growth.

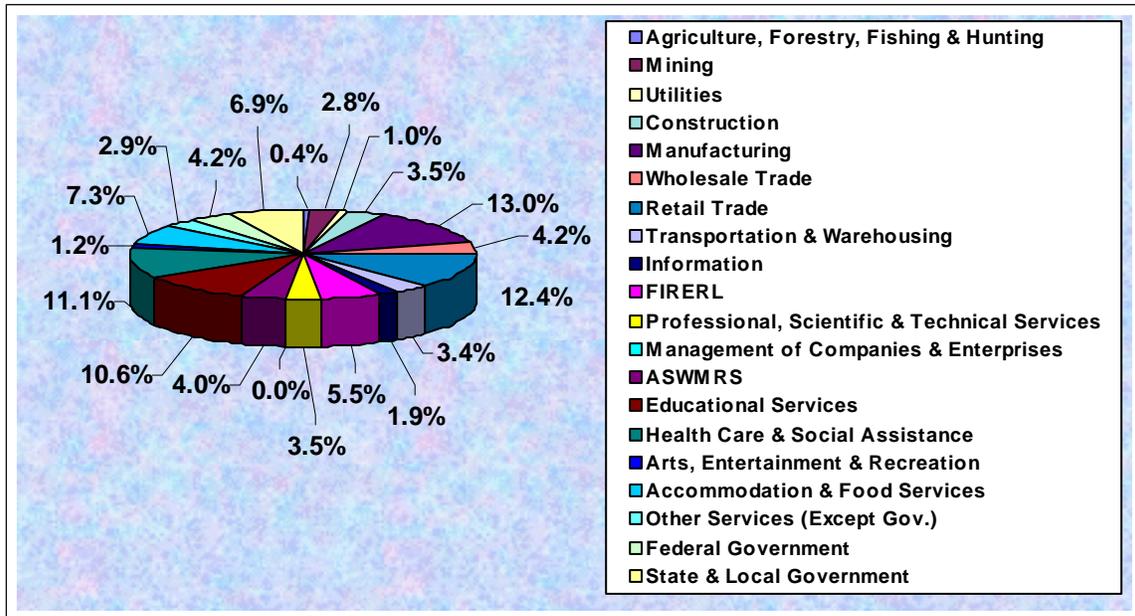
Projections show that total employment in Oklahoma will increase from 1,439,780 jobs in 2002 to 1,646,400 in 2012 for a total of 206,620 new jobs created during this ten-year period. Of these new jobs, the **Health Care and Social Assistance** industry is expected add the most to the growth (+42,060 jobs).

1.1 EMPLOYMENT PROJECTION by MAJOR INDUSTRY (2002–2012)

Industry	Oklahoma								U.S.	
	Employment in			Numeric Change		Average Annual % Change		Average Annual % Change		
	1992	2002	2012	1992-2002	2002-2012	'92-'02	'02-'12	'92-'02	'02-'12	
Agriculture, Forestry, Fishing & Hunting	4,940	7,380	9,280	2,440	1,900	4.9%	2.6%	-1.6%	-1.6%	
Mining	33,680	27,720	23,610	-5,960	-4,110	-1.8%	-1.5%	-1.7%	-1.3%	
Utilities	11,440	10,840	10,460	-600	-380	-0.5%	-0.4%	-1.9%	-0.6%	
Construction	41,410	64,320	69,470	22,910	5,150	5.5%	0.8%	3.9%	1.4%	
Manufacturing	154,330	152,470	157,690	-1,860	5,220	-0.1%	0.3%	-0.9%	-0.1%	
Wholesale Trade	49,450	56,560	62,320	7,110	5,760	1.4%	1.0%	1.0%	1.1%	
Retail Trade	146,680	172,450	193,560	25,770	21,110	1.8%	1.2%	1.6%	1.3%	
Transportation & Warehousing	40,240	43,450	51,840	3,210	8,390	0.8%	1.9%	2.0%	2.0%	
Information	22,810	35,490	41,110	12,680	5,620	5.6%	1.6%	2.6%	1.7%	
Finance & Insurance, Real Estate, and Rental & Leasing	65,500	78,200	86,130	12,700	7,930	1.9%	1.0%	1.8%	1.2%	
Professional, Scientific & Technical Services	41,960	55,640	65,440	13,680	9,800	3.3%	1.8%	3.9%	2.5%	
Management of Companies & Enterprises	13,820	12,730	13,870	-1,090	1,140	-0.8%	0.9%	0.5%	1.1%	
Administrative & Support, and Waste Mgt. & Remediation Svcs.	46,920	93,120	123,150	46,200	30,030	9.8%	3.2%	4.8%	3.2%	
Educational Services	125,420	148,190	175,030	22,770	26,840	1.8%	1.8%	4.5%	2.6%	
Health Care & Social Assistance	130,870	168,980	211,040	38,110	42,060	2.9%	2.5%	2.9%	2.8%	
Arts, Entertainment & Recreation	14,150	14,140	18,190	-10	4,050	0.0%	2.9%	3.7%	2.5%	
Accommodation & Food Services	86,410	113,600	131,570	27,190	17,970	3.1%	1.6%	2.2%	1.5%	
Other Services (Except Gov.)	34,770	39,710	45,700	4,940	5,990	1.4%	1.5%	1.8%	1.5%	
Federal Government	49,880	46,360	46,550	-3,520	190	-0.7%	0.0%	-1.2%	0.0%	
State and Local Government	81,900	98,420	110,410	16,520	11,990	2.0%	1.2%	1.8%	1.3%	
Total Employment	1,196,570	1,439,780	1,646,400	243,210	206,620	2.0%	1.4%	1.6%	1.4%	

Between 2002 and 2012, **Administrative & Support, and Waste Management & Remediation Services** and **Educational Services** industries will be second and third in adding new jobs with 30,030 and 26,840, respectively. While all other industries will experience positive growth during this period, the **Mining** industry is projected to suffer a net loss of jobs. This industry will lose 4,110 existing jobs by 2012. In aggregate, the national **Mining** industry will suffer a 1.3 percent annual employment loss. Oklahoma **Mining**, however, will top that rate, losing 1.5 percent of its workforce each year. On average, Oklahoma's projected employment growth rate of 1.4 percent will be the same as that of the nation as a whole.

1.2 EMPLOYMENT SHARE by INDUSTRY (1992)



Industry rankings in terms of employment share experienced significant change during the 1992-2002 period and are expected to be significantly different between 2002 and 2012. **Manufacturing** was the largest employment provider in 1992, then fell to third place in 2002, and is expected to drop to fourth place by 2012.

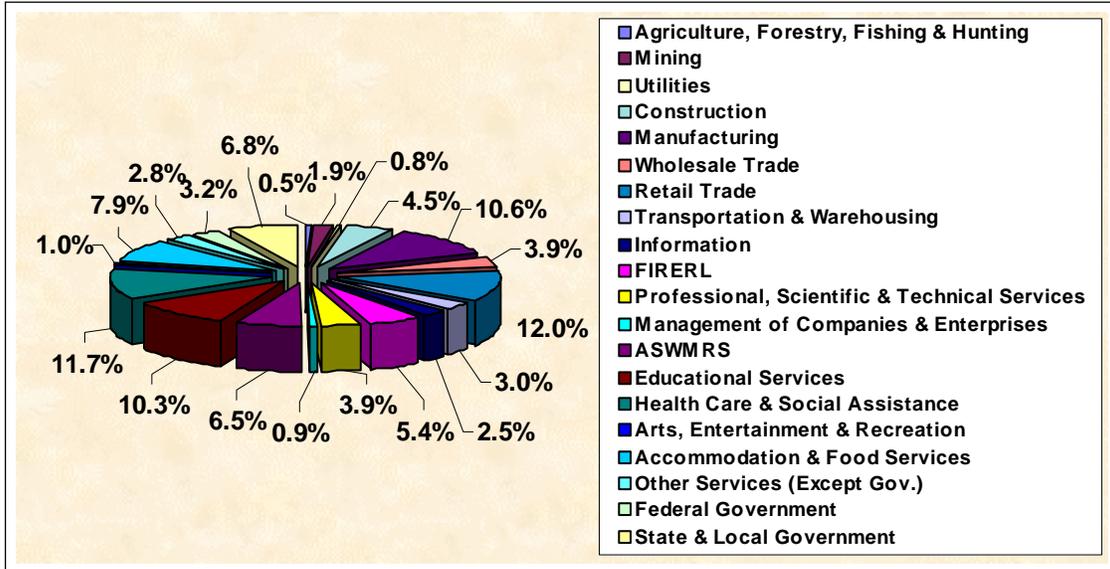
The **Retail Trade** industry has not changed significantly in terms of employment share over the past few decades. This industry was the second largest employment provider in 1992, the largest provider in 2002, and is expected to slip back to second by 2012.

Surprisingly, **Health Care & Social Assistance** has moved from the third position in 1992 to the second position in 2002. It is expected to claim the top spot by 2012.

Educational Services held on to fourth position from 1992 to 2002 and is expected to move up to third by 2012.

Accommodation & Food Services is expected to continue as the fifth largest provider of jobs through 2012, a position it has held since 1992.

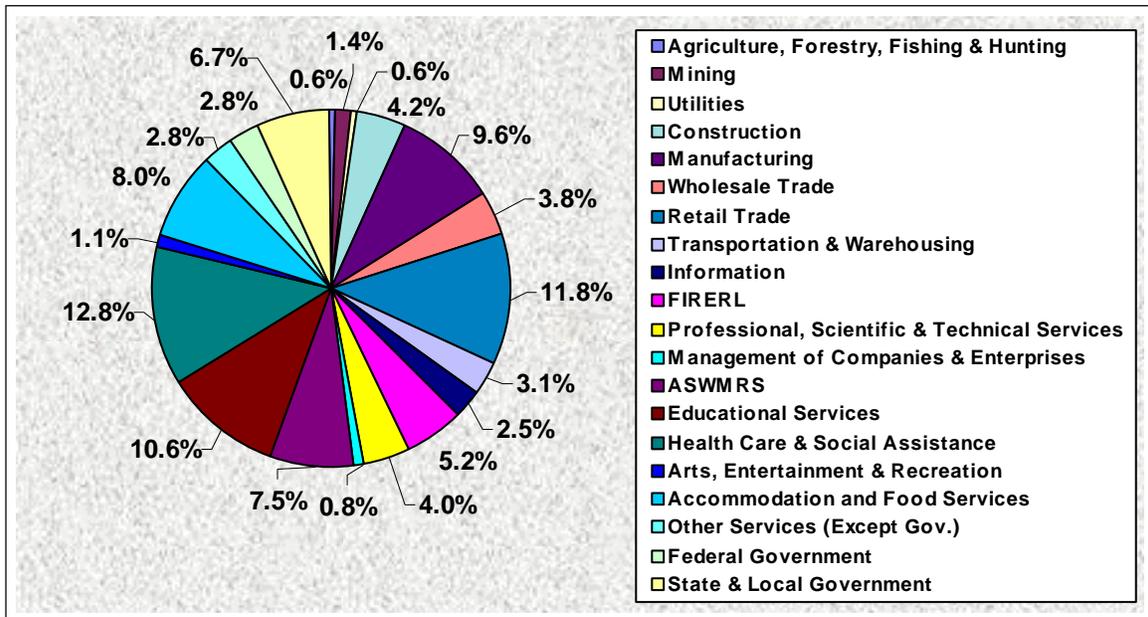
1.3 EMPLOYMENT SHARE by INDUSTRY (2002)



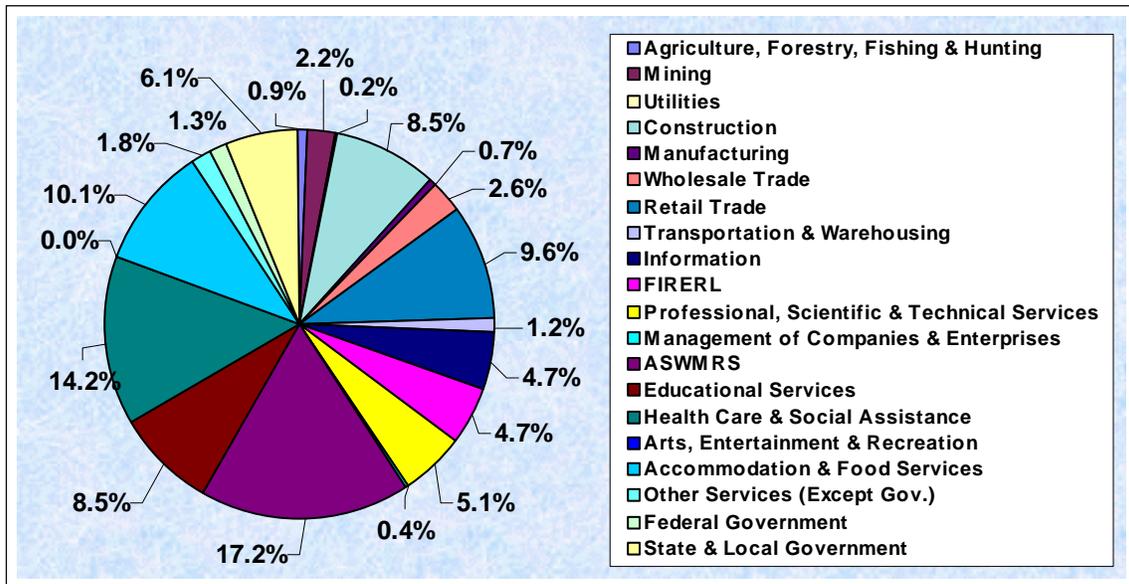
Looking at the actual number of jobs created between 1992 and 2002, it is evident that **Administrative & Support, and Waste Management & Remediation Services** was the largest contributor with an addition of 46,200 new jobs, or an increase of 17 percent. The second and the third largest contributors of new jobs were **Health Care & Social Assistance** (14 percent) and **Accommodation & Food Services** (10 percent). **Retail Trade** (10 percent) and **Construction** (9 percent) were the fourth and fifth largest contributors of new jobs during this period.

While other industries gained employment between 1992 and 2002, the net losers were **Mining** (-5,960 jobs), **Utilities** (-600 jobs), **Manufacturing** (-1,860 jobs), **Management of Companies & Enterprises** (-1,090 jobs), **Arts, Entertainment and Recreation** (-10 jobs), and **Federal Government** (-3,520 jobs).

1.4 EMPLOYMENT SHARE by INDUSTRY (2012)



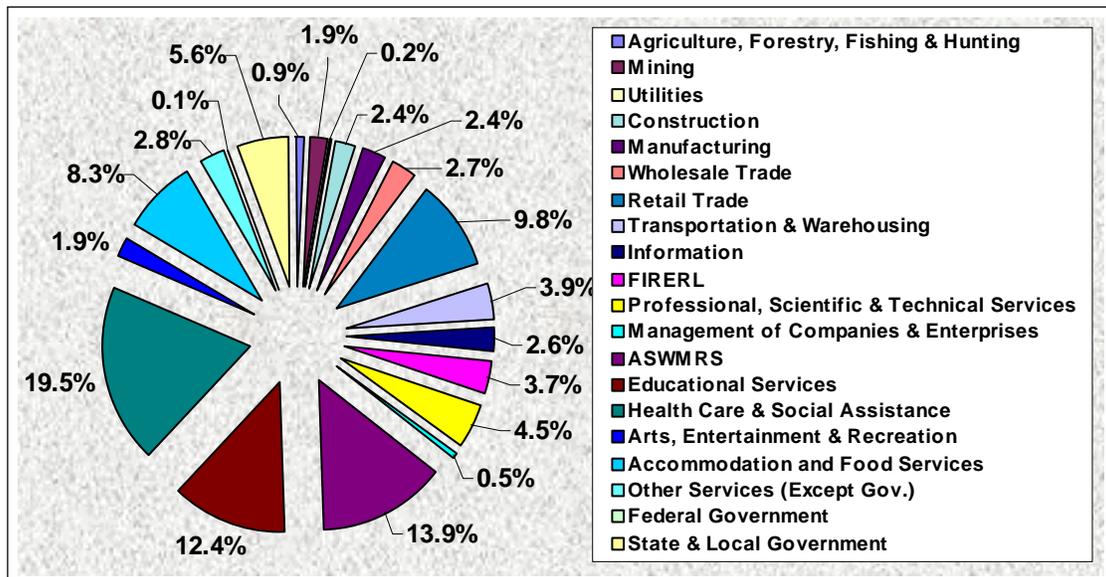
1.5 EMPLOYMENT GROWTH by INDUSTRY (1992-2002)



Looking at the projections for new jobs created between 2002 and 2012, it appears that the **Health Care & Social Assistance** industry will overwhelmingly dominate all others. This industry will provide one out of every five new jobs created during this period. **Administrative & Support, and Waste Management & Remediation Services** and **Educational Services** will be the second and third largest providers of new jobs between 2002 and 2012, providing 14 percent and 12 percent of new jobs, respectively.

When combined, **Health Care & Social Assistance, Administrative & Support and Waste Management & Remediation Services, and Educational Services** will account for almost half of the total number of new jobs created during the ten-year period. **Federal Government** will contribute the smallest share of new job creation with almost zero percent.

1.6 EMPLOYMENT GROWTH by INDUSTRY (2002-2012)



Administrative & Support, and Waste Management & Remediation Services will experience the highest rate of annual employment growth at 3.2 percent. **Arts, Entertainment & Recreation** will be the second fastest growing industry in terms of employment growth percentage with a 2.9 percent annual growth rate.

The third, fourth, fifth, sixth and seventh fastest growing industries in terms of employment will be **Agriculture, Forestry, Fishing & Hunting; Health Care & Social Assistance; Transportation & Warehousing; Educational Services;** and **Professional, Scientific & Technical Services**. Each industry will average almost 2 percent annual growth rate.

The only industries with projected negative annual employment growth rates are **Mining** (-1.5 percent) and **Utilities** (-0.4 percent). Losses in **Utilities** are blamed mainly on persistent productivity growth. For the **Mining** industry, reasons included fluctuations in oil and gas prices, strict environmental regulations, limited access to federal lands, foreign competition, industry consolidation and advances in productivity.

Industries such as **Agriculture, Forestry, Fishing & Hunting, Manufacturing** and **Accommodation & Food Services** are projected to create new jobs at rates higher than the corresponding national employment growth rates. On the other hand, the **Mining** industry is projected to shrink at a rate faster than the national rate. The balance of the industries will grow at rates slower than the corresponding national rates in terms of employment between 2002 and 2012.

2. Oklahoma Employment Projection for Agriculture, Forestry, Fishing & Hunting Industry (2002-2012)

The *Agriculture, Forestry, Fishing & Hunting* industry will add 1,900 new jobs by the end of 2012, accounting for 1 percent of all new employment. Within this industry, *Support Activities for Agriculture and Forestry* will be the fastest growing sector with a 3.2 percent annual employment growth rate, whereas the *Animal Production* sector will contribute 46 percent of all new employment within the industry.

The **Agriculture, Forestry, Fishing & Hunting (AFFH)** industry is expected to generate 1,900 new jobs between 2002 and 2012. This will be one of the fastest growing industries with an annual employment growth rate of 2.6 percent. Although this industry provided less than 1 percent of all employment growth in both 1992 and 2002, it is expected to contribute 1 percent of the total jobs by the end of 2012.

2.1 EMPLOYMENT PROJECTION for AFFH INDUSTRY (2002 - 2012)

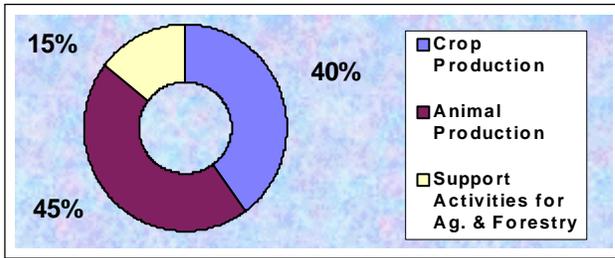
<i>Agriculture, Forestry, Fishing & Hunting</i>	Employment in		Employment Growth	Annual % Growth for Oklahoma
	2002	2012	(2002-2012)	
Crop Production	2,810	3,480	670	2.4%
Animal Production	3,190	4,030	840	2.6%
Forestry and Logging	*	*	*	1.8%
Fishing, Hunting and Trapping	*	*	*	1.2%
Support Activities for Agriculture and Forestry	1,030	1,370	340	3.2%
TOTAL	7,380	9,280	1,900	2.6%

* Data falls under strict guidelines of OESC/BLS confidentiality agreement and cannot be released.

Within this industry, the fastest growing sector will be **Support Activities for Agriculture and Forestry**. This sector is expected to grow at an annual rate of 3.2 percent. The largest contributor of new jobs, however, will be the **Animal Production** sector (+840 jobs). This sector will add account for nearly 50 percent of all new jobs in this industry.

The sectors adding the second and third largest number of new jobs by 2012 will be **Crop Production** (+670 jobs) and **Support Activities for Agriculture and Forestry** (+340 jobs). The combination of **Animal Production** and **Crop Production** will contribute about 80 percent of all new jobs created within this industry.

2.2 EMPLOYMENT SHARE in AFFH (2002)



In 2002, the **Animal Production** sector was the largest employer with 45 percent of total employment share within this industry.

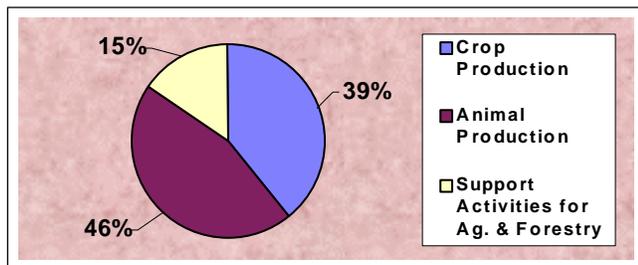
The second largest provider of employment was **Crop Production** (40 percent), and **Support Activities for Agriculture and Forestry** (15 percent) contributed the third largest number of jobs in 2002.

In terms of employment, the **Animal Production** sector will continue to dominate this industry through 2012. It is expected to increase its employment share from 45 percent (2002) to 46 percent (2012).

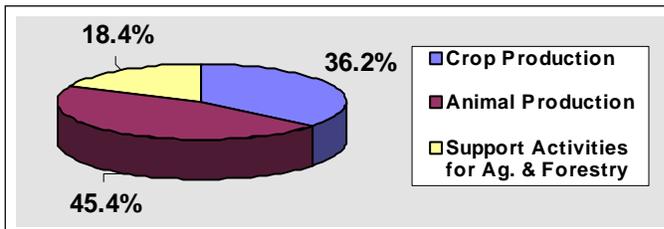
Crop Production will continue to be the second largest sector within this industry, but is expected to reduce its employment share from 40 percent to 39 percent by 2012.

The **Support Activities for Agriculture and Forestry** sector, on the other hand, will retain its third position in employment share at 15 percent through 2012.

2.3 EMPLOYMENT SHARE in AFFH (2012)



2.4 EMPLOYMENT GROWTH in AFFH (2002-2012)

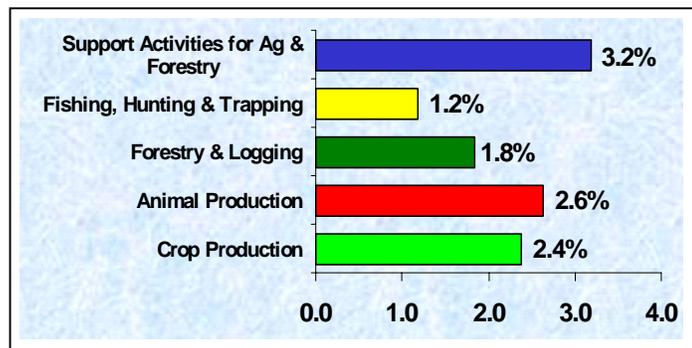


During the 2002-2012 period, most employment growth in **AFFH** will occur in three sectors.

Animal Production is expected to create 46 percent of all new jobs in **AFFH**, followed by the **Crop Production** and **Support Activities for Agriculture and Forestry** sectors.

Support Activities for Agriculture and Forestry will create new jobs at a rate of 3.2 percent between 2002 and 2012, the fastest annual rate in the industry for the period. The second and third fastest sectors will be **Animal Production** (2.6 percent) and **Crop Production** (2.4 percent). During this period, the **Fishing, Hunting and Trapping** sector will create new employment at the slowest annual rate (1.2 percent).

2.5 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in AFFH (2002-2012)



3. Oklahoma Employment Projection for Mining Industry (2002-2012)

The *Mining* industry will lose 4,110 jobs by the end of 2012. Within this industry, the *Oil and Gas Extraction* sector will shrink at the fastest annual rate of 2.5 percent. The only sector that is expected to grow is *Mining (except Oil and Gas)*.

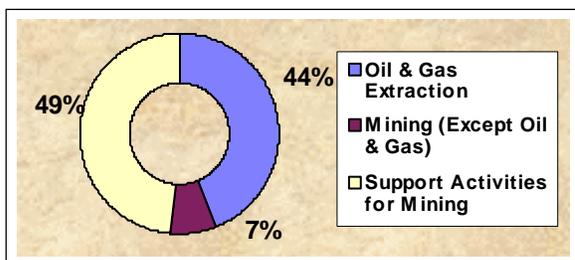
The **Mining** industry is expected to lose 4,110 jobs between 2002 and 2012. This is one of the two industries to shrink in this period. While its share of Oklahoma's total employment was 3 percent in 1992 and 2 percent in 2002, **Mining** is expected to contribute only 1 percent of the total jobs by 2012.

3.1 EMPLOYMENT PROJECTION for MINING INDUSTRY (2002-2012)

<i>Mining</i>	Employment in 2002	Employment in 2012	Employment Growth (2002-2012)	Annual % Growth for Oklahoma
Oil and Gas Extraction	12,140	9,100	-3,040	-2.5%
Mining (Except Oil and Gas)	2,070	2,160	90	0.4%
Support Activities for Mining	13,510	12,350	-1,160	-0.9%
TOTAL	27,720	23,610	-4,110	-1.5%

Within this industry, the only sector to grow between 2002 and 2012 will be **Mining (Except Oil and Gas)**. This sector is expected to grow at an annual growth rate of 0.4 percent. This will be the only sector to add new jobs within this industry for the period.

3.2 EMPLOYMENT SHARE in MINING (2002)



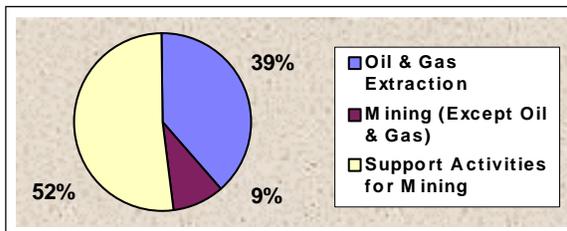
In 2002, **Support Activities for Mining** was the largest employer with 49 percent of total employment within this industry.

The second and the third largest providers of employment were the **Oil and Gas Extraction** sector (44 percent) and the **Mining (except Oil and Gas)** sector (7 percent).

In terms of employment, the **Support Activities for Mining** sector will continue its dominance of **Mining** through 2012, increasing its employment share from 49 percent to 52 percent by 2012.

Oil and Gas Extraction will continue as the second largest sector in this industry for 2012, but will see its employment share drop to 39 percent.

3.3 EMPLOYMENT SHARE in MINING (2012)



Mining (Except Oil and Gas) sector will also hold onto third place and will increase its employment share from 7 percent in 2002 to 9 percent in 2012.

During the 2002-2012 period, the only sector of **Mining** to create new employment will be the **Mining**

3.4 EMPLOYMENT GROWTH SHARE in MINING (2002-2012)

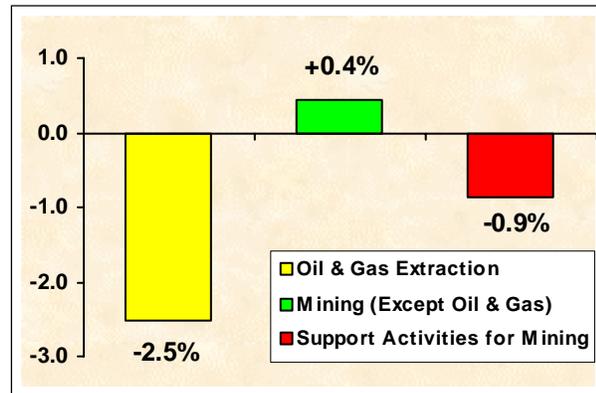


(**Except Oil and Gas**) sector. The other two sectors, **Oil and Gas Extraction** and **Support Activities for Mining** will lose jobs in this period.

3.5 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in MINING (2002-2012)

Oil and Gas Extraction will lose employment at the fastest annual rate (2.5 percent) of all sectors until 2012. **Support Activities for Mining** will also post a negative average annual growth rate of -0.9 percent.

However, the **Mining (Except Oil and Gas)** sector will grow at an average rate of 0.4 percent between 2002 and 2012.



4. Oklahoma Employment Projection for Utilities Industry (2002-2012)

The *Utilities* industry will lose 380 jobs by the end of 2012.

The **Utilities** industry is expected to drop 380 jobs between 2002 and 2012. This is one of only two industries to shrink in this period. **Utilities** is expected to contribute 1 percent of total employment in 2012, the same amount it provided in both 1992 and 2002.

4.1 EMPLOYMENT PROJECTION for UTILITIES INDUSTRY (2002-2012)

<i>Utilities</i>	Employment in		Employment Growth	Annual % Growth for
	2002	2012	(2002-2012)	Oklahoma
Utilities	10,840	10,460	-380	-0.4%
TOTAL	10,840	10,460	-380	-0.4%

Utilities is expected to shrink in employment at an average annual rate of 0.4 percent between 2002 and 2012. The other industry expected to shrink in this period is the **Mining** industry.

5. Oklahoma Employment Projection for Construction Industry (2002-2012)

Construction will add 5,150 new jobs by the end of 2012, accounting for 2 percent of all new positions. Within this industry, the *Specialty Trade Contractors* sector will be both the fastest growing sector (1.2 percent annual growth rate) and the largest contributor of new employment (72 percent).

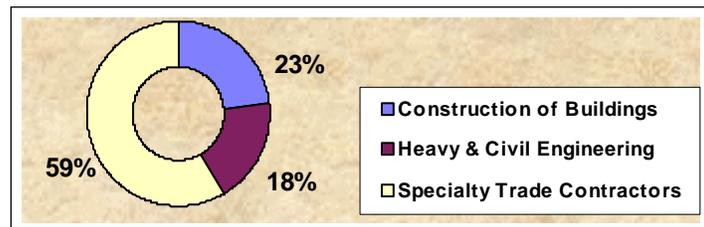
The **Construction** industry is expected to generate 5,150 new jobs between 2002 and 2012. Between 1992 and 2002, **Construction** went from providing 3 percent of total employment to 4 percent. For the 2002-2012 period, this industry is expected to hold steady at 4 percent of the total jobs.

5.1 EMPLOYMENT PROJECTION for CONSTRUCTION INDUSTRY (2002-2012)

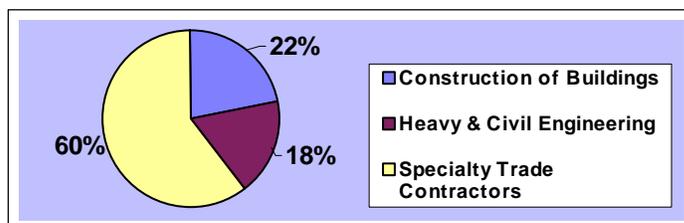
<i>Construction</i>	Employment in		Employment Growth (2002-2012)	Annual % Growth for Oklahoma
	2002	2012		
Construction of Buildings	14,970	15,260	290	0.2%
Heavy and Civil Engineering Construction	11,880	12,210	330	0.3%
Specialty Trade Contractors	37,470	42,000	4,530	1.2%
TOTAL	64,320	69,470	5,150	0.8%

In **Construction**, the fastest growing sector will be **Specialty Trade Contractors**, which is expected to grow at an annual rate of 1.2 percent. This sector is also expected to create the largest number of new jobs by adding 4,530 jobs, or 72 percent of all new jobs within this industry. The **Heavy and Civil Engineering Construction** sector will provide 330 new jobs, while **Construction of Buildings** adds 290 new jobs. The **Specialty Trade Contractors** sector provided a majority of the **Construction** employment in 2002, contributing 59 percent of all industry jobs. Second was **Construction of Buildings** (23 percent), followed by **Heavy and Civil Engineering Construction** (18 percent).

5.2 EMPLOYMENT SHARE in CONSTRUCTION (2002)



5.3 EMPLOYMENT SHARE in CONSTRUCTION (2012)



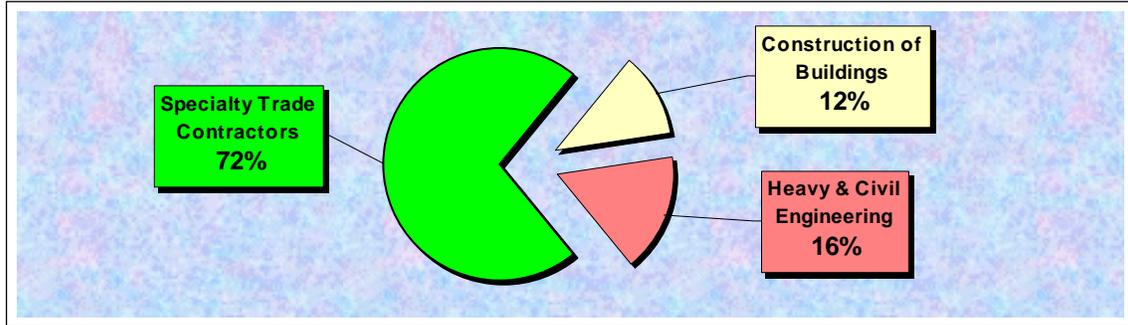
Specialty Trade Contractors will continue to dominate **Construction** between 2002 and 2012 and will increase its employment share to 60 percent. **Construction of Buildings** will continue as second largest sector with a drop to 22 percent.

Finally, the **Heavy and Civil Engineering Construction** sector will hold steady at 18 percent of total employment in this industry.

Between 2002 and 2012, the **Specialty Trade Contractors** sector will create the largest share of new jobs in the industry (72 percent). The remaining employment growth will come from **Heavy and Civil Engineering Construction** (16 percent) and the **Construction of Buildings** sector (12 percent).

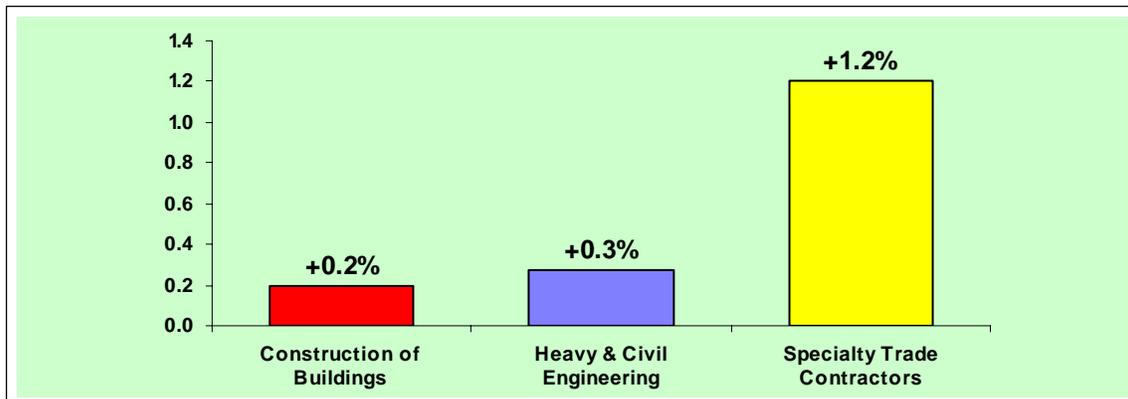
Of the three sectors, **Specialty Trade Contractors** will create new employment at the fastest annual rate with a 1.2 percent annual growth rate through 2012.

5.4 EMPLOYMENT GROWTH SHARE in CONSTRUCTION (2002-2012)



The other two sectors will grow, but at much slower rates. The **Heavy and Civil Engineering Construction** sector is expected to grow at annual rate of 0.3 percent, and **Construction of Buildings** will grow at 0.2 percent each year.

5.5 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in CONSTRUCTION (2002-2012)



6. Oklahoma Employment Projection for Manufacturing Industry (2002-2012)

Manufacturing will add 5,220 new jobs by the end of 2012, or 2 percent of all new employment. Within this industry, the *Miscellaneous Manufacturing* sector will be the fastest growing (+1.5 percent average per years), whereas *Fabricated Metal Product Manufacturing* will be the largest contributor of new employment (16 percent).

Manufacturing is expected to generate 5,220 new jobs between 2002 and 2012. From 1992 to 2002, this industry's share of total employment fell from 13 percent to 11 percent. This movement is expected to continue through 2012, when **Manufacturing** will provide 10 percent of employment. **Manufacturing** was the largest industry by number of jobs in 1992, but dropped to third by 2002. This slowdown is expected to force this industry down to fourth place by 2012. **Manufacturing** is projected to be the second slowest growing industry through 2012 (0.3 percent annual growth rate) topped only by **Federal Government**.

