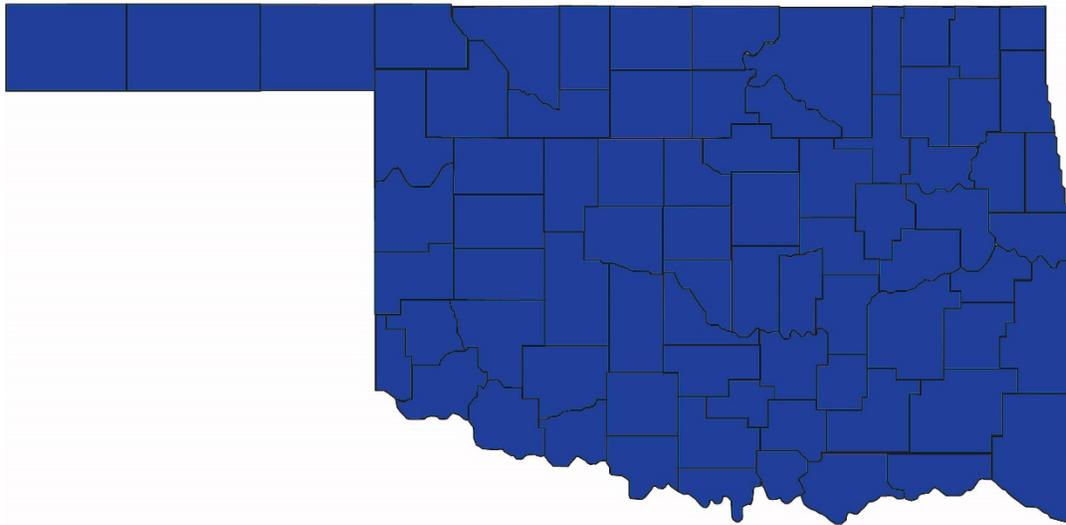


STATE OF OKLAHOMA



2020 WORKFORCE BRIEFING



**OKLAHOMA
WORKS.**

A proud partner of the [AmericanJobCenter](#) network

TABLE OF CONTENTS

Introduction	6
Population Overview	6
<i>Population by WFDA</i>	6
<i>Population by County</i>	7
<i>Population by Race and Ethnicity</i>	11
<i>Hispanic Population</i>	12
<i>American Indian or Alaskan Native Population</i>	13
Education	14
<i>Educational Attainment</i>	14
<i>Skills Gap</i>	16
Labor Force	17
<i>Labor Force Participation by County</i>	17
<i>Total Employment by Workforce Development Area</i>	19
<i>Commuter Data</i>	20
Economic Indicators	22
<i>Industry Sectors by Total Jobs</i>	22
<i>Top Occupations by Total Jobs</i>	23
<i>Median Wage</i>	24
<i>Unemployment Rate</i>	25
Industry Clusters	26
<i>State Industry Clusters</i>	26
Aerospace & Defense.....	26
Energy.....	29
Agriculture & Biosciences.....	32
Information & Financial Services.....	35
Transportation & Distribution.....	38
<i>Regional Industry Clusters</i>	42
Appendix	44
<i>Aerospace & Defense Industries</i>	44
<i>Aerospace & Defense Occupations</i>	45
<i>Energy Industries</i>	46
<i>Energy Occupations</i>	47
<i>Agriculture & Biosciences Industries</i>	48
<i>Agriculture & Biosciences Occupations</i>	51
<i>Information & Financial Services Industries</i>	52
<i>Information & Financial Services Occupations</i>	54

Transportation & Distribution Industries.....55
Transportation & Distribution Occupations.....59

Last Updated: 6/2/2020

TABLES

Table 1: Population Change, 2014-2019	7
Table 2: Projected Population Change, 2019-2024	9
Table 3: Population by Race & Ethnicity.....	12
Table 4: Hispanic Population.....	13
Table 5: Labor Force Participation Rate by County	17
Table 6: Top Industry Sectors by Total Number of Jobs	23
Table 7: Top Occupations by Total Number of Jobs	24
Table 8: State Industry Clusters	26
Table 9: Aerospace & Defense Existing Demand Industries.....	27
Table 10: Aerospace & Defense Existing Demand Occupations	27
Table 11: Aerospace & Defense Emerging Demand Industries	28
Table 12: Aerospace & Defense Emerging Demand Occupations.....	28
Table 13: Energy Existing Demand Industries	29
Table 14: Energy Existing Demand Occupations.....	30
Table 15: Energy Emerging Demand Industries	31
Table 16: Energy Emerging Demand Occupations.....	31
Table 17: Agriculture & Biosciences Existing Demand Industries	33
Table 18: Agriculture & Biosciences Existing Demand Occupations.....	33
Table 19: Agriculture & Biosciences Emerging Demand Industries	34
Table 20: Agriculture & Biosciences Emerging Demand Occupations	35
Table 21: Information & Financial Services Existing Demand Industries	36
Table 22: Information & Financial Services Existing Demand Occupations	36
Table 23: Information & Financial Services Emerging Demand Industries.....	37
Table 24: Information & Financial Services Emerging Demand Occupations	38
Table 25: Transportation & Distribution Existing Demand Industries	38
Table 26: Transportation & Distribution Existing Demand Occupations	39
Table 27: Transportation & Distribution Emerging Demand Industries.....	40
Table 28: Transportation & Distribution Emerging Demand Occupations	41

FIGURES

Figure 1: Percentage of Population by Workforce Development Area	6
Figure 2: Population by Race and Ethnicity	12
Figure 3: Hispanic Population by Local Area	13
Figure 4: Native American or Alaskan Native by Local Area.....	14
Figure 5: Education Attainment Level.....	15
Figure 6: Education Attainment Level by Race/Ethnicity.....	16
Figure 7: State Skills Gap Analysis.....	17
Figure 8: Total Employment and Labor Force by County.....	19
Figure 9: Total Local Area Commuter Patterns	20
Figure 10: County Level Commuter Patterns.....	20
Figure 11: Median Wage by Workforce Development Area	25
Figure 12: Unemployment Rate by Workforce Development Area.....	25

Introduction

The future of Oklahoma depends upon a strong and capable workforce. Oklahoma employers face an ever-increasing need for highly skilled capable workers. To meet this demand, Oklahoma Works, a coalition of state agencies, businesses, educational institutions, and other entities, facilitates the connection between potential employees and businesses, increasing the wealth of all Oklahomans through providing education and training for citizens to obtain quality employment. The State of Oklahoma is home to nearly four million people. Oklahoma is comprised of 77 counties that make up seven Workforce Development Areas (WFDA). The purpose of this briefing is to examine the current and projected future status of the state, its citizens, and workforce. The following briefing reviews the population, education, labor force, economic indicators, and state and regional industry clusters.

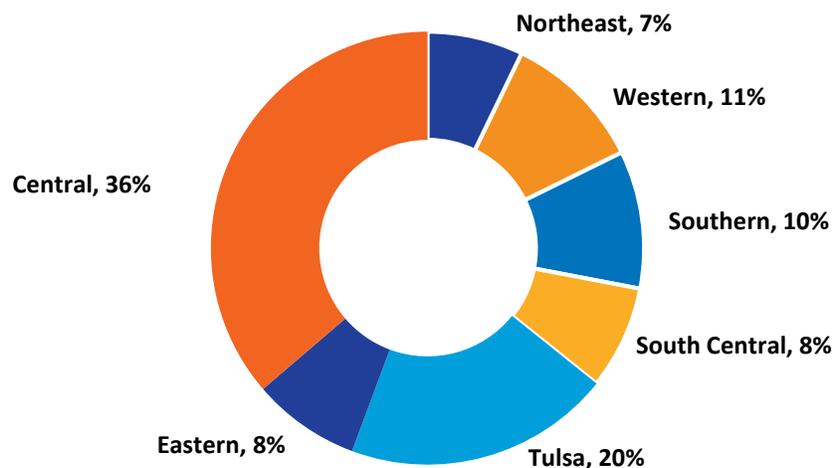
Population Overview

Overall, the Oklahoma population grew by 2% from 2014 to 2019. Canadian County had the largest growth rate of 14%. McClain County had the second largest growth rate of 7%. Beckham County had the largest non-growth rate of (-9%). Population density per square mile grew from 55-57 persons. The highest density was in Tulsa County with 1,114 persons per square mile. The second highest density was in Oklahoma County with 1,113 persons per square mile. The lowest density was in Cimarron County with approximately 1 person per square mile.

Population by WFDA

In terms of Workforce Development Areas, Central WFDA population had the largest population at 1,438,177. Tulsa WFDA population was the second largest population at 789,049. Northeast WFDA population is 284,121, representing the smallest population. Figure 1 shows the state population by WFDA by percentage.

Figure 1: Percentage of Population by Workforce Development Area



Source: Emsi- economicmodeling.com- 2020.1

Population by County

Oklahoma County had the largest population representing 20% of the population in 2019. Oklahoma County population is 799,799. Tulsa County had the second largest population representing 16% of the population. Tulsa County population is 653,687. Cimarron County had the smallest population representing .05% of the population. Cimarron county population is 2,104 which is the smallest population in Oklahoma. Table 1 provides the total population change from 2014 to 2019 for each county.

Table 1: Population Change, 2014-2019

County	Population (2014)	Population (2019)	Total Change
Adair	22,236	22,020	-216
Alfalfa	5,812	5,785	-27
Atoka	13,922	13,811	-110
Beaver	5,524	5,274	-250
Beckham	23,599	21,410	-2,190
Blaine	9,835	9,401	-434
Bryan	44,495	47,763	3,268
Caddo	29,457	28,898	-558
Canadian	129,384	147,702	18,318
Carter	48,581	48,198	-383
Cherokee	48,239	48,931	692
Choctaw	15,096	14,606	-490
Cimarron	2,273	2,104	-169
Cleveland	269,863	284,802	14,939
Coal	5,710	5,494	-216
Comanche	124,824	119,737	-5,087
Cotton	6,117	5,713	-404
Craig	14,629	14,230	-399
Creek	70,531	71,924	1,393
Custer	29,425	29,042	-383
Delaware	41,689	42,976	1,287
Dewey	4,954	4,898	-56
Ellis	4,119	3,928	-191
Garfield	62,813	60,848	-1,964
Garvin	27,604	27,900	297
Grady	53,898	55,902	2,004
Grant	4,459	4,296	-163
Greer	6,117	5,747	-370
Harmon	2,783	2,632	-151

County	Population (2014)	Population (2019)	Total Change
Harper	3,894	3,812	-82
Haskell	12,774	12,672	-102
Hughes	13,676	13,240	-436
Jackson	25,826	24,749	-1,077
Jefferson	6,294	6,086	-207
Johnston	11,092	10,973	-119
Kay	45,486	43,888	-1,598
Kingfisher	15,480	15,903	423
Kiowa	9,280	8,625	-655
Latimer	10,760	10,135	-625
Le Flore	49,965	49,957	-7
Lincoln	34,533	35,101	568
Logan	44,687	48,006	3,319
Love	9,721	10,225	504
Major	7,780	7,629	-151
Marshall	16,152	16,888	736
Mayes	40,916	41,118	202
McClain	37,255	40,669	3,414
McCurtain	33,159	32,620	-538
McIntosh	19,961	19,745	-215
Murray	13,763	14,004	241
Muskogee	69,743	68,153	-1,590
Noble	11,532	11,249	-283
Nowata	10,490	10,167	-322
Okfuskee	12,170	12,068	-102
Oklahoma	767,320	799,799	32,480
Okmulgee	39,097	38,251	-846
Osage	47,494	47,039	-454
Ottawa	31,905	31,016	-889
Pawnee	16,363	16,398	35
Payne	80,519	82,527	2,008
Pittsburg	44,835	43,669	-1,166
Pontotoc	38,308	38,304	-5
Pottawatomie	71,538	72,970	1,432
Pushmataha	11,103	11,160	58
Roger Mills	3,760	3,643	-117
Rogers	89,397	92,694	3,298

County	Population (2014)	Population (2019)	Total Change
Seminole	25,360	24,489	-871
Sequoyah	41,452	41,180	-272
Stephens	44,594	43,006	-1,587
Texas	21,733	20,277	-1,456
Tillman	7,684	7,264	-420
Total	3,878,345	3,964,054	85,709
Tulsa	631,445	653,687	22,243
Wagoner	75,662	81,059	5,396
Washington	52,006	51,920	-86
Washita	11,627	11,012	-615
Woods	9,235	8,899	-336
Woodward	21,536	20,134	-1,402

Source: Emsi- economicmodeling.com- 2020.1

Table 2 provides the projected change in population from 2019 to 2024 for each county. Overall, Oklahoma is projected to grow by 63,479.