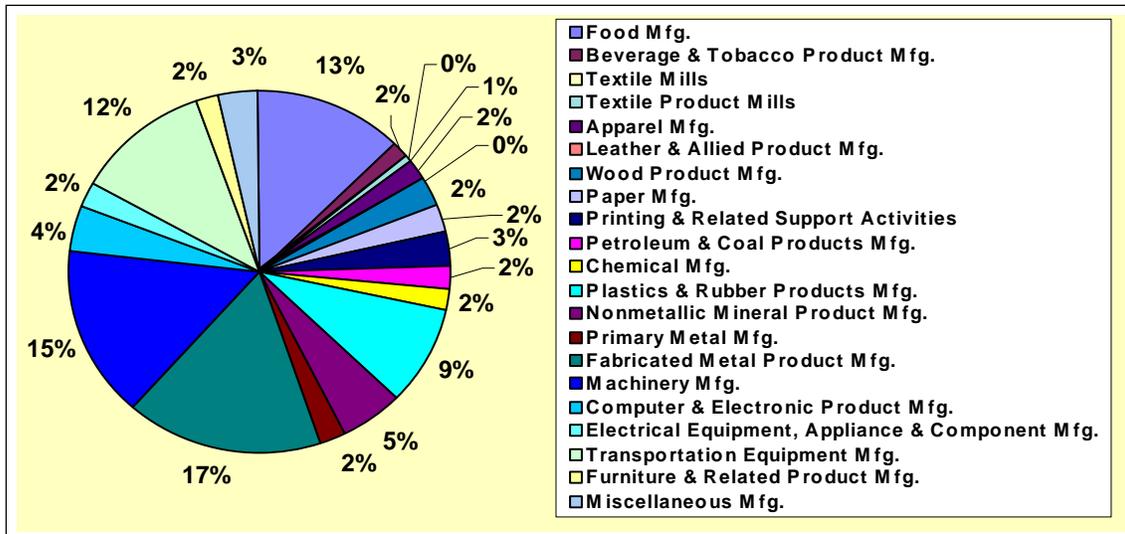
6.1 EMPLOYMENT PROJECTION for MANUFACTURING INDUSTRY (2002-2012)

<i>Manufacturing</i>	Employment in		Employment Growth (2002-2012)	Annual % Growth for Oklahoma
	2002	2012		
Food Manufacturing	19,360	21,470	2,110	1.1%
Beverage & Tobacco Product Manufacturing	2,340	2,510	170	0.7%
Textile Mills	110	80	-30	-2.5%
Apparel Manufacturing	2,650	740	-1,910	-7.2%
Leather & Allied Product Manufacturing	310	270	-40	-1.2%
Wood Product Manufacturing	3,780	4,140	360	0.9%
Paper Manufacturing	3,480	3,550	70	0.2%
Printing & Related Support Activities	5,020	4,870	-150	-0.3%
Petroleum & Coal Products Manufacturing	2,830	2,080	-750	-2.6%
Chemical Manufacturing	3,130	3,270	140	0.4%
Plastics & Rubber Products Manufacturing	13,050	14,380	1,330	1.0%
Nonmetallic Mineral Product Manufacturing	7,820	7,900	80	0.1%
Primary Metal Manufacturing	3,650	3,500	-150	-0.4%
Fabricated Metal Product Manufacturing	25,330	27,610	2,280	0.9%
Machinery Manufacturing	23,150	24,700	1,550	0.7%
Computer & Electronic Product Manufacturing	6,430	5,630	-800	-1.2%
Electrical Equipment, Appliance & Component Mfg.	3,190	2,830	-360	-1.1%
Transportation Equipment Manufacturing	17,900	18,300	400	0.2%
Furniture and Related Product Manufacturing	3,090	3,410	320	1.0%
Miscellaneous Manufacturing	5,050	5,790	740	1.5%
TOTAL	152,470	157,690	5,220	0.3%

Constant gains in productivity in most of the **Manufacturing** sectors, increasing foreign competition in some of the sectors, and consolidation among textile producers are all attributed for the continuous decline and slower growth in employment in **Manufacturing**.

In 2002, the largest employer in the **Manufacturing** industry was the **Fabricated Metal Product Manufacturing** sector. This sector provided 25,330 jobs and is expected to retain its position through 2012

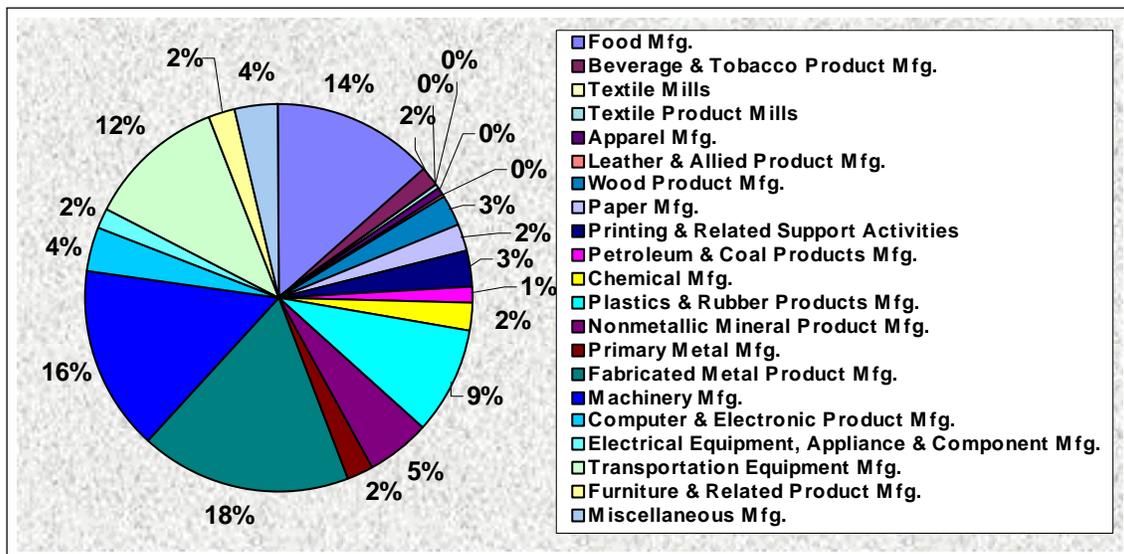
6.2 EMPLOYMENT SHARE in MANUFACTURING (2002)



by employing 27,610 people. The second, third, fourth and fifth largest providers of employment in 2002 were **Machinery Manufacturing**, **Food Manufacturing**, **Transportation Equipment Manufacturing**, and **Plastics and Rubber Products Manufacturing**, respectively. These sectors are expected to retain their 2002 rankings through 2012. The sector providing the least number of jobs is **Textile Mills** (+110 jobs). This sector is shrinking in terms of employment and is expected to drop to 80 jobs by 2012.

Between 2002 and 2012, **Fabricated Metal Product Manufacturing**, the largest provider of employment in the industry, will increase its employment share from 17 percent to 18 percent. The second and third largest sectors, **Machinery Manufacturing** and **Food Manufacturing**, will also increase their employment share from 15 percent to 16 percent and from 13 percent to 14 percent, respectively.

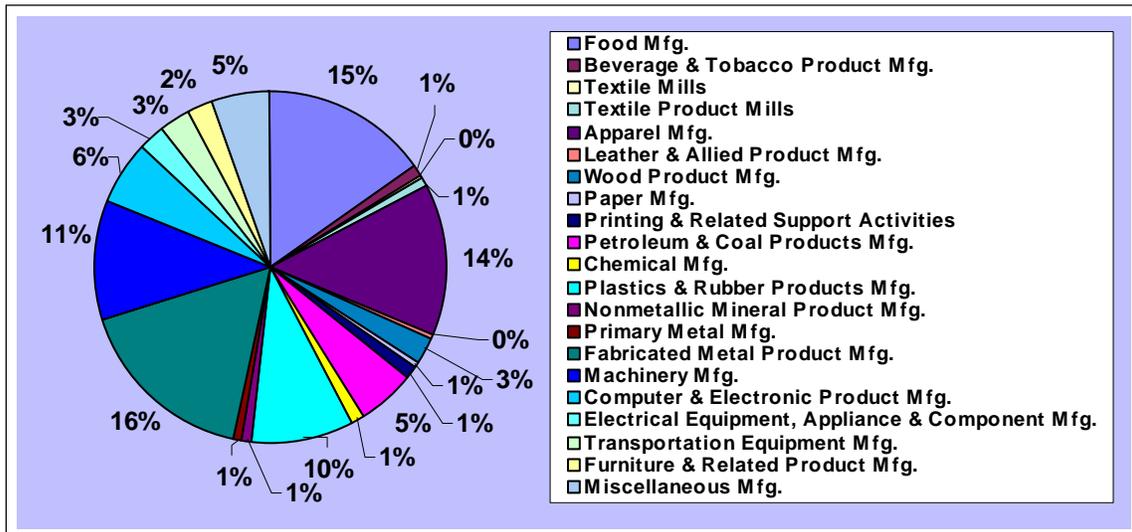
6.3 EMPLOYMENT SHARE in MANUFACTURING (2012)



During this period, the fourth and fifth largest sectors, **Transportation Equipment Manufacturing** and **Plastics and Rubber Products Manufacturing**, are expected to retain their shares of employment at 12 percent and 9 percent, respectively.

The largest contributor of new employment during this period will be the **Fabricated Metal Product Manufacturing** sector (+2,280 jobs). This sector will add almost 16 percent of all new jobs within this industry.

6.4 EMPLOYMENT GROWTH SHARE in MANUFACTURING (2002-2012)



The sectors adding the second and third largest number of new jobs by 2012 will be **Food Manufacturing** (+2,110 jobs) and **Plastics and Rubber Products Manufacturing** (+1,330 jobs). These sectors will share most of the job growth within this industry.

While the **Manufacturing** industry as a whole will continue to grow at a very slow rate between 2002 and 2012, almost half of all sectors will experience a net loss of jobs.

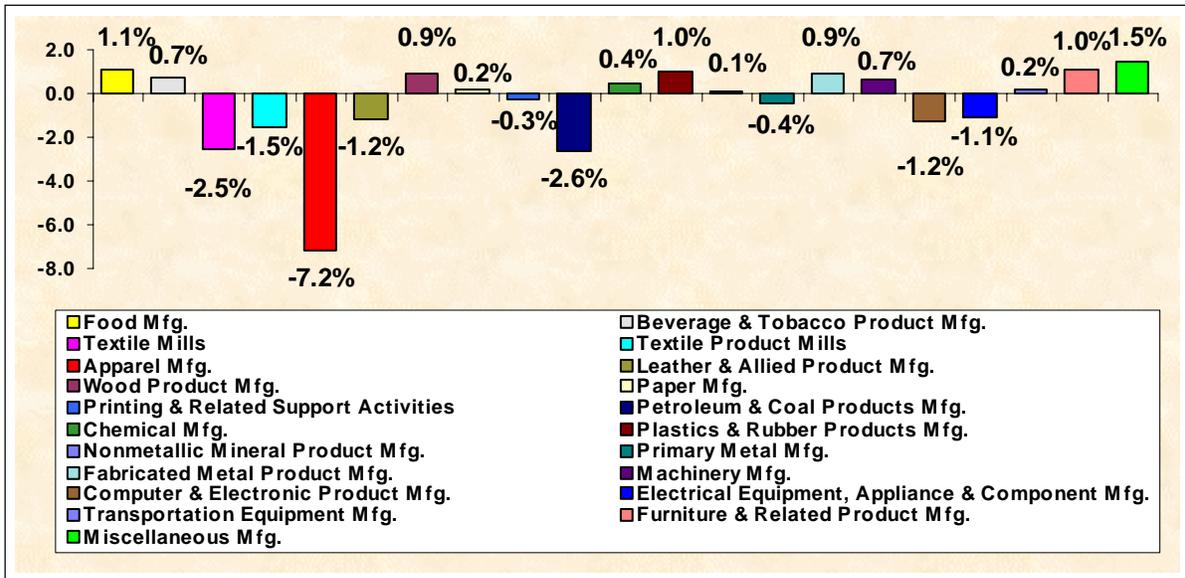
The sectors losing jobs in this period will be **Textile Mills** (-30 jobs), **Textile Product Mills** (-120 jobs), **Apparel Manufacturing** (-1,910 jobs), **Leather and Allied Product Manufacturing** (-40 jobs), **Printing and Related Support Activities** (-150 jobs), **Petroleum and Coal Products Manufacturing** (-750 jobs), **Primary Metal Manufacturing** (-150 jobs), **Computer and Electronic Product Manufacturing** (-800 jobs), and **Electrical Equipment, Appliance and Component Manufacturing** (-360 jobs).

Within **Manufacturing**, the fastest growing sector in the 2002-2012 period will be **Miscellaneous Manufacturing**, which is expected to grow at an average annual rate of 1.5 percent.

The sector expected to grow at the slowest rate is the **Nonmetallic Mineral Product Manufacturing** sector. This sector will generate new employment at an annual rate of only 0.1 percent.

Nine out of 21 sectors within **Manufacturing** are expected to lose employment between 2002 and 2012. Among them, it will be the **Apparel Manufacturing** sector that loses employment at the fastest annual rate (-7.2 percent).

6.5 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in MANUFACTURING (2002-2012)



7. Oklahoma Employment Projection for Wholesale Trade Industry (2002-2012)

Wholesale Trade will add 5,760 jobs by the end of 2012. Within this industry, the *Merchant Wholesalers, Durable Goods* sector will grow at the fastest average annual rate (1.2 percent). It will also be the largest contributor of new jobs by adding 3,170 jobs (55 percent of all new industry employment).

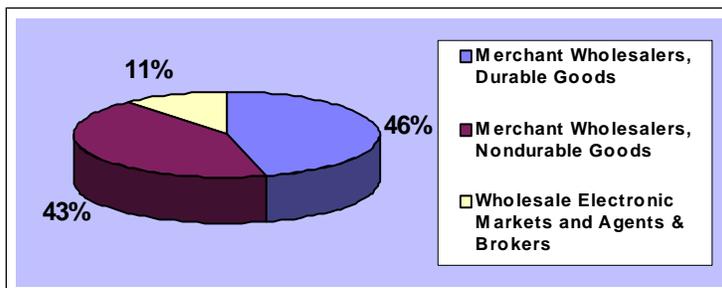
The **Wholesale Trade** industry is expected to generate 5,760 new jobs between 2002 and 2012. In both 1992 and 2002, this industry provided 4 percent of total employment. **Wholesale Trade** is expected to continue to contribute 4 percent of the total jobs through 2012.

7.1 EMPLOYMENT PROJECTION for WHOLESALE TRADE INDUSTRY (2002-2012)

<i>Wholesale Trade</i>	Employment in		Employment Growth	Annual % Growth for Oklahoma
	2002	2012	(2002-2012)	
Merchant Wholesalers, Durable Goods	25,930	29,100	3,170	1.2%
Merchant Wholesalers, Non-durable Goods	24,270	26,120	1,850	0.8%
Wholesale Electronic Markets and Agents & Brokers	6,360	7,110	750	1.2%
TOTAL	56,560	62,320	5,760	1.0%

Within **Wholesale Trade**, the fastest growing sector will be **Merchant Wholesalers, Durable Goods**. This sector is expected to grow at an average annual rate of 1.2 percent. Besides being the fastest growing sector, **Merchant Wholesalers, Durable Goods** is also expected to create the largest number of new jobs (+3,170 jobs), accounting for almost 55 percent of all new jobs within the industry.

7.2 EMPLOYMENT SHARE in WHOLESALE TRADE (2002)



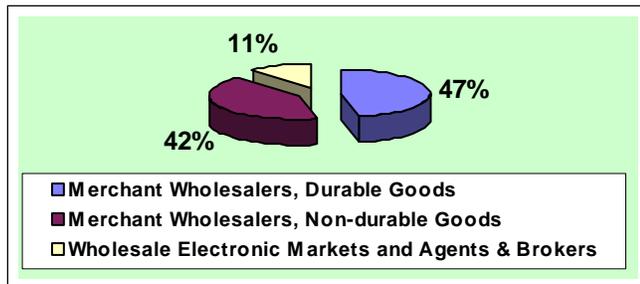
The second and third largest providers of new jobs by 2012 will be **Merchant Wholesalers, Non-durable Goods** (+1,850 jobs) and **Wholesale Electronic Markets and Agents & Brokers** (+750 jobs). The **Merchant Wholesalers, Durable Goods** sector alone will create about six out of every 10 new jobs within this industry.

The **Merchant Wholesalers, Durable Goods** sector was the largest employer in 2002 with 46 percent of total employment within this industry. The second and third largest providers of employment were **Merchant Wholesalers, Non-durable Goods** (43 percent) and **Wholesale Electronic Markets and Agents & Brokers** (11 percent).

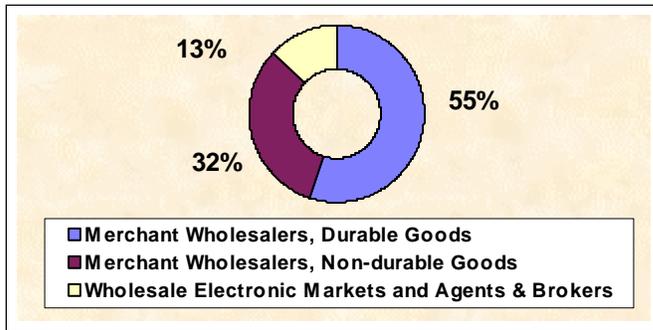
In terms of employment share through 2012, **Merchant Wholesalers, Durable Goods** will continue to dominate **Manufacturing** and is expected to increase its employment share by 1 point to 47 percent.

The **Merchant Wholesalers, Non-durable Goods** sector will once again be the second largest sector despite its employment share dropping to 42 percent by 2012. **Wholesale Electronic Markets and Agents & Brokers** will hold steady at 11 percent.

7.3 EMPLOYMENT SHARE in WHOLESALE TRADE (2012)



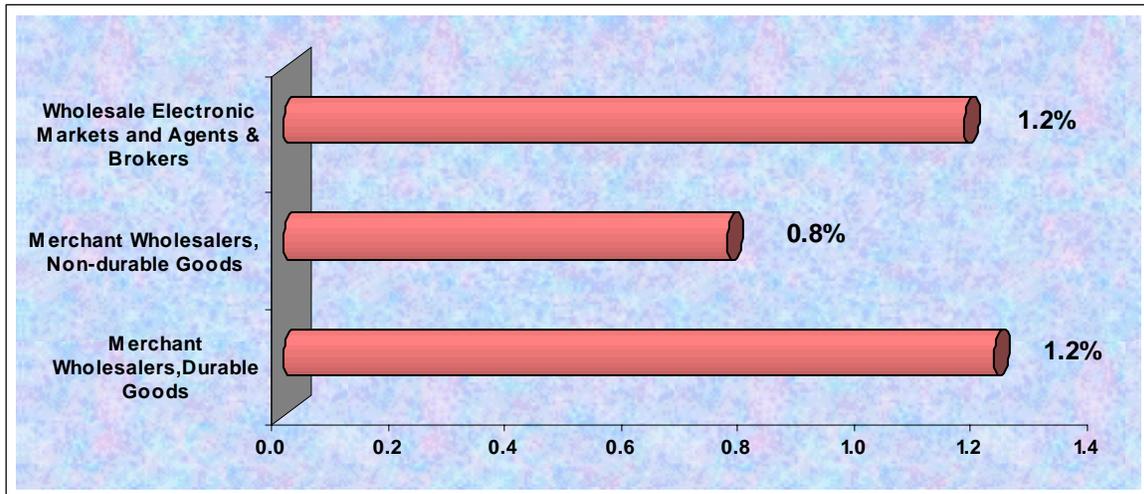
7.4 EMPLOYMENT GROWTH SHARE in WHOLESALE TRADE (2002-2012)



Between 2002 and 2012, the **Merchant Wholesalers, Durable Goods** sector will create more than half of all new jobs in the industry (55 percent).

The rest will be created by **Merchant Wholesalers, Non-durable Goods** (32 percent) and **Wholesale Electronic Markets and Agents & Brokers** (13 percent).

7.5 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in WHOLESALE TRADE (2002-2012)



Both **Merchant Wholesalers, Durable Goods** and **Merchant Wholesalers, Non-durable Goods** will share the fastest average annual rate of growth at 1.2 percent between 2002 and 2012. The **Wholesale Electronic Markets and Agents & Brokers** sector is expected to grow at an annual rate of 0.8 percent through 2012.

8. Oklahoma Employment Projection for Retail Trade Industry (2002-2012)

The *Retail Trade* industry will add 21,110 jobs by the end of 2012. Within this industry, the *Electronics and Appliance Stores* sector will grow at the fastest annual rate of 3.2 percent. However, the *General Merchandise Stores* sector will be the largest contributor of new employment by adding 7,140 new jobs.

The **Retail Trade** industry is expected to generate 21,110 new jobs between 2002 and 2012. It is expected to contribute 12 percent of total employment in 2012, just like it did in 1992 and 2002.

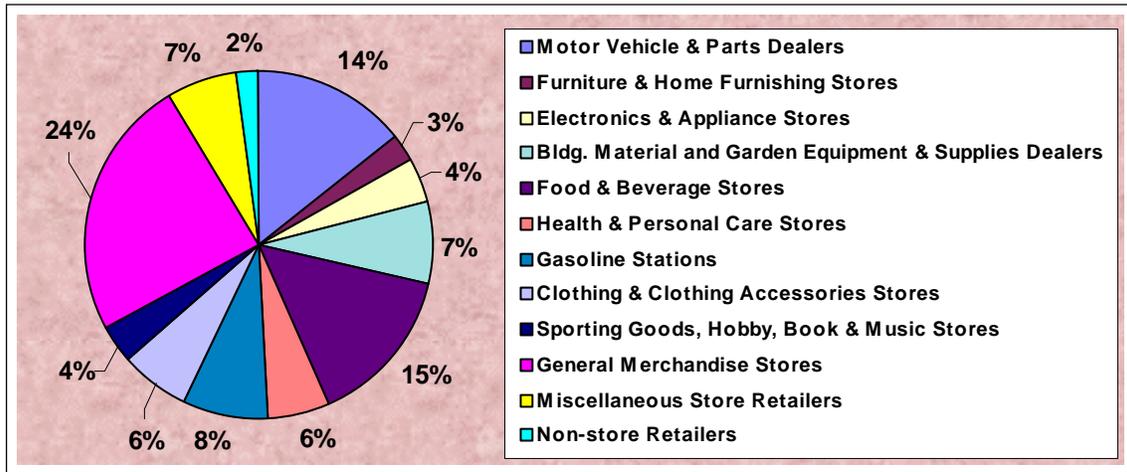
8.1 EMPLOYMENT PROJECTION for RETAIL TRADE INDUSTRY (2002-2012)

<i>Retail Trade</i>	Employment in		Employment Growth (2002-2012)	Annual % Growth for Oklahoma
	2002	2012		
Motor Vehicle & Parts Dealers	24,690	26,950	2,260	0.9%
Furniture & Home Furnishing Stores	4,670	5,270	600	1.3%
Electronics & Appliance Stores	7,130	9,420	2,290	3.2%
Building Material and Garden Equipment & Supplies Dealers	12,890	14,270	1,380	1.1%
Food & Beverage Stores	25,280	26,310	1,030	0.4%
Health & Personal Care Stores	10,030	11,000	970	1.0%
Gasoline Stations	13,570	14,000	430	0.3%
Clothing & Clothing Accessories Stores	11,020	10,860	-160	-0.1%
Sporting Goods, Hobby, Book & Music Stores	6,390	7,730	1,340	2.1%
General Merchandise Stores	41,860	49,000	7,140	1.7%
Miscellaneous Store Retailers	11,550	14,760	3,210	2.8%
Non-store Retailers	3,370	3,990	620	1.8%
TOTAL	172,450	193,560	21,110	1.2%

Within this industry, the fastest growing sector will be **Electronics and Appliance Stores**. This sector is expected to grow at an average annual rate of 3.2 percent. However, the largest number of new jobs will be created by **General Merchandise Stores** (+7,140 jobs).

The sectors adding the second and third largest number of new jobs by 2012 will be **Miscellaneous Store Retailers** (+3,210 jobs) and **Electronics and Appliance Stores** (+2,290 jobs). By 2012, **General Merchandise Stores** combined with **Miscellaneous Store Retailers** and **Electronics and Appliance Stores** will provide about six out of every 10 new jobs within this industry.

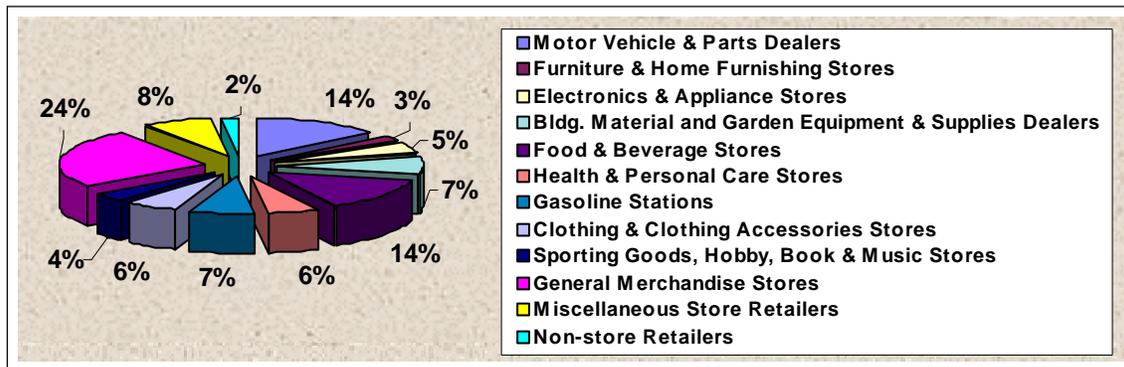
8.2 EMPLOYMENT SHARE in RETAIL TRADE (2002)



In 2002, the **General Merchandise Stores** sector was the largest employer with 24 percent of total employment share within the industry. The second and third largest providers of employment were **Food and Beverage Stores** (15 percent) and **Motor Vehicle and Parts Dealers** (14 percent).

In terms of employment, **General Merchandise Stores** sector will continue to dominate this industry through 2012, retaining its 24 percent share of total employment within the industry. **Food and Beverage Stores** will drop from second in 2002 to third by 2012. **Motor Vehicle and Parts Dealers** will step up to will move from third to second by 2012.

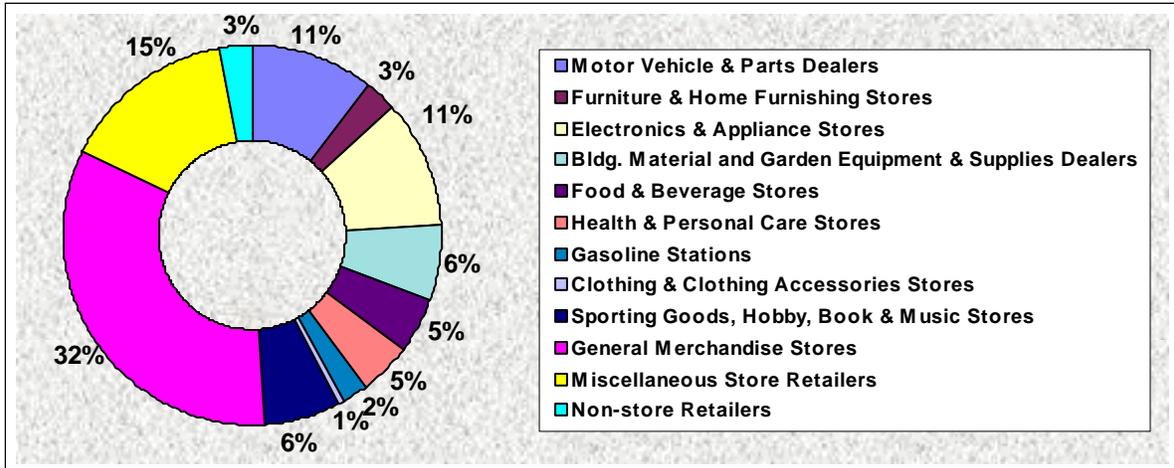
8.3 EMPLOYMENT SHARE in RETAIL TRADE (2012)



While other sectors within this industry are expected to create new jobs, the **Clothing and Clothing Accessories Stores** sector, however, is projected to lose 160 jobs between 2002 and 2012.

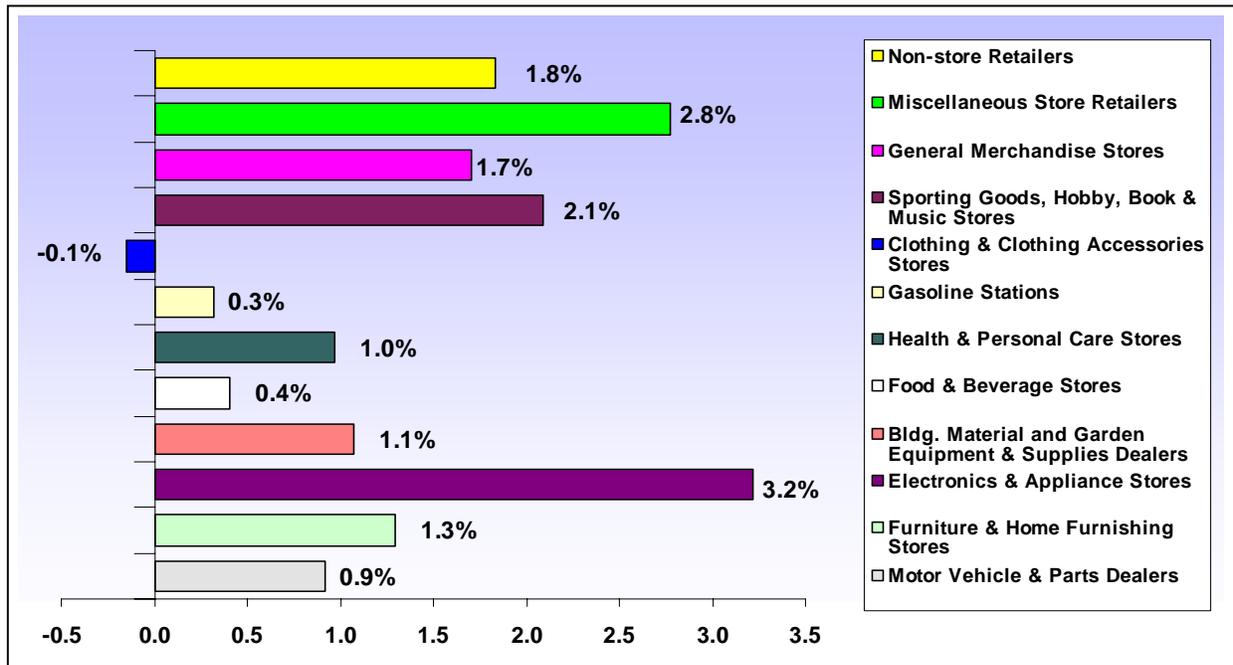
Between 2002 and 2012, the **General Merchandise Stores** sector will account for 32 percent of all new jobs created. When combined with **Miscellaneous Store Retailers**, the two sectors will create almost five out of every 10 new jobs within this industry. Other sectors creating significant numbers of jobs are **Motor Vehicle and Parts Dealers** (11 percent) and **Electronics and Appliance Stores** (11 percent).

8.4 EMPLOYMENT GROWTH SHARE in RETAIL TRADE (2002-2012)



Electronics and Appliance Stores will create new jobs at an average rate of 3.2 percent per year. This is the fastest average annual rate between 2002 and 2012. Other sectors creating new jobs at relatively fast rates are **Miscellaneous Store Retailers** (2.8 percent), **Sporting Goods, Hobby, Book and Music Stores** (2.1 percent), **Non-store Retailers** (1.8 percent). While other sectors will grow, **Clothing & Clothing Accessories** is projected to lose jobs in this period.

8.5 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in RETAIL TRADE (2002-2012)



9. Oklahoma Employment Projection for Transportation and Warehousing Industry (2002-2012)

The *Transportation and Warehousing* industry will add 8,390 jobs by the end of 2012. Within this industry, the *Support Activities for Transportation* sector will grow at the fastest annual rate of 4.1 percent. However, the *Truck Transportation* sector will be the largest contributor new employment by adding 2,200 jobs.

Transportation and Warehousing is expected to generate 8,390 new jobs between 2002 and 2012. This industry has been a consistent performer, providing 3 percent of total employment in both 1992 and 2002. It is expected to continue by contributing 3 percent again in 2012.

9.1 EMPLOYMENT PROJECTION for TRANSPORTATION and WAREHOUSING (2002-2012)

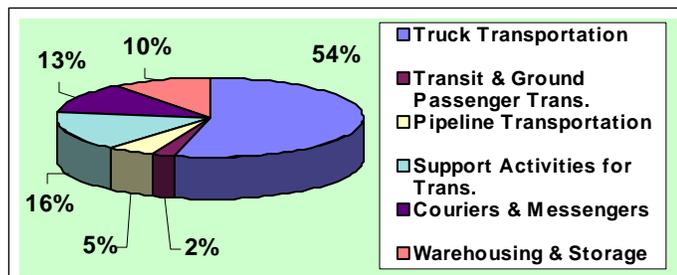
<i>Transportation and Warehousing</i>	Employment in		Employment Growth (2002-2012)	Annual % Growth for Oklahoma
	2002	2012		
Air Transportation	*	*	*	1.5
Truck Transportation	17,580	19,780	2,200	1.3
Transit and Ground Passenger Transport	780	1,020	240	3.1
Pipeline Transportation	1,620	1,530	-90	-0.6
Scenic and Sightseeing Transportation	*	*	*	1.5
Support Activities for Transportation	5,260	7,430	2,170	4.1
Couriers and Messengers	4,190	5,530	1,340	3.2
Warehousing and Storage	3,330	4,280	950	2.9
TOTAL	43,450	51,840	8,390	1.9

* Data falls under strict guidelines of OESC/BLS confidentiality agreement and cannot be released.

Within the **Transportation and Warehousing** industry, the fastest growing sector will be **Support Activities for Transportation**. This sector is expected to grow with an average annual rate of 4.1 percent.

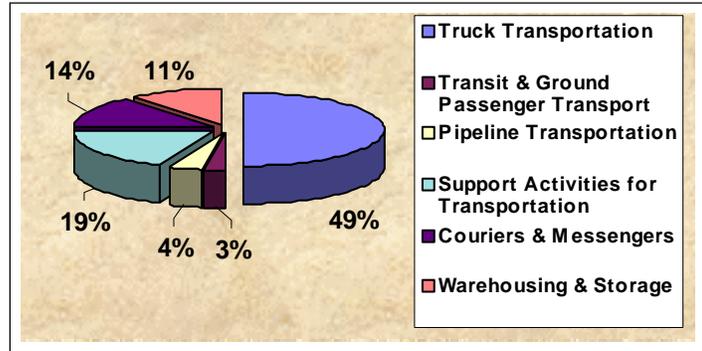
However, the **Truck Transportation** sector is expected to create the largest number of new jobs between 2002 and 2012. This sector alone will add 26 percent of all new jobs within this industry. The sectors adding the second and third largest number of new jobs by 2012 will be **Support Activities for Transportation** (+2,170 jobs) and **Couriers and Messengers** (+1,340 jobs), respectively.

9.2 EMPLOYMENT SHARE in T&W (2002)



9.3 EMPLOYMENT SHARE in T&W (2012)

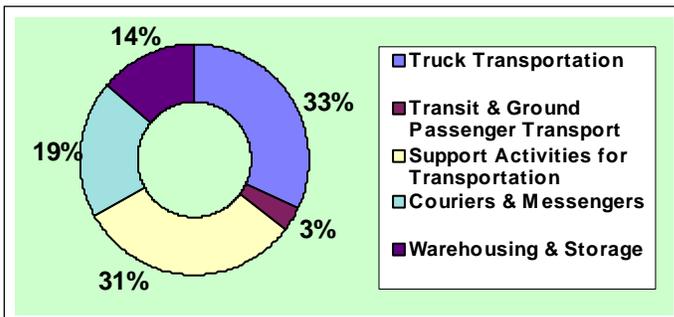
Truck Transportation was the largest sector in the **Transportation and Warehousing** industry for 2002 with 54 percent share of total employment. The second and third largest employment providers were **Support Activities for Transportation** (16 percent) and **Couriers and Messengers** (13 percent).



In terms of employment, the **Truck Transportation** sector will continue to dominate this industry through 2012, but will see its employment share drop from 54 percent to 49 percent by 2012.

The second largest sector will continue to be **Support Activities for Transportation**. This sector is expected to increase its employment share from 16 percent to 19 percent.

9.4 EMPLOYMENT GROWTH SHARE in T&W (2002-2012)

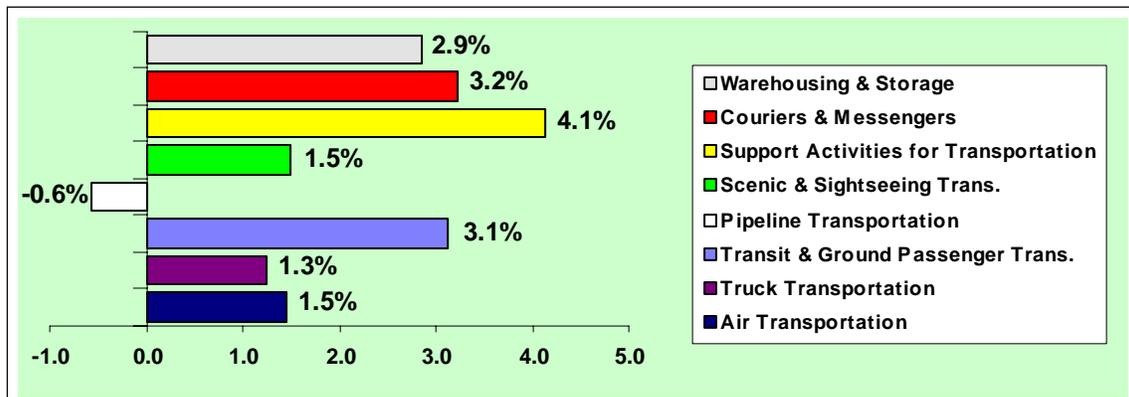


Between 2002 and 2012, **Truck Transportation** will create about one-third of all new jobs in the industry.

Other sectors expected to contribute a significant share of new jobs include **Warehouse and Storage** (14 percent), **Couriers and Messengers** (19 percent), and **Support Activities for Transportation** (31 percent).

Of all **Transportation and Warehousing** sectors, **Support Activities for Transportation** will create new employment at the fastest average annual rate of 4.1 percent between 2002 and 2012. The other sectors expected to create new employment at accelerated rates are **Couriers and Messengers** (3.2 percent), **Transit and Ground Passengers Transport** (3.1 percent) and **Air Transportation** (2.9 percent). The only sector that will lose jobs in this period is **Pipeline Transportation**.

9.5 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in T&W (2002-2012)



10. Oklahoma Employment Projection for Information Industry (2002-2012)

The **Information** industry will add 5,620 jobs by the end of 2012. Within this industry, the **Other Information Services** sector will grow at the fastest annual rate of 5.3 percent. However, the **Telecommunications** sector will be the largest contributor of new employment by adding 2,550 jobs.

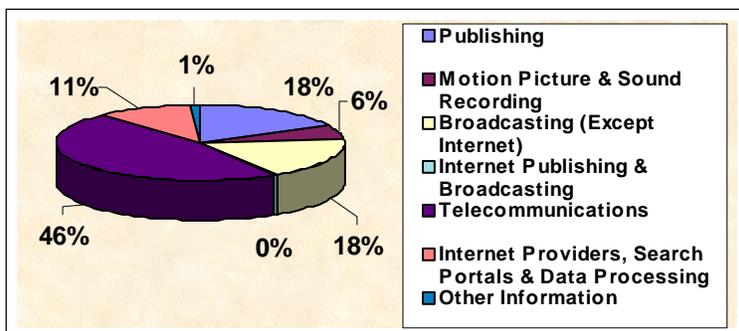
The **Information** industry is expected to generate 5,620 new jobs between 2002 and 2012. While its share in total employment was 2 percent in 1992 and 2002, this industry is expected to continue to contribute 2 percent of the total jobs by the end of 2012.

10.1 EMPLOYMENT PROJECTION for INFORMATION INDUSTRY (2002-2012)

<i>Information</i>	Employment in		Employment Growth (2002-2012)	Annual % Growth for Oklahoma
	2002	2012		
Publishing Industries	6,250	6,270	20	0.0%
Motion Picture and Sound Recording Industries	2,000	2,160	160	0.8%
Broadcasting (except Internet)	6,380	7,160	780	1.2%
Internet Publishing and Broadcasting	140	160	20	1.4%
Telecommunications	16,520	19,070	2,550	1.5%
Internet Service Providers, Web Search Portals, and Data Processing Services	3,850	5,750	1,900	4.9%
Other Information Services	350	540	190	5.3%
TOTAL	35,490	41,110	5,620	1.6%

Within **Information**, the fastest growing sector will be **Other Information Services**, which is expected to grow with an average annual rate of 5.3 percent. However, **Telecommunications** is expected to create the

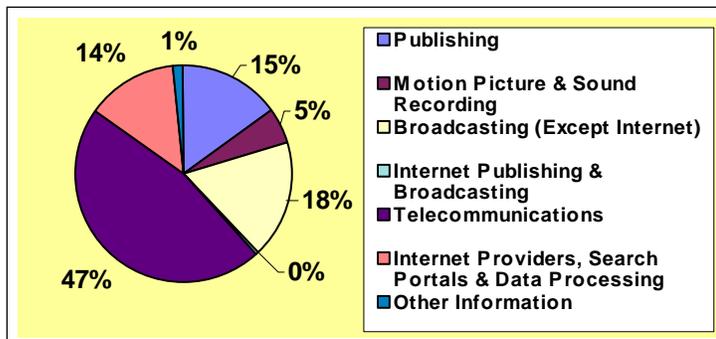
10.2 EMPLOYMENT SHARE in INFORMATION (2002)



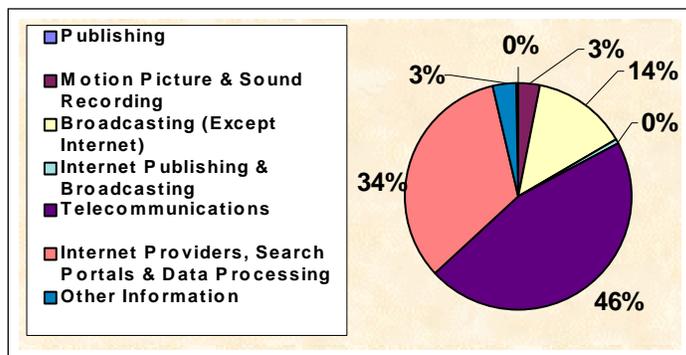
largest number of new employment (+2,550 jobs) between 2002 and 2012. **Internet Service Providers, Web Search Portals and Data Processing Services** (+1,900 jobs) and **Broadcasting (Except Internet)** (+780 jobs) will be second and third. In fact, the combination of these three sectors will account for 94 percent of new **Information** jobs between 2002 and 2012.

10.3 EMPLOYMENT SHARE in INFORMATION (2012)

In 2002, **Telecommunications** was the largest employer in the **Information** industry, providing a 46 percent share of jobs. The **Broadcasting (Except Internet)** (18 percent) and **Publishing Industries** (18 percent) sectors were the second and third largest contributors to the industry's total employment in 2002.



10.4 EMPLOYMENT GROWTH SHARE in INFORMATION (2002-2012)



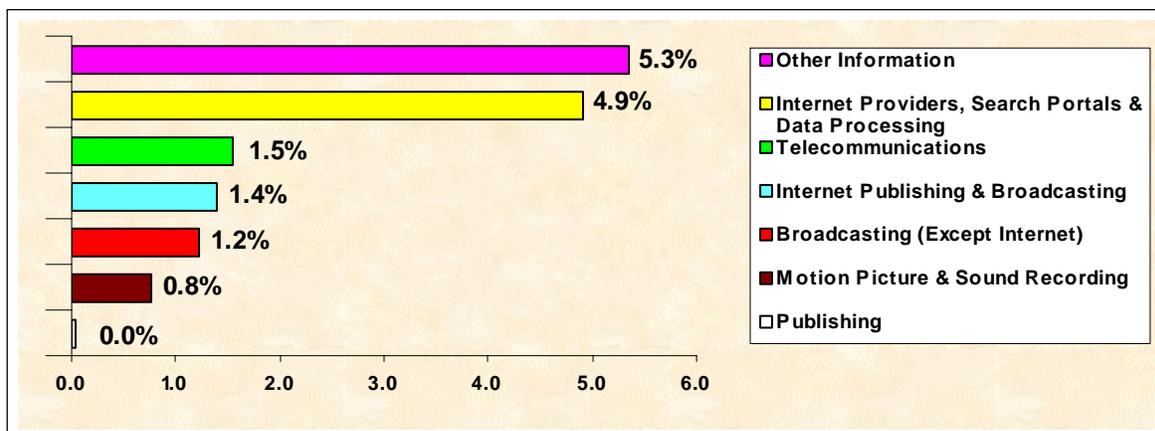
In terms of employment, the **Telecommunications** sector will continue to dominate this industry through 2012 and will increase its employment share from 46 percent to 47 percent by 2012. **Broadcasting (Except Internet)** will continue as the second largest sector, providing 18 percent of the total industry jobs in 2012. Between 2002 and 2012, **Telecommunications** will provide nearly half of new jobs in the industry.

Other sectors providing significant shares of new jobs are **Internet Service Providers, Web Search**

Portals and Data Processing Services (34 percent) and **Broadcasting (Except Internet)** (14 percent).

The **Other Information Services** sector will create new employment at the fastest average annual rate of 5.3 percent between 2002 and 2012. Other sectors expected to create new employment include **Internet Service Providers, Web Search Portals and Data Processing Services** (4.9 percent), **Telecommunications** (1.5 percent) and **Internet Publishing and Broadcasting** (1.4 percent).

10.5 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in INFORMATION (2002-2012)



11. Oklahoma Employment Projection for Finance & Insurance, Real Estate, and Rental & Leasing Industry (2002-2012)

The Finance & Insurance, Real Estate, and Rental & Leasing industry will add 7,930 jobs by the end of 2012. Within this industry, the Funds, Trusts and Other Financial Vehicles sector will grow at the fastest average annual rate (1.7 percent). However, the Credit Intermediation and Related Activities sector will be the largest contributor of new employment by adding 2,280 jobs.

The **Finance & Insurance, Real Estate, and Rental & Leasing (FIRERL)** industry is expected to generate 7,930 new jobs between 2002 and 2012. It is expected to provide 5 percent of total employment in 2012, mirroring its performances in both 1992 and 2002.

11.1 EMPLOYMENT PROJECTION for FIRERL INDUSTRY (2002-2012)

<i>Finance & Insurance, Real Estate, and Rental & Leasing</i>	Employment in		Employment Growth (2002-2012)	Annual % Growth for Oklahoma
	2002	2012		
Monetary Authorities - Central Bank	*	*	*	-1.5
Credit Intermediation & Related Activities	29,920	32,200	2,280	0.8
Securities, Commodity Contracts, and Other Financial Investments & Related Activities	3,650	4,110	460	1.2
Insurance Carriers & Related Activities	20,750	23,000	2,250	1.1
Funds, Trusts & Other Financial Vehicles	*	*	*	1.7
Real Estate	11,520	12,560	1,040	0.9
Rental & Leasing Services	11,320	13,170	1,850	1.6
Lessors of Non-financial Intangible Assets (except Copyrighted Works)	520	560	40	0.7
TOTAL	78,200	86,130	7,930	1.0

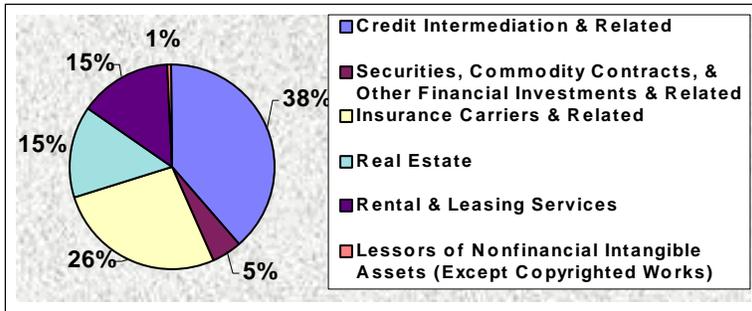
* Data falls under strict guidelines of OESC/BLS confidentiality agreement and cannot be released.

Within the **FIRERL** industry, the fastest growing sector will be **Funds, Trusts & Other Financial Vehicles**. This sector will grow at an average annual rate of 1.7 percent. However, **Credit Intermediation & Related Activities** is expected to create the largest number of new jobs by adding 2,280.

The sectors adding the second, third and fourth largest number of new jobs will be **Insurance Carriers & Related Activities** (+2,250 jobs), **Rental & Leasing Services** (+1,850 jobs), and **Real Estate** (+1,040 jobs).

The **Credit Intermediation & Related Activities** sector was the largest employer in 2002 with 38 percent of total employment in this industry. The second and third largest job providers were **Insurance Carriers & Related Activities** (26 percent) and **Rental & Leasing Services** (15 percent).

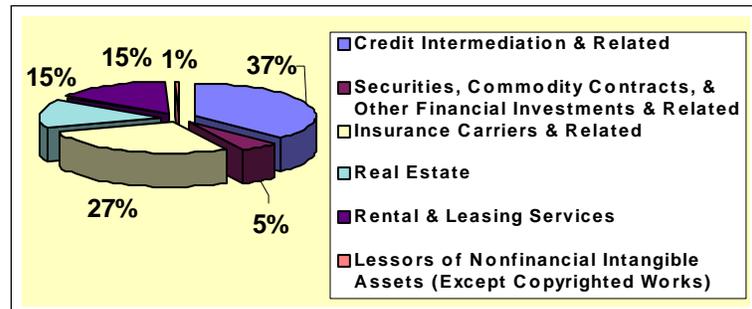
11.2 EMPLOYMENT SHARE in FIRERL (2002)



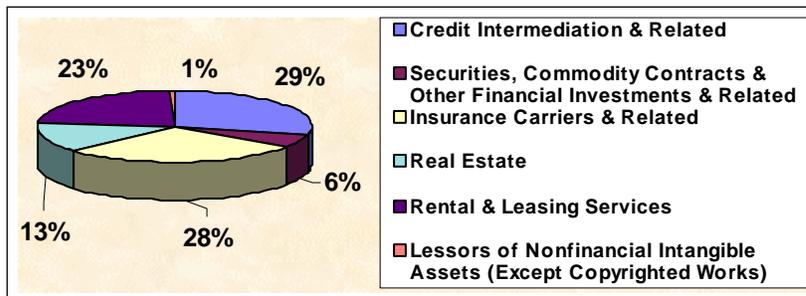
Credit Intermediation & Related Activities will continue to provide the largest share in the industry through 2012, but will drop from a 38 percent employment share in 2002 to 37 percent by 2012. **Insurance Carriers & Related Activities** will continue to be the second largest sector and will see its employment share increase to 27 percent by 2012.

11.3 EMPLOYMENT SHARE in FIRERL (2012)

Between 2002 and 2012, **Credit Intermediation and Related Activities** will create just under three out of every 10 new jobs. **Insurance Carriers and Related Activities** is also expected to provide a significant share in new job creation (28 percent).

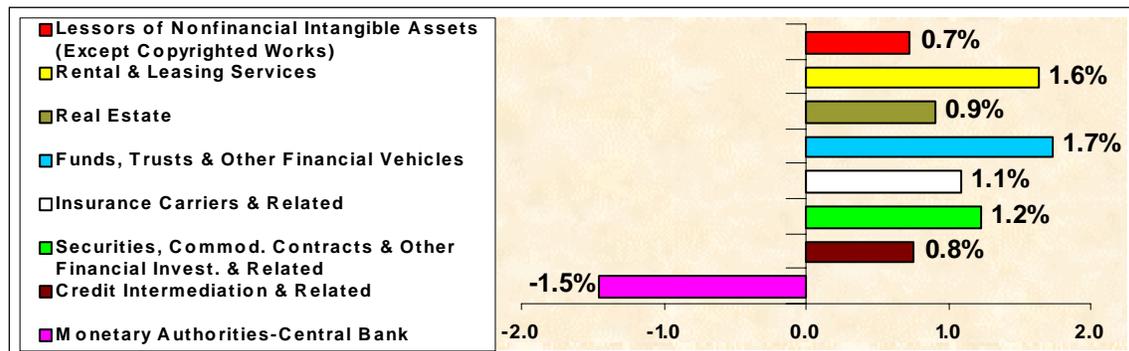


11.4 EMPLOYMENT GROWTH SHARE in FIRERL (2002-2012)



The sectors that are expected to create new jobs include **Funds, Trusts & Other Financial Vehicles** (1.7 percent) and **Rental & Leasing Services** (1.6 percent).

11.5 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in FIRERL (2002-2012)



12. Oklahoma Employment Projection for Professional, Scientific and Technical Services Industry (2002-2012)

The *Professional, Scientific and Technical Services* industry will add 9,800 jobs by the end of 2012. Within this industry, the *Management, Scientific & Technical Consulting Services* sector will grow at the fastest annual rate (5.5 percent).

Professional, Scientific and Technical Services (PSTS) is expected to generate 9,800 new jobs through 2012. This industry is expected to generate 4 percent of total employment in 2012, the same amount it contributed in both 1992 and 2002.

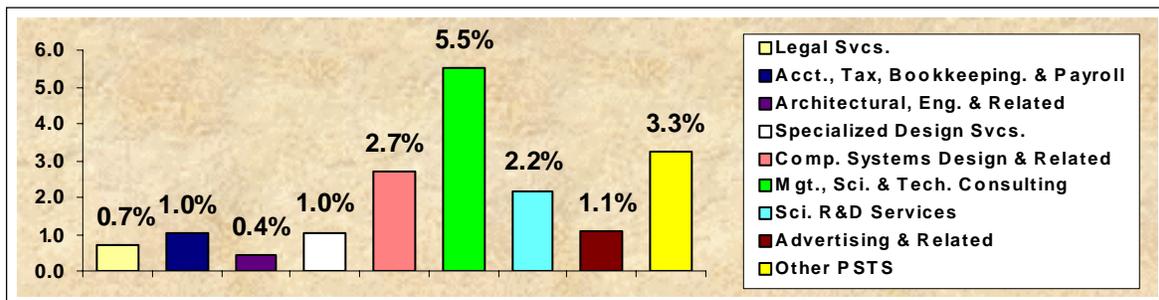
12.1 EMPLOYMENT PROJECTION for PSTS INDUSTRY (2002-2012)

<i>Professional, Scientific and Technical Services</i>	Employment in 2002	Employment in 2012	Employment Growth (2002-2012)	Annual % Growth for Oklahoma
Legal Services	*	*	*	0.7%
Accounting, Tax Preparation, Bookkeeping & Payroll Svcs.	*	*	*	1.0%
Architectural, Engineering & Related Services	*	*	*	0.4%
Specialized Design Services	*	*	*	1.0%
Computer Systems Design & Related Services	*	*	*	2.7%
Management, Scientific & Technical Consulting Services	*	*	*	5.5%
Scientific Research & Development Services	*	*	*	2.2%
Advertising & Related Services	*	*	*	1.1%
Other Professional, Scientific, & Technical Services	*	*	*	3.3%
TOTAL	55,640	65,440	9,800	1.8%

* Data falls under strict guidelines of OESC/BLS confidentiality agreement and cannot be released.

Within this industry, **Management, Scientific & Technical Consulting Services** will grow at the fastest annual rate (5.5 percent). Other sectors showing growth will be **Other Professional, Scientific & Technical Services** and **Computer Systems Design & Related Services**.

12.2 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in PSTS (2002-2012)



13. Oklahoma Employment Projection for Management of Companies and Enterprises Industry (2002-2012)

The Management of Companies and Enterprises industry will add 1,140 jobs by the end of 2012. This industry will grow at an annual rate of 0.9 percent.

The **Management of Companies and Enterprises** industry is expected to generate 1,140 new jobs between 2002 and 2012. This industry is expected to hold steady at 1 percent of total employment through 2012. It provided the same percentage of employment in both 1992 and 2002.

13.1 EMPLOYMENT PROJECTION for MANAGEMENT of COMPANIES and ENTERPRISES INDUSTRY (2002-2012)

<i>Management of Companies and Enterprises</i>	Employment in		Employment Growth (2002-2012)	Annual % Growth for Oklahoma
	2002	2012		
Management of Companies and Enterprises	12,730	13,870	1,140	0.9%
TOTAL	12,730	13,870	1,140	0.9%

This industry contributed 12,730 jobs to total employment in 2002 and is expected to provide 13,870 jobs by 2012. The only sector within this industry, **Management of Companies and Enterprises**, is projected to grow at an average annual rate of 0.9 percent between 2002 and 2012.

14. Oklahoma Employment Projection for Administrative and Support and Waste Management and Remediation Services Industry (2002-2012)

The Administrative & Support and Waste Management & Remediation Services industry will add 30,030 jobs by the end of 2012. Within this industry, the Investigation & Security Services sector will grow at the fastest annual rate of 4.7 percent. However, the Administrative and Support Services sector will contribute 98 percent of all new employment by adding 29,440 jobs.

The **Administrative & Support and Waste Management & Remediation Services (ASWMRS)** industry is made up of two super sectors: **Administrative & Support Services** and **Waste Management & Remediation Service**. From 2002 to 2012, **Administrative and Support Services** alone will account for 98 percent (29,440 jobs) of all new jobs and will grow at an average rate of 3.3 percent. **Waste Management & Remediation Service** will only add 2 percent over this period.

14.1 EMPLOYMENT PROJECTION for ADMINISTRATIVE & SUPPORT and WASTE MANAGEMENT & REMEDIATION SERVICES INDUSTRY (2002-2012)

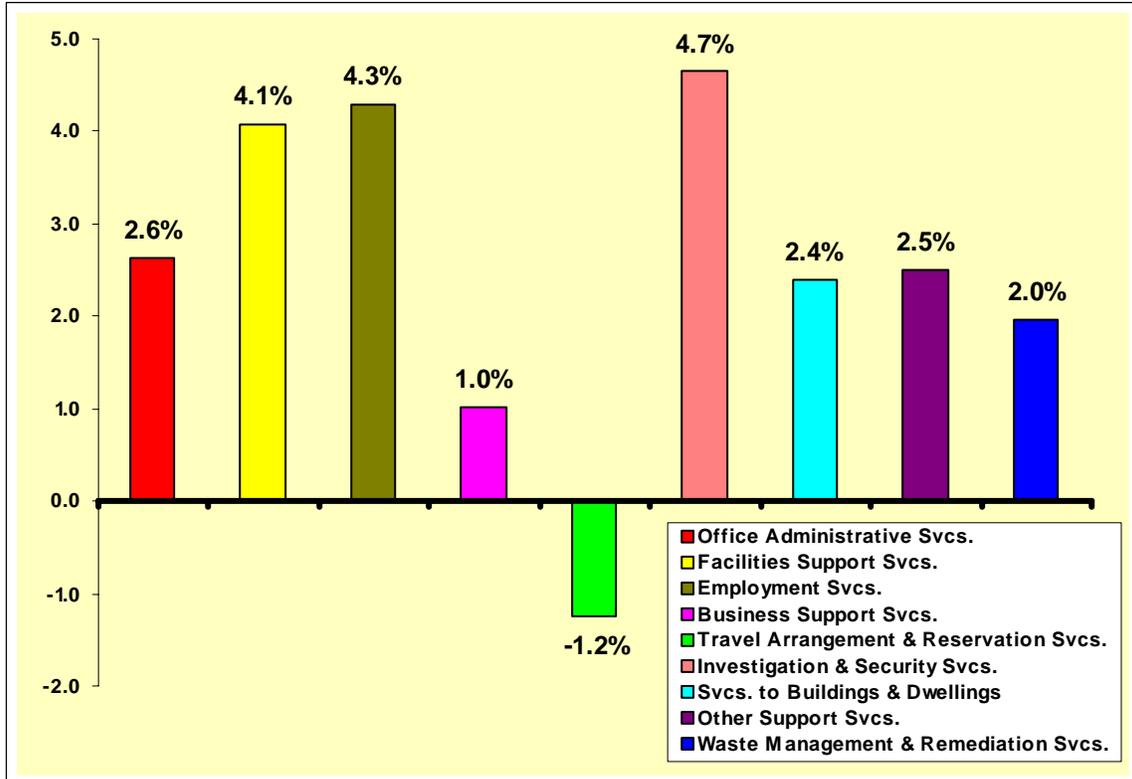
ASWMRS	Employment in		Employment Growth (2002-2012)	Annual % Growth for Oklahoma
	2002	2012		
Administrative & Support Services	90,130	119,570	29,440	3.3%
Office Administrative Services	*	*	*	2.6%
Facilities Support Services	*	*	*	4.1%
Employment Services	*	*	*	4.3%
Business Support Services	*	*	*	1.0%
Travel Arrangement & Reservation Services	*	*	*	-1.2%
Investigation & Security Services	*	*	*	4.7%
Services to Buildings & Dwellings	*	*	*	2.4%
Other Support Services	*	*	*	2.5%
Waste Management & Remediation Service	2,990	3,580	590	2.0%
TOTAL	93,120	123,150	30,030	3.2%

* Data falls under strict guidelines of OESC/BLS confidentiality agreement and cannot be released.

Within **Administrative and Support Services** super sector, the **Investigation and Security Services** sector is projected to create new jobs at the fastest annual rate (4.7 percent) in the industry. Other sectors to create new employment at a significantly higher rate are **Employment Services** (4.3 percent), **Facility Support Services** (4.1 percent), **Office Administrative Services** (2.6 percent), **Other Support Services** (2.5 percent), and **Services to Buildings & Dwellings** (2.4 percent).

While other sectors within this industry are projected to increase employment between 2002 and 2012, the **Travel Arrangement & Reservations Services** sector will actually lose employment at an annual rate of 1.2 percent.

14.2 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in ASWMRS (2002-2012)



15. Oklahoma Employment Projection for Educational Services Industry (2002-2012)

The Educational Services industry will add 26,840 jobs by the end of 2012. Within this industry, the Educational Support Services sector will grow at the fastest annual rate of 7.6 percent.

The **Educational Services** industry is expected to generate 26,840 new jobs between 2002 and 2012. While its share in total employment was 10 percent in 1992 and 2002, this industry is expected to increase its employment share to 11 percent by the end of 2012.

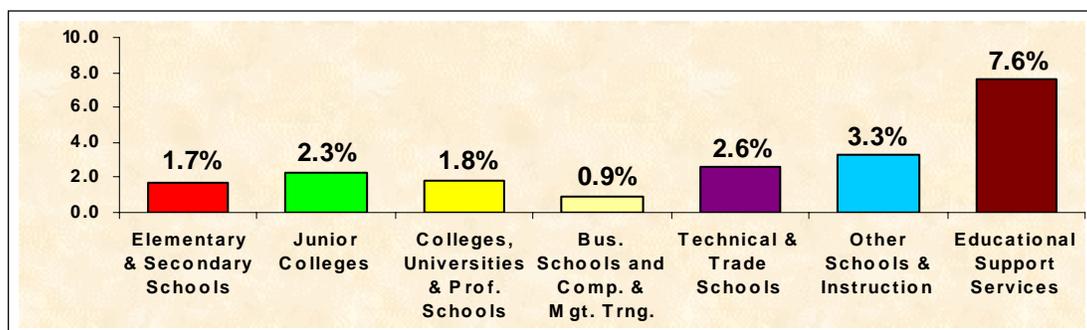
15.1 EMPLOYMENT PROJECTION for EDUCATIONAL SERVICES INDUSTRY (2002-2012)

<i>Educational Services</i>	Employment in 2002	2012	Employment Growth (2002-2012)	Annual % Growth for Oklahoma
Elementary & Secondary Schools	*	*	*	1.7%
Junior Colleges	*	*	*	2.3%
Colleges, Universities & Professional Schools	*	*	*	1.8%
Business Schools and Computer & Management Training	*	*	*	0.9%
Technical & Trade Schools	*	*	*	2.6%
Other Schools & Instruction	*	*	*	3.3%
Educational Support Services	*	*	*	7.6%
TOTAL	55,640	65,440	9,800	1.8%

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Within this industry, **Educational Support Services** will grow at the fastest annual rate of 7.6 percent. Other sectors seeing growth include **Other Schools & Instruction**, **Technical & Trade Schools**, **Junior Colleges**, **Colleges, Universities & Professional Schools**, and **Elementary & Secondary Schools**.

15.2 ANNUAL PERCENTAGE GROWTH in EDUCATIONAL SERVICES (2002-2012)



16. Oklahoma Employment Projection for Health Care and Social Assistance Industry (2002-2012)

The *Health Care and Social Assistance* industry will add 42,060 jobs by the end of 2012. Within this industry, the *Social Assistance* sector will grow at the fastest annual rate (3.8 percent). However, the *Ambulatory Health Care Services* sector will be the largest contributor of new employment by adding 19,130 jobs.

The **Health Care and Social Assistance (HCSA)** industry is expected to generate 42,060 new jobs between 2002 and 2012. This industry accounted for 11 percent of total employment in 1992 and 12 percent in 2002. It is expected to continue to grow to 13 percent by 2012.

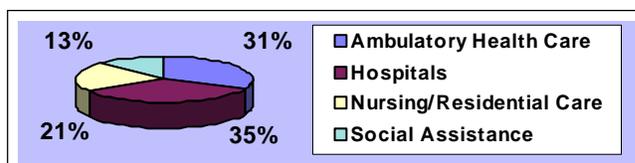
16.1 EMPLOYMENT PROJECTION for HEALTH CARE and SOCIAL ASSISTANCE INDUSTRY (2002-2012)

<i>Health Care and Social Assistance</i>	Employment in		Employment Growth	Annual % Growth for Oklahoma
	2002	2012	(2002-2012)	
Ambulatory Health Care Services	52,910	72,040	19,130	3.6%
Hospitals	58,610	65,550	6,940	1.2%
Nursing and Residential Care Facilities	35,540	43,150	7,610	2.1%
Social Assistance	21,910	30,300	8,390	3.8%
TOTAL	168,980	211,040	42,060	2.5%

Within this industry, the fastest growing sector will be **Social Assistance**. This sector is expected to grow with an annual rate of 3.8 percent. However, **Ambulatory Health Care Services** is expected to create the largest number of new employment through 2012 (+19,130 jobs). This sector alone will add 46 percent of all new jobs within this industry.

The sectors adding the second, third and fourth most new jobs by 2012 will be **Social Assistance** (+8,390 jobs), **Nursing and Residential Care Facilities** (+7,610 jobs), and **Hospitals** (+6,940 jobs). **Ambulatory Health Care Services** and **Social Assistance** will combine to create 65 percent of new jobs in this period.

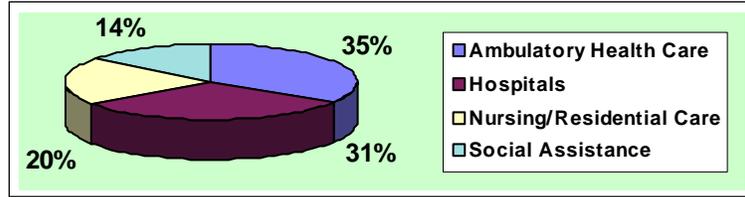
16.2 EMPLOYMENT SHARE in HCSA (2002)



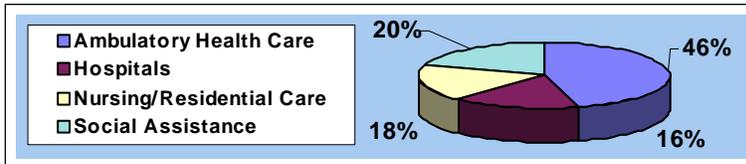
The **Hospitals** sector was the largest employer in 2002 with a 35 percent employment share. Following closely behind were **Ambulatory Health Care Services** (31 percent) and **Nursing & Residential Care Facilities** (21 percent).

By 2012, **Ambulatory Health Care Services** is expected to claim the first position and provide the largest share of employment in this industry at 35 percent. **Hospitals** will drop to the second at 31 percent.

16.3 EMPLOYMENT SHARE in HCSA (2012)



16.4 EMPLOYMENT GROWTH SHARE in HCSA (2002-2012)



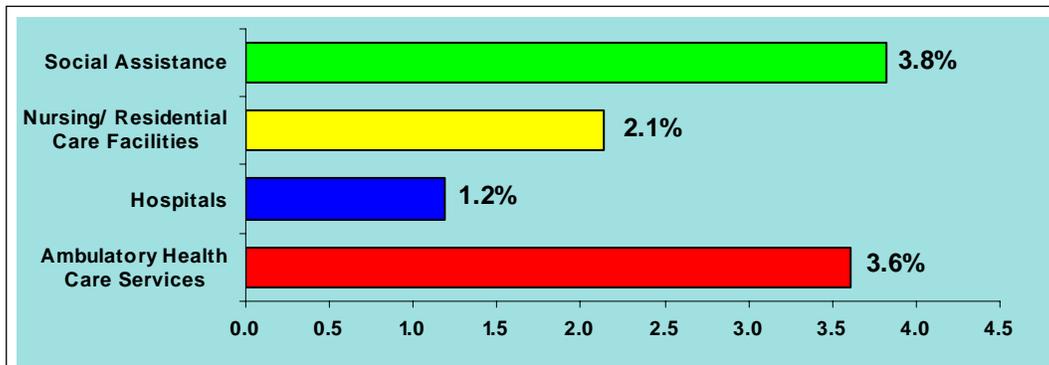
Between 2002 and 2012, the **Ambulatory Health Care Services** sector will create about half of all new jobs in the industry.

None of the other sectors in this industry will contribute more than 20 percent of total growth.

The sectors expected to create new jobs at a faster rates than in the past are **Social Assistance** (+3.8 percent), **Ambulatory Health Care Services** (+3.6 percent), and **Nursing and Residential Care Facilities** (2.1 percent).

The slowest growing sector in this industry will be **Hospitals**, which is projected to create new employment at an annual rate of 1.2 percent.

16.5 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in HCSA (2002-2012)



17. Oklahoma Employment Projection for Arts, Entertainment and Recreation Industry (2002-2012)

The Arts, Entertainment and Recreation industry will add 4,050 jobs by the end of 2012. Within this industry, the Amusement, Gambling and Recreation Industries sector will grow at the fastest annual rate of 3.1 percent. This sector will also be the largest contributor of new employment by adding 3,520 jobs.

The Arts, Entertainment, and Recreation (AER) industry is expected to generate 4,050 new jobs between 2002 and 2012. This industry is expected to contribute 1 percent of total jobs between 2002 and 2012, just like it did in 1992 and 2002.

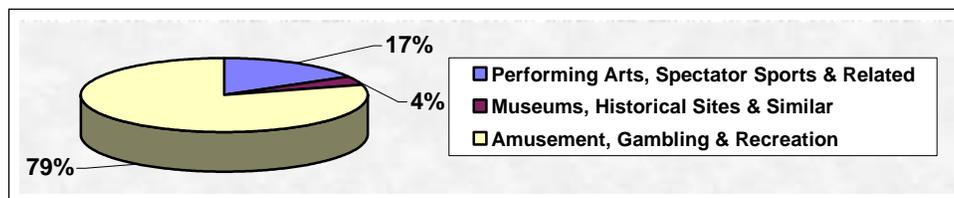
17.1 EMPLOYMENT PROJECTION for ARTS, ENTERTAINMENT and RECREATION INDUSTRY (2002-2012)

<i>Arts, Entertainment and Recreation</i>	Employment in 2002	2012	Employment Growth (2002-2012)	Annual % Growth for Oklahoma
Performing Arts, Spectator Sports and Related Industries	2,350	2,770	420	1.8%
Museums, Historical Sites and Similar Institutions	540	650	110	2.1%
Amusement, Gambling and Recreation Industries	11,250	14,770	3,520	3.1%
TOTAL	14,140	18,190	4,050	2.9%

Within this industry, the fastest growing sector will be **Amusement, Gambling and Recreation Industries**. With an annual growth rate of 3.1 percent, this sector is expected to create the largest number of new employment (+3,520 jobs) in this industry. **Performing Arts, Spectator Sports and Related Industries** sector will add 420 jobs by 2012, as **Museums, Historical Sites and Similar Institutions** will add only 110 jobs in this period.

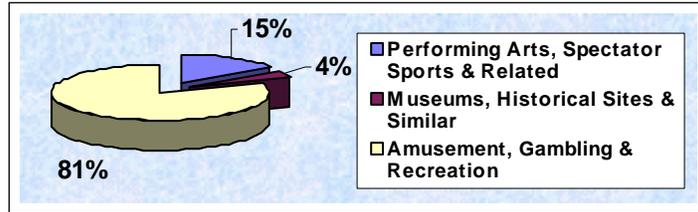
Amusement, Gambling and Recreation Industries was the largest employer in 2002, providing 79 percent of total employment. **Performing Arts, Entertainment and Recreation Industries** provided 17 percent while **Museums, Historical Sites and Similar Institutions** contributed 4 percent.

17.2 EMPLOYMENT SHARE in AER (2002)

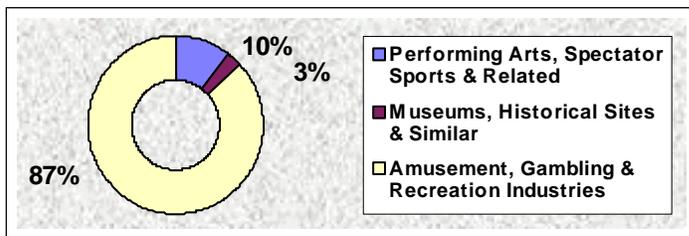


The **Amusement, Gambling and Recreation Industries** sector will continue to dominate this industry through 2012. During this time, it is expected to increase its employment share from 79 percent to 81 percent. **Performing Arts, Spectator Sports and Related Industries** will continue to be the second largest sector, but see its employment share drop from 17 percent to 15 percent by 2012.

17.3 EMPLOYMENT SHARE in AER (2012)



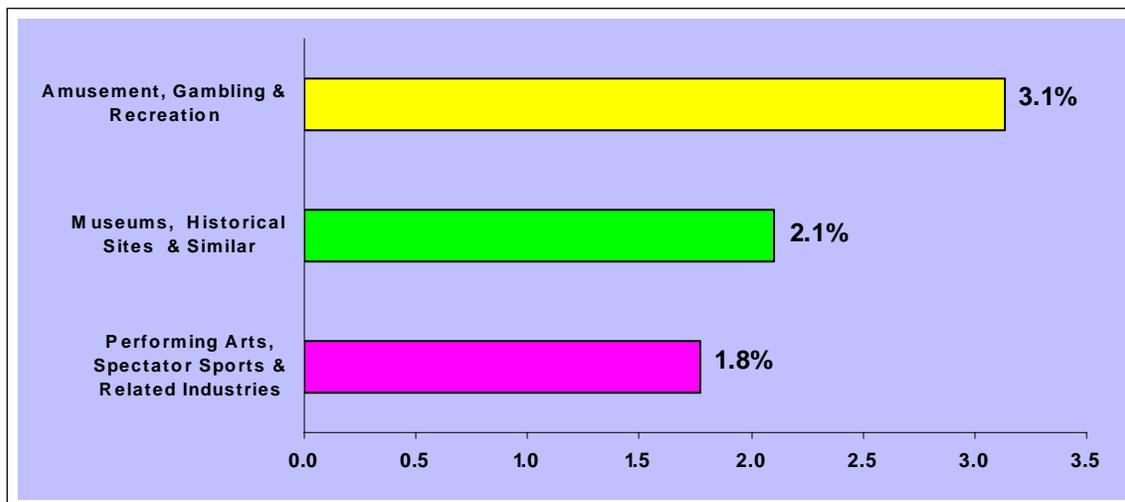
17.4 EMPLOYMENT GROWTH SHARE in AER (2002-2012)



Between 2002 and 2012, the **Amusement, Gambling and Recreation Industries** sector will create about nine out of 10 new jobs in **Arts, Entertainment and Recreation**. The **Performing Arts, Spectator Sports and Related Industries** sector is also expected to provide a significant share of new jobs.

The sectors that are expected to create new jobs at faster rates are **Amusement, Gambling and Recreation Industries** (3.1 percent) and **Museums, Historical Sites and Similar Institutions** (2.1 percent).

17.5 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in AER (2002-2012)



18. Oklahoma Employment Projection for Accommodation and Food Services Industry (2002-2012)

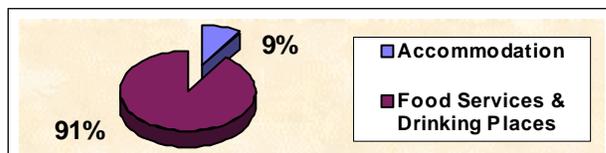
The Accommodation and Food Services industry will add 17,970 jobs by the end of 2012. Within this industry, the Food Services and Drinking Places sector will grow at the fastest annual rate (1.7 percent). This sector will also contribute the most new employment by adding 17,910 jobs.

The **Accommodation and Food Services (AFS)** industry is expected to generate 17,970 new jobs between 2002 and 2012. This industry moved from providing 7 percent of total employment in 1992 to providing 8 percent in 2002. It is expected to hold at 8 percent through 2012.