Table 2: Projected Population Change, 2019-2024

County	Population (2019)	Population (2024)	Total Change
Adair	22,020	21,955	(65)
Alfalfa	5,785	5,690	(95)
Atoka	13,811	13,734	(77)
Beaver	5,274	5,104	(169)
Beckham	21,410	20,347	(1,063)
Blaine	9,401	9,116	(285)
Bryan	47,763	50,191	2,427
Caddo	28,898	28,320	(578)
Canadian	147,702	161,360	13,658
Carter	48,198	48,089	(109)
Cherokee	48,931	49,406	475
Choctaw	14,606	14,279	(327)
Cimarron	2,104	1,980	(125)
Cleveland	284,802	295,315	10,514
Coal	5,494	5,342	(152)
Comanche	119,737	116,836	(2,901)
Cotton	5,713	5,475	(238)
Craig	14,230	13,941	(289)
Creek	71,924	72,854	930
Custer	29,042	29,022	(20)
Delaware	42,976	44,037	1,060

County	Population (2019)	Population (2024)	Total Change
Dewey	4,898	4,906	8
Ellis	3,928	3,799	(129)
Garfield	60,848	59,741	(1,107)
Garvin	27,900	28,002	102
Grady	55,902	57,500	1,598
Grant	4,296	4,139	(158)
Greer	5,747	5,532	(215)
Harmon	2,632	2,527	(104)
Harper	3,812	3,793	(19)
Haskell	12,672	12,670	(2)
Hughes	13,240	12,993	(248)
Jackson	24,749	23,918	(832)
Jefferson	6,086	5,918	(168)
Johnston	10,973	10,892	(81)
Kay	43,888	42,648	(1,241)
Kingfisher	15,903	16,283	380
Kiowa	8,625	8,195	(430)
Latimer	10,135	9,754	(381)
Le Flore	49,957	50,052	95
Lincoln	35,101	35,485	383
Logan	48,006	50,518	2,513
Love	10,225	10,562	337
Major	7,629	7,539	(90)
Marshall	16,888	17,567	678
Mayes	41,118	41,340	222
McClain	40,669	43,243	2,574
McCurtain	32,620	32,193	(428)
McIntosh	19,745	19,685	(61)
Murray	14,004	14,175	171
Muskogee	68,153	67,115	(1,038)
Noble	11,249	11,099	(149)
Nowata	10,167	9,926	(241)
Okfuskee	12,068	12,021	(47)
Oklahoma	799,799	822,646	22,847
Okmulgee	38,251	37,472	(779)
Osage	47,039	46,842	(197)
Ottawa	31,016	30,394	(622)
Pawnee	16,398	16,336	(61)
Payne	82,527	83,577	1,050
Pittsburg	43,669	42,865	(803)

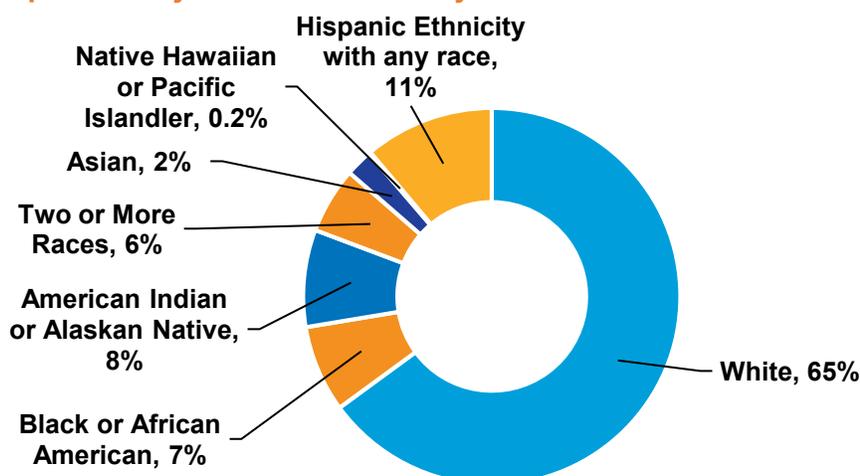
County	Population (2019)	Population (2024)	Total Change
Pontotoc	38,304	38,286	(17)
Pottawatomie	72,970	74,240	1,270
Pushmataha	11,160	11,196	35
Roger Mills	3,643	3,597	(46)
Rogers	92,694	95,214	2,519
Seminole	24,489	23,885	(604)
Sequoyah	41,180	41,071	(109)
Stephens	43,006	42,063	(944)
Texas	20,277	19,334	(943)
Tillman	7,264	6,935	(329)
Tulsa	653,687	667,671	13,984
Wagoner	81,059	85,179	4,120
Washington	51,920	51,928	8
Washita	11,012	10,565	(447)
Woods	8,899	8,651	(248)
Woodward	20,134	19,462	(672)
Total	3,964,054	4,027,533	63,479

Source: Emsi- economicmodeling.com- 2020.1

Population by Race and Ethnicity

The following analyses used the racial categories designated by the U.S. Census Bureau. The Census Bureau categorizes “Hispanic” as an ethnicity, not as a race. As such, Hispanic is always reported in conjunction with another racial designator, i.e. “Black or African American, Hispanic.” Unless otherwise noted, individual races included in this briefing section were reported as Non-Hispanic.

Figure 2 shows the population by Race and Ethnicity by percentage. White represented the highest percentage of the population at 65%. Hispanic Ethnicity with any race had the second highest percentage of the population at 11%. Native Hawaiians or Pacific Islander had the smallest amount of the population at .2%.

Figure 2: Population by Race and Ethnicity

Source: Emsi- economicmodeling.com- 2020.1

Table 3 shows the 2019 population by Race and Ethnicity. White has the largest population at 2,574,390. Hispanic Ethnicity with any race had the second largest population at 440,954. Native Hawaiians or Pacific Islander had the smallest amount of the population at 6,278.

Table 3: Population by Race & Ethnicity

Demographic	2019 Population
White	2,574,390
Black or African American	294,968
American Indian or Alaskan Native	330,747
Two or More Races	224,783
Asian	91,934
Native Hawaiian or Pacific Islander	6,278
Hispanic Ethnicity with any race	440,954

Source: Emsi- economicmodeling.com- 2020.1

Hispanic Population

The Hispanic population is 440,954 people, approximately 12.5% of Oklahoma's population. White-Hispanic represent the largest part of the Hispanic population at 81%. American Indian or Alaskan Native-Hispanic and Two or More Races-Hispanic are both 9% of the Hispanic population. Native Hawaiian or Pacific Islander-Hispanic is the smallest part of the Hispanic population at .34%. Table 4 provides the total population breakdown of the Hispanic population by race.

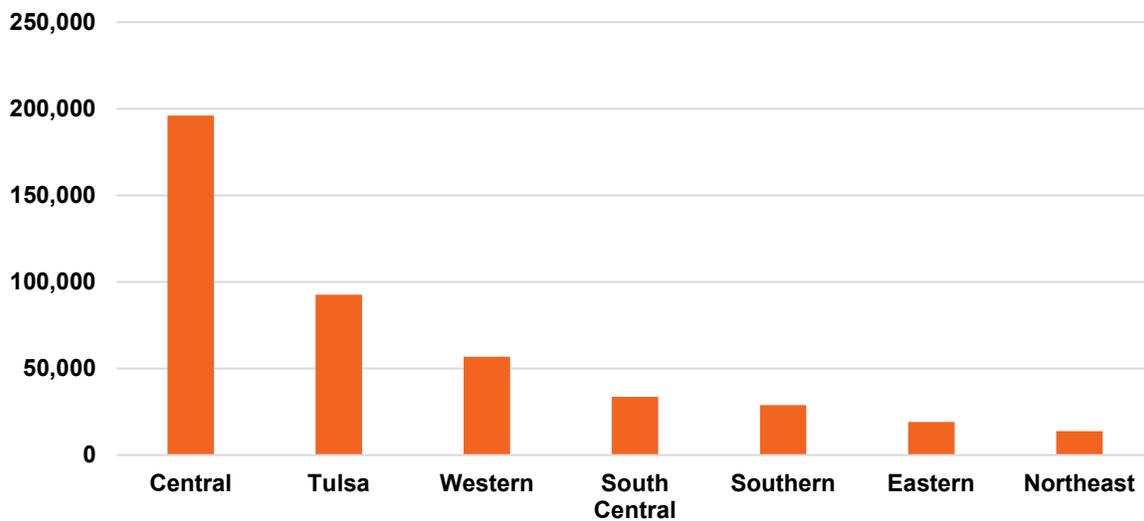
Table 4: Hispanic Population

Demographic	2019 Population
White, Hispanic	357,390
American Indian or Alaskan Native, Hispanic	40,190
Two or More Races, Hispanic	24,504
Black, Hispanic	14,427
Asian, Hispanic	2,946
Native Hawaiian or Pacific Islander, Hispanic	1,497

Source: Emsi- economicmodeling.com- 2020.1

Figure 3 shows the Hispanic population by WFDA. The largest population is found in the Central WFDA with 196,134. The second largest population was in Tulsa WFDA at 92,532. The third largest population was in Western WFDA at 56,734. The fourth largest population was in South Central WFDA at 33,731. The fifth largest population was in Southern WFDA at 28,917. The sixth largest population was in Eastern WFDA at 19,063. Lastly, Northeast had the smallest population at 13,842.

Figure 3: Hispanic Population by Local Area

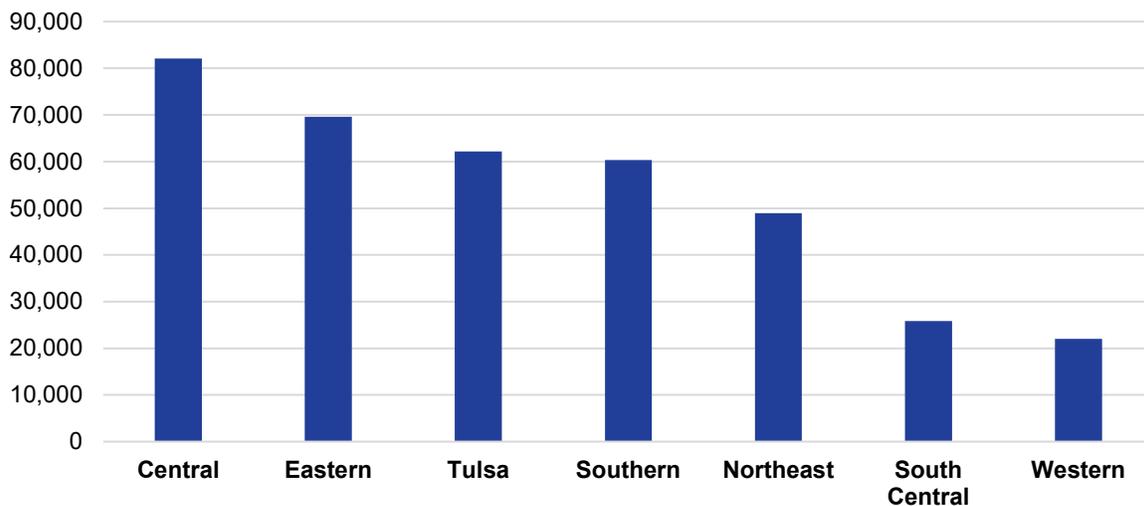


Source: Emsi- economicmodeling.com- 2020.1

American Indian or Alaskan Native Population

The American Indian or Alaskan Native population is 370,936 in Oklahoma. American Indian or Alaskan Native represents 9% of the population in Oklahoma. American Indian or Alaskan Native represents 1% of the population in the United States.

Figure 4 shows the Oklahoma population by American Indian or Alaskan Native by WFDA. Central WFDA had the largest American Indian or Alaskan Native population at 82,064. Eastern WFDA had the second largest American Indian or Alaskan Native population at 69,584. Western WFDA had the smallest American Indian or Alaskan Native population at 22,049.