18.1 EMPLOYMENT PROJECTION for ACCOMMODATION and FOOD SERVICES INDUSTRY (2002-2012)

<i>Accommodation and Food Services</i>	Employment in		Employment Growth	Annual % Growth for Oklahoma
	2002	2012	(2002-2012)	
Accommodation	10,670	10,730	60	0.1%
Food Services and Drinking Places	102,930	120,840	17,910	1.7%
TOTAL	113,600	131,570	17,970	1.6%

18.2 EMPLOYMENT SHARE in AFS (2002)

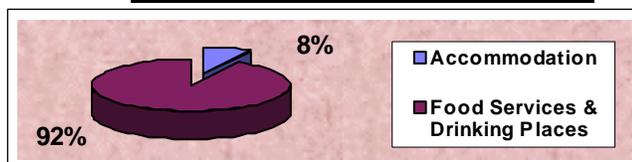


Within this industry, the fastest growing sector will be **Food Services and Drinking Places** with an annual growth rate of 1.7 percent. This sector is also expected to create almost all of the new jobs in the industry (+17,910 jobs). The industry's other sector, **Accommodation**, will contribute marginally by adding only 60 jobs through 2012.

The **Food Services and Drinking Places** sector provided 91 percent of employment in 2002, accounting for the largest employment share in the industry. The remainder came from the **Accommodation** sector.

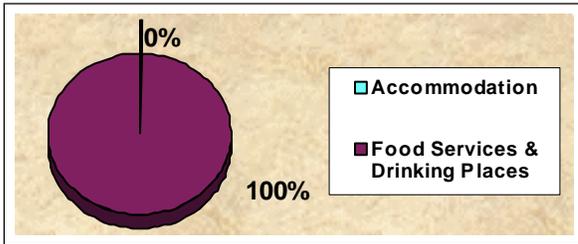
Food Services and Drinking Places will continue as the largest employer through 2012. During this period, this sector will increase its employment share from 91 to 92 percent. The **Accommodation** sector will continue to be the second largest sector, but will see its employment share drop from 9 percent to 8 percent by 2012.

18.3 EMPLOYMENT SHARE in AFS (2012)



Between 2002 and 2012, almost all new jobs within the **Accommodation and Food Services** industry will be created in the **Food Services and Drinking Places** sector. The growth attributed to the

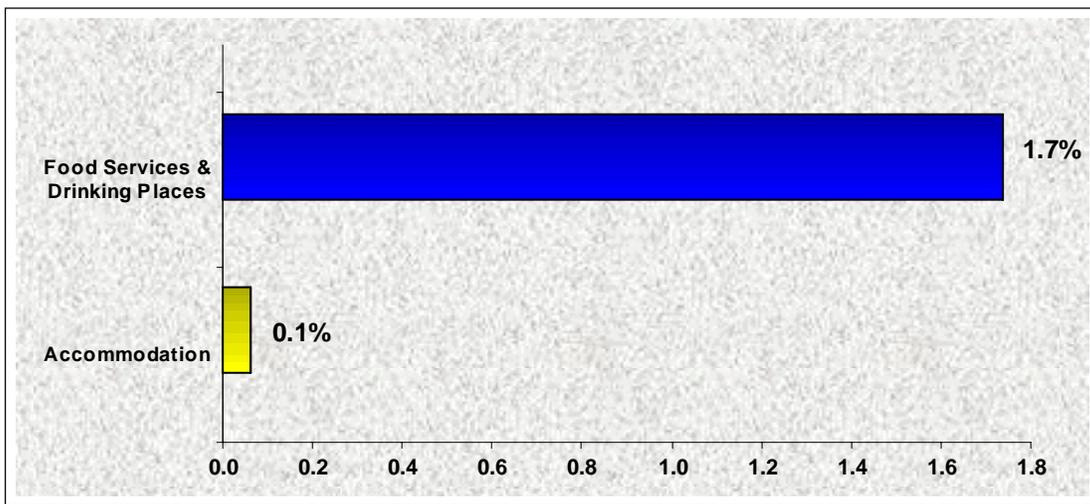
18.4 EMPLOYMENT GROWTH SHARE in AFS (2002-2012)



Accommodation sector is so minimal that it amounts to 0 percent growth between during the 2002-to-2012 period.

During this period, the **Food Services and Drinking Places** sector will add new jobs at an annual rate of 1.7 percent, whereas **Accommodation** will add a marginal number of new jobs at a rate of 0.1 percent.

18.5 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in AFS (2002-2012)



19. Oklahoma Employment Projection for Other Services (Except Government) Industry (2002-2012)

The *Other Services (Except Government)* industry will add 5,990 jobs by the end of 2012. Within this industry, the *Religious, Grant-making, Civic, Professional, and Similar Organizations* sector will grow at the fastest annual rate of 2.4 percent. This sector will also become the largest contributor of new employment by adding 2,600 new jobs.

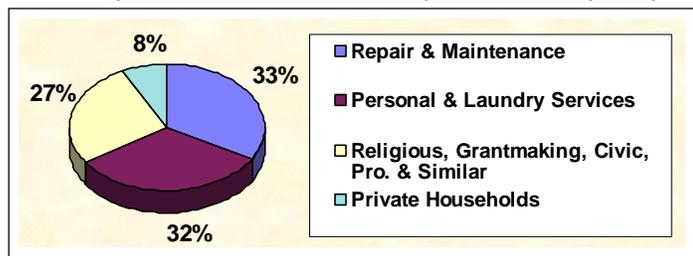
The **Other Services (Except Government)** industry is expected to generate 5,990 new jobs between 2002 and 2012. While its share in total employment was 3 percent in 1992 and 2002, this industry is expected to continue to contribute 3 percent of the total jobs through 2012.

19.1 EMPLOYMENT PROJECTION for OTHER SERVICES (EXCEPT GOVERNMENT) INDUSTRY (2002-2012)

<i>Other Services (Except Government)</i>	Employment in		Employment Growth	Annual % Growth for Oklahoma
	2002	2012	(2002-2012)	
Repair and Maintenance	13,250	15,070	1,820	1.4%
Personal and Laundry Services	12,790	14,140	1,350	1.0%
Religious, Grant-making, Civic, Professional, and Similar Organizations	10,660	13,260	2,600	2.4%
Private Households	3,010	3,240	230	0.8%
TOTAL	39,710	45,700	5,990	1.5%

Within this industry, the fastest growing sector will be the **Religious, Grant-making, Civic, Professional, and Similar Organizations** with an annual employment rate of 2.4 percent. This sector will also claim the largest share in new employment by supplying 43 percent of all new jobs within this industry. The second and third largest contributors of new jobs will be the **Repair and Maintenance** (+1,820 jobs) and **Personal and Laundry Services** (+1,350 jobs). **Private Households** will contribute only 230 jobs in this period.

19.2 EMPLOYMENT SHARE in OTHER SERVICES (EXCEPT GOVERNMENT) INDUSTRY (2002)



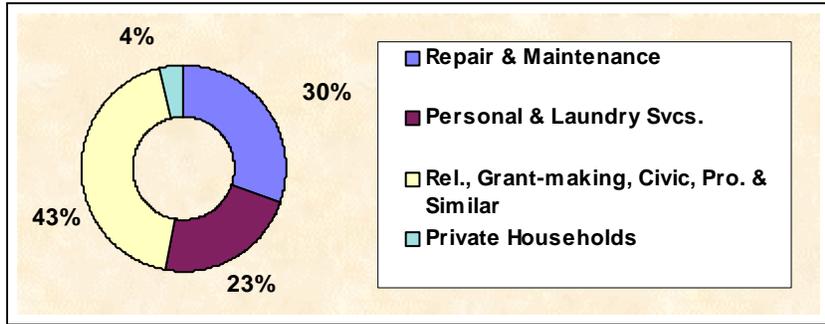
Repair and Maintenance was the largest employer in 2002 with 33 percent of total employment in this industry. This sector will continue to be the largest employer through 2012, providing one-third of employment share in this industry.

The **Personal and Laundry Services** sector will continue to be the second largest sector, but will reduce its employment share from the 32 percent it held in 2002 to 31 percent by 2012. The third largest sector, **Religious, Grant-making, Civic, Professional and Similar Organizations**, will increase its employment share from 27 percent to 29 percent. The **Private Households** sector will continue as the smallest sector; it is expected to drop from 8 percent to 7 percent between 2002 and 2012.

Between 2002 and 2012, four out of every 10 new jobs within this industry will be created by **Religious, Grant-making, Civic, Professional and Similar Organizations**.

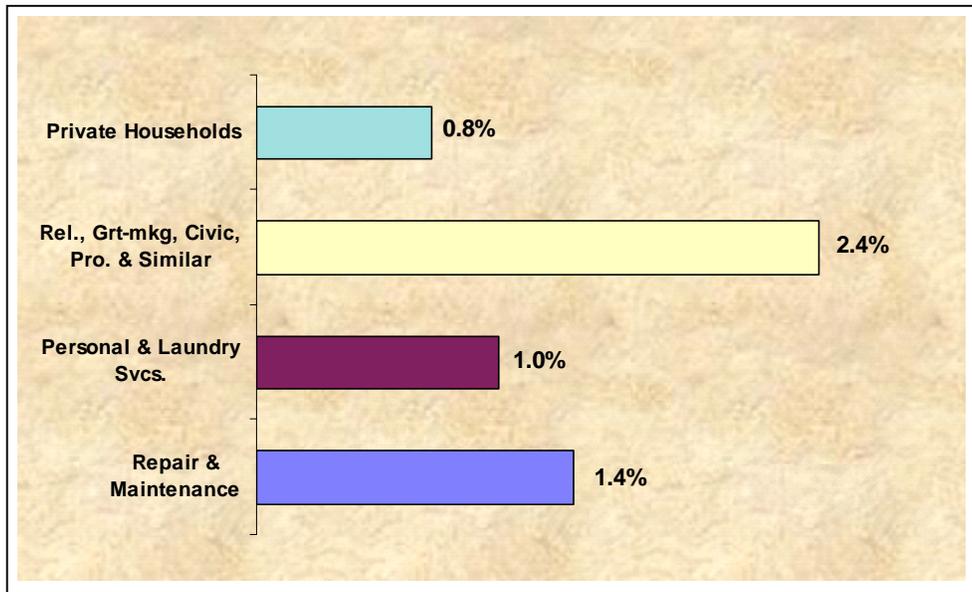
Repair and Maintenance (30 percent) and **Personal and Laundry Services** (23 percent) will be significant contributors.

19.3 EMPLOYMENT GROWTH SHARE in OTHER SERVICES (EXCEPT GOVERNMENT) (2002-2012)



During this period, the **Religious, Grant-making, Civic, Professional and Similar Organizations** sector will create new jobs at the highest annual rate of 2.4 percent, followed by **Repair and Maintenance** (1.4 percent), **Personal and Laundry Services** (1.0 percent), and **Private Households** (0.8 percent).

19.4 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in OTHER SERVICES (EXCEPT GOVERNMENT) (2002-2012)



20. Oklahoma Employment Projection for Government Industry (2002-2012)

The **Government** industry will add 12,170 jobs by the end of 2012. Within this industry, the **Local Government** sector will grow at the fastest annual rate of 1.6 percent and will also be the largest contributor (81 percent) of new employment by adding 9,950 new jobs.

Government industry is expected to generate 12,170 new jobs between 2002 and 2012. The industry's share in total employment dropped from 11 percent in 1992 to 10 percent in 2002. **Government** is expected to continue to contribute 10 percent of the total jobs through 2012.

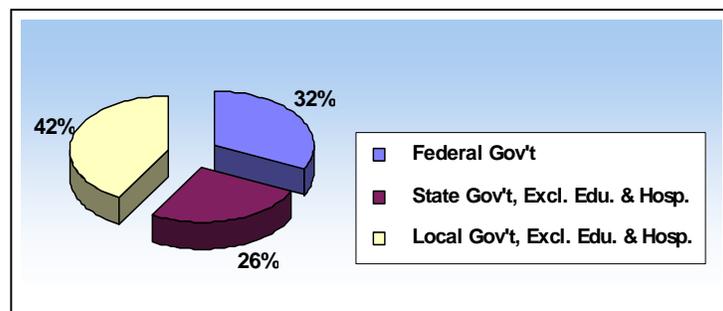
20.1 EMPLOYMENT PROJECTION for GOVERNMENT INDUSTRY (2002-2012)

Government	Employment in		Employment	Annual %
	2002	2012	Growth	Growth for
			(2002-2012)	Oklahoma
Federal Government	46,360	46,550	190	0.0%
State Government, Excluding Education & Hospitals	38,070	40,100	2,030	0.5%
Local Government, Excluding Education & Hospitals	60,350	70,300	9,950	1.6%
TOTAL	144,780	156,950	12,170	0.8%

Within **Government**, the fastest growing sector will be **Local Government** with an annual employment growth rate of 1.6 percent. This sector is also expected to create the largest number of new jobs (+9,950 jobs), accounting for 81 percent of all new jobs within this industry. The second and third largest contributors of new jobs during this period will be the **State Government** (+2,030 jobs) and **Federal Government** (+190 jobs) sectors.

In 2002, the sector with the largest share of employment was **Local Government**, which provided 42 percent of jobs in the industry. **Federal Government** was second with a 32 percent share; **State Government** held a 26 percent share in 2002.

20.2 EMPLOYMENT SHARE in GOVERNMENT (2002)

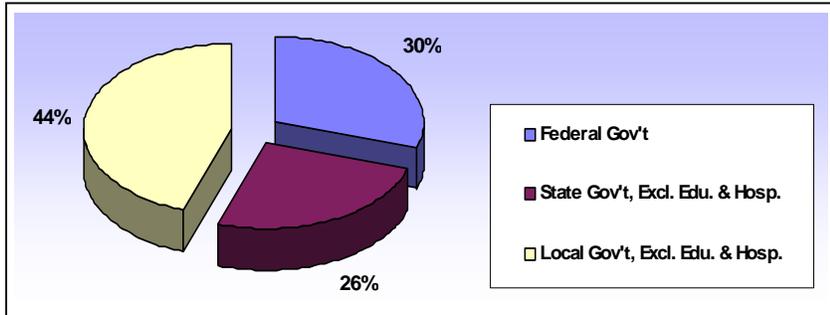


Local Government will continue to be the largest employer through 2012. Between 2002 and 2012, this sector is projected to increase its employment share from 42 percent to 44 percent. **Federal Government**,

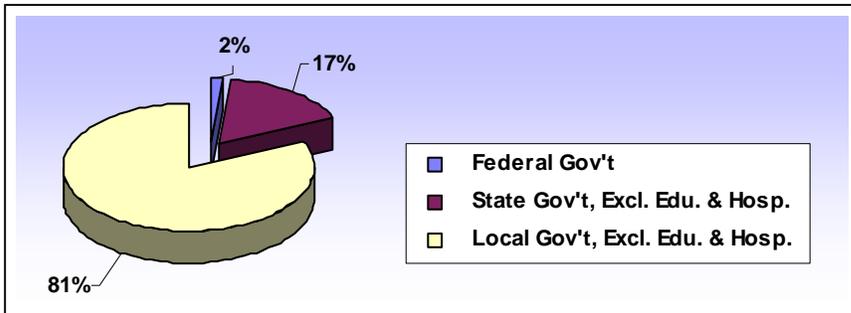
the second largest sector, will drop from 32 percent to 30 percent. The **State Government** sector will retain its employment share of 26 percent.

Between 2002 and 2012, just over eight out of every 10 new jobs in **Government** will be created in the **Local Government** sector.

20.3 EMPLOYMENT SHARE in GOVERNMENT (2012)



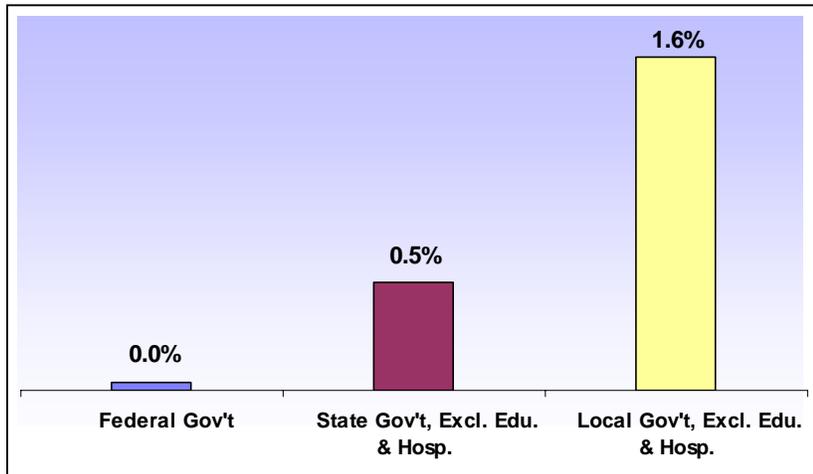
20.4 EMPLOYMENT GROWTH SHARE in GOVERNMENT (2002-2012)



State Government will provide 17 percent of new jobs. This sector will combine with **Federal Government** (2 percent) to contribute the remaining two new jobs out of every 10 not provided through **Local Government**.

20.5 ANNUAL PERCENTAGE EMPLOYMENT GROWTH in GOVERNMENT (2002-2012)

In this period, **Local Government** will create new jobs at an annual rate of 1.6 percent. With a rate of 0.5 percent, **State Government** will grow at less than a third of the rate of **Local Government**. **Federal Government** will grow marginally during this timeframe.



21. Oklahoma Employment Projection by Occupation (2002 – 2012)

Total employment in Oklahoma is projected to increase by 204,750 jobs between 2002 and 2012. Of the total employment growth, *Service Occupations* will contribute the largest portion of the growth at 27 percent. The second and third largest contributors to the employment growth are *Professional and Related Occupations* and *Management, Business and Financial Occupations*, with 27 percent and 12 percent, respectively. While *Professional and Related Occupations*, *Service Occupations*, and *Farming, Fishing and Forestry Occupations* will share the highest rate of employment growth (20 percent) during this period, *Office and Administrative Occupations* will be the slowest growing group with an employment growth rate of 4.9 percent.

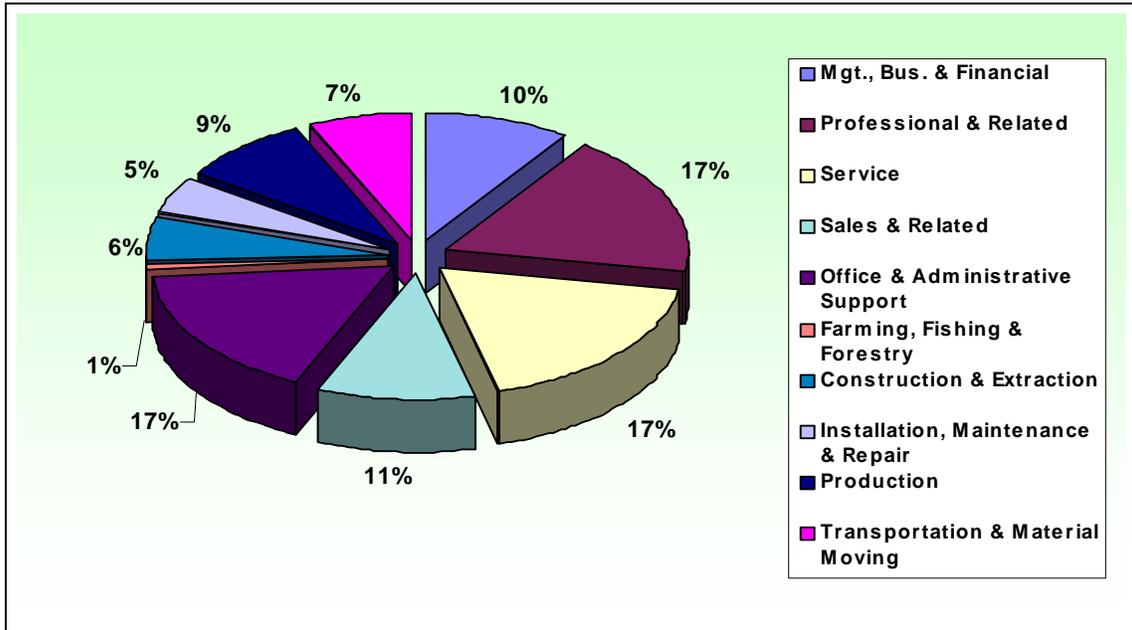
The total employment in Oklahoma is projected to increase from 1,526,320 jobs in 2002 to 1,731,070 jobs by 2012. This reflects a total of 204,750 new jobs created during this period.

21.1 EMPLOYMENT PROJECTION by MAJOR OCCUPATION (2002-2012)

Occupation Division	OKLAHOMA				UNITED STATES	
	Employment in 2002	Employment in 2012	Change Jobs	Change Percent	Change Jobs	Change Percent
Management, Business & Financial Occupations	146,310	169,990	23,680	16.2%	2,382,000	15.4%
Professional & Related Occupations	277,290	332,750	55,470	20.0%	6,459,000	23.3%
Service Occupations	278,180	333,740	55,560	20.0%	5,336,000	20.1%
Sales & Related Occupations	163,060	181,580	18,530	11.4%	1,971,000	12.9%
Office & Administrative Support Occupations	257,970	270,660	12,680	4.9%	1,613,000	6.8%
Farming, Fishing & Forestry Occupations	8,100	9,710	1,620	20.0%	35,000	3.3%
Construction & Extraction Occupations	84,150	92,860	8,710	10.3%	1,096,000	15.0%
Installation, Maintenance & Repair Occupations	72,240	81,510	9,270	12.8%	776,000	13.6%
Production Occupations	133,410	142,380	8,970	6.7%	354,000	3.1%
Transportation & Material Moving Occupations	105,630	115,900	10,270	9.7%	1,282,000	13.0%
TOTAL, All Occupations	1,526,320	1,731,070	204,750	13.4%	21,305,000	14.8%

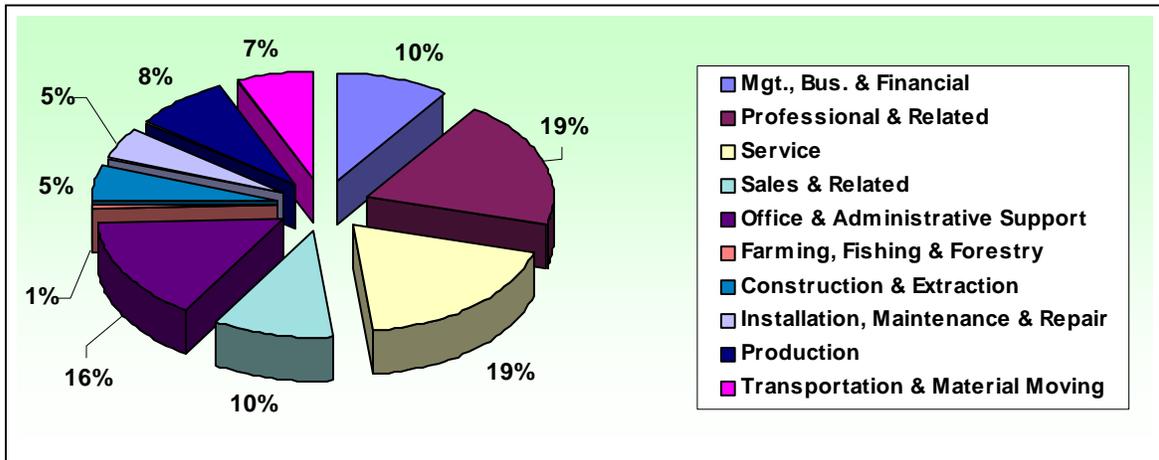
The rankings of the occupational groups in terms of employment share will not see significant change during the 2002 to 2012 period. **Service Occupations** will continue to be the most dominant occupational group in terms of employment from 2002 through 2012. This group was one of three that provided 17 percent of total employment in 2002. **Service Occupations** is expected to increase its share to 19 percent by 2012. **Professional and Related Occupations** also contributed 17 percent of total employment in 2002. This group is also projected to increase its share to 19 percent by 2012. **Office and Administrative Support Occupations** was the other group contributing 17 percent of total employment in 2002. It is expected to drop to 16 percent by 2012.

21.2 EMPLOYMENT SHARE by OCCUPATIONAL GROUP (2002)



Sales Related Occupations provided 11 percent of total employment in 2002 and will drop to 10 percent by 2012. The fifth largest occupational group, **Management, Business and Financial Occupations**, is expected to hold steady at 10 percent through 2012.

21.3 EMPLOYMENT SHARE by OCCUPATIONAL GROUP (2012)



The above five major occupational groups together account for more than 70 percent of total jobs for both 2002 and 2012.

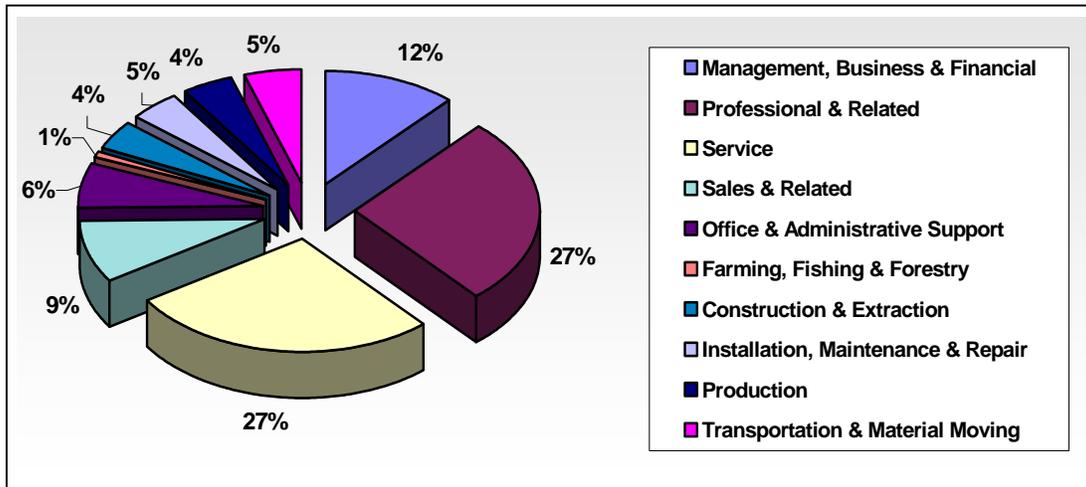
Of the total new jobs in 2012, **Service Occupations** will add the highest amount of jobs with 55,560. The **Professional and Related Occupations** and **Management, Business and Financial Occupations** groups will be the second and third largest contributors of new jobs by adding 55,470 and 23,680 new jobs, respectively.

Sales and Related Occupations and **Office and Administrative Support Occupations** will be the fourth and fifth largest contributors of new jobs (18,530 jobs and 12,680 jobs, respectively).

Most occupational employment growth will occur in four major occupational groups: **Service Occupations**; **Professional and Related Occupations**; **Management, Business and Financial Occupations**; and **Sales and Related Occupations**. These four occupational groups alone will add 75 percent of all new jobs between 2002 and 2012.

Among the 10 occupational groups, **Service Occupations** and **Professional and Related Occupations** will provide the largest shares in new employment created between 2002 and 2012. Each of these occupational groups is expected to contribute 27 percent of new employment in this period.

21.4 EMPLOYMENT GROWTH by OCCUPATIONAL GROUP (2002-2012)



The occupational groups with the third and fourth largest new job shares during the period will be **Management, Business and Financial Occupations** and **Sales and Related Occupations**. These two groups are expected to provide 12 percent and 9 percent of new jobs, respectively. Similarly, **Office and Administrative Support Occupations**, **Transportation and Material Moving Occupations**, and **Installation, Maintenance and Repair Occupations** will be the fifth, sixth and seventh largest occupational groups in terms of their share in new employment.

The occupational group with the lowest (1 percent) share in new employment will be **Farming, Fishing and Forestry Occupations**.

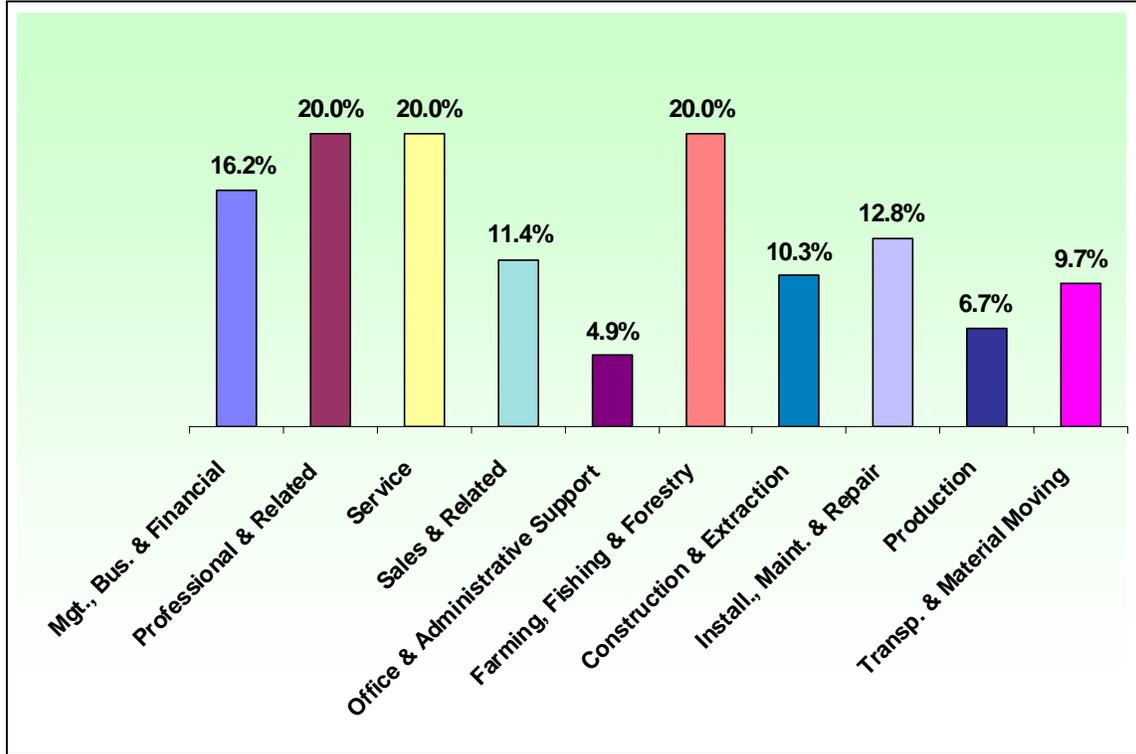
The figure on the following page (Figure 21.5) presents the annual employment growth rate for each of the occupational groups from 2002 to 2012. Three occupational groups tied as the fastest growing occupational groups with a 20 percent employment growth rate. These groups are **Professional and Related Occupations**, **Service Occupations**, and **Farming, Fishing and Forestry Occupations**. **Management, Business and Financial Occupations** will be the fourth fastest growing occupational group with an employment growth rate of 16.2 percent.

Similarly, **Installation, Maintenance and Repair Occupations**, **Sales and Related Occupations**, and **Construction and Extraction Occupations** will be the fifth, sixth and seventh fastest growing occupational groups with employment growth rates of 12.8 percent, 11.4 percent and 10.3 percent, respectively.

In the period between 2002 and 2012, **Office and Administrative Support Occupations**, **Production Occupations**, and **Transportation and Material Moving Occupations** will be the slowest growing occupational groups, with employment growth rates of 4.9 percent, 6.7 percent and 9.7 percent, respectively.

Out of 10 occupational clusters, three will report employment growth rates higher than the corresponding national rates, whereas the other seven will grow more slowly than the national rates. On average, Oklahoma's projected occupational employment growth rate of 13.4 percent will be less than the projected national rate of 14.8 percent during this period.

21.5 EMPLOYMENT GROWTH RATES for EACH OCCUPATIONAL GROUP (2002-2012)



22. Occupations with Largest Employment

The table below lists Oklahoma's top 30 occupations with the largest number of employment in 2002. **Retail Salespersons** was the occupation with largest number of jobs in 2002 and is expected to hold this position through 2012. Similarly, the **Cashiers** and **Office Clerks, General** occupations will retain the second and third positions in terms of employment through 2012.

22.1 OKLAHOMA'S TOP 30 OCCUPATIONS with LARGEST EMPLOYMENT (2002)

<i>Occupational Title</i>	EMPLOYMENT			Average Annual Openings
	2002	2012	Growth Rate	
Retail Salespersons	45,400	51,380	13.18%	2,250
Cashiers	40,370	45,280	12.16%	2,460
Office Clerks, General	37,390	40,290	7.74%	1,120
General and Operations Managers	28,420	32,810	15.45%	980
Waiters and Waitresses	26,020	30,740	18.15%	1,810
Truck Drivers, Heavy and Tractor-Trailer	23,970	27,180	13.40%	710
Secretaries, Except Legal, Medical, and Executive	23,410	21,870	-6.57%	450
Customer Service Representatives	23,090	28,540	23.61%	890
Nursing Aides, Orderlies, and Attendants	22,990	27,480	19.53%	750
Combined Food Preparation and Serving, Including Fast Food	22,590	28,160	24.68%	1,540
Laborers and Freight, Stock, and Material Movers, Hand	22,250	22,680	1.97%	770
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	21,830	25,960	18.92%	830
Registered Nurses	21,750	27,100	24.61%	990
Bookkeeping, Accounting, and Auditing Clerks	20,860	20,980	0.56%	400
First-Line Supervisors/Managers of Retail Sales Workers	19,010	20,620	8.47%	500
Elementary School Teachers, Except Special Education	18,520	21,340	15.23%	690
Stock Clerks and Order Fillers	17,370	16,630	-4.27%	640
First-Line Supervisors/Mgrs. of Office and Admin. Support Workers	14,890	15,630	4.96%	390
Team Assemblers	14,860	14,990	0.86%	400
Executive Secretaries and Administrative Assistants	14,290	14,920	4.40%	340
Licensed Practical and Licensed Vocational Nurses	13,790	15,810	14.61%	500
Maids and Housekeeping Cleaners	12,990	14,560	12.09%	430
Maintenance and Repair Workers, General	12,850	14,830	15.35%	440
Secondary School Teachers, Except Special and Vocational Edu.	12,320	14,590	18.40%	570
Receptionists and Information Clerks	11,460	14,300	24.76%	570
Accountants and Auditors	11,440	12,650	10.61%	340
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	11,280	13,410	18.84%	510
Truck Drivers, Light or Delivery Services	10,920	12,890	18.04%	300
Teacher Assistants	10,480	12,880	22.99%	440
Construction Laborers	10,400	11,920	14.63%	290

Among the top 30 largest employing occupations, the **Receptionists and Information Clerks** occupation will report the fastest employment growth between 2002 and 2012. This occupation will grow by 24.76 percent during this projection period. The other occupations projected to experience more than 20 percent employment growth are **Customer Service Representatives; Combined Food Preparation and Serving Workers, Including Fast Food; Registered Nurses; and Teacher Assistants**. Each of these occupations will grow by at least 22 percent in this period.



Retail Salespersons was the largest employing occupation in 2002.



Production Occupations will grow at the slowest rate of 3.1 percent between 2002 and 2012.

Production Occupations is expected to grow at the slowest rate during the projection period. This occupation will grow by only 3.1 percent between 2002 and 2012.

Retail Salespersons and **Cashiers** are again expected to be the first and second largest occupations in terms of employment in 2012, although they will switch positions. **Cashiers** will see the largest number of job openings, offering 2,460 jobs each year between 2002 and 2012. **Retail Salespersons Occupations** will provide 2,250 jobs each year during this projection period.



Retail Salespersons will remain the largest employing occupation through 2012.

23. Occupations with the Largest Number of Openings (2002-2012)

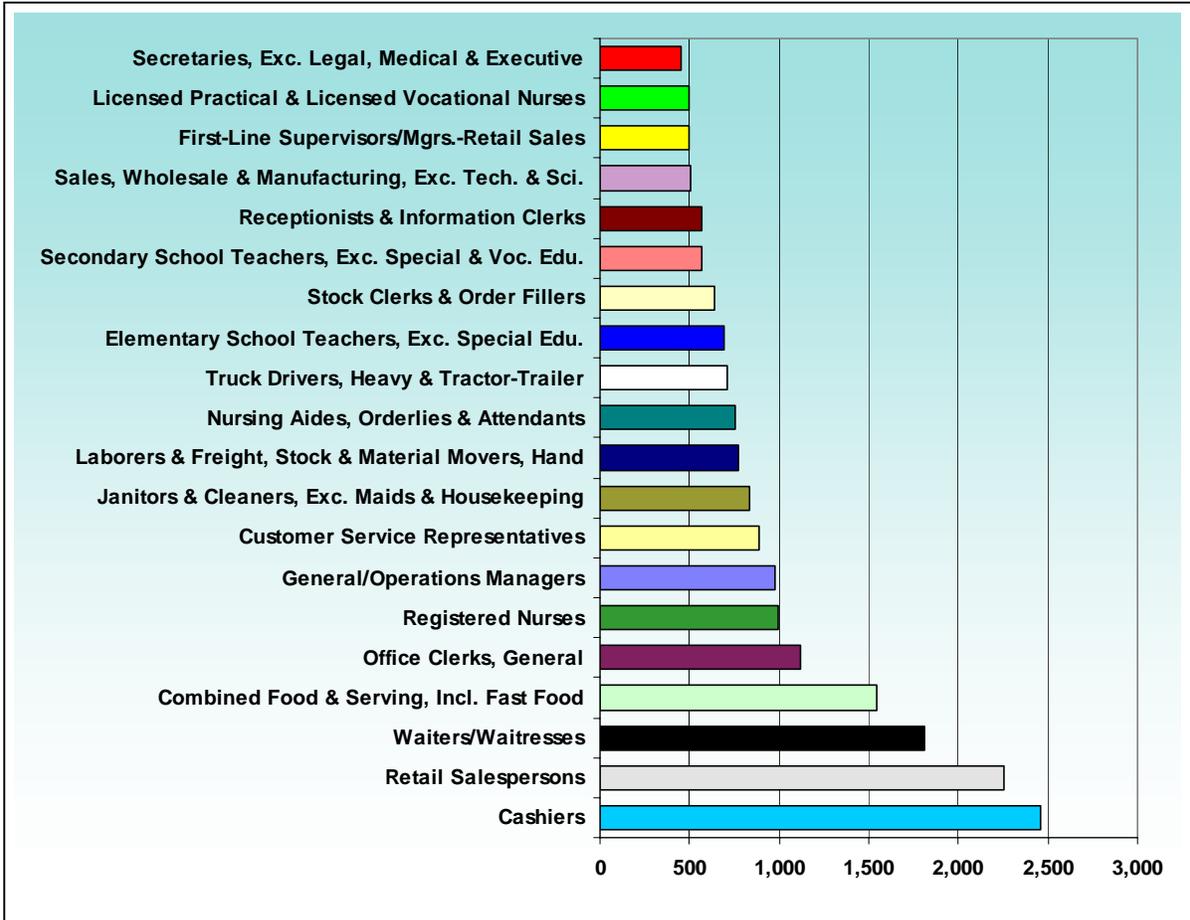
The table below lists Oklahoma's top 30 occupations with the largest number of job openings between 2002 and 2012. The **Cashiers** occupation will offer the highest number of jobs. The second and third largest job-offering occupations will be **Retail Salespersons** and **Waiters and Waitresses**, respectively.