Figure 4: Native American or Alaskan Native by Local Area

Source: Emsi- economicmodeling.com- 2020.1

Education

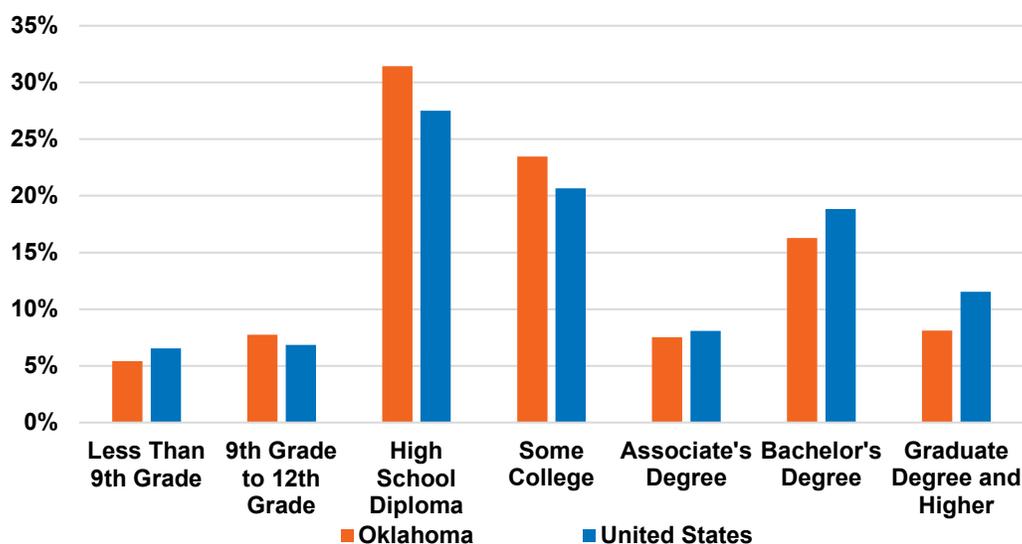
Colleges, Universities, Career Technology Centers, and K-12 schools are instrumental in developing the workforce. Educational institutions help supply local businesses and organizations with a workforce with the necessary labor and skills to be competitive in today's economy. The following section reviews Oklahoma's educational attainment and an educational skills gap analysis.

Educational Attainment

Figure 5 compares the State of Oklahoma Education Attainment Level with the United States Education Attainment Level. In Oklahoma, High School Diploma had the highest share of the population at 31%. The second highest share of the population was Some College at 23%. The third highest share of the population is Bachelor's Degree at 16%. The fourth share highest share of the population is Graduate Degree and Higher, Associate's Degree, and 9th Grade to 12 Grade at have the same share of the population at 8%. The smallest group is less than 9th grade at 5%.

In the United States, High School Diploma had the highest share of the population at 28%. The next is Some College at 21%. The third highest population is Bachelor's Degree at 16%. The fourth largest group is Graduate Degree at 12%. The fifth largest group is the Associate's Degree at 8%. Lastly the smallest groups are Less than 9th grade and 9th grade to 12th grade at 7%.

Figure 5: Education Attainment Level



Source: Emsi- economicmodeling.com- 2020.1

Table 6 shows education attainment distribution by Race and Ethnicity. The highest percentage of white population had at least a High School Degree at 56%. The next largest group is less than College Degree at 34%. The smallest group is less than High School Degree with 10% of the population.

The highest percentage Hispanic Ethnicity with any race is High School Diploma at 44%. The next group is less than High School Diploma at 39%. The smallest group is College Degree with 16%.

The highest percentage American Indian or Alaskan Native is High School Diploma at 60%. The next group is College Degree at 25%. The smallest group is Less than High School Diploma at 15%.

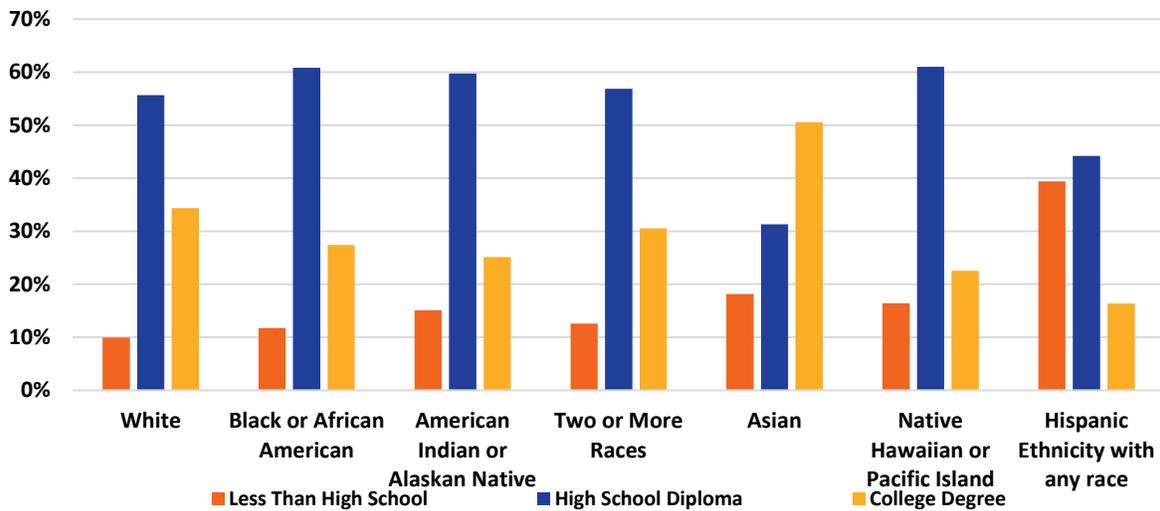
The highest percentage Black or African American is High School Diploma at 61%. The next group is College Degree at 27%. The smallest group is Less than High School Diploma at 12%.

The highest percentage Two or More Races is High School Diploma at 57%. The next group is College Degree at 31%. The smallest group is Less than High School Diploma at 13%.

The highest percentage Asian is College Diploma at 51%. The next group is High School Diploma at 31%. The smallest group is Less than High School Diploma at 18%.

The highest percentage Native Hawaiian or Pacific Island Races is High School Diploma at 61%. The next group is College Degree at 22.5%. The smallest group is Less than High School Diploma at 16%.

Figure 6: Education Attainment Level by Race/Ethnicity



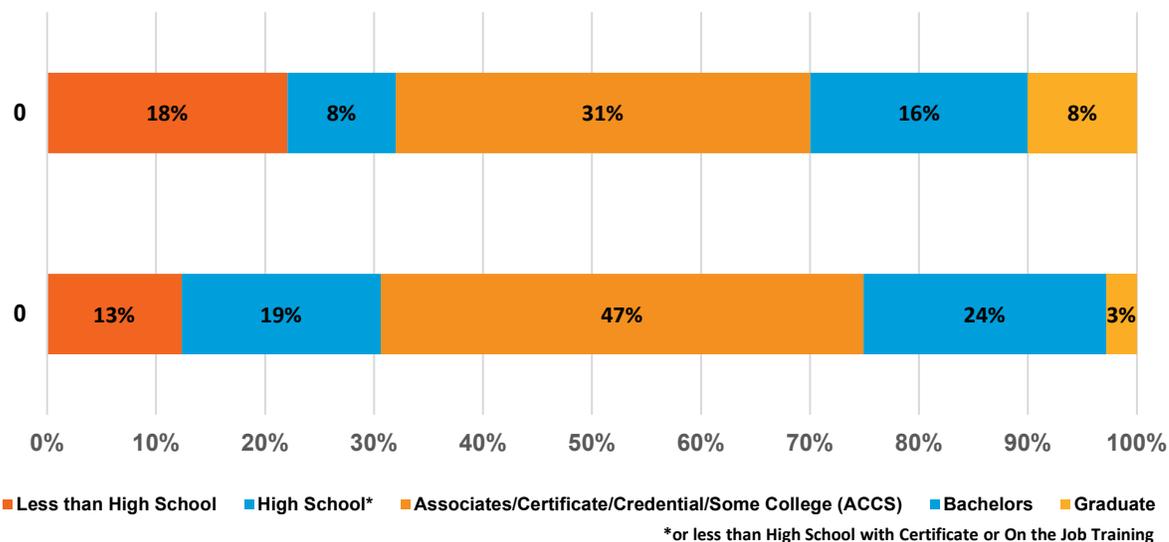
Source: Emsi- economicmodeling.com- 2020.1

Skills Gap

A skills gap analysis was completed. The current percentage of educational achievement was directly compared to the percentage of entry level education required by newly created jobs projected to develop between 2019 and 2024. The data in this analysis were based upon projected need estimated with historical data. The projected shortfall at the Bachelor's degree level will be significantly compounded by a misalignment of degree specialty. The existence of a sufficient number of individuals possessing a Bachelor's Degree fails to meet the needs of employers if those degrees do not provide the appropriate training necessary to fulfill job requirements.

Figure 7 demonstrates the greatest need or deficiency for workers is in the group of Associates, Certificates, Some College, and Credential. The deficit is 16%, from the subtraction of 47% of new jobs in 2024, and the attainment level in 2019 of 31%. The greatest surplus is those with a Graduate degree. This surplus is 5%, from the subtraction of 3% of new jobs, and the 8% attainment in 2019.

Figure 7: State Skills Gap Analysis



Source: Emsi- economicmodeling.com- 2020.1

Labor Force

Labor Force Participation by County

Table 5 shows the Oklahoma labor force participation rate by County. The highest percentage is in Texas County at 71.4%. The second highest is in Canadian County at 68.8%. Lastly, the lowest percentage is in Hughes County at 41.7%

Table 5: Labor Force Participation Rate by County

County	Labor Force Participation Rate
Adair County	51%
Alfalfa County	47%
Atoka County	45%
Beaver County	60%
Beckham County	55%
Blaine County	48%
Bryan County	57%
Caddo County	53%
Canadian County	69%
Carter County	59%
Cherokee County	53%
Choctaw County	48%
Cimarron County	60%
Cleveland County	66%
Coal County	54%
Comanche County	64%

County	Labor Force Participation Rate
Cotton County	54%
Craig County	52%
Creek County	57%
Custer County	64%
Delaware County	48%
Dewey County	58%
Ellis County	59%
Garfield County	64%
Garvin County	52%
Grady County	60%
Grant County	61%
Greer County	44%
Harmon County	61%
Harper County	61%
Haskell County	51%
Hughes County	42%
Jackson County	63%
Jefferson County	50%
Johnston County	51%
Kay County	58%
Kingfisher County	64%
Kiowa County	59%
Latimer County	50%
Le Flore County	52%
Lincoln County	55%
Logan County	63%
Love County	55%
McClain County	63%
McCurtain County	52%
McIntosh County	46%
Major County	59%
Marshall County	53%
Mayes County	56%
Murray County	57%
Muskogee County	53%
Noble County	60%
Nowata County	57%
Okfuskee County	44%
Oklahoma County	66%
Okmulgee County	54%
Osage County	54%
Ottawa County	56%
Pawnee County	53%
Payne County	58%
Pittsburg County	53%
Pontotoc County	60%
Pottawatomie County	56%
Pushmataha County	51%

County	Labor Force Participation Rate
Roger Mills County	59%
Rogers County	64%
Seminole County	52%
Sequoyah County	51%
Stephens County	56%
Texas County	71%
Tillman County	56%
Tulsa County	67%
Wagoner County	64%
Washington County	58%
Washita County	59%
Woods County	61%
Woodward County	60%

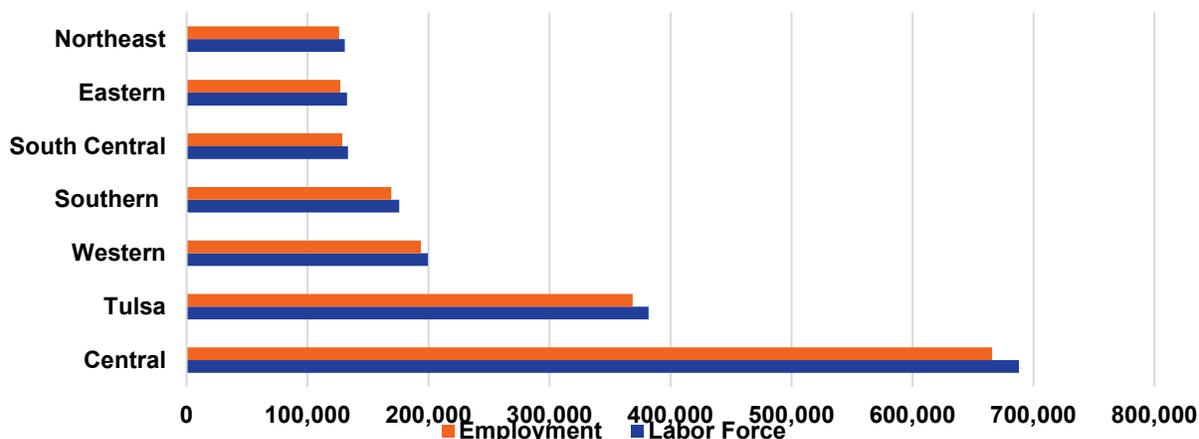
Source: American Community Survey (ACS) 2018 5-Year Estimates

Total Employment by Workforce Development Area

Figure 8 shows the total employment along with the total labor force in Oklahoma by WFDA. The highest level of employment was found in Central WFDA at 665,839. The second largest is in Tulsa WFDA at 368,746. The third largest is in Western WFDA at 193,759. The fourth largest is in Southern WFDA at 169,067. The fifth largest is in South Central WFDA at 128,732. The sixth largest is in Eastern WFDA at 127,181. The smallest labor force was in Northeast WFDA at 126,048.

Labor Force in Oklahoma by WFDA. The largest labor force was found in Central WFDA at 687,863. The second largest is in Tulsa WFDA at 381,912. The third largest is in Western WFDA at 199,550. The fourth largest is in Southern WFDA at 175,798. The fifth largest is in South Central WFDA at 133,425. The sixth largest is in Eastern WFDA at 132,626. The smallest labor force was in Northeast WFDA at 130,702.

Figure 8: Total Employment and Labor Force by County



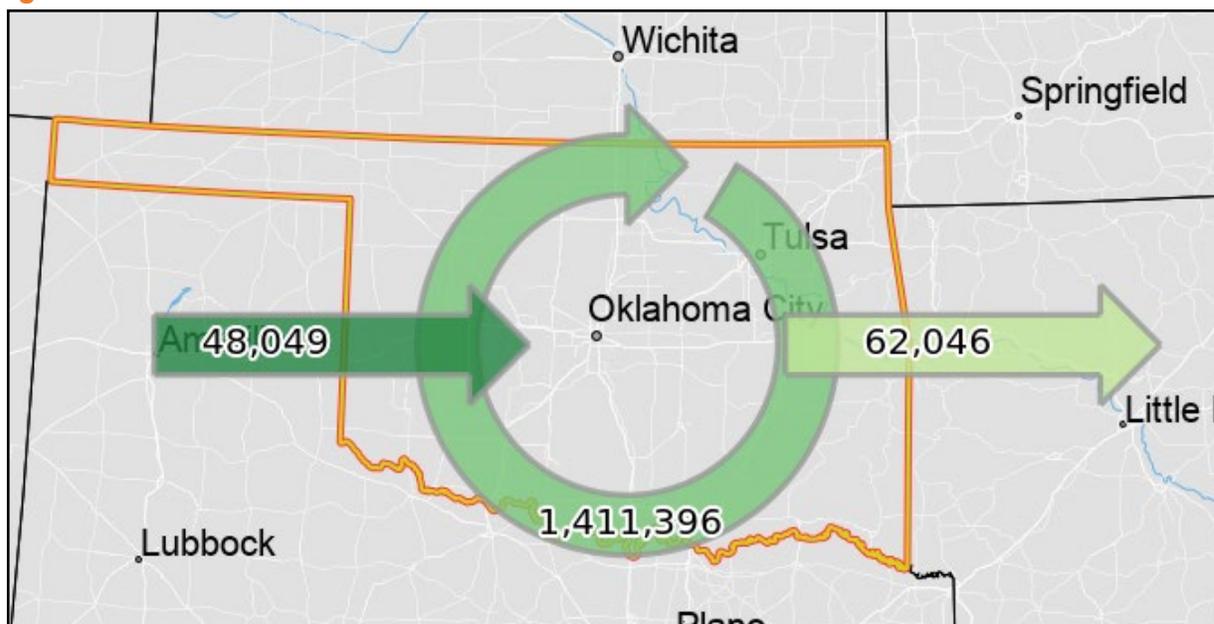
Source: 2018 Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS)

Commuter Data

The U.S. Census Bureau Longitudinal Employer-Household Dynamics (LEHD) program uses data from a variety of sources including the unemployment insurance program, Quarterly Census of Employment and Wages (QCEW), and administrative data from censuses and surveys to create models estimating worker commutes for primary employment.

In the State of Oklahoma 48,049 work in the area, and did not live there. 1,411,396 lived there and worked there. 62,046 lived in Oklahoma and worked outside the area (See Figure 9).

Figure 9: Total Local Area Commuter Patterns



Source: Center of Economic Studies (CES), OnTheMap, 2017

Figure 9 provides a county level analysis on each individual county.

Figure 10: County Level Commuter Patterns

County	Employed in County-Live in County	Employed in County-Live out of County	Live in County-Work out of County
Adair	2,439	1,809	4,211
Alfalfa	704	641	1,518
Atoka	1,505	1,877	2,789
Beaver	750	797	1,411
Beckham	4,502	4,978	2,897
Blaine	1,324	1,295	2,732
Bryan	8,909	7,799	7,280
Caddo	3,157	3,559	4,875

County	Employed in County-Live in County	Employed in County-Live out of County	Live in County-Work out of County
Canadian	12,535	19,465	46,381
Carter	11,975	9,941	7,472
Cherokee	6,754	5,356	9,414
Choctaw	1,655	2,285	2,647
Cimmarron	128	604	327
Cleveland	38,056	40,940	70,052
Coal	571	523	1,294
Comanche	25,346	10,872	14,171
Cotton	566	869	1,492
Craig	1,975	2,858	3,242
Creek	6,780	11,813	23,878
Custer	5,575	5,677	4,064
Delaware	4,373	4,008	8,858
Dewey	591	740	1,340
Ellis	554	571	993
Garfield	14,967	8,816	7,956
Garvin	3,794	4,947	5,069
Grady	6,092	5,387	14,545
Grant	558	655	1,235
Greer	546	464	1,081
Harmon	389	155	406
Harper	462	382	814
Haskell	1,327	1,879	2,238
Hughes	1,392	1,288	3,133
Jackson	4,802	2,791	3,287
Jefferson	540	413	1,225
Johnston	901	2,217	2,475
Kay	9,961	6,421	6,665
Kingfisher	2,787	3,456	3,744
Kiowa	1,011	683	1,835
Latimer	1,048	1,300	1,933
Le Flore	6,236	5,331	9,218
Lincoln	3,115	3,273	8,493
Logan	3,382	4,214	14,059
Love	1,390	4,248	2,504
Major	1,213	1,104	2,333
Marshall	2,146	1,752	3,283
Mayes	5,940	6,290	8,282
McClain	2,910	7,089	11,463

County	Employed in County-Live in County	Employed in County-Live out of County	Live in County-Work out of County
McCurtain	6,840	3,237	4,181
McIntosh	1,650	1,873	4,162
Murray	2,081	2,267	3,220
Muskogee	11,611	12,459	11,577
Noble	2,051	2,341	2,567
Nowata	715	857	2,574
Okfuskee	1,015	1,101	2,869
Oklahoma	230,117	180,317	68,826
Okmulgee	4,568	4,662	8,874
Osage	2,771	4,774	14,895
Ottawa	5,739	5,390	6,225
Pawnee	1,427	1,647	4,847
Payne	17,124	15,136	13,868
Pittsburg	6,553	5,882	5,575
Pontotoc	9,129	8,547	5,837
Pottawatomie	11,485	10,879	13,981
Pushmataha	1,147	1,159	1,834
Roger Mills	444	287	672
Rogers	9,955	19,715	29,168
Seminole	3,210	3,382	6,095
Sequoyah	4,635	4,071	8,764
Stephens	8,741	5,396	7,430
Texas	5,874	2,942	2,455
Tillman	1,175	627	1,662
Tulsa	210,472	126,996	54,047
Wagoner	3,591	6,351	28,799
Washington	10,731	7,822	9,958
Washita	1,002	955	2,390
Woods	1,770	1,439	1,899
Woodward	4,790	3,056	3,713

Source: Center of Economic Studies (CES), OnTheMap, 2017

Economic Indicators

Industry Sectors by Total Jobs

The North American Industry Classification System (NAICS) is the standard utilized by federal agencies to classify businesses to collect, analyze, and publish statistical data related to the United States business economy. Several of the analyses that follow are based upon data

using NAICS employment sector codes. The following information is provided to enhance understanding of the framework of these analyses.

NAICS uses a 6-digit coding system which is structured hierarchically, beginning with 20 broad economic sectors. Over 1,000 industries are then sub-categorized within these 20 sectors. Each industry within a sector shares distinguishing economic activities. The most recent version of the classification system was implemented in 2017. Additional information is available at www.census.gov/eos/www/naics.

There was an estimated 1,708,550 number of total jobs in Oklahoma in 2019. Table 6 shows the top ten employment industry sectors in Oklahoma. The largest sector is Government with 363,528 jobs. The second largest sector was Health Care and Social Assistance with 195,801 jobs. The tenth largest sectors was Finance and Insurance with 60,395 jobs.

Table 6: Top Industry Sectors by Total Number of Jobs

NAICS	Description	2019 Jobs	Percentage of Total Employment
90	Government	22,358	24.22%
31	Manufacturing	11,074	12.00%
44	Retail Trade	10,308	11.17%
62	Health Care and Social Assistance	9,767	10.58%
72	Accommodation and Food Services	7,838	8.49%
23	Construction	5,163	5.59%
81	Other Services (except Public Administration)	4,027	4.36%
56	Administrative and Support and Waste Management and Remediation Services	3,991	4.32%
21	Mining, Quarrying, and Oil and Gas Extraction	3,662	3.97%
52	Finance and Insurance	2,519	2.73%

Source: Emsi- economicmodeling.com- 2020.1

Top Occupations by Total Jobs

The Standard Occupational Classification (SOC) system is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. Additional analyses that follow are based upon data examined utilizing SOC occupational codes. The following information is provided to enhance understanding of the framework of these analyses.

All workers are classified into one of 840 detailed occupations according to their occupational definition. To facilitate classification, detailed occupations are combined to form 461 broad occupations, 97 minor groups, and 23 major groups. Detailed occupations in the SOC with similar job duties, and in some cases, skills, education, and/or training, are grouped together. Recently, the 2018 system for SOC was implemented, replacing the 2010 version. Additional information is available at www.bls.gov/soc/.

Table 7 shows the top occupations by total number of jobs in Oklahoma. Retail Salespersons has the highest number of jobs at 49,833. Cashiers had the second highest number of jobs at 43,201. The tenth highest number of jobs is found in General and Operations Managers at 27,099.