23.1 OKLAHOMA'S TOP 30 OCCUPATIONS with LARGEST NUMBER of OPENINGS (2002-2012)

<i>Occupational Title</i>	Average Annual Openings
Cashiers	2,460
Retail Salespersons	2,250
Waiters and Waitresses	1,810
Combined Food Preparation and Serving Workers, Including Fast Food	1,540
Office Clerks, General	1,120
Registered Nurses	990
General and Operations Managers	980
Customer Service Representatives	890
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	830
Laborers and Freight, Stock and Material Movers, Hand	770
Nursing Aides, Orderlies and Attendants	750
Truck Drivers, Heavy and Tractor-Trailer	710
Elementary School Teachers, Except Special Education	690
Stock Clerks and Order Fillers	640
Secondary School Teachers, Except Special and Vocational Education	570
Receptionists and Information Clerks	570
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific	510
First-Line Supervisors/Managers of Retail Sales Workers	500
Licensed Practical and Licensed Vocational Nurses	500
Secretaries, Except Legal, Medical and Executive	450
Maintenance and Repair Workers, General	440
Teacher Assistants	440
Child Care Workers	440
Police and Sheriff's Patrol Officers	440
Maids and Housekeeping Cleaners	430
Food Preparation Workers	430
Tellers	420
Security Guards	410
Cooks, Restaurant	410
Bookkeeping, Accounting and Auditing Clerks	400

Other than **Cashiers**, the occupations with more than 1,000 average annual job openings will be **Retail Salespersons, Waiters and Waitresses, Combined Food Preparation and Serving Workers** and **Office Clerks, General**.

23.2 OKLAHOMA'S TOP 20 OCCUPATIONS with LARGEST NUMBER of OPENINGS (2002-2012)



24. Oklahoma's Fastest Growing Occupations

Between 2002 and 2012, the fastest growing occupation in Oklahoma will be **Occupational Therapist Aides**. The second and third fastest growing occupations will be **Survey Researchers** and **Network Systems and Data Communications Analysts**. **Medical Assistants** and **Fitness Trainers and Aerobics Instructors** will be the fourth and fifth fastest growing occupations, respectively.

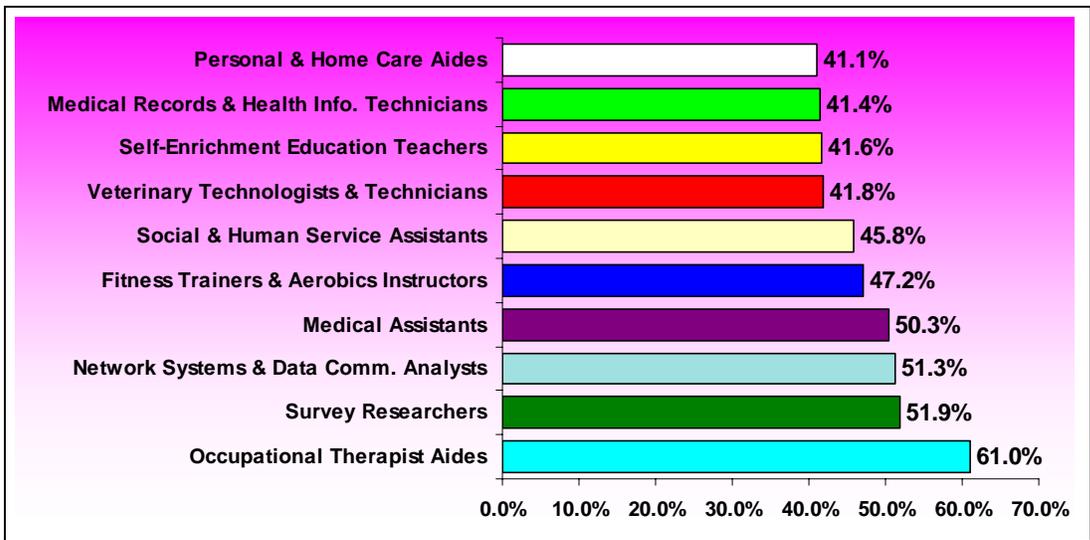
24.1 OKLAHOMA'S TOP 30 FASTEST GROWING OCCUPATIONS (2002-2012)

<i>Occupational Title</i>	Employment			Average Annual Openings
	2002	2012	Growth Rate	
Occupational Therapist Aides	140	230	61.0%	10
Survey Researchers	210	330	51.9%	20
Network Systems and Data Communications Analysts	900	1,360	51.3%	60
Medical Assistants	4,560	6,860	50.3%	310
Fitness Trainers and Aerobics Instructors	1,620	2,380	47.2%	110
Social and Human Service Assistants	1,640	2,380	45.8%	100
Veterinary Technologists and Technicians	570	810	41.8%	30
Self-Enrichment Education Teachers	1,530	2,170	41.6%	80
Medical Records and Health Information Technicians	2,050	2,900	41.4%	110
Personal and Home Care Aides	5,950	8,390	41.1%	340
Physician Assistants	950	1,340	40.4%	50
Hazardous Materials Removal Workers	360	510	40.4%	20
Philosophy and Religion Teachers, Postsecondary	320	450	40.1%	20
Security and Fire Alarm Systems Installers	590	820	38.8%	30
Art, Drama and Music Teachers, Postsecondary	920	1,270	38.3%	60
Home Health Aides	6,540	9,030	38.0%	330
Law Teachers, Postsecondary	140	200	37.8%	10
Vocational Education Teachers, Postsecondary	2,800	3,850	37.5%	170
Foreign Language and Literature Teachers, Postsecondary	250	350	37.5%	20
Political Science Teachers, Postsecondary	220	300	37.3%	10
Sociology Teachers, Postsecondary	190	260	37.1%	10
Dental Hygienists	1,280	1,760	37.1%	60
Environmental Scientists and Specialists, Including Health	440	600	37.0%	20
Personal Care and Service Workers, All Other	280	380	37.0%	20
History Teachers, Postsecondary	300	410	36.8%	20
Teachers, Primary, Secondary and Adult, All Other	4,310	5,890	36.7%	210
Farm Labor Contractors	150	210	36.4%	10
Atmospheric, Earth, Marine and Space Sciences Teachers, Postsecondary	70	90	36.2%	0
Biomedical Engineers	80	110	36.1%	0
Agricultural Equipment Operators	410	550	36.0%	30

Out of the top 30 fastest growing occupations, nearly one-third are related to health and information technology. All of the top 30 fastest growing occupations will experience more than 36 percent growth between 2002 and 2012. This means that these occupations will grow at rates of over 3 percent annually.

About one-third of the top 30 fastest growing occupations are those related to *Health or Information Technology*.

24.2 PROJECTED GROWTH RATES for OKLAHOMA'S TOP 10 FASTEST GROWING OCCUPATIONS (2002-2012)



Occupational Therapist Aides will be the fastest growing occupation in Oklahoma.

The fastest growing occupation, **Occupational Therapist Aides**, will grow by 61 percent during the projection period, or more than 6 percent annually. Among the top 30 fastest growing occupations, **Home Health Aides** will create largest number of jobs, but **Personal and Home Care Aides** will have the largest number of job openings.

25. Oklahoma's Occupations in Decline

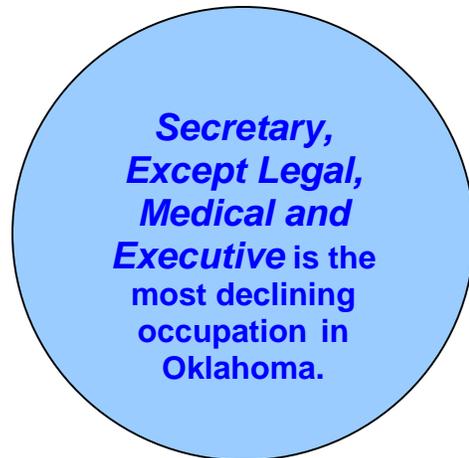
The following table lists Oklahoma's top 30 declining occupations. The level of employment in these occupations will shrink between 2002 and 2012.

24.2 OKLAHOMA'S TOP 30 DECLINING OCCUPATIONS (2002-2012)

<i>Occupational Title</i>	Employment		Change		Average Annual Openings
	2002	2012	Jobs	Percent	
Secretaries, Except Legal, Medical and Executive	23,410	21,870	-1,540	-6.6%	450
Sewing Machine Operators	3,140	2,030	-1,110	-35.4%	40
Word Processors and Typists	1,850	1,090	-760	-41.0%	40
Stock Clerks and Order Fillers	17,370	16,630	-740	-4.3%	640
Computer Operators	2,350	1,920	-430	-18.2%	50
Petroleum Pump System Operators, Refinery Operators and Gaugers	2,040	1,630	-400	-19.8%	60
Data Entry Keyers	3,580	3,210	-360	-10.2%	90
Order Clerks	3,030	2,710	-320	-10.6%	70
Loan Interviewers and Clerks	1,880	1,590	-290	-15.3%	30
Electrical and Electronic Equipment Assemblers	1,460	1,160	-290	-20.1%	30
Postal Service Mail Sorters, Processors and Processing Machine Operators	2,340	2,070	-270	-11.4%	60
Telemarketers	8,590	8,340	-260	-3.0%	140
Door-To-Door Sales Workers, News and Street Vendors, and Related Workers	1,390	1,130	-260	-18.9%	30
Wellhead Pumpers	1,070	890	-190	-17.6%	30
Telephone Operators	330	150	-180	-55.4%	10
File Clerks	3,440	3,270	-170	-4.9%	100
Parts Salespersons	3,860	3,710	-150	-3.8%	110
Roustabouts, Oil and Gas	1,980	1,820	-150	-7.8%	60
Meter Readers, Utilities	1,020	900	-130	-12.5%	30
Title Examiners, Abstractors and Searchers	1,460	1,330	-120	-8.4%	20
Procurement Clerks	1,320	1,200	-120	-9.2%	30
Mail Clerks and Mail Machine Operators, Except Postal Service	1,710	1,600	-110	-6.3%	50
Derrick Operators, Oil and Gas	1,450	1,340	-110	-7.7%	40
Announcers	1,120	1,010	-110	-10.0%	30
Secretaries, Administrative Assistants and Other Office Support Workers, All Other (OES Only)	2,190	2,090	-100	-4.5%	50
Petroleum Engineers	1,010	910	-100	-10.3%	30
Travel Agents	700	600	-100	-14.7%	20
Prepress Technicians and Workers	680	570	-100	-15.4%	20
Rotary Drill Operators, Oil and Gas	1,470	1,380	-90	-6.4%	40
Financial, Information and Record Clerks, All Other (OES Only)	3,130	3,040	-80	-2.7%	50

Of the 30 declining occupations in Oklahoma, **Secretaries, Except Legal, Medical and Executive** will be the occupation losing the largest number of jobs between 2002 and 2012.

Other occupations expected to decline by more than 300 jobs are **Sewing Machine Operators; Word Processors and Typists; Stock Clerk and Order Fillers; Computer Operators; Petroleum Pump System Operators, Refinery Operators and Gaugers; Data Entry Keyers; and Order Clerks.**



Each of the top 30 declining occupations in Oklahoma will lose 80 jobs or more from 2002 to 2012.

The top 30 declining occupations in Oklahoma will lose a total of 9,140 jobs between 2002 and 2012.

Each of the top 30 declining occupations will lose 80 jobs or more during this projection period. While these occupations are in decline, they will have a positive number of annual job openings. This means the job openings are mainly due to replacement rather than growth.

26. Skills and Employment Opportunities (2002 - 2012)

The number of average annual openings for each skill category indicates that the **Short-term On-the-job Training** category has the highest number of job openings. This skill category also offers the highest number of employment in both 2002 and 2012. The skill categories with the second and third largest number of employment are **Moderate- or Long-term Training & Experience** and **Bachelor's Degree and Above**, respectively. These categories are also second and third in terms of average annual openings.

26.1 EMPLOYMENT & OPENINGS BASED on EDUCATION, TRAINING & EXPERIENCE

<i>EDUCATION, TRAINING and EXPERIENCE</i>	Employment		Change		Average Annual Openings
	2002	2012	Number	Percent	
Bachelor's & Above	293,850	347,390	53,540	18.2%	11,050
Associate or Postsecondary Vocational Training	128,560	151,730	23,170	18.0%	4,950
Work Experience in a Related Occupation	109,870	122,090	12,230	11.1%	3,560
Moderate- or Long-term Training & Experience	439,300	484,520	45,220	10.3%	14,570
Short-term On-the-job Training	554,750	625,340	70,590	12.7%	24,050
TOTAL	1,526,320	1,731,070	204,750	13.4%	56,940

Between 2002 and 2012, the total number of job openings under different skill categories will be 56,940. This means, on the average, there will be 56,940 openings each year under all skill categories.

26.2 PERCENTAGE DISTRIBUTION of EMPLOYMENT & OPENINGS BASED on EDUCATION, TRAINING & EXPERIENCE

<i>EDUCATION, TRAINING and EXPERIENCE</i>	Employment		Employment Change	Average Annual Openings
	2002	2012		
Bachelor's & Above	19.3%	20.1%	26.1%	19.0%
Associate or Postsecondary Vocational Training	8.4%	8.8%	11.3%	8.5%
Work Experience in a Related Occupation	7.2%	7.1%	6.0%	6.1%
Moderate- or Long-term Training & Experience	28.8%	28.0%	22.1%	25.1%
Short-term On-the-job Training	36.3%	36.1%	34.5%	41.3%
TOTAL	100.0%	100.0%	100.0%	100.0%

The numbers corresponding to the percentage distribution of employment and openings suggest that 41.3 percent of average annual openings will occur in the **Short-term On-the-job Training** category, 25.1 percent in the **Moderate- or Long-term Training & Experience** category, 19.0 percent in the **Bachelor's and Above** category, 8.5 percent in **Associate or Post-secondary Vocational Training** category, and 6.1 percent in **Work Experience in Related Occupation** category.

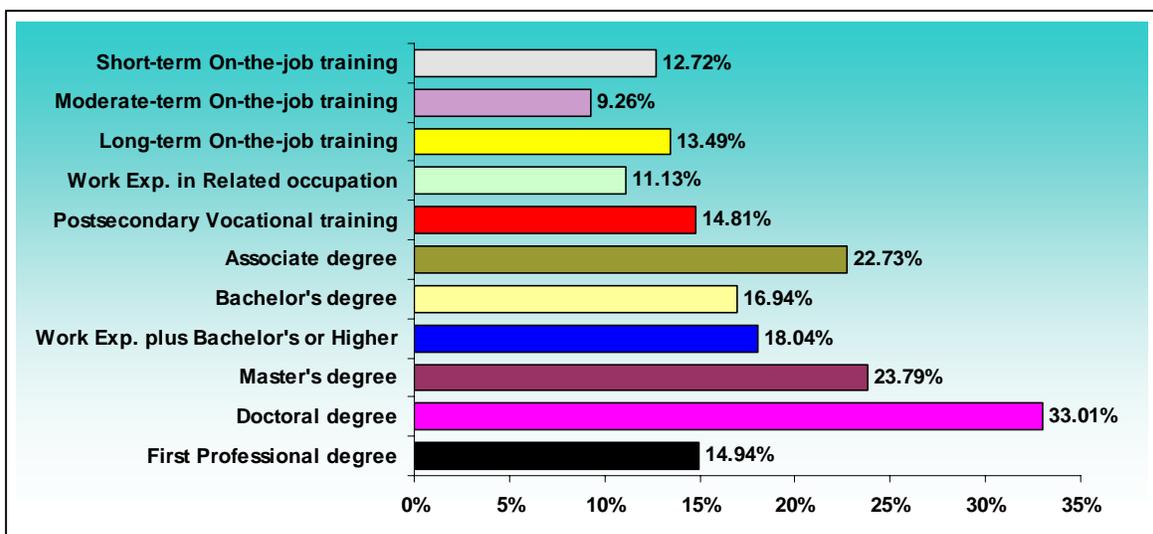
The projected growth rates of jobs requiring varying levels of skills have been summarized in the following table and diagram. In overall employment growth rating, jobs requiring a **Doctoral degree** are expected to report the highest rate of employment growth. Jobs in this skill category will grow by 33 percent between 2002 and 2012.

26.3 EMPLOYMENT BASED on VARIOUS LEVELS of EDUCATION, TRAINING & EXPERIENCE

<i>EDUCATION, TRAINING and EXPERIENCE</i>	Employment		Change		Annual Job Openings
	2002	2012	Number	Percent	
First Professional degree	20,840	23,950	3,110	14.94%	630
Doctoral degree	9,520	12,660	3,140	33.01%	530
Master's degree	25,320	31,340	6,020	23.79%	1,150
Work Experience plus Bachelor's or Higher degree	83,080	98,060	14,980	18.04%	3,050
Bachelor's degree	155,110	181,390	26,280	16.94%	5,690
Associate degree	52,250	64,130	11,880	22.73%	2,210
Postsecondary Vocational training	76,310	87,600	11,300	14.81%	2,740
Work Experience in a Related occupation	109,870	122,090	12,230	11.13%	3,560
Long-term On-the-job training	107,670	122,190	14,520	13.49%	4,030
Moderate-term On-the-job training	331,630	362,320	30,700	9.26%	10,540
Short-term On-the-job training	554,750	625,340	70,590	12.72%	24,050
TOTAL, all occupations	1,526,320	1,731,070	204,750	13.41%	56,940

Similarly, jobs requiring a **Master's degree** and those requiring an **Associate degree** will be second and third in employment growth rating. These skill categories will report a 23.79 percent and a 22.73 percent growth rate, respectively. Jobs requiring **Moderate-term On-the-job training** will grow at the slowest rate (9.26 percent) in the ten-year period. On the average, jobs requiring an **Educational degree** are expected to have the highest rate of growth followed by those requiring **Training** and those requiring **Work Experience in a Related occupation**.

26.4 PROJECTED GROWTH RATES of EMPLOYMENT REQUIRING VARIOUS LEVELS of EDUCATION, TRAINING and EXPERIENCE (2002-2012)



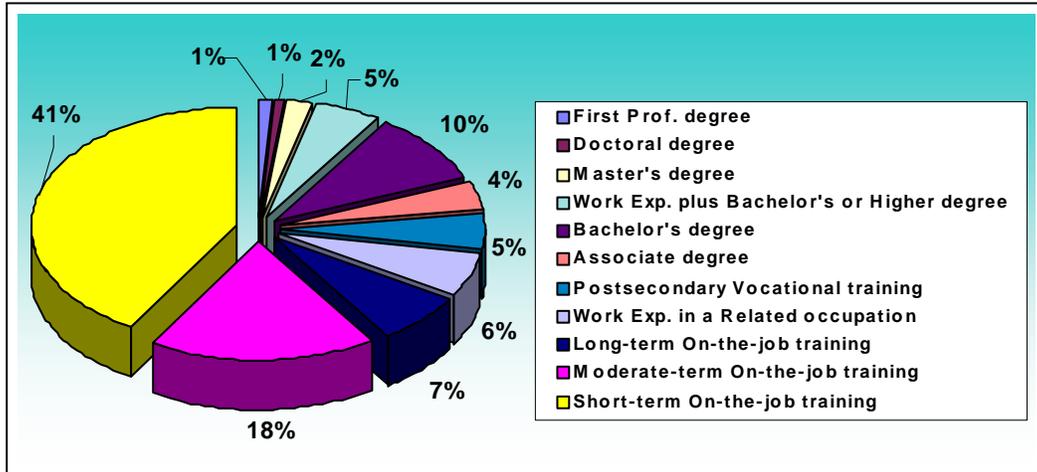
As far as the number of openings is concerned, those positions requiring **Short-term On-the-job training** will make up 41 percent of the total openings from 2002 to 2012.

Similarly, those who have **Moderate-term On-the-job training** and those with a **Bachelor's or Higher degree** will make up 18 percent and 10 percent of the openings, respectively.

Those with **Long-term On-the-job training** and those who have a **Work Experience in a Related occupation** will get a lower share of job openings (7 percent and 6 percent, respectively).

Workers with **Work Experience plus Bachelor's or Higher degree** and those with **Postsecondary Vocational training** will each share 5 percent of job openings. A less than 5 percent share in total job openings will go to those with an **Associate degree** (4 percent), a **Master's degree** (2 percent), a **Doctoral degree** (1 percent), and a **First Professional degree** (1 percent).

26.5 PERCENTAGE DISTRIBUTION of JOB OPENINGS BASED on EDUCATION, TRAINING and EXPERIENCE (2002-2012)



27. Other Statistics on Oklahoma Employment Projection by Industry (2002–2012)

27.1 OKLAHOMA'S TOP 20 INDUSTRIES with LARGEST EMPLOYMENT (2002)

Rank	Industry	Employment
1.	Educational Services	14,8190
2.	Food Services and Drinking Places	10,2930
3.	Administrative and Support Services	90,130
4.	Local Government, Excluding Education and Hospitals	60,350
5.	Hospitals	58,610
6.	Professional, Scientific and Technical Services	55,640
7.	Ambulatory Health Care Services	52,910
8.	General Merchandise Stores	41,860
9.	State Government, Excluding Education and Hospitals	38,070
10.	Specialty Trade Contractors	37,470
11.	Federal Government, Excluding Postal Service	37,420
12.	Nursing and Residential Care Facilities	35,540
13.	Credit Intermediation and Related Activities	29,920
14.	Merchant Wholesalers, Durable Goods	25,930
15.	Fabricated Metal Product Manufacturing	25,330
16.	Food and Beverage Stores	25,280
17.	Motor Vehicle and Parts Dealers	24,690
18.	Merchant Wholesalers, Non-durable Goods	24,270
19.	Machinery Manufacturing	23,150
20.	Social Assistance	21,910

27.2 OKLAHOMA'S TOP 20 INDUSTRIES with LARGEST EMPLOYMENT (2012)

Rank	Industry	Employment
1.	Educational Services	175,030
2.	Food Services and Drinking Places	120,840
3.	Administrative and Support Services	119,570
4.	Ambulatory Health Care Services	72,040
5.	Local Government, Excluding Education and Hospitals	70,300
6.	Hospitals	65,550
7.	Professional, Scientific and Technical Services	65,440
8.	General Merchandise Stores	49,000
9.	Nursing and Residential Care Facilities	43,150
10.	Specialty Trade Contractors	42,000
11.	State Government, Excluding Education and Hospitals	40,100
12.	Federal Government, Excluding Postal Service	38,010
13.	Credit Intermediation and Related Activities	32,200
14.	Social Assistance	30,300
15.	Merchant Wholesalers, Durable Goods	29,100
16.	Fabricated Metal Product Manufacturing	27,610
17.	Motor Vehicle and Parts Dealers	26,950
18.	Food and Beverage Stores	26,310
19.	Merchant Wholesalers, Non-durable Goods	26,120
20.	Machinery Manufacturing	24,700

**27.3 OKLAHOMA'S TOP 20 LARGEST INDUSTRIES to CREATE NEW EMPLOYMENT
(2002-2012)**

Rank	Industry	Employment Growth
1.	Administrative and Support Services	29,440
2.	Educational Services	26,840
3.	Ambulatory Health Care Services	19,130
4.	Food Services and Drinking Places	17,910
5.	Local Government, Excluding Education and Hospitals	9,950
6.	Professional, Scientific and Technical Services	9,800
7.	Social Assistance	8,390
8.	Nursing and Residential Care Facilities	7,600
9.	General Merchandise Stores	7,140
10.	Hospitals	6,950
11.	Specialty Trade Contractors	4,530
12.	Amusement, Gambling, and Recreation Industries	3,520
13.	Miscellaneous Store Retailers	3,200
14.	Merchant Wholesalers, Durable Goods	3,170
15.	Religious, Grant-making, Civic, Professional and Similar	2,600
16.	Telecommunications	2,550
17.	Electronics and Appliance Stores	2,290
18.	Credit Intermediation and Related Activities	2,280
19.	Fabricated Metal Product Manufacturing	2,280
20.	Motor Vehicle and Parts Dealers	2,260

**27.4 OKLAHOMA'S TOP 20 FASTEST GROWING INDUSTRIES in EMPLOYMENT
(2002-2012)**

Rank	Industry	Annual Percentage Growth
1.	Other Information Services	5.3%
2.	Internet Service Providers, Web Search Portals and Data Processing Services	4.9%
3.	Support Activities for Transportation	4.1%
4.	Social Assistance	3.8%
5.	Ambulatory Health Care Services	3.6%
6.	Administrative and Support Services	3.3%
7.	Couriers and Messengers	3.2%
8.	Electronics and Appliance Stores	3.2%
9.	Support Activities for Agriculture and Forestry	3.2%
10.	Amusement, Gambling and Recreation Industries	3.1%
11.	Transit and Ground Passenger Transport	3.1%
12.	Warehousing and Storage	2.9%
13.	Miscellaneous Store Retailers	2.8%
14.	Animal Production	2.6%
15.	Religious, Grant-making, Civic, Professional and Similar	2.4%
16.	Crop Production	2.4%
17.	Nursing and Residential Care Facilities	2.1%
18.	Museums, Historical Sites, and Similar Institution	2.1%
19.	Sporting Goods, Hobby, Book and Music Stores	2.1%
20.	Waste Management and Remediation Service	2.0%

27.5 U.S. TOP 20 FASTEST GROWING INDUSTRIES in EMPLOYMENT (2002-2012)

Rank	Industry	Annual Percentage Growth
1.	Software Publishers	5.3%
2.	Management, Scientific and Technical Consulting Services	4.5%
3.	Community Care Facilities for Elderly and Residential Care Facilities, n.e.c.	4.5%
4.	Computer Systems Design and Related	4.5%
5.	Employment Services	4.4%
6.	Individual, Family, Community and Vocational Rehabilitation	3.9%
7.	Ambulatory Health Care, Except Health Practitioner Offices	3.9%
8.	Water, Sewage and Other Systems	3.9%
9.	Internet Services, Data Processing and Other Information	3.9%
10.	Child Day Care Services	3.6%
11.	Commercial and Industrial Machinery and Equipment	3.4%
12.	Offices of Health Practitioners	3.3%
13.	Consumer Goods Rental and General Rental Centers	3.2%
14.	Cable and Other Subscription Programming and Program Distribution	3.1%
15.	Amusement, Gambling and Recreation Industries	2.8%
16.	Transit and Ground Passenger Transportation	2.8%
17.	Specialized Design Services	2.7%
18.	Office Administrative and Facilities Support Services	2.7%
19.	Motion Picture and Sound Recording Industries	2.7%
20.	Educational Services	2.6%

28. Occupational Profiles

2002 estimates are based on the Occupational Employment Survey. 2012 estimates are based on industry forecasts and modified by the Bureau of Labor Statistics Change Factors.

Job openings per year over the projection period.

Letters on left describe employment size, letters in middle describe growth rate and letters on right describe wage (pg. 98, 7).

The Standard Occupational Code used for classifying occupations.

Numeric and percentage growth over the projection period.

The 2002 average hourly wage of the reported survey (pg. 98, 5).

Based on BLS classifications (pg. 96).

SOC CODE	OCCUPATIONAL TITLE	EMPLOYMENT		EMPL. CHANGE (2002-2012)		Average Annual Openings	2002 Average Hourly Wage	Descriptor	Education Attainment
		2002	2012	Number	Percent				
00-0000	TOTAL, ALL OCCUPATIONS	1,526,320	1,731,070	204,750	13.4%	56,940	\$14.40		
11-0000	MANAGEMENT OCCUPATIONS	95,910	111,300	15,390	16.1%	3,330	\$29.37		
11-1000	Top Executives	36,610	42,190	5,580	15.2%	1,240	*		
11-1011	Chief Executives	7,450	8,600	1,150	15.5%	260	\$49.09	ABA	4
11-1021	General & Operations Managers	28,420	32,810	4,390	15.5%	980	\$31.05	ABA	4
11-1031	Legislators	740	770	40	4.7%	10	\$12.49	BCC	4
11-2000	Advertising, Marketing, Promotion, Public Relations & Sales Managers	6,830	8,480	1,640	24.1%	290	*		
11-2011	Advertising & Promotions Managers	850	1,010	160	18.5%	30	\$24.50	BBA	4
11-2021	Marketing Managers	1,530	1,820	280	18.5%	60	\$31.53	BBA	4
11-2022	Sales Managers	3,760	4,840	1,070	28.5%	180	\$32.00	AAA	4
11-2031	Public Relations Managers	690	820	130	19.1%	30	\$23.72	BBA	4
11-3000	Operations Specialties Managers	21,000	24,820	3,810	18.2%	750	*		
11-3011	Administrative Services Managers	5,800	7,040	1,240	21.3%	240	\$20.27	AAA	4
11-3021	Computer/Information Systems Mgrs.	2,250	2,930	680	30.1%	110	\$33.11	AAA	4
11-3031	Financial Managers	6,040	7,000	960	15.9%	180	\$30.16	ABA	4
11-3040	Human Resources Managers	2,480	2,970	490	19.7%	90	\$25.84	ABA	4
11-3051	Industrial Production Managers	1,950	2,180	230	11.8%	60	\$28.63	ABA	5
11-3061	Purchasing Managers	1,230	1,280	50	3.9%	30	\$26.97	BCA	4
11-3071	Transportation, Storage & Distribution Managers	1,250	1,420	170	13.6%	40	\$27.80	BBA	8
11-9000	Other Management Occupations	31,460	35,820	4,360	13.9%	1,050	*		
11-9011	Farm, Ranch & Other Agricultural Managers	1,270	1,710	440	35.1%	70	\$20.40	BAA	4
11-9012	Farmers & Ranchers	70	90	10	16.4%	0	*	DB	9
11-9021	Construction Managers	3,080	3,400	320	10.5%	90	\$26.56	ABA	5
11-9031	Education Administrators, Preschool & Child Care Center/Programs	810	1,040	230	28.7%	40	\$14.30	BAB	4
11-9032	Education Administrators, Elementary & Secondary School	2,550	3,080	530	20.8%	120	*	AA	4
11-9033	Education Administrators, Postsecondary	1,180	1,460	280	23.8%	60	\$27.19	BAA	4
11-9039	Education Administrators, All Other	140	150	20	12.4%	10	*	DB	4
11-9041	Engineering Managers	1,920	2,040	120	6.2%	50	\$40.19	ACA	4
11-9051	Food Service Managers	5,730	6,400	670	11.6%	160	\$14.62	ABB	8
11-9061	Funeral Directors	410	430	30	6.4%	10	\$20.90	CBA	6
11-9071	Gaming Managers	80	90	10	9.5%	0	\$17.64	DBB	8
11-9081	Lodging Managers	640	600	-40	-6.6%	10	\$15.29	BDB	8
11-9111	Medical & Health Services Managers	3,340	4,200	870	26.0%	150	\$30.27	AAA	4
11-9121	Natural Sciences Managers	360	380	20	5.9%	10	\$31.82	CCA	4
11-9131	Postmasters & Mail Superintendents	560	550	-10	-1.6%	10	\$22.31	CDA	8
11-9141	Property, Real Estate & Community Association Managers	2,780	3,110	330	11.9%	90	\$14.91	ABB	5

SOC CODE	OCCUPATIONAL TITLE	EMPLOYMENT		EMPL. CHANGE (2002-2012)		Average Annual Openings	2002 Average Hourly Wage	Descriptor	Education Attainment
		2002	2012	Number	Percent				
11-9151	Social/Community Service Managers	1,030	1,310	280	27.0%	50	\$16.15	BAB	5
11-9199	Managers, All Other	5,530	5,780	260	4.6%	130	*	AC	8
13-0000	BUSINESS & FINANCIAL OPERATIONS OCCUPATIONS	50,400	58,690	8,290	16.4%	1,740	\$21.53		
13-1000	Business Operations Specialists	28,900	34,360	5,460	18.9%	1,060	*		
13-1011	Agents/Business Managers of Artists, Performers & Athletes	160	200	40	23.2%	10	*	DA	4
13-1021	Purchasing Agents & Buyers, Farm Products	340	400	50	15.7%	20	\$15.63	CBB	8
13-1022	Wholesale & Retail Buyers, Except Farm Products	1,550	1,590	40	2.5%	40	\$18.21	BCB	8
13-1023	Purchasing Agents, Except Wholesale, Retail & Farm Products	2,590	2,860	270	10.4%	90	\$20.22	ABA	8
13-1031	Claims Adjusters, Examiners & Investigators	2,890	3,350	460	15.8%	80	\$21.80	ABA	9
13-1032	Insurance Appraisers, Auto Damage	110	130	20	14.0%	0	\$21.50	DBA	9
13-1041	Compliance Officers, Except Agriculture, Construction, Health & Safety, & Transportation	2,430	2,830	400	16.3%	100	\$19.26	ABB	9
13-1051	Cost Estimators	1,440	1,660	220	14.9%	50	\$21.37	BBA	8
13-1061	Emergency Management Specialists	240	320	80	31.7%	10	\$17.68	CAB	8
13-1071	Employment, Recruitment & Placement Specialists	1,480	1,860	380	25.8%	60	\$16.12	BAB	5
13-1072	Compensation, Benefits & Job Analysis Specialists	780	990	210	26.8%	30	\$19.79	BAA	5
13-1073	Training & Development Specialists	2,330	2,850	530	22.8%	90	\$18.38	AAB	5
13-1111	Management Analysts	5,690	7,110	1,420	25.0%	220	\$26.15	AAA	4
13-1121	Meeting & Convention Planners	270	330	60	22.4%	10	\$17.20	CAB	5
13-1199	Business Operations Specialists, All Other	6,580	7,880	1,300	19.7%	240	*	AB	5
13-2000	Financial Specialists	21,500	24,330	2,830	13.2%	670	*		
13-2011	Accountants & Auditors	11,440	12,650	1,210	10.6%	340	\$21.05	ABA	5
13-2021	Appraisers & Assessors of Real Estate	820	980	170	20.3%	30	\$16.34	BBB	7
13-2031	Budget Analysts	800	890	80	10.1%	20	\$22.46	BBA	5
13-2041	Credit Analysts	660	780	110	17.3%	20	\$20.13	BBA	5
13-2051	Financial Analysts	1,040	1,200	170	15.9%	30	\$24.19	BBA	5
13-2052	Personal Financial Advisors	840	1,110	260	31.2%	40	\$32.34	BAA	5
13-2053	Insurance Underwriters	630	710	80	11.9%	20	\$20.05	CBA	5
13-2061	Financial Examiners	330	350	20	6.8%	10	\$28.31	CBA	5
13-2071	Loan Counselors	310	370	60	19.4%	10	\$13.67	CBC	5
13-2072	Loan Officers	2,640	3,100	460	17.2%	90	\$21.74	ABA	5
13-2081	Tax Examiners, Collectors & Revenue Agents	850	910	60	7.0%	30	\$18.72	BBB	5
13-2082	Tax Preparers	530	610	80	15.9%	20	\$13.02	CBC	10
13-2099	Financial Specialists, All Other	620	690	70	11.2%	20	*	CB	5
15-0000	COMPUTER & MATHEMATICAL OCCUPATIONS	23,080	29,110	6,030	26.1%	910	\$22.24		
15-1000	Computer Specialists	22,500	28,470	5,970	26.5%	890	*		
15-1011	Computer & Information Scientists, Research	130	150	20	19.2%	0	\$34.61	DBA	2
15-1021	Computer Programmers	3,430	3,610	190	5.4%	100	\$25.91	ACA	5
15-1031	Computer Software Engineers, Applications	2,320	3,030	710	30.5%	90	\$25.27	AAA	5
15-1032	Computer Software Engineers, Systems Software	1,400	1,820	420	29.8%	60	\$28.51	BAA	5
15-1041	Computer Support Specialists	5,960	7,660	1,700	28.6%	240	\$13.72	AAC	6
15-1051	Computer Systems Analysts	4,230	5,370	1,140	26.9%	160	\$25.87	AAA	5
15-1061	Database Administrators	1,090	1,460	370	34.0%	50	\$23.73	BAA	5
15-1071	Network & Computer Systems Administrators	2,290	3,050	760	33.1%	100	\$23.48	AAA	5
15-1081	Network Systems & Data Communications Analysts	900	1,360	460	51.3%	60	\$24.31	BAA	5
15-1099	Computer Specialists, All Other	770	980	210	27.1%	30	*	BA	6
15-2000	Mathematical Scientists	580	630	50	9.3%	20	*		
15-2011	Actuaries	70	80	10	16.2%	0	\$23.71	DBA	4