Table 7: Top Occupations by Total Number of Jobs

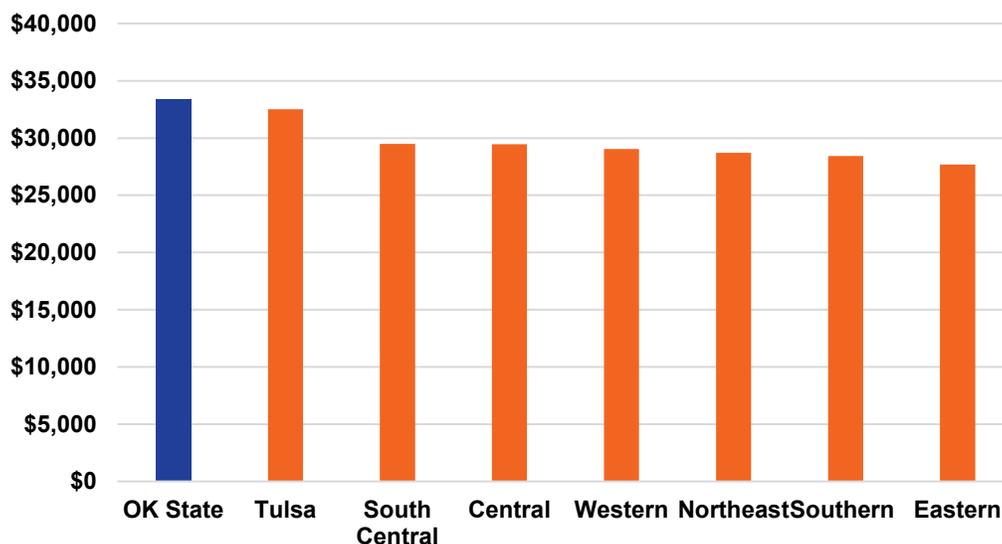
SOC	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	Median Hourly Earnings	Typical Entry Level Education	Typical On-The-Job Training
41-2031	Retail Salespersons	49,833	50,256	423	\$10.93	No formal educational credential	Short-term on-the-job training
41-2011	Cashiers	43,201	43,231	30	\$9.44	No formal educational credential	Short-term on-the-job training
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	32,599	36,502	3,903	\$8.90	No formal educational credential	Short-term on-the-job training
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	32,595	31,834	-761	\$14.71	High school diploma or equivalent	Short-term on-the-job training
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	30,901	32,928	2,027	\$13.49	No formal educational credential	Short-term on-the-job training
43-9061	Office Clerks, General	30,284	30,707	423	\$12.96	High school diploma or equivalent	Short-term on-the-job training
43-4051	Customer Service Representatives	30,152	29,820	-332	\$14.62	High school diploma or equivalent	Short-term on-the-job training
29-1141	Registered Nurses	30,071	31,528	1,457	\$29.69	Bachelor's degree	None
35-3031	Waiters and Waitresses	29,590	31,745	2,155	\$8.88	No formal educational credential	Short-term on-the-job training
11-1021	General and Operations Managers	27,099	28,682	1,583	\$39.51	Bachelor's degree	None

Source: Emsi- economicmodeling.com- 2020.1

Median Wage

Figure 11 provides the median wages of those over the age of 16. The highest wage was found in Tulsa WFDA which is \$32,519. The second highest wage was in South Central WFDA at \$29,501. The third highest was in Central WFDA which is \$29,452. The fourth highest wages were found in Western at \$29,036. Northeast has the fifth highest wages at \$28,719. The sixth highest wage was in Southern at \$28,419. Lastly, the lowest median wage is in Eastern WFDA at \$ 27,679.

Figure 11: Median Wage by Workforce Development Area

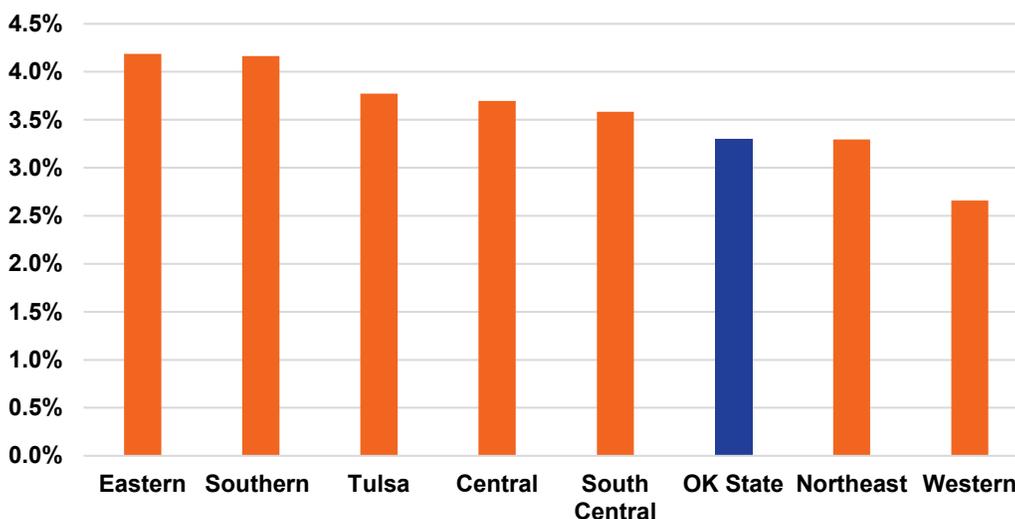


Source: American Community Survey (ACS) 2018 5-Year Estimates

Unemployment Rate

Figure 12 shows the unemployment rate for Oklahoma. The highest unemployment was found in Eastern WFDA with an unemployment rate of 4.19%. The second highest unemployment was found in Southern WFDA which had an unemployment rate of 4.16%. The third highest unemployment rate was in Tulsa WFDA an unemployment rate of 3.77%. The fourth highest unemployment rate was in Central WFDA 3.70%. The fifth highest unemployment rate was in South Central WFDA at 3.58%. Lastly, the lowest unemployment rate was found in Western WFDA with an unemployment rate of 2.66%.

Figure 12: Unemployment Rate by Workforce Development Area



Source: Emsi- economicmodeling.com- 2020.1

Industry Clusters

Oklahoma Department of Commerce has identified five key, in demand, industry clusters for the state of Oklahoma (also known as Ecosystems). Industry clusters provide a competitive advantage in a global economy. They exhibit significant potential for employment growth and provide wealth generating employment opportunities. Regional industry clusters have been identified for each Local Workforce Development Area.

State Industry Clusters

This section will provide an analysis of the industries and occupations for which there is existing demand in Oklahoma. The Oklahoma Office of Workforce Development partnered with the Oklahoma Department of Commerce to identify Oklahoma's State-level Industry Clusters and Regional-Specific Industry Clusters. The Oklahoma Department of Commerce identified five key demand industry sectors, which we refer to in this state as Industry Clusters. We have identified these sectors / clusters as giving Oklahoma a competitive advantage in a global economy. They exhibit significant potential for employment growth and provide wealth generating employment opportunities. The five State Industry Clusters' demand industries produce or provide similar goods and services and therefore have similar needs in workforce, infrastructure, and economic development policy. The five State Industry Clusters are Aerospace & Defense, Agriculture & Biosciences, Energy, Information and Financial Services, and Transportation and Distribution. The Appendix provides the list of industries and occupations that make up each Industry Cluster.

Table 8: State Industry Clusters

State Industry Clusters	Estimated Net Job Growth (2019-2024)	Industry Cluster Growth Rate (2019-2024)	Average Annual Earnings
Aerospace and Defense	8,647	8%	\$71,736
Agriculture and Bioscience	3,350	4%	\$63,179
Energy	10,583	9%	\$109,730
Information and Financial Services	3,333	3%	\$85,131
Transportation and Distribution	7,653	6%	\$70,310

Source: EMSI 2019.4

Aerospace & Defense

Oklahoma is one of seven global aerospace hubs and home to the largest military and commercial aircraft maintenance, repair and overhaul operations in the United States. In 2019 there were 123,680 jobs in the Aerospace & Defense Industry Cluster and employs 5.2% of the state's workforce with average earnings of approximately \$68,103. Analysis of job growth due to economic demand estimates that total employment will increase to 133,018 jobs by 2024, an increase of 9,338 jobs for the state. The following Industries are the top in terms of total number of jobs in 2019.

Table 9: Aerospace & Defense Existing Demand Industries

NAICS	Description	2019 Jobs	Avg. Earnings Per Job
90120	Federal Government, Military	32,644	\$46,753
54161	Management Consulting Services	14,332	\$56,050
33641	Aerospace Product and Parts Manufacturing	13,239	\$111,441
54151	Computer Systems Design and Related Services	12,571	\$76,389
54133	Engineering Services	8,564	\$89,688
81131	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	5,433	\$62,870
33271	Machine Shops	5,342	\$56,221
33231	Plate Work and Fabricated Structural Product Manufacturing	4,182	\$71,234
48819	Other Support Activities for Air Transportation	3,715	\$82,047
61151	Technical and Trade Schools	3,095	\$51,896

Source: EMSI 2019.4

The following are the top occupations in terms of total number of jobs in 2019.

Table 10: Aerospace & Defense Existing Demand Occupations

SOC	Description	2019 Jobs	Median Hourly Earnings	Median Annual Earnings	Typical Entry Level Education	Typical On-The-Job Training
11-1021	General and Operations Managers	27,027	\$39.51	\$82,180.80	Bachelor's degree	None
11-9041	Architectural and Engineering Managers	2,033	\$60.10	\$125,008.00	Bachelor's degree	None
15-1133	Software Developers, Systems Software	1,825	\$42.14	\$87,651.20	Bachelor's degree	None
15-1132	Software Developers, Applications	4,560	\$40.82	\$84,905.60	Bachelor's degree	None
17-2141	Mechanical Engineers	2,939	\$40.48	\$84,198.40	Bachelor's degree	None
17-2072	Electronics Engineers, Except Computer	1,887	\$44.33	\$92,206.40	Bachelor's degree	None
17-2071	Electrical Engineers	1,438	\$46.08	\$95,846.40	Bachelor's degree	None
17-2199	Engineers, All Other	1,338	\$39.89	\$82,971.20	Bachelor's degree	None
51-9061	Inspectors, Testers, Sorters,	6,039	\$20.10	\$41,808.00	High school diploma or equivalent	Moderate-term on-the-job training

SOC	Description	2019 Jobs	Median Hourly Earnings	Median Annual Earnings	Typical Entry Level Education	Typical On-The-Job Training
	Samplers, and Weighers					
17-2112	Industrial Engineers	1,756	\$39.57	\$82,305.60	Bachelor's degree	None

Source: EMSI 2019.4

The following are the top emerging industries in terms of number of new jobs in 2024.

Table 11: Aerospace & Defense Emerging Demand Industries

NAICS	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change
33641	Aerospace Product and Parts Manufacturing	13,239	18,525	5,286	40%
54161	Management Consulting Services	14,332	15,630	1,298	9%
54151	Computer Systems Design and Related Services	12,571	13,868	1,297	10%
81131	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	5,433	6,195	762	14%
54133	Engineering Services	8,564	9,011	447	5%
54169	Other Scientific and Technical Consulting Services	3,072	3,510	438	14%
33271	Machine Shops	5,342	5,556	214	4%
48819	Other Support Activities for Air Transportation	3,715	3,925	210	6%
33231	Plate Work and Fabricated Structural Product Manufacturing	4,182	4,387	205	5%
33351	Metalworking Machinery Manufacturing	1,390	1,535	145	10%

Source: EMSI 2019.4

The following are the top emerging occupations in terms of number of new jobs in 2024.

Table 12: Aerospace & Defense Emerging Demand Occupations

SOC	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Median Hourly Earnings	Median Annual Earnings
11-1021	General and Operations Managers	27,027	28,765	1,738	6%	\$39.51	\$82,180.80
15-1132	Software Developers, Applications	4,560	5,292	732	16%	\$40.82	\$84,905.60
13-1199	Business Operations Specialists, All Other	5,244	5,902	658	13%	\$34.19	\$71,115.20

SOC	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Median Hourly Earnings	Median Annual Earnings
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	2,367	2,855	488	21%	\$22.86	\$47,548.80
51-1011	First-Line Supervisors of Production and Operating Workers	9,375	9,846	471	5%	\$27.69	\$57,595.20
51-4041	Machinists	5,331	5,791	460	9%	\$20.74	\$43,139.20
17-2112	Industrial Engineers	1,756	2,164	408	23%	\$39.57	\$82,305.60
43-5061	Production, Planning, and Expediting Clerks	6,493	6,866	373	6%	\$22.92	\$47,673.60
17-2141	Mechanical Engineers	2,939	3,303	364	12%	\$40.48	\$84,198.40
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	3,280	3,575	295	9%	\$18.42	\$38,313.60

Source: EMSI 2019.4

Energy

In 2019 the Energy Industry Cluster accounted for 216,723 jobs with average earnings of \$80,860. Demand drives the cyclical nature of the Energy Industry Cluster hiring. The demand is expected to grow the industry cluster by 27,293 jobs, resulting in a total of 244,016 jobs in 2024. Extensive skills and training is required to work in the Energy Industry Cluster. These skills allow energy workers to transfer employment from one Industry Cluster to another. The following industries are the top in terms of total number of jobs in 2019.

Table 13: Energy Existing Demand Industries

NAICS	Description	2019 Jobs	Avg. Earnings Per Job
21112	Crude Petroleum Extraction	82,736	\$68,018
21311	Support Activities for Mining	41,270	\$85,595
21113	Natural Gas Extraction	30,561	\$75,605
23712	Oil and Gas Pipeline and Related Structures Construction	8,122	\$81,997
33313	Mining and Oil and Gas Field Machinery Manufacturing	7,667	\$81,820
33341	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	6,073	\$64,019
22112	Electric Power Transmission, Control, and Distribution	4,669	\$116,134
33241	Power Boiler and Heat Exchanger Manufacturing	4,081	\$87,607

NAICS	Description	2019 Jobs	Avg. Earnings Per Job
22121	Natural Gas Distribution	3,920	\$179,583
23713	Power and Communication Line and Related Structures Construction	3,548	\$66,270

Source: EMSI 2019.4

The following are the top occupations in terms of total number of jobs in 2019.

Table 14: Energy Existing Demand Occupations

SOC	Description	2019 Jobs	Median Hourly Earnings	Median Annual Earnings	Typical Entry Level Education	Typical On-The-Job Training
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	32,439	\$14.71	\$30,596.80	High school diploma or equivalent	Short-term on-the-job training
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	30,682	\$13.49	\$28,059.20	No formal educational credential	Short-term on-the-job training
43-9061	Office Clerks, General	30,091	\$12.96	\$26,956.80	High school diploma or equivalent	Short-term on-the-job training
11-1021	General and Operations Managers	27,027	\$39.51	\$82,180.80	Bachelor's degree	None
53-3032	Heavy and Tractor-Trailer Truck Drivers	26,746	\$20.07	\$41,745.60	Postsecondary nondegree award	Short-term on-the-job training
49-9071	Maintenance and Repair Workers, General	17,258	\$15.56	\$32,364.80	High school diploma or equivalent	Moderate-term on-the-job training
13-2011	Accountants and Auditors	14,301	\$31.27	\$65,041.60	Bachelor's degree	None
51-2098	Assemblers and Fabricators, All Other, Including Team Assemblers	11,782	\$14.81	\$30,804.80	High school diploma or equivalent	Moderate-term on-the-job training
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	10,037	\$30.39	\$63,211.20	High school diploma or equivalent	None
41-4012	Sales Representatives, Wholesale and Manufacturing,	9,742	\$22.98	\$47,798.40	High school diploma or equivalent	Moderate-term on-the-job training

SOC	Description	2019 Jobs	Median Hourly Earnings	Median Annual Earnings	Typical Entry Level Education	Typical On-The-Job Training
	Except Technical and Scientific Products					

Source: EMSI 2019.4

The following are the top emerging industries in terms of number of new jobs in 2024.

Table 15: Energy Emerging Demand Industries

NAICS	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change
21112	Crude Petroleum Extraction	82,736	93,198	10,462	13%
21311	Support Activities for Mining	41,270	48,720	7,450	18%
21113	Natural Gas Extraction	30,561	35,265	4,704	15%
23712	Oil and Gas Pipeline and Related Structures Construction	8,122	11,123	3,001	37%
23713	Power and Communication Line and Related Structures Construction	3,548	4,129	581	16%
33313	Mining and Oil and Gas Field Machinery Manufacturing	7,667	7,997	330	4%
22112	Electric Power Transmission, Control, and Distribution	4,669	4,944	275	6%
33241	Power Boiler and Heat Exchanger Manufacturing	4,081	4,349	268	7%
33291	Metal Valve Manufacturing	2,851	3,097	246	9%
48621	Pipeline Transportation of Natural Gas	1,402	1,567	165	12%

Source: EMSI 2019.4

The following are the top emerging occupations in terms of number of new jobs in 2024.

Table 16: Energy Emerging Demand Occupations

SOC	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Median Hourly Earnings	Median Annual Earnings
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	30,682	33,034	2,352	8%	\$13.49	\$28,059.20
53-3032	Heavy and Tractor-Trailer Truck Drivers	26,746	28,909	2,163	8%	\$20.07	\$41,745.60

SOC	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Median Hourly Earnings	Median Annual Earnings
11-1021	General and Operations Managers	27,027	28,765	1,738	6%	\$39.51	\$82,180.80
13-2011	Accountants and Auditors	14,301	15,622	1,321	9%	\$31.27	\$65,041.60
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	10,037	11,113	1,076	11%	\$30.39	\$63,211.20
49-9071	Maintenance and Repair Workers, General	17,258	18,304	1,046	6%	\$15.56	\$32,364.80
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	9,742	10,604	862	9%	\$22.98	\$47,798.40
47-5071	Roustabouts, Oil and Gas	5,774	6,629	855	15%	\$18.61	\$38,708.80
47-2073	Operating Engineers and Other Construction Equipment Operators	6,713	7,528	815	12%	\$18.60	\$38,688.00
47-5013	Service Unit Operators, Oil, Gas, and Mining	2,962	3,578	616	21%	\$19.44	\$40,435.20

Source: EMSI 2019.4

Agriculture & Biosciences

Jobs within the Agriculture & Biosciences Industry Cluster totaled 167,412 jobs in Oklahoma, with average earnings of \$46,254. The following are the top industries in terms of total number of jobs in 2019.

Table 17: Agriculture & Biosciences Existing Demand Industries

NAICS	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Avg. Earnings Per Job
11200	Animal Production	54,431	53,995	(436)	(1%)	\$31,926
11100	Crop Production	24,959	25,662	703	3%	\$24,855
54199	All Other Professional, Scientific, and Technical Services	12,013	12,602	589	5%	\$48,596
31161	Animal Slaughtering and Processing	8,912	9,268	356	4%	\$49,117
54133	Engineering Services	8,564	9,011	447	5%	\$89,688
11511	Support Activities for Crop Production	5,554	5,949	395	7%	\$29,110
54194	Veterinary Services	5,387	5,893	506	9%	\$39,084
62151	Medical and Diagnostic Laboratories	3,176	3,687	511	16%	\$69,767
33451	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	2,622	2,670	48	2%	\$90,167
31181	Bread and Bakery Product Manufacturing	2,487	2,508	21	1%	\$44,419

Source: EMSI 2019.4

The following are the top occupations in terms of total number of jobs in 2019.

Table 18: Agriculture & Biosciences Existing Demand Occupations

SOC	Description	2019 Jobs	Median Hourly Earnings	Median Annual Earnings	Typical Entry Level Education	Typical On-The-Job Training
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	32,439	\$14.71	\$30,596.80	High school diploma or equivalent	Short-term on-the-job training
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	30,682	\$13.49	\$28,059.20	No formal educational credential	Short-term on-the-job training
43-4051	Customer Service Representatives	30,169	\$14.62	\$30,409.60	High school diploma or equivalent	Short-term on-the-job training
43-9061	Office Clerks, General	30,091	\$12.96	\$26,956.80	High school diploma or equivalent	Short-term on-the-job training
11-1021	General and Operations Managers	27,027	\$39.51	\$82,180.80	Bachelor's degree	None

SOC	Description	2019 Jobs	Median Hourly Earnings	Median Annual Earnings	Typical Entry Level Education	Typical On-The-Job Training
53-3032	Heavy and Tractor-Trailer Truck Drivers	26,746	\$20.07	\$41,745.60	Postsecondary nondegree award	Short-term on-the-job training
43-3031	Bookkeeping, Accounting, and Auditing Clerks	23,261	\$17.88	\$37,190.40	Some college, no degree	Moderate-term on-the-job training
43-5081	Stock Clerks and Order Fillers	20,683	\$11.55	\$24,024.00	High school diploma or equivalent	Short-term on-the-job training
49-9071	Maintenance and Repair Workers, General	17,258	\$15.56	\$32,364.80	High school diploma or equivalent	Moderate-term on-the-job training
41-3099	Sales Representatives, Services, All Other	9,507	\$21.76	\$45,260.80	High school diploma or equivalent	Moderate-term on-the-job training

Source: EMSI 2019.4

The following are the top emerging industries in terms of number of new jobs in 2024.

Table 19: Agriculture & Biosciences Emerging Demand Industries

NAICS	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Avg. Earnings Per Job
11100	Crop Production	24,959	25,662	703	3%	\$24,855
54199	All Other Professional, Scientific, and Technical Services	12,013	12,602	589	5%	\$48,596
62151	Medical and Diagnostic Laboratories	3,176	3,687	511	16%	\$69,767
54194	Veterinary Services	5,387	5,893	506	9%	\$39,084
54133	Engineering Services	8,564	9,011	447	5%	\$89,688
11511	Support Activities for Crop Production	5,554	5,949	395	7%	\$29,110
31161	Animal Slaughtering and Processing	8,912	9,268	356	4%	\$49,117
42481	Beer and Ale Merchant Wholesalers	1,472	1,743	271	18%	\$56,893
32541	Pharmaceutical and Medicine Manufacturing	771	924	153	20%	\$108,283
42449	Other Grocery and Related Products Merchant Wholesalers	2,229	2,370	141	6%	\$58,585

Source: EMSI 2019.4

The following are the top emerging occupations in terms of number of new jobs in 2024.

Table 20: Agriculture & Biosciences Emerging Demand Occupations

SOC	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Median Hourly Earnings	Median Annual Earnings
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	30,682	33,034	2,352	8%	\$13.49	\$28,059.20
53-3032	Heavy and Tractor-Trailer Truck Drivers	26,746	28,909	2,163	8%	\$20.07	\$41,745.60
11-1021	General and Operations Managers	27,027	28,765	1,738	6%	\$39.51	\$82,180.80
49-9071	Maintenance and Repair Workers, General	17,258	18,304	1,046	6%	\$15.56	\$32,364.80
43-5081	Stock Clerks and Order Fillers	20,683	21,380	697	3%	\$11.55	\$24,024.00
13-1199	Business Operations Specialists, All Other	5,244	5,902	658	13%	\$34.19	\$71,115.20
43-9061	Office Clerks, General	30,091	30,616	525	2%	\$12.96	\$26,956.80
37-3011	Landscaping and Groundskeeping Workers	8,222	8,727	505	6%	\$12.47	\$25,937.60
41-3099	Sales Representatives, Services, All Other	9,507	9,943	436	5%	\$21.76	\$45,260.80
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	7,281	7,657	376	5%	\$31.44	\$65,395.20

Source: EMSI 2019.4

Information & Financial Services

There were 164,236 jobs in the Information & Financial Services Industry Cluster in 2019 with average wages of \$68,805. Growth in the Industry Cluster is projected to increase by 10,496 jobs by 2024, a total of 174,732 jobs in Oklahoma. The following industries are the top in terms of total number of jobs in 2019.

Table 21: Information & Financial Services Existing Demand Industries

NAICS	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Avg. Earnings Per Job
55111	Management of Companies and Enterprises	24,781	27,479	2,698	11%	\$107,570
54121	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	20,846	22,748	1,902	9%	\$64,582
52211	Commercial Banking	20,722	20,516	(206)	(1%)	\$69,908
52392	Portfolio Management	12,714	15,089	2,375	19%	\$36,859
54151	Computer Systems Design and Related Services	12,571	13,868	1,297	10%	\$76,389
51731	Wired and Wireless Telecommunications Carriers	8,822	7,551	(1,271)	(14%)	\$79,523
52391	Miscellaneous Intermediation	8,024	8,673	649	8%	\$37,913
52393	Investment Advice	6,281	6,983	702	11%	\$41,300
52229	Other Nondepository Credit Intermediation	6,190	6,842	652	11%	\$54,466
52592	Trusts, Estates, and Agency Accounts	5,983	7,007	1,024	17%	\$43,418

Source: EMSI 2019.4

The following are the top occupations in terms of total number of jobs in 2019.

Table 22: Information & Financial Services Existing Demand Occupations

SOC	Description	2019 Jobs	Median Hourly Earnings	Median Annual Earnings	Typical Entry Level Education	Typical On-The-Job Training
43-4051	Customer Service Representatives	30,169	\$14.62	\$30,409.60	High school diploma or equivalent	Short-term on-the-job training
11-1021	General and Operations Managers	27,027	\$39.51	\$82,180.80	Bachelor's degree	None
13-2011	Accountants and Auditors	14,301	\$31.27	\$65,041.60	Bachelor's degree	None
43-4171	Receptionists and Information Clerks	9,379	\$13.23	\$27,518.40	High school diploma or equivalent	Short-term on-the-job training
41-3021	Insurance Sales Agents	9,060	\$22.08	\$45,926.40	High school diploma or equivalent	Moderate-term on-the-job training
43-3071	Tellers	6,845	\$12.08	\$25,126.40	High school diploma or equivalent	Short-term on-the-job training

SOC	Description	2019 Jobs	Median Hourly Earnings	Median Annual Earnings	Typical Entry Level Education	Typical On-The-Job Training
11-3031	Financial Managers	6,550	\$46.43	\$96,574.40	Bachelor's degree	None
13-1111	Management Analysts	4,796	\$35.97	\$74,817.60	Bachelor's degree	None
15-1132	Software Developers, Applications	4,560	\$40.82	\$84,905.60	Bachelor's degree	None
13-2072	Loan Officers	3,964	\$29.44	\$61,235.20	Bachelor's degree	Moderate-term on-the-job training

Source: EMSI 2019.4

The following are the top emerging industries in terms of number of new jobs in 2024.