SOC CODE	OCCUPATIONAL TITLE	EMPLOYMENT		EMPL. CHANGE (2002-2012)		Average Annual Openings	2002 Average Hourly Wage	Descriptor	Education Attainment
		2002	2012	Number	Percent				
15-2031	Operations Research Analysts	340	350	20	5.4%	10	\$25.71	CCA	3
15-2041	Statisticians	150	170	20	15.3%	10	\$15.66	DBB	3
17-0000	ARCHITECTURE & ENGINEERING OCCUPATIONS	22,920	24,520	1,600	7.0%	700	\$25.77		
17-1000	Architects, Surveyors & Cartographers	1,790	1,920	130	7.3%	60	*		
17-1011	Architects, Except Landscape & Naval	610	710	100	16.9%	20	\$24.80	CBA	5
17-1012	Landscape Architects	80	100	20	21.8%	0	\$18.36	DAB	5
17-1021	Cartographers & Photogrammetrists	90	100	10	11.1%	0	\$19.59	DBA	5
17-1022	Surveyors	1,000	1,000	0	0.1%	30	\$19.62	BCA	5
17-2000	Engineers	11,250	11,890	640	5.7%	320	*		
17-2011	Aerospace Engineers	570	580	10	1.1%	20	\$31.92	CCA	5
17-2021	Agricultural Engineers	50	50	0	8.0%	0	\$28.22	DBA	5
17-2031	Biomedical Engineers	80	110	30	36.1%	0	\$24.23	DAA	5
17-2041	Chemical Engineers	330	330	10	1.8%	10	\$36.17	CCA	5
17-2051	Civil Engineers	1,660	1,760	110	6.6%	40	\$32.01	BBA	5
17-2061	Computer Hardware Engineers	310	320	10	1.9%	10	\$33.83	CCA	5
17-2071	Electrical Engineers	1,100	1,130	30	2.6%	30	\$29.18	BCA	5
17-2072	Electronics Engineers, Except Computer	1,530	1,680	160	10.4%	50	\$31.12	BBA	5
17-2081	Environmental Engineers	360	470	110	30.6%	20	\$27.52	CAA	5
17-2111	Health & Safety Engineers, Except Mining Safety Engineers & Inspectors	320	360	40	10.8%	10	\$25.85	CBA	5
17-2112	Industrial Engineers	1,360	1,520	160	11.9%	50	\$29.07	BBA	5
17-2131	Materials Engineers	210	240	30	12.3%	10	\$29.61	CBA	5
17-2141	Mechanical Engineers	1,390	1,410	20	1.3%	40	\$28.22	BCA	5
17-2151	Mining & Geological Engineers, Including Mining Safety Engineers	80	80	-10	-7.1%	0	\$37.57	DDA	5
17-2171	Petroleum Engineers	1,010	910	-100	-10.3%	30	\$43.82	BDA	5
17-2199	Engineers, All Other	880	930	50	6.2%	20	*	BC	5
17-3000	Drafters, Engineering & Mapping Technicians	9,890	10,710	830	8.4%	320	*		
17-3011	Architectural & Civil Drafters	1,030	1,070	40	3.9%	30	\$17.03	BCB	7
17-3012	Electrical & Electronics Drafters	980	1,030	50	4.8%	30	\$18.30	BCB	7
17-3013	Mechanical Drafters	880	920	40	4.8%	30	\$19.16	BCB	7
17-3021	Aerospace Engineering & Operations Technicians	610	700	100	16.2%	20	\$23.19	CBA	6
17-3022	Civil Engineering Technicians	390	410	30	7.0%	10	\$19.50	CBA	6
17-3023	Electrical & Electronic Engineering Technicians	2,150	2,290	140	6.6%	60	\$20.63	ABA	6
17-3024	Electro-Mechanical Technicians	310	350	40	11.6%	10	\$20.86	CBA	6
17-3025	Environmental Engineering Technicians	170	220	50	29.2%	10	\$18.54	DAB	6
17-3026	Industrial Engineering Technicians	980	1,110	130	13.3%	30	\$26.01	BBA	6
17-3027	Mechanical Engineering Technicians	800	840	40	4.9%	20	*	BC	6
17-3031	Surveying & Mapping Technicians	540	690	150	26.7%	30	\$16.77	CAB	10
17-3099	Drafters, Engineering & Mapping Technicians, All Other (OES Only)	1,050	1,080	30	3.0%	30	*	BC	6
19-0000	LIFE, PHYSICAL & SOCIAL SCIENCE OCCUPATIONS	11,940	13,760	1,820	15.3%	460	\$21.96		
19-1000	Life Scientists	2,140	2,490	360	16.7%	80	*		
19-1010	Agricultural & Food Scientists	70	70	0	5.8%	0	\$27.70	DCA	5
19-1023	Zoologists & Wildlife Biologists	80	80	0	5.3%	0	\$21.85	DCA	5
19-1031	Conservation Scientists	300	310	20	5.1%	10	\$19.33	CCB	5
19-1032	Foresters	50	50	0	3.9%	0	\$20.37	DCA	5
19-1042	Medical Scientists, Except Epidemiologists	480	630	150	31.5%	20	\$24.28	CAA	2
19-1099	Life Scientists, All Other	1,060	1,220	160	14.9%	40	*	BB	5
19-2000	Physical Scientists	2,230	2,430	210	9.3%	70	*		
19-2021	Atmospheric & Space Scientists	150	160	0	2.7%	10	\$35.11	DCA	5
19-2031	Chemists	550	630	80	15.2%	30	\$25.33	CBA	5
19-2032	Materials Scientists	60	50	0	-5.4%	0	\$36.28	DDA	5
19-2041	Environmental Scientists & Specialists, Including Health	440	600	160	37.0%	20	\$26.02	CAA	3

SOC CODE	OCCUPATIONAL TITLE	EMPLOYMENT		EMPL. CHANGE (2002-2012)		Average Annual Openings	2002 Average Hourly Wage	Descriptor	Education Attainment
		2002	2012	Number	Percent				
19-2042	Geoscientists, Except Hydrologists & Geographers	760	710	-50	-6.5%	10	\$38.41	BDA	3
19-2043	Hydrologists	80	90	20	19.7%	0	\$27.40	DBA	3
19-2099	Physical Scientists, All Other	180	170	-10	-3.4%	0	*	DD	5
19-3000	Social Scientists & Related Workers	3,470	4,210	730	21.1%	160	*		
19-3011	Economists	110	100	0	-1.9%	0	\$28.39	DDA	3
19-3021	Market Research Analysts	940	1,090	150	16.0%	40	\$19.98	BBA	3
19-3022	Survey Researchers	210	330	110	51.9%	20	\$21.77	CAA	3
19-3031	Clinical, Counseling & School Psychologists	1,500	1,910	410	27.5%	70	\$20.27	BAA	2
19-3041	Sociologists	90	100	10	9.9%	0	\$19.74	DBA	3
19-3051	Urban & Regional Planners	180	210	30	18.6%	10	\$21.24	DBA	3
19-3099	Social Scientists & Related Workers, All Other	370	390	20	4.0%	10	*	CC	3
19-4000	Life, Physical & Social Science Technicians	4,100	4,630	530	12.8%	150	*		
19-4011	Agricultural & Food Science Technicians	110	120	10	10.8%	0	\$13.56	DBC	6
19-4021	Biological Technicians	550	690	140	26.0%	20	\$14.88	CAB	6
19-4031	Chemical Technicians	470	460	0	-0.9%	10	\$18.62	CDB	6
19-4041	Geological & Petroleum Technicians	590	570	-20	-4.0%	20	\$18.06	CDB	6
19-4091	Environmental Science & Protection Technicians, Including Health	480	630	150	30.7%	30	\$16.27	CAB	6
19-4092	Forensic Science Technicians	80	100	20	21.7%	0	\$17.88	DAB	6
19-4093	Forest & Conservation Technicians	130	140	0	2.3%	0	\$14.67	DCB	6
19-4099	Life, Physical & Social Science Technicians, All Other	1,680	1,920	230	13.7%	60	*	BB	6
21-0000	COMMUNITY & SOCIAL SERVICES OCCUPATIONS	20,260	24,550	4,290	21.2%	830	\$13.43		
21-1000	Counselors, Social Workers & Other Community & Social Service Specialists	18,530	22,490	3,960	21.3%	760	*		
21-1011	Substance Abuse & Behavioral Disorder Counselors	760	890	120	16.1%	30	\$13.40	BBC	3
21-1012	Educational, Vocational & School Counselors	3,200	3,620	410	12.9%	120	\$17.03	ABB	3
21-1013	Marriage & Family Therapists	220	300	70	32.3%	10	\$18.54	CAB	3
21-1014	Mental Health Counselors	1,010	1,290	280	27.3%	50	\$14.73	BAB	3
21-1015	Rehabilitation Counselors	3,100	4,090	990	31.8%	170	\$9.09	AAD	3
21-1021	Child, Family & School Social Workers	5,410	5,990	580	10.7%	150	\$13.47	ABC	5
21-1022	Medical & Public Health Social Workers	830	1,050	230	27.3%	40	\$15.73	BAB	5
21-1023	Mental Health & Substance Abuse Social Workers	860	1,100	240	27.8%	40	\$13.53	BAC	3
21-1091	Health Educators	590	710	130	21.5%	20	\$12.00	CAC	3
21-1092	Probation Officers & Correctional Treatment Specialists	920	1,080	170	18.1%	30	\$15.39	BBB	5
21-1093	Social & Human Service Assistants	1,640	2,380	750	45.8%	100	\$9.71	BAD	10
21-2000	Religious Workers	190	210	20	10.1%	10	*		
21-2011	Clergy	170	180	10	7.8%	10	\$16.41	DBB	1
21-9000	Miscellaneous Counselors, Social & Religious Workers	1,530	1,850	320	20.6%	60	*		
21-9099	Counselors, Social & Religious Workers, All Other (OES Only)	1,530	1,850	320	20.6%	60	*	BA	5
23-0000	LEGAL OCCUPATIONS	12,580	13,530	950	7.6%	250	\$30.56		
23-1000	Lawyers, Judges, Related Workers	8,320	9,090	780	9.3%	180	*		
23-1011	Lawyers	7,510	8,230	720	9.5%	170	\$39.61	ABA	1
23-1021	Administrative Law Judges, Adjudicators & Hearing Officers	470	490	20	4.9%	10	\$33.00	CCA	4
23-1022	Arbitrators, Mediators & Conciliators	50	50	10	13.3%	0	\$18.33	DBB	4
23-1023	Judges, Magistrate Judges & Magistrates	290	320	30	10.2%	10	\$41.10	CBA	4
23-2000	Legal Support Workers	3,480	3,620	140	4.1%	50	*		
23-2011	Paralegals & Legal Assistants	1,220	1,450	230	18.8%	30	\$18.34	BBB	6

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		2002	2012	Number	Percent				
23-2091	Court Reporters	300	330	30	9.7%	10	\$18.71	CBB	7
23-2092	Law Clerks	500	510	10	1.6%	10	\$14.08	CCB	5
23-2093	Title Examiners, Abstractors & Searchers	1,460	1,330	-120	-8.4%	20	*	BD	10
23-9000	Miscellaneous Legal & Related	790	820	40	4.5%	10	*		
23-9099	Legal & Related Workers, All Other (OES Only)	790	820	40	4.5%	10	*	BC	5
25-0000	EDUCATION, TRAINING & LIBRARY OCCUPATIONS	91,220	112,370	21,140	23.2%	4,020	\$15.00		
25-1000	Postsecondary Teachers	16,570	22,430	5,860	35.4%	920	*		
25-1011	Business Teachers, Postsecondary	1,050	1,420	360	34.6%	60	*	BA	3
25-1021	Computer Science Teachers, Postsecondary	380	520	140	35.7%	20	*	CA	3
25-1022	Mathematical Science Teachers, Postsecondary	590	800	210	34.6%	30	*	CA	3
25-1032	Engineering Teachers, Postsecondary	410	550	140	33.3%	20	*	CA	2
25-1041	Agricultural Sciences Teachers, Postsecondary	110	140	40	33.0%	10	*	DA	2
25-1042	Biological Science Teachers, Postsecondary	1,290	1,710	430	33.2%	70	*	BA	2
25-1051	Atmospheric, Earth, Marine & Space Sciences Teachers, Postsecondary	70	90	30	36.2%	0	*	DA	2
25-1052	Chemistry Teachers, Postsecondary	230	310	80	35.5%	10	*	CA	2
25-1053	Environmental Science Teachers, Postsecondary	60	80	20	35.5%	0	*	DA	2
25-1054	Physics Teachers, Postsecondary	200	270	70	35.4%	10	*	CA	2
25-1061	Anthropology & Archeology Teachers, Postsecondary	90	120	30	32.3%	10	*	DA	2
25-1062	Area, Ethnic & Cultural Studies Teachers, Postsecondary	60	80	20	32.8%	0	*	DA	2
25-1063	Economics Teachers, Postsecondary	170	230	60	35.9%	10	*	DA	2
25-1065	Political Science Teachers, Postsecondary	220	300	80	37.3%	10	*	CA	2
25-1066	Psychology Teachers, Postsecondary	400	540	140	34.1%	20	*	CA	2
25-1067	Sociology Teachers, Postsecondary	190	260	70	37.1%	10	*	DA	2
25-1071	Health Specialties Teachers, Postsecondary	1,220	1,650	430	35.3%	70	*	BA	3
25-1072	Nursing Instructors & Teachers, Postsecondary	480	650	170	34.9%	30	*	CA	2
25-1081	Education Teachers, Postsecondary	920	1,240	320	35.4%	50	*	BA	2
25-1082	Library Science Teachers, Postsecondary	100	130	30	31.3%	10	*	DA	2
25-1111	Criminal Justice & Law Enforcement Teachers, Postsecondary	180	250	60	34.6%	10	*	DA	2
25-1112	Law Teachers, Postsecondary	140	200	50	37.8%	10	*	DA	1
25-1113	Social Work Teachers, Postsecondary	100	130	30	34.0%	10	*	DA	2
25-1121	Art, Drama & Music Teachers, Postsecondary	920	1,270	350	38.3%	60	*	BA	3
25-1122	Communications Teachers, Postsecondary	370	500	130	35.3%	20	*	CA	2
25-1123	English Language & Literature Teachers, Postsecondary	750	1,020	270	35.7%	40	*	BA	3
25-1124	Foreign Language & Literature Teachers, Postsecondary	250	350	90	37.5%	20	*	CA	3
25-1125	History Teachers, Postsecondary	300	410	110	36.8%	20	*	CA	2
25-1126	Philosophy & Religion Teachers, Postsecondary	320	450	130	40.1%	20	*	CA	2
25-1191	Graduate Teaching Assistants	750	990	230	31.1%	40	*	BA	5
25-1192	Home Economics Teachers, Postsecondary	60	80	20	31.7%	0	*	DA	3
25-1193	Recreation & Fitness Studies Teachers, Postsecondary	320	430	110	35.2%	20	*	CA	3
25-1194	Vocational Education Teachers, Postsecondary	2,800	3,850	1,050	37.5%	170	\$18.88	AAB	8
25-1199	Postsecondary Teachers, All Other	1,000	1,340	330	33.2%	60	*	BA	2
25-2000	Primary, Secondary & Special Education School Teachers	51,870	61,430	9,560	18.4%	2,110	*		

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		2002	2012	Number	Percent				
25-2011	Preschool Teachers, Except Special Education	5,690	7,550	1,860	32.7%	250	\$8.78	AAD	7
25-2012	Kindergarten Teachers, Except Special Education	2,200	2,800	600	27.0%	90	*	AA	5
25-2021	Elementary School Teachers, Except Special Education	18,520	21,340	2,820	15.2%	690	*	AB	5
25-2022	Middle School Teachers, Except Special & Vocational Education	7,310	7,960	650	8.9%	230	*	AB	5
25-2023	Vocational Education Teachers, Middle School	220	240	20	9.0%	10	*	CB	4
25-2031	Secondary School Teachers, Except Special & Vocational Education	12,320	14,590	2,270	18.4%	570	*	AB	5
25-2032	Vocational Education Teachers, Secondary School	1,610	1,770	150	9.5%	60	*	BB	4
25-2041	Special Education Teachers, Preschool, Kindergarten & Elementary School	2,050	2,680	630	30.6%	110	*	AA	5
25-2042	Special Education Teachers, Middle School	770	1,010	240	30.9%	40	*	BA	5
25-2043	Special Education Teachers, Secondary School	1,170	1,500	330	28.6%	60	*	BA	5
25-3000	Other Teachers & Instructors	6,650	9,030	2,380	35.8%	320	*		
25-3011	Adult Literacy, Remedial Education & GED Teachers and Instructors	810	980	170	20.6%	30	\$14.87	BAB	5
25-3021	Self-Enrichment Education Teachers	1,530	2,170	640	41.6%	80	\$14.64	BAB	8
25-3999	Teachers, Primary, Secondary & Adult, All Other (OES Only)	4,310	5,890	1,580	36.7%	210	*	AA	5
25-4000	Librarians, Curators & Archivists	3,420	3,860	440	12.9%	140	*		
25-4010	Archivists, Curators & Museum Technicians	140	170	30	19.4%	10	\$17.25	DBB	3
25-4021	Librarians	2,060	2,240	180	8.9%	70	\$16.63	ABB	3
25-4031	Library Technicians	1,220	1,450	230	18.9%	70	\$8.59	BBD	11
25-9000	Other Education, Training & Library Occupations	12,720	15,610	2,900	22.8%	530	*		
25-9011	Audio-Visual Collections Specialists	50	50	10	15.2%	0	\$13.95	DBC	10
25-9021	Farm & Home Management Advisors	280	300	20	7.1%	10	\$15.15	CBB	5
25-9031	Instructional Coordinators	1,180	1,480	300	25.6%	50	\$20.88	BAA	3
25-9041	Teacher Assistants	10,480	12,880	2,410	23.0%	440	*	AA	11
25-9199	Library, Museum, Training & Other Education Workers, All Other (OES Only)	730	890	160	21.8%	30	*	BA	5
27-0000	ARTS, DESIGN, ENTERTAINMENT, SPORTS & MEDIA OCCUPATIONS	17,720	20,080	2,360	13.3%	580	\$14.40		
27-1000	Art & Design Workers	5,740	6,530	780	13.6%	170	*		
27-1011	Art Directors	260	280	30	9.7%	10	\$18.71	CBB	4
27-1013	Fine Artists, Including Painters, Sculptors & Illustrators	100	100	0	-1.0%	0	\$25.00	DDA	9
27-1014	Multi-Media Artists & Animators	480	500	20	5.0%	10	\$15.87	CCB	5
27-1021	Commercial & Industrial Designers	280	330	50	17.6%	10	\$18.67	CBB	5
27-1022	Fashion Designers	50	50	0	-6.1%	0	\$13.04	DDC	5
27-1023	Floral Designers	1,280	1,440	160	12.3%	30	\$8.74	BBD	10
27-1024	Graphic Designers	1,780	2,080	310	17.2%	50	\$15.20	ABB	5
27-1025	Interior Designers	210	240	30	15.1%	10	\$20.31	CBA	5
27-1026	Merchandise Displayers & Window Trimmers	630	740	120	18.3%	20	\$11.47	CBC	10
27-1099	Art & Design Workers, All Other (OES Only)	670	750	80	11.7%	20	*	BB	5
27-2000	Entertainers & Performers, Sports & Related Workers	3,610	4,220	610	17.0%	140	*		
27-2011	Actors	640	720	90	13.7%	20	*	CB	9
27-2012	Producers & Directors	600	670	70	12.3%	20	*	CB	4
27-2021	Athletes & Sports Competitors	120	140	20	20.9%	10	*	DA	9
27-2022	Coaches & Scouts	910	1,090	180	20.0%	40	*	BB	9
27-2023	Umpires, Referees & Other Sports Officials	80	90	10	17.7%	0	*	DB	9
27-2032	Choreographers	420	530	110	25.5%	40	\$12.89	CAC	8
27-2041	Music Directors & Composers	100	120	20	14.7%	0	*	DB	4

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		2002	2012	Number	Percent				
27-2042	Musicians & Singers	340	380	30	9.3%	10	*	CB	9
27-2099	Entertainers & Performers, Sports & Related Workers, All Other	370	440	70	19.5%	10	*	CB	9
27-3000	Media & Communication Workers	5,830	6,490	670	11.4%	190	*		
27-3010	Announcers	1,120	1,010	-110	-10.0%	30	\$9.51	BDD	9
27-3020	News Analysts, Reporters & Correspondents	750	770	20	2.8%	20	\$14.67	BCB	4
27-3031	Public Relations Specialists	1,430	1,870	440	31.0%	70	\$17.25	BAB	5
27-3041	Editors	940	1,020	80	8.6%	30	\$14.82	BBB	5
27-3042	Technical Writers	570	670	100	18.3%	30	\$19.66	CBA	5
27-3043	Writers & Authors	760	850	90	11.4%	20	\$16.13	BBB	5
27-3091	Interpreters & Translators	160	190	30	19.1%	10	\$12.70	DBC	9
27-3099	Media & Communication Workers, All Other	100	110	10	10.8%	0	*	DB	9
27-4000	Media & Communication Equipment Workers	2,540	2,840	300	11.9%	90	*		
27-4011	Audio & Video Equipment Technicians	320	380	60	18.1%	10	\$13.05	CBC	9
27-4012	Broadcast Technicians	290	330	30	11.6%	10	\$15.18	CBB	6
27-4014	Sound Engineering Technicians	120	150	20	19.5%	10	\$14.49	DBB	7
27-4021	Photographers	1,290	1,430	140	10.9%	40	\$11.84	BBC	9
27-4031	Camera Operators, Television, Video & Motion Picture	240	250	10	5.1%	10	\$10.99	CCD	10
27-4032	Film & Video Editors	120	140	20	13.1%	0	\$16.24	DBB	5
27-4099	Media & Communication Equipment Workers, All Other	130	150	10	9.0%	0	*	DB	10
29-0000	HEALTHCARE PRACTITIONERS & TECHNICAL OCCUPATIONS	77,580	94,840	17,270	22.3%	3,200	\$23.03		
29-1000	Health Diagnosing & Treating Practitioners	42,170	51,930	9,760	23.1%	1,790	*		
29-1011	Chiropractors	500	600	100	19.5%	20	\$52.17	CBA	1
29-1020	Dentists	2,110	2,120	10	0.5%	40	\$74.19	ACA	1
29-1031	Dietitians & Nutritionists	650	740	90	13.1%	30	\$17.35	BBB	5
29-1041	Optometrists	390	440	50	13.6%	20	\$43.46	CBA	1
29-1051	Pharmacists	2,960	3,990	1,030	34.7%	160	\$32.81	AAA	1
29-1061	Anesthesiologists	520	630	110	20.4%	20	\$92.31	CAA	1
29-1062	Family & General Practitioners	2,180	2,530	350	15.9%	60	\$74.46	ABA	1
29-1063	Internists, General	380	430	60	14.9%	10	\$71.70	CBA	1
29-1064	Obstetricians & Gynecologists	100	120	20	19.0%	0	\$77.85	DBA	1
29-1065	Pediatricians, General	190	240	40	21.1%	10	\$69.89	DAA	1
29-1066	Psychiatrists	180	200	20	13.5%	10	\$65.50	DBA	1
29-1067	Surgeons	860	1,040	180	21.2%	30	\$100.52	BAA	1
29-1069	Physicians & Surgeons, All Other	1,920	2,120	200	10.3%	50	*	AB	1
29-1071	Physician Assistants	950	1,340	390	40.4%	50	\$25.29	BAA	5
29-1111	Registered Nurses	21,750	27,100	5,350	24.6%	990	\$20.49	AAA	6
29-1121	Audiologists	190	250	60	30.7%	10	*	DA	3
29-1122	Occupational Therapists	790	1,040	250	31.7%	40	\$24.62	BAA	5
29-1123	Physical Therapists	1,660	2,150	490	29.7%	70	\$27.89	BAA	3
29-1125	Recreational Therapists	380	410	20	6.3%	10	\$13.34	CCC	5
29-1126	Respiratory Therapists	940	1,270	330	35.6%	60	\$16.15	BAB	6
29-1127	Speech-Language Pathologists	1,010	1,260	240	24.0%	50	\$23.21	BAA	3
29-1131	Veterinarians	680	840	160	23.8%	30	\$27.95	BAA	1
29-1199	Health Diagnosing & Treating Practitioners, All Other	660	820	160	24.7%	30	*	BA	5
29-2000	Health Technologists & Technicians	32,670	39,590	6,920	21.2%	1,290	*		
29-2011	Medical & Clinical Laboratory Technologists	1,790	2,090	300	16.9%	80	\$18.44	ABB	5
29-2012	Medical & Clinical Laboratory Technicians	1,630	1,890	260	15.9%	70	\$13.29	BBC	6
29-2021	Dental Hygienists	1,280	1,760	480	37.1%	60	\$24.68	BAA	6
29-2031	Cardiovascular Technologists & Technicians	560	720	160	28.8%	30	\$14.31	CAB	6
29-2032	Diagnostic Medical Sonographers	390	470	80	19.7%	20	\$25.60	CBA	6
29-2033	Nuclear Medicine Technologists	190	230	40	21.1%	10	\$24.26	DAA	6

SOC CODE	OCCUPATIONAL TITLE	EMPLOYMENT		EMPL. CHANGE (2002-2012)		Average Annual Openings	2002 Average Hourly Wage	Descriptor	Education Attainment
		2002	2012	Number	Percent				
29-2034	Radiologic Technologists & Technicians	2,050	2,430	380	18.3%	80	\$17.49	ABB	6
29-2041	Emergency Medical Technicians & Paramedics	2,280	2,960	680	29.8%	90	\$11.12	AAC	7
29-2051	Dietetic Technicians	780	920	130	17.0%	20	\$8.77	BBD	10
29-2052	Pharmacy Technicians	2,670	3,440	760	28.5%	110	\$9.80	AAD	10
29-2053	Psychiatric Technicians	570	610	40	6.8%	10	\$11.60	CBC	10
29-2054	Respiratory Therapy Technicians	370	490	120	33.4%	20	\$14.17	CAB	7
29-2055	Surgical Technologists	1,110	1,410	300	26.8%	40	\$13.03	BAC	7
29-2056	Veterinary Technologists & Technicians	570	810	240	41.8%	30	\$10.71	CAD	6
29-2061	Licensed Practical & Licensed Vocational Nurses	13,790	15,810	2,020	14.6%	500	\$13.14	ABC	7
29-2071	Medical Records & Health Information Technicians	2,050	2,900	850	41.4%	110	\$11.35	AAC	6
29-2081	Opticians, Dispensing	510	600	80	16.4%	20	\$11.20	CBC	9
29-2091	Orthotists & Prosthetists	50	60	10	16.0%	0	\$21.86	DBA	5
29-9000	Other Healthcare Practitioners & Technical Occupations	470	550	70	15.5%	20	*		
29-9010	Occupational Health & Safety Specialists and Technicians	370	420	50	14.4%	10	\$21.27	CBA	5
29-9091	Athletic Trainers	110	130	20	19.1%	0	*	DB	5
29-9100	Other Health Practitioners & Technical Workers	2,270	2,790	520	22.9%	90	*		
29-9199	Health Professionals & Technicians, All Other (OES Only)	2,270	2,790	520	22.9%	90	*	AA	7
31-0000	HEALTHCARE SUPPORT OCCUPATIONS	45,170	57,500	12,330	27.3%	1,920	\$9.10		
31-1000	Nursing, Psychiatric & Home Health Aides	30,340	37,440	7,100	23.4%	1,110	*		
31-1011	Home Health Aides	6,540	9,030	2,490	38.0%	330	\$8.09	AAD	11
31-1012	Nursing Aides, Orderlies & Attendants	22,990	27,480	4,490	19.5%	750	\$8.13	ABD	11
31-1013	Psychiatric Aides	810	930	120	15.4%	20	\$10.13	BBD	11
31-2000	Occupational & Physical Therapist Assistants & Aides	1,960	2,600	640	32.5%	100	*		
31-2011	Occupational Therapist Assistants	340	450	110	33.4%	20	\$15.99	CAB	6
31-2012	Occupational Therapist Aides	140	230	90	61.0%	10	\$8.40	DAD	11
31-2021	Physical Therapist Assistants	800	1,020	220	27.8%	40	\$16.54	BAB	6
31-2022	Physical Therapist Aides	690	910	220	31.5%	30	\$9.21	BAD	11
31-9000	Other Healthcare Support Occupations	12,880	17,470	4,590	35.7%	720	*		
31-9011	Massage Therapists	430	580	150	35.1%	20	\$13.25	CAC	7
31-9091	Dental Assistants	3,260	4,400	1,140	35.1%	210	\$11.96	AAC	10
31-9092	Medical Assistants	4,560	6,860	2,300	50.3%	310	\$10.18	AAD	10
31-9093	Medical Equipment Preparers	380	440	60	16.8%	10	\$9.87	CBD	11
31-9094	Medical Transcriptionists	1,510	1,800	290	19.4%	60	\$12.06	BBC	7
31-9095	Pharmacy Aides	730	830	100	14.3%	20	\$8.63	BBD	11
31-9096	Veterinary Assistants & Laboratory Animal Caretakers	730	890	170	22.9%	30	\$8.23	BAD	11
31-9099	Healthcare Support, All Other	1,290	1,670	380	29.2%	60	*	BA	11
33-0000	PROTECTIVE SERVICE OCCUPATIONS	31,650	40,230	8,580	27.1%	1,730	\$14.04		
33-1000	First-Line Supervisors/Managers, Protective Service Workers	2,820	3,460	640	22.7%	160	*		
33-1011	First-Line Supervisors/Managers of Correctional Officers	480	600	110	23.6%	30	\$17.74	CAB	8
33-1012	First-Line Supervisors/Managers of Police & Detectives	910	1,090	180	19.5%	50	\$22.27	BBA	8
33-1021	First-Line Supervisors/Managers of Fire Fighting & Prevention Workers	1,060	1,330	260	24.7%	70	\$24.83	BAA	8
33-1099	First-Line Supervisors/Managers, Protective Service Workers, All Other	360	440	80	23.3%	20	*	CA	8
33-2000	Fire Fighting & Prevention Workers	3,960	4,950	1,000	25.2%	210	*		
33-2011	Fire Fighters	3,570	4,510	940	26.3%	200	\$16.32	AAB	9
33-2021	Fire Inspectors & Investigators	300	350	50	16.7%	10	*	CB	8
33-2022	Forest Fire Inspectors & Prevention Specialists	80	90	10	8.5%	0	\$16.91	DBB	8

SOC CODE	OCCUPATIONAL TITLE	EMPLOYMENT		EMPL. CHANGE (2002-2012)		Average Annual Openings	2002 Average Hourly Wage	Descriptor	Education Attainment
		2002	2012	Number	Percent				
33-3000	Law Enforcement Workers	13,810	18,020	4,210	30.5%	750	*		
33-3012	Correctional Officers & Jailers	5,060	6,740	1,670	33.1%	270	\$11.43	AAC	10
33-3021	Detectives & Criminal Investigators	650	810	160	24.6%	30	\$21.18	BAA	8
33-3031	Fish & Game Wardens	160	180	10	7.9%	10	\$16.32	DBB	9
33-3041	Parking Enforcement Workers	70	80	10	17.7%	0	\$12.53	DBC	11
33-3051	Police & Sheriff's Patrol Officers	7,840	10,190	2,350	29.9%	440	\$16.38	AAB	9
33-9000	Other Protective Service Workers	11,070	13,800	2,740	24.8%	600	*		
33-9011	Animal Control Workers	220	250	40	16.1%	20	\$10.68	CBD	10
33-9021	Private Detectives & Investigators	640	710	70	10.7%	20	\$15.66	BBB	8
33-9031	Gaming Surveillance Officers & Gaming Investigators	130	160	30	19.4%	10	\$9.78	DBD	10
33-9032	Security Guards	8,320	10,630	2,320	27.9%	410	\$9.89	AAD	11
33-9091	Crossing Guards	210	240	40	18.1%	10	\$7.70	CBD	11
33-9099	Protective Service Workers, All Other	1,560	1,810	260	16.4%	130	*	BB	11
35-0000	FOOD PREPARATION & SERVING RELATED OCCUPATIONS	117,320	135,670	18,340	15.6%	6,450	\$7.09		
35-1000	Supervisors, Food Preparation & Serving Workers	8,280	9,640	1,360	16.4%	340	*		
35-1011	Chefs & Head Cooks	1,750	2,040	290	16.7%	80	\$10.47	ABD	8
35-1012	First-Line Supervisors/Managers of Food Preparation & Serving Workers	6,530	7,590	1,070	16.3%	260	\$10.25	ABD	8
35-2000	Cooks & Food Preparation Workers	39,160	43,300	4,140	10.6%	1,660	*		
35-2011	Cooks, Fast Food	9,930	10,610	680	6.8%	380	\$6.59	ABD	11
35-2012	Cooks, Institution & Cafeteria	8,760	8,740	-10	-0.1%	270	\$7.22	ADD	10
35-2013	Cooks, Private Household	50	60	0	7.6%	0	*	DB	9
35-2014	Cooks, Restaurant	8,430	9,890	1,470	17.4%	410	\$7.59	ABD	9
35-2015	Cooks, Short Order	4,310	4,790	480	11.2%	180	\$6.97	ABD	11
35-2021	Food Preparation Workers	7,690	9,220	1,530	19.8%	430	\$6.78	ABD	11
35-3000	Food & Beverage Serving Workers	58,630	70,000	11,360	19.4%	3,930	*		
35-3011	Bartenders	3,250	3,560	300	9.3%	160	\$6.74	ABD	11
35-3021	Combined Food Preparation & Serving Workers, Including Fast Food	22,590	28,160	5,570	24.7%	1,540	\$6.76	AAD	11
35-3022	Counter Attendants, Cafeteria, Food Concession & Coffee Shop	3,730	4,360	630	16.9%	310	\$6.74	ABD	11
35-3031	Waiters & Waitresses	26,020	30,740	4,720	18.2%	1,810	\$6.73	ABD	11
35-3041	Food Servers, Nonrestaurant	3,040	3,180	140	4.4%	120	\$6.96	ACD	11
35-9000	Other Food Preparation & Serving Related Workers	11,250	12,730	1,480	13.2%	520	*		
35-9011	Dining Room & Cafeteria Attendants & Bartender Helpers	2,820	3,190	380	13.4%	130	\$6.62	ABD	11
35-9021	Dishwashers	4,720	5,160	430	9.2%	200	\$6.69	ABD	11
35-9031	Hosts & Hostesses, Restaurant, Lounge & Coffee Shop	3,510	4,150	640	18.1%	180	\$6.82	ABD	11
35-9099	Food Preparation & Serving Related Workers, All Other	200	240	40	17.5%	10	*	CB	11
37-0000	BUILDING & GROUNDS CLEANING & MAINTENANCE OCCUPATIONS	48,560	56,770	8,210	16.9%	1,790	\$8.27		
37-1000	Supervisors, Building & Grounds Cleaning & Maintenance Workers	3,130	3,630	510	16.2%	110	*		
37-1011	First-Line Supervisors/Managers of Housekeeping & Janitorial Workers	1,950	2,220	260	13.5%	70	\$11.56	ABC	8
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service & Groundskeeping Workers	1,180	1,420	240	20.5%	40	\$12.99	BAC	8
37-2000	Building Cleaning & Pest Control Workers	35,490	41,320	5,830	16.4%	1,280	*		
37-2011	Janitors & Cleaners, Except Maids & Housekeeping Cleaners	21,830	25,960	4,130	18.9%	830	\$8.03	ABD	11
37-2012	Maids & Housekeeping Cleaners	12,990	14,560	1,570	12.1%	430	\$7.10	ABD	11
37-2021	Pest Control Workers	670	800	130	19.1%	20	\$11.11	BBC	10
37-3000	Grounds Maintenance Workers	9,940	11,820	1,870	18.8%	400	*		
37-3011	Landscaping & Groundskeeping Workers	7,960	9,440	1,480	18.6%	320	\$8.82	ABD	11
37-3012	Pesticide Handlers, Sprayers & Applicators, Vegetation	320	360	40	13.5%	10	\$11.48	CBC	10

SOC CODE	OCCUPATIONAL TITLE	EMPLOYMENT		EMPL. CHANGE (2002-2012)		Average Annual Openings	2002 Average Hourly Wage	Descriptor	Education Attainment
		2002	2012	Number	Percent				
37-3013	Tree Trimmers & Pruners	1,050	1,280	230	22.0%	50	\$10.24	BAD	11
37-9099	Building & Grounds Cleaning & Maintenance Workers, All Other (OES Only)	610	730	120	19.1%	20	*	CB	11
39-0000	PERSONAL CARE & SERVICE OCCUPATIONS	35,480	43,570	8,090	22.8%	1,640	\$9.26		
39-1000	Supervisors, Personal Care & Service Workers	1,920	2,100	180	9.2%	60	*		
39-1011	Gaming Supervisors	220	260	40	19.0%	10	\$11.94	CBC	8
39-1012	Slot Key Persons	160	180	20	13.2%	10	\$10.39	DBD	7
39-1021	First-Line Supervisors/Managers of Personal Service Workers	1,540	1,660	110	7.3%	50	\$12.39	BBC	8
39-2000	Animal Care & Service Workers	1,800	2,240	450	24.8%	90	*		
39-2011	Animal Trainers	330	430	100	31.1%	20	\$12.33	CAC	10
39-2021	Nonfarm Animal Caretakers	1,470	1,810	340	23.4%	70	\$8.68	BAD	11
39-3000	Entertainment Attendants & Related Workers	3,690	4,420	730	19.7%	210	*		
39-3011	Gaming Dealers	300	330	40	12.9%	10	\$8.92	CBD	7
39-3012	Gaming & Sports Book Writers & Runners	350	460	110	31.2%	20	*	CA	7
39-3021	Motion Picture Projectionists	70	60	-10	-15.9%	0	\$7.33	DDD	11
39-3031	Ushers, Lobby Attendants & Ticket Takers	850	890	40	4.3%	50	*	BC	11
39-3091	Amusement & Recreation Attendants	1,310	1,650	340	26.2%	70	\$7.42	BAD	11
39-3092	Costume Attendants	70	80	10	18.2%	0	\$11.80	DBC	11
39-3093	Locker Room, Coatroom & Dressing Room Attendants	270	340	70	27.0%	20	*	CA	11
39-3199	Gaming Workers, All Other (OES Only)	480	610	130	26.5%	30	*	CA	10
39-4000	Funeral Service Workers	550	620	70	11.8%	20	*		
39-4011	Embalmers	130	140	10	3.9%	0	\$12.84	DCC	7
39-4021	Funeral Attendants	420	480	60	14.3%	20	\$8.30	CBD	11
39-5000	Personal Appearance Workers	4,250	4,640	390	9.2%	130	*		
39-5011	Barbers	800	810	10	0.9%	20	\$8.88	BCD	7
39-5012	Hairdressers, Hairstylists & Cosmetologists	3,230	3,560	340	10.5%	100	\$9.30	ABD	7
39-5092	Manicurists & Pedicurists	80	100	20	22.2%	0	\$9.02	DAD	7
39-5094	Skin Care Specialists	90	110	20	19.3%	0	\$10.64	DBD	7
39-6000	Transportation, Tourism & Lodging Attendants	3,660	4,290	630	17.3%	120	*		
39-6011	Baggage Porters & Bellhops	330	400	70	20.1%	20	\$7.36	CBD	11
39-6012	Concierges	50	60	0	5.7%	0	\$8.76	DCD	10
39-6021	Tour Guides & Escorts	60	60	10	12.3%	0	\$8.27	DBD	10
39-6022	Travel Guides	70	70	-10	-8.3%	0	\$10.93	DDD	10
39-9000	Other Personal Care & Service Workers	19,610	25,270	5,660	28.8%	1,010	*		
39-9011	Child Care Workers	9,510	11,330	1,820	19.1%	440	\$6.90	ABD	11
39-9021	Personal & Home Care Aides	5,950	8,390	2,440	41.1%	340	\$7.16	AAD	11
39-9031	Fitness Trainers/Aerobics Instructors	1,620	2,380	760	47.2%	110	\$10.48	BAD	7
39-9032	Recreation Workers	1,560	1,910	350	22.4%	70	\$9.04	BAD	5
39-9041	Residential Advisors	700	880	180	25.8%	30	\$8.53	BAD	10
39-9099	Personal Care & Service Workers, All Other	280	380	100	37.0%	20	*	CA	11
41-0000	SALES & RELATED OCCUPATIONS	163,060	181,580	18,530	11.4%	7,200	\$11.75		
41-1000	Supervisors, Sales Workers	23,580	25,640	2,060	8.7%	630	*		
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	19,010	20,620	1,610	8.5%	500	\$14.09	ABB	8
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	4,570	5,020	450	9.8%	130	\$21.35	ABA	8
41-2000	Retail Sales Workers	95,550	107,530	11,990	12.5%	5,160	*		
41-2011	Cashiers	40,370	45,280	4,910	12.2%	2,460	\$6.95	ABD	11
41-2012	Gaming Change Persons & Booth Cashiers	750	930	180	23.5%	50	\$7.69	BAD	11
41-2021	Counter & Rental Clerks	5,180	6,240	1,070	20.6%	310	\$8.87	AAD	11
41-2022	Parts Salespersons	3,860	3,710	-150	-3.8%	110	\$11.08	ADD	10
41-2031	Retail Salespersons	45,400	51,380	5,980	13.2%	2,250	\$10.21	ABD	11