Table 23: Information & Financial Services Emerging Demand Industries

NAICS	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Avg. Earnings Per Job
55111	Management of Companies and Enterprises	24,781	27,479	2,698	11%	\$107,570
52392	Portfolio Management	12,714	15,089	2,375	19%	\$36,859
54121	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	20,846	22,748	1,902	9%	\$64,582
54151	Computer Systems Design and Related Services	12,571	13,868	1,297	10%	\$76,389
52592	Trusts, Estates, and Agency Accounts	5,983	7,007	1,024	17%	\$43,418
52393	Investment Advice	6,281	6,983	702	11%	\$41,300
52229	Other Nondepository Credit Intermediation	6,190	6,842	652	11%	\$54,466
52391	Miscellaneous Intermediation	8,024	8,673	649	8%	\$37,913
52399	All Other Financial Investment Activities	3,639	3,857	218	6%	\$37,303
52213	Credit Unions	3,552	3,746	194	5%	\$51,033

Source: EMSI 2019.4

The following are the top emerging occupations in terms of number of new jobs in 2024.

Table 24: Information & Financial Services Emerging Demand Occupations

SOC	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Median Hourly Earnings	Median Annual Earnings
11-1021	General and Operations Managers	27,027	28,765	1,738	6%	\$39.51	\$82,180.80
13-2011	Accountants and Auditors	14,301	15,622	1,321	9%	\$31.27	\$65,041.60
15-1132	Software Developers, Applications	4,560	5,292	732	16%	\$40.82	\$84,905.60
11-3031	Financial Managers	6,550	7,261	711	11%	\$46.43	\$96,574.40
41-3021	Insurance Sales Agents	9,060	9,719	659	7%	\$22.08	\$45,926.40
43-4171	Receptionists and Information Clerks	9,379	9,942	563	6%	\$13.23	\$27,518.40
13-1111	Management Analysts	4,796	5,213	417	9%	\$35.97	\$74,817.60
43-4051	Customer Service Representatives	30,169	30,459	290	1%	\$14.62	\$30,409.60
15-1133	Software Developers, Systems Software	1,825	2,106	281	15%	\$42.14	\$87,651.20
15-1121	Computer Systems Analysts	3,397	3,627	230	7%	\$37.57	\$78,145.60

Source: EMSI 2019.4

Transportation & Distribution

In 2019 there were 135,225 jobs in the Transportation & Distribution Industry Cluster with average earnings of \$68,667. Based on demand projections jobs within the Industry Cluster will increase by 7,837 jobs totaling 143,091 jobs by the year 2024. The following Industries are the top in terms of total number of jobs in 2019.

Table 25: Transportation & Distribution Existing Demand Industries

NAICS	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Avg. Earnings Per Job
48412	General Freight Trucking, Long-Distance	16,491	16,789	298	2%	\$64,511
49311	General Warehousing and Storage	12,950	16,181	3,231	25%	\$41,057
42512	Wholesale Trade Agents and Brokers	7,564	8,400	836	11%	\$60,862

NAICS	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Avg. Earnings Per Job
42383	Industrial Machinery and Equipment Merchant Wholesalers	6,733	7,114	381	6%	\$83,603
32621	Tire Manufacturing	4,411	3,986	(425)	(10%)	\$83,831
48422	Specialized Freight (except Used Goods) Trucking, Local	4,099	4,449	350	9%	\$70,289
48411	General Freight Trucking, Local	3,868	3,628	(240)	(6%)	\$66,253
48819	Other Support Activities for Air Transportation	3,715	3,925	210	6%	\$82,047
33621	Motor Vehicle Body and Trailer Manufacturing	3,123	3,297	174	6%	\$47,726
48423	Specialized Freight (except Used Goods) Trucking, Long-Distance	2,867	3,278	411	14%	\$89,560

Source: EMSI 2019.4

The following are the top occupations in terms of total number of jobs in 2019.

Table 26: Transportation & Distribution Existing Demand Occupations

SOC	Description	2019 Jobs	Median Hourly Earnings	Median Annual Earnings	Typical Entry Level Education	Typical On-The-Job Training
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	32,439	\$14.71	\$30,596.80	High school diploma or equivalent	Short-term on-the-job training
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	30,682	\$13.49	\$28,059.20	No formal educational credential	Short-term on-the-job training
43-4051	Customer Service Representatives	30,169	\$14.62	\$30,409.60	High school diploma or equivalent	Short-term on-the-job training
43-9061	Office Clerks, General	30,091	\$12.96	\$26,956.80	High school diploma or equivalent	Short-term on-the-job training
11-1021	General and Operations Managers	27,027	\$39.51	\$82,180.80	Bachelor's degree	None
53-3032	Heavy and Tractor-Trailer Truck Drivers	26,746	\$20.07	\$41,745.60	Postsecondary nondegree award	Short-term on-the-job training

SOC	Description	2019 Jobs	Median Hourly Earnings	Median Annual Earnings	Typical Entry Level Education	Typical On-The-Job Training
43-3031	Bookkeeping, Accounting, and Auditing Clerks	23,261	\$17.88	\$37,190.40	Some college, no degree	Moderate-term on-the-job training
43-5081	Stock Clerks and Order Fillers	20,683	\$11.55	\$24,024.00	High school diploma or equivalent	Short-term on-the-job training
13-2011	Accountants and Auditors	14,301	\$31.27	\$65,041.60	Bachelor's degree	None
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	9,742	\$22.98	\$47,798.40	High school diploma or equivalent	Moderate-term on-the-job training

Source: EMSI 2019.4

The following are the top emerging industries in terms of number of new jobs in 2024.

Table 27: Transportation & Distribution Emerging Demand Industries

NAICS	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Avg. Earnings Per Job
49311	General Warehousing and Storage	12,950	16,181	3,231	25%	\$41,057
42512	Wholesale Trade Agents and Brokers	7,564	8,400	836	11%	\$60,862
48423	Specialized Freight (except Used Goods) Trucking, Long-Distance	2,867	3,278	411	14%	\$89,560
42383	Industrial Machinery and Equipment Merchant Wholesalers	6,733	7,114	381	6%	\$83,603
48422	Specialized Freight (except Used Goods) Trucking, Local	4,099	4,449	350	9%	\$70,289
48412	General Freight Trucking, Long-Distance	16,491	16,789	298	2%	\$64,511
42311	Automobile and Other Motor Vehicle Merchant Wholesalers	1,604	1,877	273	17%	\$77,576
42481	Beer and Ale Merchant Wholesalers	1,472	1,743	271	18%	\$56,893
42351	Metal Service Centers and Other Metal Merchant Wholesalers	2,470	2,705	235	10%	\$74,459
48851	Freight Transportation Arrangement	1,557	1,779	222	14%	\$49,259

Source: EMSI 2019.4

The following are the top emerging occupations in terms of number of new jobs in 2024.

Table 28: Transportation & Distribution Emerging Demand Occupations

SOC	Description	2019 Jobs	2024 Jobs	2019 - 2024 Change	2019 - 2024 % Change	Median Hourly Earnings	Median Annual Earnings
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	30,682	33,034	2,352	8%	\$13.49	\$28,059.20
53-3032	Heavy and Tractor-Trailer Truck Drivers	26,746	28,909	2,163	8%	\$20.07	\$41,745.60
11-1021	General and Operations Managers	27,027	28,765	1,738	6%	\$39.51	\$82,180.80
13-2011	Accountants and Auditors	14,301	15,622	1,321	9%	\$31.27	\$65,041.60
41-4012	Sales Representatives , Wholesale and Manufacturing, Except Technical and Scientific Products	9,742	10,604	862	9%	\$22.98	\$47,798.40
15-1132	Software Developers, Applications	4,560	5,292	732	16%	\$40.82	\$84,905.60
53-7051	Industrial Truck and Tractor Operators	7,209	7,932	723	10%	\$16.57	\$34,465.60
43-5081	Stock Clerks and Order Fillers	20,683	21,380	697	3%	\$11.55	\$24,024.00
13-1199	Business Operations Specialists, All Other	5,244	5,902	658	13%	\$34.19	\$71,115.20
13-1161	Market Research Analysts and Marketing Specialists	5,088	5,737	649	13%	\$25.72	\$53,497.60

Source: EMSI 2019.4

Regional Industry Clusters

In addition to the five State Industry clusters, Regional Industry Clusters have been identified. The source data to start the process was establishment level data from over 100,000 business establishments in the state. Major employers are non-retail sector establishments that are among the top twenty percent of employing establishments in their respective counties. Retail was excluded since it is dependent on other sectors of the economy employing people and generating economic activity. Ensuring other sectors are successful will impact the success of the retail sector.

The clusters were informed by the methodology utilized by the Harvard Business School and the Economic Development Administration. In order to report data in a meaningful manner, there was some customization grouping linked industries. After identifying the top twenty percent of the major employers in each of the counties, they were grouped into industry clusters in their regional economy. Establishment level data from the Quarterly Census of Employment & Wages was utilized as the primary data source in the cluster identification. Since confidentiality must be maintained, in order to report the results, the data must be aggregated by clusters and geography.

Major employers include traditional sectors targeted in economic development including manufacturing, energy and knowledge-based service industries. It also includes other sectors that are not targeted in economic development but are important to the local region and have demands on workforce skills. These sectors include, but not limited to, agriculture, construction, utilities, healthcare, education, government, tourism and hospitality.

Workforce Development Area	Regional Industry Clusters
Northeast	Industrial Transportation & Distribution Mining & Extraction STEM Healthcare
Eastern	Industrial Transportation & Distribution Utilities Generation, Transmission & Energy Pipelines Professional Services Healthcare STEM
Tulsa	Industrial Transportation & Distribution Mining & Extraction Professional Services Healthcare STEM
Western	Industrial Transportation & Distribution Mining & Extraction Professional Services

	Healthcare STEM
South Central	Industrial Transportation & Distribution Mining & Extraction Professional Services Healthcare STEM
Southern	Industrial Transportation & Distribution Mining & Extraction Professional Services Healthcare STEM
Central	Industrial Transportation & Distribution Mining & Extraction Professional Services Healthcare STEM

Source: Oklahoma Department of Commerce, December 2019

Appendix

Aerospace & Defense Industries

32521	Resin and Synthetic Rubber Manufacturing
32551	Paint and Coating Manufacturing
32592	Explosives Manufacturing
32629	Other Rubber Product Manufacturing
33231	Plate Work and Fabricated Structural Product Manufacturing
33271	Machine Shops
33281	Coating, Engraving, Heat Treating, and Allied Activities
33299	All Other Fabricated Metal Product Manufacturing
33351	Metalworking Machinery Manufacturing
33361	Engine, Turbine, and Power Transmission Equipment Manufacturing
33411	Computer and Peripheral Equipment Manufacturing
33441	Semiconductor and Other Electronic Component Manufacturing
33451	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
33531	Electrical Equipment Manufacturing
33599	All Other Electrical Equipment and Component Manufacturing
33641	Aerospace Product and Parts Manufacturing
42386	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers
48111	Scheduled Air Transportation
48121	Nonscheduled Air Transportation
48811	Airport Operations
48819	Other Support Activities for Air Transportation
54133	Engineering Services
54138	Testing Laboratories
54151	Computer Systems Design and Related Services
54161	Management Consulting Services
54169	Other Scientific and Technical Consulting Services

54171	Research and Development in the Physical, Engineering, and Life Sciences
61151	Technical and Trade Schools
81131	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
90120	Federal Government, Military