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		2002	2012	Number	Percent				
41-3000	Sales Representatives, Services	7,990	8,760	770	9.6%	240	*		
41-3011	Advertising Sales Agents	1,540	1,640	90	6.1%	40	\$17.59	BCB	10
41-3021	Insurance Sales Agents	4,200	4,760	570	13.5%	160	\$21.64	ABA	5
41-3031	Securities, Commodities & Financial Services Sales Agents	1,560	1,760	210	13.3%	40	\$33.87	BBA	5
41-3041	Travel Agents	700	600	-100	-14.7%	20	\$11.63	BDC	7
41-4000	Sales Representatives, Wholesale & Manufacturing	15,210	18,160	2,950	19.4%	690	*		
41-4011	Sales Representatives, Wholesale & Manufacturing, Technical & Scientific Products	3,930	4,750	820	21.0%	190	\$24.51	AAA	10
41-4012	Sales Representatives, Wholesale & Manufacturing, Except Technical & Scientific Products	11,280	13,410	2,130	18.8%	510	\$20.39	ABA	10
41-9000	Other Sales & Related Workers	20,720	21,490	770	3.7%	470	*		
41-9011	Demonstrators & Product Promoters	1,370	1,790	420	30.6%	70	\$10.40	BAD	10
41-9021	Real Estate Brokers	1,260	1,280	20	1.3%	30	\$30.63	BCA	8
41-9022	Real Estate Sales Agents	4,240	4,280	50	1.1%	90	*	AC	7
41-9031	Sales Engineers	500	550	50	10.9%	20	\$27.83	CBA	5
41-9041	Telemarketers	8,590	8,340	-260	-3.0%	140	\$8.15	ADD	11
41-9091	Door-To-Door Sales Workers, News & Street Vendors, and Related Workers	1,390	1,130	-260	-18.9%	30	\$15.26	BDB	11
41-9099	Sales & Related Workers, All Other	3,360	4,100	740	22.2%	140	*	AA	10
43-0000	OFFICE & ADMINISTRATIVE SUPPORT OCCUPATIONS	257,970	270,660	12,680	4.9%	7,200	\$11.67		
43-1000	Supervisors, Office & Administrative Support Workers	14,890	15,630	740	5.0%	390	*		
43-1011	First-Line Supervisors/Managers of Office & Administrative Support Workers	14,890	15,630	740	5.0%	390	\$17.76	ACB	8
43-2000	Communications Equipment Operators	2,980	2,710	-260	-8.8%	80	*		
43-2011	Switchboard Operators, Including Answering Service	2,610	2,540	-70	-2.7%	70	\$9.40	ADD	11
43-2021	Telephone Operators	330	150	-180	-55.4%	10	\$13.41	CDC	11
43-3000	Financial Clerks	42,850	44,990	2,150	5.0%	1,260	*		
43-3011	Bill & Account Collectors	5,030	6,120	1,090	21.6%	200	\$11.77	AAC	11
43-3021	Billing/Posting Clerks & Machine Operators	5,690	5,980	290	5.1%	130	\$11.34	ACC	10
43-3031	Bookkeeping, Accounting & Auditing Clerks	20,860	20,980	120	0.6%	400	\$11.93	ACC	10
43-3041	Gaming Cage Workers	210	240	30	16.0%	10	\$7.74	CBD	11
43-3051	Payroll & Timekeeping Clerks	2,460	2,600	140	5.8%	80	\$12.61	ACC	10
43-3061	Procurement Clerks	1,320	1,200	-120	-9.2%	30	\$14.44	BDB	11
43-3071	Tellers	7,280	7,870	600	8.2%	420	\$9.07	ABD	11
43-4000	Information & Record Clerks	58,650	67,500	8,860	15.1%	2,110	*		
43-4011	Brokerage Clerks	210	180	-30	-16.0%	0	\$12.94	CDC	10
43-4021	Correspondence Clerks	540	530	-10	-2.0%	20	\$12.17	CDC	11
43-4031	Court, Municipal & License Clerks	1,310	1,570	260	19.9%	60	\$11.27	BBC	11
43-4041	Credit Authorizers, Checkers & Clerks	930	880	-50	-5.2%	20	\$12.21	BDC	11
43-4051	Customer Service Representatives	23,090	28,540	5,450	23.6%	890	\$11.95	AAC	10
43-4061	Eligibility Interviewers, Gov. Programs	790	710	-70	-9.4%	20	\$13.65	BDC	10
43-4071	File Clerks	3,440	3,270	-170	-4.9%	100	\$9.59	ADD	11
43-4081	Hotel, Motel & Resort Desk Clerks	1,670	1,810	130	8.0%	90	\$7.28	BBD	11
43-4111	Interviewers, Except Eligibility & Loan	1,450	1,790	340	23.1%	70	\$9.88	BAD	11
43-4121	Library Assistants, Clerical	1,130	1,380	260	22.7%	70	\$8.46	BAD	11
43-4131	Loan Interviewers & Clerks	1,880	1,590	-290	-15.3%	30	\$12.49	ADC	11
43-4141	New Accounts Clerks	1,070	1,160	100	9.2%	40	\$11.20	BBC	8
43-4151	Order Clerks	3,030	2,710	-320	-10.7%	70	\$11.90	ADC	11
43-4161	Human Resources Assistants, Except Payroll & Timekeeping	1,820	2,140	320	17.8%	70	\$13.32	ABC	11
43-4171	Receptionists & Information Clerks	11,460	14,300	2,840	24.8%	570	\$9.57	AAD	11
43-4181	Reservation & Transportation Ticket Agents & Travel Clerks	1,700	1,890	190	11.1%	60	*	AB	11
43-4999	Financial, Information & Record Clerks, All Other (OES Only)	3,130	3,040	-80	-2.7%	50	*	AD	11

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		2002	2012	Number	Percent				
43-5000	Material Recording, Scheduling, Dispatching & Distributing Workers	42,920	43,080	160	0.4%	1,280	*		
43-5011	Cargo & Freight Agents	520	590	70	13.4%	20	\$15.59	CBB	10
43-5021	Couriers & Messengers	890	850	-40	-4.3%	20	\$8.73	BDD	11
43-5031	Police, Fire & Ambulance Dispatchers	1,760	2,050	290	16.5%	70	\$10.12	ABD	10
43-5032	Dispatchers, Except Police, Fire & Ambulance	2,060	2,330	270	13.1%	70	\$13.48	ABC	10
43-5041	Meter Readers, Utilities	1,020	900	-130	-12.5%	30	\$11.39	BDC	11
43-5051	Postal Service Clerks	670	660	-10	-1.5%	20	\$18.87	BDB	11
43-5052	Postal Service Mail Carriers	4,150	4,080	-70	-1.6%	130	\$18.72	ADB	11
43-5053	Postal Service Mail Sorters, Processors, & Processing Machine Operators	2,340	2,070	-270	-11.4%	60	\$16.59	ADB	11
43-5061	Production, Planning & Expediting Clerks	3,060	3,500	440	14.5%	120	\$16.13	ABB	11
43-5071	Shipping, Receiving & Traffic Clerks	7,810	7,970	160	2.1%	180	\$10.87	ACD	11
43-5081	Stock Clerks & Order Fillers	17,370	16,630	-740	-4.3%	640	\$9.24	ADD	11
43-5111	Weighers, Measurers, Checkers & Samplers, Recordkeeping	1,170	1,370	190	16.3%	50	\$11.30	BBC	11
43-5199	Material Recording, Scheduling, Dispatching & Distributing Workers, All Other (OES Only)	110	100	-10	-12.8%	0	*	DD	11
43-6000	Secretaries & Administrative Assistants	43,090	42,900	-190	-0.5%	830	*		
43-6011	Executive Secretaries & Administrative Assistants	14,290	14,920	630	4.4%	340	\$13.85	ACC	10
43-6012	Legal Secretaries	1,680	1,840	160	9.5%	50	\$13.74	BBC	7
43-6013	Medical Secretaries	3,720	4,270	560	15.0%	130	\$10.51	ABD	7
43-6014	Secretaries, Except Legal, Medical & Executive	23,410	21,870	-1,540	-6.6%	450	\$10.42	ADD	10
43-9000	Other Office & Administrative Support Workers	52,610	53,840	1,230	2.4%	1,290	*		
43-9011	Computer Operators	2,350	1,920	-430	-18.2%	50	\$12.28	ADC	10
43-9021	Data Entry Keyers	3,580	3,210	-360	-10.2%	90	\$10.10	ADD	10
43-9022	Word Processors & Typists	1,850	1,090	-760	-41.0%	40	\$10.85	ADD	10
43-9031	Desktop Publishers	190	220	30	16.4%	10	\$12.64	DBC	7
43-9041	Insurance Claims & Policy Processing Clerks	2,300	2,440	140	6.3%	50	\$14.37	ACB	10
43-9051	Mail Clerks & Mail Machine Operators, Except Postal Service	1,710	1,600	-110	-6.3%	50	\$9.79	ADD	11
43-9061	Office Clerks, General	37,390	40,290	2,900	7.7%	1,120	\$9.82	ABD	11
43-9071	Office Machine Operators, Except Computer	720	660	-70	-9.1%	20	\$10.48	BDD	11
43-9081	Proofreaders & Copy Markers	250	240	-10	-5.1%	10	\$10.92	CDD	11
43-9111	Statistical Assistants	80	80	0	-2.5%	0	\$13.40	DDC	10
43-9999	Secretaries, Administrative Assistants, & Other Office Support Workers, All Other (OES Only)	2,190	2,090	-100	-4.5%	50	*	AD	11
45-0000	FARMING, FISHING & FORESTRY OCCUPATIONS	8,100	9,710	1,620	20.0%	380	\$9.69		
45-1000	Supervisors, Farming, Fishing & Forestry Workers	510	670	160	31.6%	30	*		
45-1011	First-Line Supervisors/Managers of Farming, Fishing & Forestry Workers	360	460	110	29.6%	20	\$16.15	CAB	8
45-1012	Farm Labor Contractors	150	210	60	36.4%	10	*	DA	8
45-2000	Agricultural Workers	6,400	7,640	1,250	19.5%	300	*		
45-2011	Agricultural Inspectors	270	290	20	5.6%	10	\$11.87	CCC	8
45-2021	Animal Breeders	50	70	20	34.6%	0	*	DA	10
45-2041	Graders & Sorters, Agricultural Products	440	470	30	7.1%	20	\$10.28	CBD	8
45-2091	Agricultural Equipment Operators	410	550	150	36.0%	30	\$8.66	CAD	10
45-2092	Farmworkers & Laborers, Crop, Nursery & Greenhouse	3,680	4,650	970	26.5%	200	\$7.39	AAD	11
45-2093	Farmworkers, Farm & Ranch Animals	1,550	1,610	60	3.9%	50	\$8.33	BCD	11
45-4000	Forest, Conservation & Logging Workers	740	820	80	11.4%	20	*		
45-4011	Forest & Conservation Workers	120	140	10	11.4%	0	*	DB	10

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		2002	2012	Number	Percent				
45-4022	Logging Equipment Operators	530	590	60	12.1%	20	\$14.69	CBB	10
45-4023	Log Graders & Scalers	60	60	0	1.8%	0	*	DC	10
45-9000	Other Farming, Fishing & Forestry Workers	430	560	130	29.0%	20	*		
45-9099	Farming, Fishing & Forestry Workers, All Other (OES Only)	430	560	130	29.0%	20	*	CA	10
47-0000	CONSTRUCTION & EXTRACTION OCCUPATIONS	84,150	92,860	8,710	10.4%	2,610	\$14.36		
47-1000	Supervisors, Construction & Extraction Workers	6,880	7,320	450	6.5%	160	*		
47-1011	First-Line Supervisors/Managers of Construction Trades & Extraction Workers	6,880	7,320	450	6.5%	160	\$21.61	ABA	8
47-2000	Construction Trades Workers	57,610	64,790	7,190	12.5%	1,800	*		
47-2011	Boilermakers	470	470	10	1.9%	20	\$14.78	CCB	9
47-2021	Brickmasons & Blockmasons	980	1,050	80	7.8%	20	\$17.72	BBB	9
47-2022	Stonemasons	60	70	10	14.0%	0	\$11.53	DBC	9
47-2031	Carpenters	8,710	9,430	730	8.4%	210	\$13.12	ABC	9
47-2041	Carpet Installers	230	260	30	12.3%	10	\$11.81	CBC	10
47-2042	Floor Layers, Except Carpet, Wood & Hard Tiles	260	290	40	13.7%	10	\$14.80	CBB	10
47-2043	Floor Sanders & Finishers	260	260	0	0.8%	0	\$13.31	CCC	10
47-2044	Tile & Marble Setters	180	220	50	26.6%	10	\$13.37	DAC	9
47-2051	Cement Masons & Concrete Finishers	2,790	3,260	460	16.5%	100	\$12.51	ABC	10
47-2061	Construction Laborers	10,400	11,920	1,520	14.6%	290	\$10.91	ABD	10
47-2071	Paving, Surfacing & Tamping Equipment Operators	1,140	1,240	100	9.0%	30	\$11.76	BBC	10
47-2072	Pile-Driver Operators	60	60	0	0.0%	0	\$11.84	DDC	10
47-2073	Operating Engineers & Other Construction Equipment Operators	3,410	3,680	270	7.9%	120	\$14.07	ABB	10
47-2081	Drywall & Ceiling Tile Installers	1,210	1,390	180	15.1%	40	\$14.62	BBB	10
47-2082	Tapers	250	290	40	16.3%	10	\$15.00	CBB	10
47-2111	Electricians	7,490	8,980	1,490	19.8%	300	\$17.44	ABB	9
47-2121	Glaziers	600	630	30	5.5%	20	\$11.64	CCC	9
47-2130	Insulation Workers	860	940	80	9.3%	30	\$14.50	BBB	10
47-2141	Painters, Construction & Maintenance	4,780	5,190	410	8.5%	110	\$12.51	ABC	10
47-2142	Paperhangers	80	90	10	10.3%	0	\$11.22	DBC	10
47-2151	Pipelayers	840	910	70	8.7%	30	\$11.98	BBC	10
47-2152	Plumbers, Pipefitters & Steamfitters	6,000	6,720	720	12.0%	210	\$16.62	ABB	9
47-2161	Plasterers & Stucco Masons	180	210	20	13.2%	10	\$16.55	DBB	9
47-2181	Roofers	1,350	1,520	170	12.4%	50	\$12.55	BBC	10
47-2211	Sheet Metal Workers	3,330	3,700	370	11.2%	120	\$16.74	ABB	10
47-2221	Structural Iron & Steel Workers	1,500	1,780	280	19.0%	60	\$14.30	BBB	9
47-3000	Helpers, Construction Trades	4,520	4,820	300	6.7%	220	*		
47-3011	Helpers, Brickmasons, Blockmasons, Stonemasons, & Tile & Marble Setters	500	480	-20	-3.4%	20	\$10.51	CDD	11
47-3012	Helpers, Carpenters	630	660	40	5.7%	30	\$9.57	CCD	11
47-3013	Helpers, Electricians	1,370	1,520	150	11.0%	70	\$11.40	BBC	11
47-3014	Helpers, Painters, Paperhangers, Plasterers & Stucco Masons	390	440	40	10.7%	20	\$8.55	CBD	11
47-3015	Helpers, Pipelayers, Plumbers, Pipefitters & Steamfitters	950	980	30	3.1%	40	\$10.95	BCD	11
47-3016	Helpers, Roofers	310	340	40	11.5%	20	\$9.20	CBD	11
47-3019	Helpers, Construction Trades, All Other	390	410	30	7.0%	20	*	CB	11
47-4000	Other Construction & Related	6,030	7,180	1,150	19.1%	220	*		
47-4011	Construction & Building Inspectors	1,630	1,840	210	13.1%	60	\$17.29	BBB	8
47-4021	Elevator Installers & Repairers	300	330	30	11.3%	10	\$22.18	CBA	9
47-4031	Fence Erectors	230	260	30	12.1%	10	\$11.45	CBC	10
47-4041	Hazardous Materials Removal Workers	360	510	150	40.4%	20	\$12.82	CAC	10
47-4051	Highway Maintenance Workers	3,340	4,040	700	21.1%	120	\$10.42	AAD	10
47-4071	Septic Tank Servicers & Sewer Pipe Cleaners	130	140	20	14.3%	10	\$13.64	DBC	10

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		2002	2012	Number	Percent				
47-4900	All Other Construction Trades & Related Workers	600	730	130	22.0%	20	*		
47-4999	Construction Trades & Related Workers, All Other (OES Only)	600	730	130	22.0%	20	*	CA	10
47-5000	Extraction Workers	8,520	8,010	-510	-6.0%	240	*		
47-5011	Derrick Operators, Oil & Gas	1,450	1,340	-110	-7.7%	40	\$14.55	BDB	10
47-5012	Rotary Drill Operators, Oil & Gas	1,470	1,380	-90	-6.4%	40	\$15.40	BDB	10
47-5013	Service Unit Operators, Oil, Gas & Mining	850	770	-80	-9.2%	30	\$17.83	BDB	10
47-5021	Earth Drillers, Except Oil & Gas	510	520	10	2.8%	10	\$14.10	CCB	10
47-5031	Explosives Workers, Ordnance Handling Experts & Blasters	300	300	10	1.7%	10	\$14.79	CCB	10
47-5041	Continuous Mining Machine Operators	50	50	0	-4.0%	0	\$12.27	DDC	10
47-5051	Rock Splitters, Quarry	50	60	10	26.1%	0	\$16.79	DAB	10
47-5071	Roustabouts, Oil & Gas	1,980	1,820	-150	-7.8%	60	\$13.14	ADC	10
47-5081	Helpers, Extraction Workers	1,320	1,270	-60	-4.2%	40	\$13.11	BDC	11
47-5099	Extraction Workers, All Other	540	500	-40	-7.9%	10	*	CD	10
49-0000	INSTALLATION, MAINTENANCE & REPAIR OCCUPATIONS	72,240	81,510	9,270	12.8%	2,610	\$15.34		
49-1000	Supervisors of Installation, Maintenance & Repair Workers	5,090	5,800	710	13.9%	200	*		
49-1011	First-Line Supervisors/Managers of Mechanics, Installers & Repairers	5,090	5,800	710	13.9%	200	\$21.48	ABA	8
49-2000	Electrical & Electronic Equipment Mechanics, Installers & Repairers	10,900	12,010	1,110	10.2%	320	*		
49-2011	Computer, Automated Teller & Office Machine Repairers	2,320	2,660	340	14.7%	60	\$13.99	ABC	7
49-2021	Radio Mechanics	110	90	-20	-19.6%	0	\$15.94	DDB	7
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	3,230	3,330	100	3.1%	80	\$21.24	ACA	9
49-2091	Avionics Technicians	1,050	1,190	130	12.4%	40	\$18.73	BBB	7
49-2092	Electric Motor, Power Tool & Related Repairers	380	410	30	7.4%	10	\$14.09	CBB	7
49-2093	Electrical & Electronics Installers & Repairers, Transportation Equipment	190	200	20	8.5%	10	\$19.21	DBB	7
49-2094	Electrical & Electronics Repairers, Commercial & Industrial Equipment	1,720	1,970	250	14.5%	60	\$17.26	ABB	7
49-2095	Electrical & Electronics Repairers, Powerhouse, Substation & Relay	410	410	0	0.7%	10	\$22.65	CCA	7
49-2096	Electronic Equipment Installers & Repairers, Motor Vehicles	270	290	20	6.9%	10	\$14.21	CBB	7
49-2097	Electronic Home Entertainment Equipment Installers & Repairers	440	430	-10	-3.2%	10	\$12.16	CDC	7
49-2098	Security & Fire Alarm Systems Installers	590	820	230	38.8%	30	\$12.60	CAC	7
49-2099	Electrical & Electronic Equipment Mechanics, Installers & Repairers, All Other (OES Only)	180	210	30	14.8%	10	*	DB	7
49-3000	Vehicle & Mobile Equipment Mechanics, Installers	24,240	26,800	2,560	10.6%	880	*		
49-3011	Aircraft Mechanic/Service Technician	4,910	5,210	310	6.3%	150	\$17.35	ACB	7
49-3021	Automotive Body & Related Repairers	2,050	2,290	240	11.5%	70	\$15.07	ABB	9
49-3022	Automotive Glass Installers & Repairers	190	220	30	17.8%	10	\$13.35	DBC	9
49-3023	Automotive Service Technicians & Mechanics	9,490	10,610	1,120	11.8%	370	\$13.30	ABC	7
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	3,170	3,590	420	13.1%	120	\$15.05	ABB	7
49-3041	Farm Equipment Mechanics	380	400	30	6.6%	10	\$11.49	CBC	7
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	1,330	1,420	90	7.0%	40	\$14.14	BBB	7
49-3051	Motorboat Mechanics	210	250	40	18.4%	10	\$12.32	CBC	9
49-3052	Motorcycle Mechanics	120	140	20	14.3%	10	\$12.96	DBC	9
49-3053	Outdoor Power Equipment & Other Small Engine Mechanics	860	1,010	150	17.1%	40	\$8.24	BBD	10
49-3092	Recreational Vehicle Service Technicians	180	220	40	20.8%	10	\$13.92	DAC	9

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		2002	2012	Number	Percent				
49-3093	Tire Repairers & Changers	1,200	1,270	70	5.7%	60	\$8.48	BCD	11
49-3099	Vehicle & Mobile Equipment Mechanics, Installers & Repairers, All Other (OES Only)	130	140	10	7.9%	0	*	DB	10
49-9000	Other Installation, Maintenance & Repair Occupations	32,020	36,910	4,890	15.3%	1,210	*		
49-9011	Mechanical Door Repairers	220	250	30	13.0%	10	\$11.98	CBC	10
49-9012	Control & Valve Installers & Repairers, Except Mechanical Door	1,240	1,390	160	12.5%	50	\$18.41	BBB	10
49-9021	Heating, Air Conditioning & Refrigeration Mechanics & Installers	2,050	2,630	580	28.5%	90	\$14.90	AAB	9
49-9031	Home Appliance Repairers	660	630	-30	-4.6%	20	\$12.86	BDC	9
49-9041	Industrial Machinery Mechanics	3,120	3,540	420	13.4%	110	\$15.88	ABB	9
49-9042	Maintenance & Repair Workers, General	12,850	14,830	1,970	15.4%	440	\$12.54	ABC	10
49-9043	Maintenance Workers, Machinery	1,790	1,970	190	10.4%	60	\$15.51	ABB	11
49-9044	Millwrights	540	560	20	3.7%	20	\$17.42	CCB	9
49-9051	Electrical Power-Line Installers & Repairers	1,490	1,530	40	2.5%	50	\$20.37	BCA	9
49-9052	Telecommunications Line Installers & Repairers	2,460	3,060	610	24.6%	130	\$18.56	AAB	9
49-9061	Camera & Photographic Equipment Repairers	60	50	-10	-20.3%	0	\$16.06	DDB	10
49-9062	Medical Equipment Repairers	320	380	60	17.9%	20	\$16.41	CBB	6
49-9063	Musical Instrument Repairers & Tuners	60	60	10	8.5%	0	\$11.30	DBC	9
49-9064	Watch Repairers	80	80	0	2.5%	0	\$9.55	DCD	9
49-9069	Precision Instrument & Equipment Repairers, All Other	140	150	10	6.6%	10	*	DB	9
49-9091	Coin, Vending & Amusement Machine Servicers & Repairers	350	430	80	22.1%	20	\$12.45	CAC	10
49-9093	Fabric Menders, Except Garment	50	50	0	6.3%	0	\$16.70	DCB	10
49-9094	Locksmiths & Safe Repairers	200	240	40	19.7%	10	\$12.15	CBC	10
49-9095	Manufactured Building & Mobile Home Installers	210	270	60	28.6%	10	\$11.70	CAC	10
49-9096	Riggers	190	220	20	10.8%	10	\$18.68	DBB	11
49-9098	Helpers, Installation, Maintenance & Repair Workers	2,730	3,280	550	20.3%	150	\$11.20	ABC	11
49-9099	Installation, Maintenance & Repair Workers, All Other	1,170	1,260	90	7.4%	40	*	BB	10
51-0000	PRODUCTION OCCUPATIONS	133,410	142,380	8,970	6.7%	4,070	\$12.71		
51-1000	Supervisors, Production Workers	7,520	8,390	870	11.6%	250	*		
51-1011	First-Line Supervisors/Managers of Production & Operating Workers	7,520	8,390	870	11.6%	250	\$20.00	ABA	8
51-2000	Assemblers & Fabricators	24,520	24,390	-130	-0.5%	630	*		
51-2011	Aircraft Structure, Surfaces, Rigging & Systems Assemblers	640	640	0	-0.3%	20	*	BD	9
51-2021	Coil Winders, Tapers & Finishers	220	200	-20	-10.8%	10	\$11.64	CDC	11
51-2022	Electrical & Electronic Equipment Assemblers	1,460	1,160	-290	-20.1%	30	\$10.78	BDD	11
51-2023	Electromechanical Equipment Assemblers	1,070	1,010	-60	-5.4%	30	\$10.86	BDD	11
51-2031	Engine & Other Machine Assemblers	1,700	1,660	-40	-2.1%	50	*	AD	11
51-2041	Structural Metal Fabricators & Fitters	2,010	2,130	120	6.0%	60	\$12.91	ACC	10
51-2091	Fiberglass Laminators & Fabricators	290	310	10	3.7%	10	\$15.65	CCB	10
51-2092	Team Assemblers	14,860	14,990	130	0.9%	400	\$11.79	ACC	10
51-2099	Assemblers & Fabricators, All Other	2,250	2,280	30	1.2%	60	*	AC	10
51-3000	Food Processing Workers	11,420	13,160	1,740	15.2%	430	*		
51-3011	Bakers	1,790	2,040	250	14.1%	70	\$8.24	ABD	9
51-3021	Butchers & Meat Cutters	1,460	1,410	-50	-3.2%	30	\$10.52	BDD	9
51-3022	Meat, Poultry & Fish Cutters & Trimmers	2,220	2,670	440	20.0%	90	\$9.25	ABD	11
51-3023	Slaughterers & Meat Packers	3,730	4,540	820	22.0%	160	*	AA	10
51-3091	Food & Tobacco Roasting, Baking & Drying Machine Operators and Tenders	100	100	0	3.0%	0	\$12.89	DCC	11
51-3092	Food Batchmakers	1,060	1,180	120	11.3%	40	\$9.94	BBD	11

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		2002	2012	Number	Percent				
51-3093	Food Cooking Machine Operators & Tenders	470	520	60	12.0%	20	\$9.05	CBD	11
51-3099	Food Processing Workers, All Other (OES Only)	610	700	90	15.3%	20	*	CB	11
51-4000	Metal Workers & Plastic Workers	29,870	32,690	2,820	9.4%	1,020	*		
51-4011	Computer-Controlled Machine Tool Operators, Metal & Plastic	1,750	1,950	200	11.3%	50	\$13.67	ABC	10
51-4012	Numerical Tool & Process Control Programmers	190	220	30	14.1%	10	\$16.63	DBB	9
51-4021	Extruding & Drawing Machine Setters, Operators & Tenders, Metal & Plastic	850	930	80	9.9%	40	\$11.83	BBC	10
51-4022	Forging Machine Setters, Operators & Tenders, Metal & Plastic	640	690	50	8.0%	20	\$10.54	BBD	10
51-4023	Rolling Machine Setters, Operators & Tenders, Metal & Plastic	400	440	40	11.1%	10	\$11.12	CBC	10
51-4031	Cutting, Punching & Press Machine Setters, Operators & Tenders, Metal & Plastic	3,110	3,350	240	7.8%	100	\$11.23	ABC	10
51-4032	Drilling & Boring Machine Tool Setters, Operators & Tenders, Metal & Plastic	450	460	20	3.6%	20	\$12.89	CCC	10
51-4033	Grinding, Lapping, Polishing & Buffing Machine Tool Setters, Operators & Tenders, Metal & Plastic	830	850	20	2.4%	20	\$11.65	BCC	10
51-4034	Lathe & Turning Machine Tool Setters, Operators & Tenders, Metal & Plastic	670	720	50	7.1%	20	\$12.35	BBC	10
51-4035	Milling & Planing Machine Setters, Operators & Tenders, Metal & Plastic	340	340	0	-0.9%	10	\$13.11	CDC	10
51-4041	Machinists	5,330	5,720	390	7.3%	160	\$14.75	ABB	9
51-4051	Metal-Refining Furnace Operators & Tenders	180	180	0	-0.6%	0	\$14.03	DDC	10
51-4052	Pourers & Casters, Metal	100	100	0	2.1%	0	*	DC	10
51-4062	Patternmakers, Metal & Plastic	50	50	0	0.0%	0	\$12.13	DDC	10
51-4071	Foundry Mold & Coremakers	230	240	10	6.1%	10	\$11.33	CCC	10
51-4072	Molding, Coremaking & Casting Machine Setters, Operators & Tenders, Metal & Plastic	620	660	50	7.4%	20	\$10.52	CBD	10
51-4081	Multiple Machine Tool Setters, Operators & Tenders, Metal & Plastic	1,400	1,620	230	16.2%	60	\$12.90	BBC	10
51-4111	Tool & Die Makers	690	700	10	1.5%	20	\$20.81	BCA	9
51-4121	Welders, Cutters, Solderers & Brazers	8,320	9,680	1,360	16.4%	370	\$13.90	ABC	9
51-4122	Welding, Soldering & Brazing Machine Setters, Operators & Tenders	1,770	1,810	40	2.1%	50	\$13.13	ACC	10
51-4191	Heat Treating Equipment Setters, Operators & Tenders, Metal & Plastic	260	260	0	-0.4%	10	\$13.58	CDC	10
51-4192	Lay-Out Workers, Metal & Plastic	180	210	30	16.8%	10	\$14.23	DBB	10
51-4193	Plating & Coating Machine Setters, Operators & Tenders, Metal & Plastic	650	650	-10	-1.1%	10	\$13.03	BDC	10
51-4194	Tool Grinders, Filers & Sharpeners	340	310	-30	-9.1%	10	\$11.71	CDC	10
51-4199	Metal Workers & Plastic Workers, All Other	520	530	10	1.7%	10	*	CC	10
51-5000	Printing Workers	4,010	3,900	-110	-2.7%	100	*		
51-5011	Bindery Workers	880	820	-60	-6.3%	20	\$8.98	BDD	11
51-5021	Job Printers	470	480	10	2.1%	10	\$12.44	CCC	9
51-5022	Prepress Technicians & Workers	680	570	-100	-15.4%	20	\$12.96	BDC	9
51-5023	Printing Machine Operators	1,940	1,980	40	2.2%	50	\$12.85	ACC	10
51-6000	Textile, Apparel & Furnishings Workers	8,940	8,120	-820	-9.2%	170	*		
51-6011	Laundry & Dry-Cleaning Workers	2,960	3,210	250	8.3%	110	\$7.58	ABD	10
51-6021	Pressers, Textile, Garment & Related Materials	1,060	1,100	40	4.0%	20	\$7.08	BCD	11
51-6031	Sewing Machine Operators	3,140	2,030	-1,110	-35.4%	40	\$8.52	ADD	10
51-6041	Shoe & Leather Workers & Repairers	80	80	0	-3.8%	0	\$7.61	DDD	9
51-6051	Sewers, Hand	290	320	20	7.5%	10	\$10.82	CBD	11
51-6052	Tailors, Dressmakers & Custom Sewers	380	350	-30	-7.4%	10	\$9.39	CDD	9

SOC CODE	OCCUPATIONAL TITLE	EMPLOYMENT		EMPL. CHANGE (2002-2012)		Average Annual Openings	2002 Average Hourly Wage	Descriptor	Education Attainment
		2002	2012	Number	Percent				
51-6062	Textile Cutting Machine Setters, Operators & Tenders	150	130	-20	-14.8%	0	\$8.66	DDD	10
51-6063	Textile Knitting & Weaving Machine Setters, Operators & Tenders	70	60	-10	-11.8%	0	*	DD	9
51-6091	Extruding & Forming Machine Setters, Operators & Tenders, Synthetic & Glass Fibers	230	260	30	14.0%	10	\$12.93	CBC	10
51-6092	Fabric & Apparel Patternmakers	90	80	-10	-10.5%	0	\$9.84	DDD	9
51-6093	Upholsterers	370	380	10	2.2%	10	\$10.43	CCD	9
51-6099	Textile, Apparel & Furnishings Workers, All Other	110	120	10	9.3%	0	*	DB	11
51-7000	Woodworkers	3,100	3,170	70	2.3%	90	*		
51-7011	Cabinetmakers & Bench Carpenters	1,500	1,590	90	5.9%	50	\$11.23	BCC	9
51-7021	Furniture Finishers	270	270	10	1.9%	10	\$11.43	CCC	9
51-7041	Sawing Machine Setters, Operators & Tenders, Wood	630	600	-30	-4.5%	20	\$10.82	CDD	10
51-7042	Woodworking Machine Setters, Operators & Tenders, Except Sawing	610	610	0	0.5%	20	\$10.86	CCD	10
51-7099	Woodworkers, All Other	60	60	0	0.0%	0	*	DD	10
51-8000	Plant & System Operators	6,240	6,220	-20	-0.3%	130	*		
51-8012	Power Distributors & Dispatchers	300	280	-20	-5.4%	10	\$21.02	CDA	9
51-8013	Power Plant Operators	650	630	-20	-2.8%	20	\$21.08	BDA	9
51-8021	Stationary Engineers & Boiler Operators	460	500	30	6.9%	10	\$20.08	CBA	9
51-8031	Water & Liquid Waste Treatment Plant & System Operators	1,840	2,210	380	20.6%	100	\$11.54	AAC	9
51-8091	Chemical Plant & System Operators	470	460	0	-0.2%	10	\$20.84	CDA	9
51-8092	Gas Plant Operators	370	370	0	1.1%	10	*	CC	9
51-8093	Petroleum Pump System Operators, Refinery Operators & Gaugers	2,040	1,630	-400	-19.8%	60	\$19.33	ADB	9
51-8099	Plant & System Operators, All Other	130	140	10	4.7%	10	*	DC	9
51-9000	Other Production Occupations	37,800	42,340	4,550	12.0%	1,370	*		
51-9011	Chemical Equipment Operators & Tenders	220	220	0	1.9%	10	\$16.70	CCB	10
51-9012	Separating, Filtering, Clarifying, Precipitating & Still Machine Setters, Operators & Tenders	370	390	30	7.4%	10	\$14.43	CBB	10
51-9021	Crushing, Grinding & Polishing Machine Setters, Operators & Tenders	380	370	-10	-2.9%	10	\$11.27	CDC	10
51-9022	Grinding & Polishing Workers, Hand	340	380	40	12.2%	10	\$11.23	CBC	10
51-9023	Mixing & Blending Machine Setters, Operators & Tenders	1,020	1,030	10	1.1%	30	\$14.10	BCB	10
51-9031	Cutters & Trimmers, Hand	230	260	30	13.9%	10	\$11.94	CBC	11
51-9032	Cutting & Slicing Machine Setters, Operators & Tenders	660	720	50	7.7%	20	\$11.65	BBC	10
51-9041	Extruding, Forming, Pressing & Compacting Machine Setters, Operators & Tenders	740	750	10	0.9%	20	\$11.46	BCC	10
51-9051	Furnace, Kiln, Oven, Drier & Kettle Operators & Tenders	420	400	-20	-4.8%	10	\$16.05	CDB	10
51-9061	Inspectors, Testers, Sorters, Samplers & Weighers	6,270	6,670	400	6.5%	180	\$15.18	ABB	10
51-9071	Jewelers & Precious Stone & Metal Workers	300	310	10	3.7%	10	\$13.81	CCC	7
51-9081	Dental Laboratory Technicians	380	430	50	11.8%	10	\$15.14	CBB	9
51-9082	Medical Appliance Technicians	60	70	10	20.3%	0	\$15.92	DAB	9
51-9083	Ophthalmic Laboratory Technicians	520	610	80	15.9%	20	\$9.61	CBD	10
51-9111	Packaging & Filling Machine Operators & Tenders	4,750	5,930	1,180	24.8%	210	\$9.45	AAD	11
51-9121	Coating, Painting & Spraying Machine Setters, Operators & Tenders	1,440	1,630	190	13.2%	60	\$12.69	BBC	10
51-9122	Painters, Transportation Equipment	1,170	1,430	260	22.2%	60	\$13.95	BAC	10
51-9123	Painting, Coating & Decorating Workers	500	570	80	15.5%	20	\$11.34	CBC	11
51-9131	Photographic Process Workers	570	580	20	2.8%	20	\$8.84	CCD	10
51-9132	Photographic Processing Machine Operators	820	890	70	9.0%	30	\$7.54	BBD	11

SOC CODE	OCCUPATIONAL TITLE	EMPLOYMENT		EMPL. CHANGE (2002-2012)		Average Annual Openings	2002 Average Hourly Wage	Descriptor	Education Attainment
		2002	2012	Number	Percent				
51-9191	Cementing & Gluing Machine Operators & Tenders	300	310	10	3.3%	10	*	CC	10
51-9192	Cleaning, Washing & Metal Pickling Equipment Operators & Tenders	310	350	30	10.6%	10	\$10.26	CBD	10
51-9193	Cooling & Freezing Equipment Operators & Tenders	70	80	10	11.9%	0	\$11.12	DBC	10
51-9194	Etchers & Engravers	110	110	0	-1.9%	0	\$9.69	DDD	9
51-9195	Molders, Shapers & Casters, Except Metal & Plastic	1,660	1,670	0	0.2%	40	\$9.25	BCD	10
51-9196	Paper Goods Machine Setters, Operators & Tenders	940	1,010	70	6.9%	30	\$13.92	BBC	10
51-9197	Tire Builders	540	560	10	2.6%	10	*	CC	10
51-9198	Helpers, Production Workers	5,600	6,080	490	8.7%	210	\$9.82	ABD	11
51-9199	Production Workers, All Other	7,120	8,560	1,440	20.3%	310	*	AB	10
53-0000	TRANSPORTATION & MATERIAL MOVING OCCUPATIONS	105,630	115,900	10,270	9.7%	3,360	\$12.27		
53-1000	Supervisors, Transportation & Material Moving Workers	3,910	4,310	400	10.3%	130	*		
53-1011	Aircraft Cargo Handling Supervisors	140	170	30	21.0%	10	\$16.53	DAB	8
53-1021	First-Line Supervisors/Managers of Helpers, Laborers & Material Movers, Hand	1,750	2,000	250	14.0%	70	\$17.10	ABB	8
53-1031	First-Line Supervisors/Managers of Transportation & Material-Moving Machine & Vehicle Operators	2,020	2,140	130	6.3%	60	\$19.57	ACA	8
53-2000	Air Transportation Workers	2,210	2,630	430	19.4%	100	*		
53-2011	Airline Pilots, Copilots & Flight Engineers	1,430	1,720	280	19.8%	70	*	BB	5
53-2012	Commercial Pilots	200	220	20	9.9%	10	*	CB	7
53-2021	Air Traffic Controllers	460	550	100	21.1%	20	\$31.21	CAA	9
53-2022	Airfield Operations Specialists	50	60	10	17.3%	0	*	DB	9
53-2099	Air Transportation Workers, All Other (OES Only)	60	80	20	29.0%	0	*	DA	10
53-3000	Motor Vehicle Operators	49,780	56,790	7,000	14.1%	1,460	*		
53-3021	Bus Drivers, Transit & Intercity	1,090	1,300	220	19.8%	50	\$10.69	BBD	10
53-3022	Bus Drivers, School	5,430	6,130	700	12.8%	190	\$7.90	ABD	11
53-3031	Driver/Sales Workers	5,400	5,780	380	7.0%	130	\$11.36	ABC	11
53-3032	Truck Drivers, Heavy & Tractor-Trailer	23,970	27,180	3,210	13.4%	710	\$15.18	ABB	10
53-3033	Truck Drivers, Light or Delivery Services	10,920	12,890	1,970	18.0%	300	\$10.23	ABD	11
53-3041	Taxi Drivers & Chauffeurs	960	1,100	140	14.2%	20	\$7.95	BBD	11
53-3099	Motor Vehicle Operators, All Other	1,890	2,270	370	19.7%	60	*	AB	11
53-4000	Rail Transportation Workers	90	110	20	25.0%	0	*		
53-4021	Railroad Brake, Signal & Switch Operators	60	70	10	24.1%	0	\$19.54	DAA	8
53-6000	Other Transportation Workers	2,480	2,600	120	4.6%	100	*		
53-6021	Parking Lot Attendants	770	830	60	7.5%	30	\$7.11	BBD	11
53-6031	Service Station Attendants	1,090	1,110	20	1.7%	50	\$7.67	BCD	11
53-6041	Traffic Technicians	80	90	20	20.0%	0	\$12.95	DBC	11
53-6051	Transportation Inspectors	340	350	10	1.8%	10	\$29.09	CCA	8
53-6099	Transportation Workers, All Other	180	210	20	12.6%	10	*	DB	11
53-7000	Material Moving Workers	47,130	49,430	2,300	4.9%	1,560	*		
53-7011	Conveyor Operators & Tenders	560	600	30	5.9%	20	\$10.45	CCD	11
53-7021	Crane & Tower Operators	340	360	20	4.4%	10	\$16.81	CCB	10
53-7031	Dredge Operators	80	80	10	10.7%	0	\$13.85	DBC	10
53-7032	Excavating & Loading Machine & Dragline Operators	1,510	1,580	70	4.9%	50	\$12.42	BCC	10
53-7033	Loading Machine Operators, Underground Mining	110	120	0	0.9%	0	\$10.73	DCD	10
53-7041	Hoist & Winch Operators	90	100	10	10.6%	0	\$15.84	DBB	10
53-7051	Industrial Truck & Tractor Operators	4,880	5,380	500	10.3%	140	\$12.02	ABC	11
53-7061	Cleaners of Vehicles & Equipment	4,660	4,960	300	6.4%	190	\$8.31	ABD	11
53-7062	Laborers & Freight, Stock & Material Movers, Hand	22,250	22,680	440	2.0%	770	\$9.27	ACD	11
53-7063	Machine Feeders & Offbearers	550	550	0	-0.2%	20	\$10.58	CDD	11
53-7064	Packers & Packagers, Hand	5,920	6,390	470	8.0%	160	\$7.94	ABD	11

SOC CODE	OCCUPATIONAL TITLE	EMPLOYMENT		EMPL. CHANGE (2002-2012)		Average Annual Openings	2002 Average Hourly Wage	Descriptor	Education Attainment
		2002	2012	Number	Percent				
53-7071	Gas Compressor & Gas Pumping Station Operators	380	340	-30	-8.3%	10	\$21.64	CDA	10
53-7072	Pump Operators, Except Wellhead Pumpers	740	680	-70	-8.9%	20	\$14.15	BDB	10
53-7073	Wellhead Pumpers	1,070	890	-190	-17.6%	30	\$18.73	BDB	10
53-7081	Refuse & Recyclable Material Collectors	3,290	3,950	670	20.2%	150	\$9.12	ABD	11
53-7121	Tank Car, Truck & Ship Loaders	110	120	10	9.2%	0	*	DB	10
53-7199	Material Moving Workers, All Other	580	640	60	10.1%	20	*	CB	10

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Occupational Title	SOC Code	Occupational Title	SOC Code
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Actuaries	15-2011	Bindery Workers	51-5011
Administrative Law Judges, Adjudicators and Hearing Officers	23-1021	Biological Science Teachers, Postsecondary	25-1042
Administrative Services Managers	11-3011	Biological Technicians	19-4021
Adult Literacy, Remedial Education and GED Teachers and Instructors	25-3011	Biomedical Engineers	17-2031
Advertising and Promotions Managers	11-2011	Boilermakers	47-2011
Advertising Sales Agents	41-3011	Bookkeeping, Accounting and Auditing Clerks	43-3031
Aerospace Engineering and Operations Technicians	17-3021	Brickmasons and Blockmasons	47-2021
Aerospace Engineers	17-2011	Broadcast Technicians	27-4012
Agents and Business Managers of Artists, Performers and Athletes	13-1011	Brokerage Clerks	43-4011
Agricultural and Food Science Technicians	19-4011	Budget Analysts	13-2031
Agricultural and Food Scientists	19-1010	Building and Grounds Cleaning and Maintenance Workers, All Other (OES Only)	37-9099
Agricultural Engineers	17-2021	Bus and Truck Mechanics and Diesel Engine Specialists	49-3031
Agricultural Equipment Operators	45-2091	Bus Drivers, School	53-3022
Agricultural Inspectors	45-2011	Bus Drivers, Transit and Intercity	53-3021
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Aircraft Cargo Handling Supervisors	53-1011	Cabinetmakers and Bench Carpenters	51-7011
Aircraft Mechanics and Service Technicians	49-3011	Camera and Photographic Equipment Repairers	49-9061
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Airline Pilots, Copilots and Flight Engineers	53-2011	Cargo and Freight Agents	43-5011
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Animal Trainers	39-2011	Cement Masons and Concrete Finishers	47-2051
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Arbitrators, Mediators and Conciliators	23-1022	Chemical Equipment Operators and Tenders	51-9011
Architects, Except Landscape and Naval	17-1011	Chemical Plant and System Operators	51-8091
Architectural and Civil Drafters	17-3011	Chemical Technicians	19-4031
Archivists, Curators and Museum Technicians	25-4010	Chemistry Teachers, Postsecondary	25-1052
Area, Ethnic and Cultural Studies Teachers, Postsecondary	25-1062	Chemists	19-2031
Art and Design Workers, All Other (OES Only)	27-1099	Chief Executives	11-1011
Art Directors	27-1011	Child Care Workers	39-9011
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Athletic Trainers	29-9091	Civil Engineering Technicians	17-3022
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Audiologists	29-1121	Cleaning, Washing and Metal Pickling Equipment Operators and Tenders	51-9192
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		Communications Teachers, Postsecondary	25-1122

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Computer and Information Systems Managers	11-3021	Dietitians and Nutritionists	29-1031
Computer Hardware Engineers	17-2061	Dining Room and Cafeteria Attendants and Bartender Helpers	35-9011
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Database Administrators	15-1061	Entertainers and Performers, Sports and Related Workers, All Other	27-2099
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Extruding and Drawing Machine Setters, Operators and Tenders, Metal and Plastic	51-4021	Food Batchmakers	51-3092
Extruding and Forming Machine Setters, Operators and Tenders, Synthetic and Glass Fibers	51-6091	Food Cooking Machine Operators and Tenders	51-3093
Extruding, Forming, Pressing and Compacting Machine Setters, Operators and Tenders	51-9041	Food Preparation and Serving Related Workers, All Other	35-9099
Fabric and Apparel Patternmakers	51-6092	Food Preparation Workers	35-2021
Fabric Menders, Except Garment	49-9093	Food Processing Workers, All Other (OES Only)	51-3099
Family and General Practitioners	29-1062	Food Servers, Nonrestaurant	35-3041
Farm and Home Management Advisors	25-9021	Food Service Managers	11-9051
Farm Equipment Mechanics	49-3041	Foreign Language and Literature Teachers, Postsecondary	25-1124
Farm Labor Contractors	45-1012	Forensic Science Technicians	19-4092
Farm, Ranch and Other Agricultural Managers	11-9011	Forest and Conservation Technicians	19-4093
Farmers and Ranchers	11-9012	Forest and Conservation Workers	45-4011
Farming, Fishing and Forestry Workers, All Other (OES Only)	45-9099	Forest Fire Inspectors and Prevention Specialists	33-2022
Farmworkers and Laborers, Crop, Nursery and Greenhouse	45-2092	Foresters	19-1032
Farmworkers, Farm and Ranch Animals	45-2093	Forging Machine Setters, Operators and Tenders, Metal and Plastic	51-4022
Fashion Designers	27-1022	Foundry Mold and Coremakers	51-4071
Fence Erectors	47-4031	Funeral Attendants	39-4021
Fiberglass Laminators and Fabricators	51-2091	Funeral Directors	11-9061
File Clerks	43-4071	Furnace, Kiln, Oven, Drier and Kettle Operators and Tenders	51-9051
Film and Video Editors	27-4032	Furniture Finishers	51-7021
Financial Analysts	13-2051	Gaming and Sports Book Writers and Runners	39-3012
Financial Examiners	13-2061	Gaming Cage Workers	43-3041
Financial Managers	11-3031	Gaming Change Persons and Booth Cashiers	41-2012
Financial Specialists, All Other	13-2099	Gaming Dealers	39-3011
Financial, Information and Record Clerks, All Other (OES Only)	43-4999	Gaming Managers	11-9071
Fine Artists, Including Painters, Sculptors and Illustrators	27-1013	Gaming Supervisors	39-1011
Fire Fighters	33-2011	Gaming Surveillance Officers and Gaming Investigators	33-9031
Fire Inspectors and Investigators	33-2021	Gaming Workers, All Other (OES Only)	39-3199
First-Line Supervisors/Managers of Construction Trades and Extraction Workers	47-1011	Gas Compressor and Gas Pumping Station Operators	53-7071
First-Line Supervisors/Managers of Correctional Officers	33-1011	Gas Plant Operators	51-8092
First-Line Supervisors/Managers of Farming, Fishing and Forestry Workers	45-1011	General and Operations Managers	11-1021
First-Line Supervisors/Managers of Fire Fighting and Prevention Workers	33-1021	Geological and Petroleum Technicians	19-4041
First-Line Supervisors/Managers of Food Preparation and Serving Workers	35-1012	Geoscientists, Except Hydrologists and Geographers	19-2042
First-Line Supervisors/Managers of Helpers, Laborers and Material Movers, Hand	53-1021	Glaziers	47-2121
First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	37-1011	Graders and Sorters, Agricultural Products	45-2041
First-Line Supervisors/Managers of Landscaping, Lawn Service and Groundskeeping Workers	37-1012	Graduate Teaching Assistants	25-1191
First-Line Supervisors/Managers of Mechanics, Installers and Repairers	49-1011	Graphic Designers	27-1024
First-Line Supervisors/Mgrs. of Non-Retail Sales Workers	41-1012	Grinding and Polishing Workers, Hand	51-9022
First-Line Supervisors/Managers of Office and Administrative Support Workers	43-1011	Grinding, Lapping, Polishing and Buffing Machine Tool Setters, Operators and Tenders, Metal and Plastic	51-4033
First-Line Supervisors/Managers of Personal Service Workers	39-1021	Hairdressers, Hairstylists and Cosmetologists	39-5012
First-Line Supervisors/Managers of Police and Detectives	33-1012	Hazardous Materials Removal Workers	47-4041
First-Line Supervisors/Managers of Production and Operating Workers	51-1011	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	17-2111
First-Line Supervisors/Managers of Retail Sales Workers	41-1011	Health Diagnosing and Treating Practitioners, All Other	29-1199
First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle Operators	53-1031	Health Educators	21-1091
First-Line Supervisors/Managers, Protective Service Workers, All Other	33-1099	Health Professionals and Technicians, All Other (OES Only)	29-9199
		Health Specialties Teachers, Postsecondary	25-1071
		Healthcare Support Workers, All Other	31-9099
		Heat Treating Equipment Setters, Operators and Tenders, Metal and Plastic	51-4191
		Heating, Air Conditioning and Refrigeration Mechanics and Installers	49-9021
		Helpers, Construction Trades, All Other	47-3019
		Helpers, Brickmasons, Blockmasons, Stonemasons and Tile and Marble Setters	47-3011
		Helpers, Carpenters	47-3012
		Helpers, Electricians	47-3013
		Helpers, Extraction Workers	47-5081
		Helpers, Installation, Maintenance and Repair Workers	49-9098

Occupational Title	SOC Code
Helpers, Painters, Paperhangers, Plasterers and Stucco Masons	47-3014
Helpers, Pipelayers, Plumbers, Pipefitters and Steamfitters	47-3015
Helpers, Production Workers	51-9198
Helpers, Roofers	47-3016
Highway Maintenance Workers	47-4051
History Teachers, Postsecondary	25-1125
Hoist and Winch Operators	53-7041
Home Appliance Repairers	49-9031
Home Economics Teachers, Postsecondary	25-1192
Home Health Aides	31-1011
Hosts and Hostesses, Restaurant, Lounge and Coffee Shop	35-9031
Hotel, Motel and Resort Desk Clerks	43-4081
Human Resources Assistants, Except Payroll and Timekeeping	43-4161
Human Resources Managers	11-3040
Hydrologists	19-2043
Industrial Engineering Technicians	17-3026
Industrial Engineers	17-2112
Industrial Machinery Mechanics	49-9041
Industrial Production Managers	11-3051
Industrial Truck and Tractor Operators	53-7051
Inspectors, Testers, Sorters, Samplers and Weighers	51-9061
Installation, Maintenance and Repair Workers, All Other	49-9099
Instructional Coordinators	25-9031
Insulation Workers	47-2130
Insurance Appraisers, Auto Damage	13-1032
Insurance Claims and Policy Processing Clerks	43-9041
Insurance Sales Agents	41-3021
Insurance Underwriters	13-2053
Interior Designers	27-1025
Internists, General	29-1063
Interpreters and Translators	27-3091
Interviewers, Except Eligibility and Loan	43-4111
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	37-2011
Jewelers and Precious Stone and Metal Workers	51-9071
Job Printers	51-5021
Judges, Magistrate Judges, and Magistrates	23-1023
Kindergarten Teachers, Except Special Education	25-2012
Laborers and Freight, Stock and Material Movers, Hand	53-7062
Landscape Architects	17-1012
Landscaping and Groundskeeping Workers	37-3011
Lathe and Turning Machine Tool Setters, Operators and Tenders, Metal and Plastic	51-4034
Laundry and Dry-Cleaning Workers	51-6011
Law Clerks	23-2092
Law Teachers, Postsecondary	25-1112
Lawyers	23-1011
Lay-Out Workers, Metal and Plastic	51-4192
Legal and Related Workers, All Other (OES Only)	23-9099
Legal Secretaries	43-6012
Legislators	11-1031
Librarians	25-4021
Library Assistants, Clerical	43-4121
Library Science Teachers, Postsecondary	25-1082
Library Technicians	25-4031
Library, Museum, Training and Other Education Workers, All Other (OES Only)	25-9199
Licensed Practical and Licensed Vocational Nurses	29-2061
Life Scientists, All Other	19-1099
Life, Physical and Social Science Technicians, All Other	19-4099
Loading Machine Operators, Underground Mining	53-7033
Loan Counselors	13-2071
Loan Interviewers and Clerks	43-4131
Loan Officers	13-2072
Locker Room, Coatroom and Dressing Room Attendants	39-3093

Occupational Title	SOC Code
Locksmiths and Safe Repairers	49-9094
Lodging Managers	11-9081
Log Graders and Scalers	45-4023
Logging Equipment Operators	45-4022
Machine Feeders and Offbearers	53-7063
Machinists	51-4041
Maids and Housekeeping Cleaners	37-2012
Mail Clerks and Mail Machine Operators, Except Postal Service	43-9051
Maintenance and Repair Workers, General	49-9042
Maintenance Workers, Machinery	49-9043
Management Analysts	13-1111
Managers, All Other	11-9199
Manicurists and Pedicurists	39-5092
Manufactured Building and Mobile Home Installers	49-9095
Market Research Analysts	19-3021
Marketing Managers	11-2021
Marriage and Family Therapists	21-1013
Massage Therapists	31-9011
Material Moving Workers, All Other	53-7199
Material Recording, Scheduling, Dispatching and Distributing Workers, All Other (OES Only)	43-5199
Materials Engineers	17-2131
Materials Scientists	19-2032
Mathematical Science Teachers, Postsecondary	25-1022
Meat, Poultry and Fish Cutters and Trimmers	51-3022
Mechanical Door Repairers	49-9011
Mechanical Drafters	17-3013
Mechanical Engineering Technicians	17-3027
Mechanical Engineers	17-2141
Media and Communication Equipment Workers, All Other	27-4099
Media and Communication Workers, All Other	27-3099
Medical and Clinical Laboratory Technicians	29-2012
Medical and Clinical Laboratory Technologists	29-2011
Medical and Health Services Managers	11-9111
Medical and Public Health Social Workers	21-1022
Medical Appliance Technicians	51-9082
Medical Assistants	31-9092
Medical Equipment Preparers	31-9093
Medical Equipment Repairers	49-9062
Medical Records and Health Information Technicians	29-2071
Medical Scientists, Except Epidemiologists	19-1042
Medical Secretaries	43-6013
Medical Transcriptionists	31-9094
Meeting and Convention Planners	13-1121
Mental Health and Substance Abuse Social Workers	21-1023
Mental Health Counselors	21-1014
Merchandise Displayers and Window Trimmers	27-1026
Metal Workers and Plastic Workers, All Other	51-4199
Metal-Refining Furnace Operators and Tenders	51-4051
Meter Readers, Utilities	43-5041
Middle School Teachers, Except Special and Vocational Education	25-2022
Milling and Planing Machine Setters, Operators and Tenders, Metal and Plastic	51-4035
Millwrights	49-9044
Mining and Geological Engineers, Including Mining Safety Engineers	17-2151
Mixing and Blending Machine Setters, Operators and Tenders	51-9023
Mobile Heavy Equipment Mechanics, Except Engines	49-3042
Molders, Shapers and Casters, Except Metal and Plastic	51-9195
Molding, Coremaking and Casting Machine Setters, Operators and Tenders, Metal and Plastic	51-4072
Motion Picture Projectionists	39-3021
Motor Vehicle Operators, All Other	53-3099
Motorboat Mechanics	49-3051
Motorcycle Mechanics	49-3052
Multi-Media Artists and Animators	27-1014

Occupational Title	SOC Code	Occupational Title	SOC Code
Multiple Machine Tool Setters, Operators and Tenders, Metal and Plastic	51-4081	Physicians and Surgeons, All Other	29-1069
Music Directors and Composers	27-2041	Physics Teachers, Postsecondary	25-1054
Musical Instrument Repairers and Tuners	49-9063	Pile-Driver Operators	47-2072
Musicians and Singers	27-2042	Pipelayers	47-2151
Natural Sciences Managers	11-9121	Plant and System Operators, All Other	51-8099
Network and Computer Systems Administrators	15-1071	Plasterers and Stucco Masons	47-2161
Network Systems and Data Communications Analysts	15-1081	Plating and Coating Machine Setters, Operators and Tenders, Metal and Plastic	51-4193
New Accounts Clerks	43-4141	Plumbers, Pipefitters and Steamfitters	47-2152
News Analysts, Reporters and Correspondents	27-3020	Police and Sheriff's Patrol Officers	33-3051
Nonfarm Animal Caretakers	39-2021	Police, Fire and Ambulance Dispatchers	43-5031
Nuclear Medicine Technologists	29-2033	Political Science Teachers, Postsecondary	25-1065
Numerical Tool and Process Control Programmers	51-4012	Postal Service Clerks	43-5051
Nursing Aides, Orderlies and Attendants	31-1012	Postal Service Mail Carriers	43-5052
Nursing Instructors and Teachers, Postsecondary	25-1072	Postal Service Mail Sorters, Processors and Processing Machine Operators	43-5053
Obstetricians and Gynecologists	29-1064	Postmasters and Mail Superintendents	11-9131
Occupational Health and Safety Specialists and Technicians	29-9010	Postsecondary Teachers, All Other	25-1199
Occupational Therapist Aides	31-2012	Pourers and Casters, Metal	51-4052
Occupational Therapist Assistants	31-2011	Power Distributors and Dispatchers	51-8012
Occupational Therapists	29-1122	Power Plant Operators	51-8013
Office Clerks, General	43-9061	Precision Instrument and Equipment Repairers, All Other	49-9069
Office Machine Operators, Except Computer	43-9071	Prepress Technicians and Workers	51-5022
Operating Engineers and Other Construction Equipment Operators	47-2073	Preschool Teachers, Except Special Education	25-2011
Operations Research Analysts	15-2031	Pressers, Textile, Garment and Related Materials	51-6021
Ophthalmic Laboratory Technicians	51-9083	Printing Machine Operators	51-5023
Opticians, Dispensing	29-2081	Private Detectives and Investigators	33-9021
Optometrists	29-1041	Probation Officers and Correctional Treatment Specialists	21-1092
Order Clerks	43-4151	Procurement Clerks	43-3061
Orthotists and Prosthetists	29-2091	Producers and Directors	27-2012
Outdoor Power Equipment and Other Small Engine Mechanics	49-3053	Production Workers, All Other	51-9199
Packaging and Filling Machine Operators and Tenders	51-9111	Production, Planning and Expediting Clerks	43-5061
Packers and Packagers, Hand	53-7064	Proofreaders and Copy Markers	43-9081
Painters, Construction and Maintenance	47-2141	Property, Real Estate and Community Association Managers	11-9141
Painters, Transportation Equipment	51-9122	Protective Service Workers, All Other	33-9099
Painting, Coating, and Decorating Workers	51-9123	Psychiatric Aides	31-1013
Paper Goods Machine Setters, Operators and Tenders	51-9196	Psychiatric Technicians	29-2053
Paperhangers	47-2142	Psychiatrists	29-1066
Paralegals and Legal Assistants	23-2011	Psychology Teachers, Postsecondary	25-1066
Parking Enforcement Workers	33-3041	Public Relations Managers	11-2031
Parking Lot Attendants	53-6021	Public Relations Specialists	27-3031
Parts Salespersons	41-2022	Pump Operators, Except Wellhead Pumps	53-7072
Patternmakers, Metal and Plastic	51-4062	Purchasing Agents and Buyers, Farm Products	13-1021
Paving, Surfacing and Tamping Equipment Operators	47-2071	Purchasing Agents, Except Wholesale, Retail and Farm Products	13-1023
Payroll and Timekeeping Clerks	43-3051	Purchasing Managers	11-3061
Pediatricians, General	29-1065	Radio Mechanics	49-2021
Personal and Home Care Aides	39-9021	Radiologic Technologists and Technicians	29-2034
Personal Care and Service Workers, All Other	39-9099	Railroad Brake, Signal and Switch Operators	53-4021
Personal Financial Advisors	13-2052	Real Estate Brokers	41-9021
Pest Control Workers	37-2021	Real Estate Sales Agents	41-9022
Pesticide Handlers, Sprayers and Applicators, Vegetation	37-3012	Receptionists and Information Clerks	43-4171
Petroleum Engineers	17-2171	Recreation and Fitness Studies Teachers, Postsecondary	25-1193
Petroleum Pump System Operators, Refinery Operators and Gaugers	51-8093	Recreation Workers	39-9032
Pharmacists	29-1051	Recreational Therapists	29-1125
Pharmacy Aides	31-9095	Recreational Vehicle Service Technicians	49-3092
Pharmacy Technicians	29-2052	Refuse and Recyclable Material Collectors	53-7081
Philosophy and Religion Teachers, Postsecondary	25-1126	Registered Nurses	29-1111
Photographers	27-4021	Rehabilitation Counselors	21-1015
Photographic Process Workers	51-9131	Reservation and Transportation Ticket Agents and Travel Clerks	43-4181
Photographic Processing Machine Operators	51-9132	Residential Advisors	39-9041
Physical Scientists, All Other	19-2099	Respiratory Therapists	29-1126
Physical Therapist Aides	31-2022	Respiratory Therapy Technicians	29-2054
Physical Therapist Assistants	31-2021	Retail Salespersons	41-2031
Physical Therapists	29-1123	Riggers	49-9096
Physician Assistants	29-1071	Rock Splitters, Quarry	47-5051

Occupational Title	SOC Code	Occupational Title	SOC Code
Rolling Machine Setters, Operators and Tenders, Metal and Plastic	51-4023	Tax Examiners, Collectors and Revenue Agents	13-2081
Roofers	47-2181	Tax Preparers	13-2082
Rotary Drill Operators, Oil and Gas	47-5012	Taxi Drivers and Chauffeurs	53-3041
Roustabouts, Oil and Gas	47-5071	Teacher Assistants	25-9041
Sales and Related Workers, All Other	41-9099	Teachers, Primary, Secondary and Adult, All Other (OES Only)	25-3999
Sales Engineers	41-9031	Team Assemblers	51-2092
Sales Managers	11-2022	Technical Writers	27-3042
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	41-4012	Telecommunications Equipment Installers and Repairers, Except Line Installers	49-2022
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	41-4011	Telecommunications Line Installers and Repairers	49-9052
Sawing Machine Setters, Operators and Tenders, Wood	51-7041	Telemarketers	41-9041
Secondary School Teachers, Except Special and Vocational Education	25-2031	Telephone Operators	43-2021
Secretaries, Administrative Assistants and Other Office Support Workers, All Other (OES Only)	43-9999	Tellers	43-3071
Secretaries, Except Legal, Medical and Executive	43-6014	Textile Cutting Machine Setters, Operators and Tenders	51-6062
Securities, Commodities and Financial Services Sales Agents	41-3031	Textile Knitting and Weaving Machine Setters, Operators and Tenders	51-6063
Security and Fire Alarm Systems Installers	49-2098	Textile, Apparel and Furnishings Workers, All Other	51-6099
Security Guards	33-9032	Tile and Marble Setters	47-2044
Self-Enrichment Education Teachers	25-3021	Tire Builders	51-9197
Separating, Filtering, Clarifying, Precipitating and Still Machine Setters, Operators and Tenders	51-9012	Tire Repairers and Changers	49-3093
Septic Tank Servicers and Sewer Pipe Cleaners	47-4071	Title Examiners, Abstractors and Searchers	23-2093
Service Station Attendants	53-6031	Tool and Die Makers	51-4111
Service Unit Operators, Oil, Gas and Mining	47-5013	Tool Grinders, Filers and Sharpeners	51-4194
Sewers, Hand	51-6051	Tour Guides and Escorts	39-6021
Sewing Machine Operators	51-6031	Traffic Technicians	53-6041
Sheet Metal Workers	47-2211	Training and Development Specialists	13-1073
Shipping, Receiving and Traffic Clerks	43-5071	Transportation Inspectors	53-6051
Shoe and Leather Workers and Repairers	51-6041	Transportation Workers, All Other	53-6099
Skin Care Specialists	39-5094	Transportation, Storage and Distribution Managers	11-3071
Slaughterers and Meat Packers	51-3023	Travel Agents	41-3041
Slot Key Persons	39-1012	Travel Guides	39-6022
Social and Community Service Managers	11-9151	Tree Trimmers and Pruners	37-3013
Social and Human Service Assistants	21-1093	Truck Drivers, Heavy and Tractor-Trailer	53-3032
Social Scientists and Related Workers, All Other	19-3099	Truck Drivers, Light or Delivery Services	53-3033
Social Work Teachers, Postsecondary	25-1113	Umpires, Referees, and Other Sports Officials	27-2023
Sociologists	19-3041	Upholsterers	51-6093
Sociology Teachers, Postsecondary	25-1067	Urban and Regional Planners	19-3051
Sound Engineering Technicians	27-4014	Ushers, Lobby Attendants and Ticket Takers	39-3031
Special Education Teachers, Middle School	25-2042	Vehicle and Mobile Equipment Mechanics, Installers and Repairers, All Other (OES Only)	49-3099
Special Education Teachers, Preschool, Kindergarten and Elementary School	25-2041	Veterinarians	29-1131
Special Education Teachers, Secondary School	25-2043	Veterinary Assistants and Laboratory Animal Caretakers	31-9096
Speech-Language Pathologists	29-1127	Veterinary Technologists and Technicians	29-2056
Stationary Engineers and Boiler Operators	51-8021	Vocational Education Teachers, Middle School	25-2023
Statistical Assistants	43-9111	Vocational Education Teachers, Postsecondary	25-1194
Statisticians	15-2041	Vocational Education Teachers, Secondary School	25-2032
Stock Clerks and Order Fillers	43-5081	Waiters and Waitresses	35-3031
Stonemasons	47-2022	Watch Repairers	49-9064
Structural Iron and Steel Workers	47-2221	Water and Liquid Waste Treatment Plant and System Operators	51-8031
Structural Metal Fabricators and Fitters	51-2041	Weighers, Measurers, Checkers and Samplers, Recordkeeping	43-5111
Substance Abuse and Behavioral Disorder Counselors	21-1011	Welders, Cutters, Solderers and Brazers	51-4121
Surgeons	29-1067	Welding, Soldering and Brazing Machine Setters, Operators and Tenders	51-4122
Surgical Technologists	29-2055	Wellhead Pumpers	53-7073
Survey Researchers	19-3022	Wholesale and Retail Buyers, Except Farm Products	13-1022
Surveying and Mapping Technicians	17-3031	Woodworkers, All Other	51-7099
Surveyors	17-1022	Woodworking Machine Setters, Operators and Tenders, Except Sawing	51-7042
Switchboard Operators, Including Answering Service	43-2011	Word Processors and Typists	43-9022
Tailors, Dressmakers, and Custom Sewers	51-6052	Writers and Authors	27-3043
Tank Car, Truck and Ship Loaders	53-7121	Zoologists and Wildlife Biologists	19-1023
Tapers	47-2082		

30. Occupational Education and Training Categories

Occupations are classified into one of 11 categories listed below according to these principles:

- ❖ An occupation is placed into the category that best describes the education or training needed by most workers to become fully qualified.
- ❖ Post-secondary awards, if generally needed for entry into the occupation, take precedence over work-related training even though additional skills or experience may be needed for a worker to become fully qualified.
- ❖ The length of time an average worker generally needs to become fully qualified through a combination of on-the-job training and experience is used to categorize occupations in which a post-secondary award generally is not needed for entry.

POST-SECONDARY AWARDS

1. First professional degree. Completion of the degree usually requires at least three years of full-time academic study beyond a bachelor's degree.

2. Doctoral degree. Completion of a Ph.D. or other doctoral degree usually requires at least three years of full-time academic study beyond a bachelor's degree.

3. Master's degree. Completion of the degree usually requires one or two years of full-time academic study beyond a bachelor's degree.

4. Bachelor's or higher degree, plus work experience. Most occupations in this category are management occupations. All require experience in a related non-management position for which a bachelor's or a higher degree is usually required.

5. Bachelor's degree. Completion of the degree generally requires at least four years, but not more than five years, of full-time academic study.

6. Associate degree. Completion of the degree usually requires at least two years of full-time academic study.

7. Postsecondary vocational award. Some programs last only a few weeks while others may last more than a year. These programs lead to a certificate or other award but not a degree.

WORK-RELATED TRAINING

8. Work experience in a related occupation. Many occupations requiring work experience are first-line supervisors/managers of service, sales and related, production, or other occupations, or are management occupations.

9. Long-term on-the-job training. More than 12 months of on-the-job training or combined work experience and formal classroom instruction are needed for workers to develop the skills necessary to be fully qualified. This category includes formal and informal apprenticeships that may last up to five years. Long-term on-the-job training also includes intensive occupation-specific, employer-sponsored programs that workers must successfully complete. These include fire and police academies and schools for air traffic controllers and flight attendants. In other occupations—insurance sales and securities sales, for example—trainees take formal courses, often provided on the job site, to prepare for the required licensing exams. Individuals undergoing training are generally considered to be employed in the occupation. Also included in this category is the development of a natural ability—such as that possessed by musicians, athletes, actors, and other entertainers—that must be cultivated over several years, frequently in a non-work setting.

10. Moderate-term on-the-job training. Skills needed to be fully qualified can be acquired during one to 12 months of combined on-the-job experience and informal training.

11. Short-term on-the-job training. Skills needed to be fully qualified can be acquired during a short demonstration of job duties or during one month or less of on-the-job experience or instruction.

31. Technical Notes

1. Any final decision should be based on the user's own analyses and conclusions.
2. Data have not been included for occupations with an estimated employment of less than 50 people in 2002.
3. Employment estimates and number of openings have been rounded to the nearest 10.
4. Occupational category totals may not calculate exactly as a result of rounding and the suppression of occupations with less than 50 people employed in 2002.
5. The data source for the wage information is *2002 Oklahoma Occupational Employment and Wage Estimates*, which is available on the BLS website (http://stats.bls.gov/oes/2002/oes_ok.htm). Occupations that have workers who generally work less than the usual 2,080 hours per year or do not have sufficient data and have no average hourly wage reflected are noted in the data tables with a *. Occupations that typically have a work-year of less than 2,080 hours include musical and entertainment occupations, pilots and flight attendants, and teachers.
6. The shaded areas in the Occupational Profiles table are the occupational totals and subtotals.
7. Occupational descriptor: The left side four letters of the Descriptor column in the Occupational Profile table are the quartile rankings based on employment size. The letters on the right side are quartile rankings based on average hourly wage. The occupations in the top and bottom quartiles receive an 'A' and a 'D', while the occupations in the second and third quartiles have a 'C' and a 'D'. The four letters in the middle are the rankings based on growth rate. Declining occupations are labeled with a 'D'. Occupations growing slower than one half of the standard deviation below the mean are ranked 'C', while those growing faster than one half of the standard deviation above mean receive an 'A'. Those that fall in the middle have a 'B' grade (see the table below).

	Employment Quartile Ranking	Growth Rate				Wage Quartile Ranking
		Negative	Slow	Moderate	Fast	
		$X \leq 0$	$0 < X \leq \text{mean} - 1/2\text{stdev}$	$\text{mean} - 1/2\text{stdev} < X \leq \text{mean} + 1/2\text{stdev}$	$X > \text{mean} + 1/2\text{stdev}$	
Small	$X \leq 25$	DDD	DCD	DBD	DAD	$X \leq 25$
Medium	$25 < X \leq 50$	CDC	CCC	CBC	CAC	$25 < X \leq 50$
Large	$50 < X \leq 75$	BDB	BCB	BBB	BAB	$50 < X \leq 75$
Very Large	$X > 75$	ADA	ACA	ABA	AAA	$X > 75$

8. The Average Annual Openings include openings due to growth and openings due to replacement needs. The Average Annual Openings are not reduced by negative growth. An occupation may experience negative growth in some industries, which will affect the employment level for that occupation in the future. However, the positive growth experienced in other industries will create job openings. Therefore, in a particular occupation, the Average Annual Openings are equal to the openings due to growth plus the openings due to replacements unless the growth is negative, otherwise, then the Average Annual Openings are equal to the openings due to replacements only. As a result, the Average Annual Openings for a group of occupations may be greater than the sum of openings due to growth and replacements by the amount of negative growth in the individual occupations within the group.

9. Limitations of the data include the following:

- a) The data are not intended to predict future economic occurrences but to approximate long-term trends in the labor market.
- b) Occupational openings for a particular year may differ substantially from those shown in the report if the economy is in a recovery or a recession period.
- c) Average annual openings reflect employment demand as a function of growth and replacement, not including turnover or geographic mobility.

Please direct questions regarding the methodology to:

Oklahoma Employment Security Commission

Economic Research and Analysis Division

Oklahoma Employment Outlook 2012

P.O.Box 52003

Oklahoma City, OK 73152-2003

Phone (405) 557-7221 Fax (405) 525-0139

E-mail: lmi@oesc.state.ok.us

<http://www.oesc.state.ok.us>