Aerospace & Defense Occupations

11-1021	General and Operations Managers
11-9199	Managers, All Other
13-1071	Human Resources Specialists
13-1111	Management Analysts
13-1161	Market Research Analysts and Marketing Specialists
13-1199	Business Operations Specialists, All Other
13-2011	Accountants and Auditors
15-1132	Software Developers, Applications
41-3099	Sales Representatives, Services, All Other
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
43-3031	Bookkeeping, Accounting, and Auditing Clerks
43-4051	Customer Service Representatives
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks
43-5011	Cargo and Freight Agents
43-5021	Couriers and Messengers
43-5032	Dispatchers, Except Police, Fire, and Ambulance
43-5071	Shipping, Receiving, and Traffic Clerks
43-5081	Stock Clerks and Order Fillers
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
43-9061	Office Clerks, General
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists

53-1048	First-line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians
53-3021	Bus Drivers, Transit and Intercity
53-3022	Bus Drivers, School or Special Client
53-3032	Heavy and Tractor-Trailer Truck Drivers
53-3033	Light Truck or Delivery Services Drivers
53-3041	Taxi Drivers and Chauffeurs
53-7051	Industrial Truck and Tractor Operators
53-7062	Laborers and Freight, Stock, and Material Movers, Hand
53-7064	Packers and Packagers, Hand

Energy Industries

21112	Crude Petroleum Extraction
21113	Natural Gas Extraction
21211	Coal Mining
21311	Support Activities for Mining
22111	Electric Power Generation
22112	Electric Power Transmission, Control, and Distribution
22121	Natural Gas Distribution
23712	Oil and Gas Pipeline and Related Structures Construction
23713	Power and Communication Line and Related Structures Construction
32411	Petroleum Refineries
32412	Asphalt Paving, Roofing, and Saturated Materials Manufacturing
32419	Other Petroleum and Coal Products Manufacturing
32511	Petrochemical Manufacturing
32512	Industrial Gas Manufacturing
33121	Iron and Steel Pipe and Tube Manufacturing from Purchased Steel
33241	Power Boiler and Heat Exchanger Manufacturing
33242	Metal Tank (Heavy Gauge) Manufacturing
33291	Metal Valve Manufacturing

33313	Mining and Oil and Gas Field Machinery Manufacturing
33341	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing
33361	Engine, Turbine, and Power Transmission Equipment Manufacturing
33391	Pump and Compressor Manufacturing
33531	Electrical Equipment Manufacturing
33591	Battery Manufacturing
42352	Coal and Other Mineral and Ore Merchant Wholesalers
42471	Petroleum Bulk Stations and Terminals
42472	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)
48611	Pipeline Transportation of Crude Oil
48621	Pipeline Transportation of Natural Gas
48691	Pipeline Transportation of Refined Petroleum Products
48699	All Other Pipeline Transportation
54136	Geophysical Surveying and Mapping Services
54138	Testing Laboratories

Energy Occupations

11-1021	General and Operations Managers
13-2011	Accountants and Auditors
17-2112	Industrial Engineers
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers
17-2171	Petroleum Engineers
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
43-9061	Office Clerks, General
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers
47-2073	Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers
47-5011	Derrick Operators, Oil and Gas

47-5012	Rotary Drill Operators, Oil and Gas
47-5013	Service Unit Operators, Oil, Gas, and Mining
47-5071	Roustabouts, Oil and Gas
47-5081	Helpers--Extraction Workers
49-9041	Industrial Machinery Mechanics
49-9071	Maintenance and Repair Workers, General
51-1011	First-Line Supervisors of Production and Operating Workers
51-2028	Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers
51-2098	Assemblers and Fabricators, All Other, Including Team Assemblers
51-4041	Machinists
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers
53-3032	Heavy and Tractor-Trailer Truck Drivers
53-7062	Laborers and Freight, Stock, and Material Movers, Hand
53-7073	Wellhead Pumpers

Agriculture & Biosciences Industries

11100	Crop Production
11200	Animal Production
11311	Timber Tract Operations
11321	Forest Nurseries and Gathering of Forest Products
11331	Logging
11411	Fishing
11421	Hunting and Trapping
11511	Support Activities for Crop Production
11521	Support Activities for Animal Production
11531	Support Activities for Forestry
31111	Animal Food Manufacturing
31121	Flour Milling and Malt Manufacturing

31122	Starch and Vegetable Fats and Oils Manufacturing
31123	Breakfast Cereal Manufacturing
31131	Sugar Manufacturing
31134	Nonchocolate Confectionery Manufacturing
31135	Chocolate and Confectionery Manufacturing
31141	Frozen Food Manufacturing
31142	Fruit and Vegetable Canning, Pickling, and Drying
31151	Dairy Product (except Frozen) Manufacturing
31152	Ice Cream and Frozen Dessert Manufacturing
31161	Animal Slaughtering and Processing
31171	Seafood Product Preparation and Packaging
31181	Bread and Bakery Product Manufacturing
31182	Cookie, Cracker, and Pasta Manufacturing
31183	Tortilla Manufacturing
31191	Snack Food Manufacturing
31192	Coffee and Tea Manufacturing
31193	Flavoring Syrup and Concentrate Manufacturing
31194	Seasoning and Dressing Manufacturing
31199	All Other Food Manufacturing
31211	Soft Drink and Ice Manufacturing
31212	Breweries
31213	Wineries
31214	Distilleries
32111	Sawmills and Wood Preservation
32121	Veneer, Plywood, and Engineered Wood Product Manufacturing
32191	Millwork
32192	Wood Container and Pallet Manufacturing
32199	All Other Wood Product Manufacturing
32211	Pulp Mills
32212	Paper Mills

32213	Paperboard Mills
32221	Paperboard Container Manufacturing
32222	Paper Bag and Coated and Treated Paper Manufacturing
32512	Industrial Gas Manufacturing
32519	Other Basic Organic Chemical Manufacturing
32522	Artificial and Synthetic Fibers and Filaments Manufacturing
32531	Fertilizer Manufacturing
32532	Pesticide and Other Agricultural Chemical Manufacturing
32541	Pharmaceutical and Medicine Manufacturing
33311	Agricultural Implement Manufacturing
33451	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
33461	Manufacturing and Reproducing Magnetic and Optical Media
33911	Medical Equipment and Supplies Manufacturing
42345	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers
42346	Ophthalmic Goods Merchant Wholesalers
42382	Farm and Garden Machinery and Equipment Merchant Wholesalers
42421	Drugs and Druggists' Sundries Merchant Wholesalers
42443	Dairy Product (except Dried or Canned) Merchant Wholesalers
42444	Poultry and Poultry Product Merchant Wholesalers
42445	Confectionery Merchant Wholesalers
42446	Fish and Seafood Merchant Wholesalers
42447	Meat and Meat Product Merchant Wholesalers
42448	Fresh Fruit and Vegetable Merchant Wholesalers
42449	Other Grocery and Related Products Merchant Wholesalers
42451	Grain and Field Bean Merchant Wholesalers
42452	Livestock Merchant Wholesalers
42459	Other Farm Product Raw Material Merchant Wholesalers
42481	Beer and Ale Merchant Wholesalers
42482	Wine and Distilled Alcoholic Beverage Merchant Wholesalers
42491	Farm Supplies Merchant Wholesalers

49313	Farm Product Warehousing and Storage
54133	Engineering Services
54138	Testing Laboratories
54162	Environmental Consulting Services
54171	Research and Development in the Physical, Engineering, and Life Sciences
54194	Veterinary Services
54199	All Other Professional, Scientific, and Technical Services
62151	Medical and Diagnostic Laboratories

Agriculture & Biosciences Occupations

11-1021	General and Operations Managers
11-9013	Farmers, Ranchers, and Other Agricultural Managers
13-1199	Business Operations Specialists, All Other
15-1151	Computer User Support Specialists
15-1199	Computer Occupations, All Other
17-3023	Electrical and Electronics Engineering Technicians
19-4011	Agricultural and Food Science Technicians
31-9094	Medical Transcriptionists
37-3011	Landscaping and Groundskeeping Workers
39-2011	Animal Trainers
39-2021	Nonfarm Animal Caretakers
41-1012	First-Line Supervisors of Non-Retail Sales Workers
41-2021	Counter and Rental Clerks
41-3099	Sales Representatives, Services, All Other
43-2011	Switchboard Operators, Including Answering Service
43-3031	Bookkeeping, Accounting, and Auditing Clerks
43-4051	Customer Service Representatives
43-5071	Shipping, Receiving, and Traffic Clerks
43-5081	Stock Clerks and Order Fillers
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive

43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service
43-9061	Office Clerks, General
43-9071	Office Machine Operators, Except Computer
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers
45-2021	Animal Breeders
45-2041	Graders and Sorters, Agricultural Products
45-2091	Agricultural Equipment Operators
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairs
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment
49-9069	Precision Instrument and Equipment Repairers, All Other
49-9071	Maintenance and Repair Workers, General
49-9099	Installation, Maintenance, and Repair Workers, All Other
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers
53-3032	Heavy and Tractor-Trailer Truck Drivers
53-7062	Laborers and Freight, Stock, and Material Movers, Hand
53-7064	Packers and Packagers, Hand

Information & Financial Services Industries

33411	Computer and Peripheral Equipment Manufacturing
51121	Software Publishers
51731	Wired and Wireless Telecommunications Carriers
51741	Satellite Telecommunications
51791	Other Telecommunications
51821	Data Processing, Hosting, and Related Services
51913	Internet Publishing and Broadcasting and Web Search Portals
51919	All Other Information Services
52111	Monetary Authorities-Central Bank

52211	Commercial Banking
52212	Savings Institutions
52213	Credit Unions
52219	Other Depository Credit Intermediation
52221	Credit Card Issuing
52222	Sales Financing
52229	Other Nondepository Credit Intermediation
52231	Mortgage and Nonmortgage Loan Brokers
52232	Financial Transactions Processing, Reserve, and Clearinghouse Activities
52239	Other Activities Related to Credit Intermediation
52311	Investment Banking and Securities Dealing
52312	Securities Brokerage
52313	Commodity Contracts Dealing
52314	Commodity Contracts Brokerage
52321	Securities and Commodity Exchanges
52391	Miscellaneous Intermediation
52392	Portfolio Management
52393	Investment Advice
52399	All Other Financial Investment Activities
52411	Direct Life, Health, and Medical Insurance Carriers
52412	Direct Insurance (except Life, Health, and Medical) Carriers
52413	Reinsurance Carriers
52429	Other Insurance Related Activities
52511	Pension Funds
52512	Health and Welfare Funds
52519	Other Insurance Funds
52591	Open-End Investment Funds
52592	Trusts, Estates, and Agency Accounts
52599	Other Financial Vehicles
54121	Accounting, Tax Preparation, Bookkeeping, and Payroll Services

54151 Computer Systems Design and Related Services

55111 Management of Companies and Enterprises

Information & Financial Services Occupations

11-1021 General and Operations Managers

13-1031 Claims Adjusters, Examiners, and Investigators

13-1111 Management Analysts

13-1161 Market Research Analysts and Marketing Specialists

13-1199 Business Operations Specialists, All Other

13-2011 Accountants and Auditors

13-2041 Credit Analysts

13-2051 Financial Analysts

13-2052 Personal Financial Advisors

13-2053 Insurance Underwriters

13-2061 Financial Examiners

13-2072 Loan Officers

13-2099 Financial Specialists, All Other

15-1121 Computer Systems Analysts

15-1132 Software Developers, Applications

41-3021 Insurance Sales Agents

41-3031 Securities, Commodities, and Financial Services Sales Agents

43-3011 Bill and Account Collectors

43-3071 Tellers

43-4011 Brokerage Clerks

43-4051 Customer Service Representatives

43-4131 Loan Interviewers and Clerks

43-4141 New Accounts Clerks

43-6011 Executive Secretaries and Executive Administrative Assistants

43-6014 Secretaries and Administrative Assistants, Except Legal, Medical, and Executive

43-9041 Insurance Claims and Policy Processing Clerks

43-9061 Office Clerks, General

Transportation & Distribution Industries

32621 Tire Manufacturing

33361 Engine, Turbine, and Power Transmission Equipment Manufacturing

33451 Navigational, Measuring, Electromedical, and Control Instruments Manufacturing

33611 Automobile and Light Duty Motor Vehicle Manufacturing

33612 Heavy Duty Truck Manufacturing

33621 Motor Vehicle Body and Trailer Manufacturing

33631 Motor Vehicle Gasoline Engine and Engine Parts Manufacturing

33632 Motor Vehicle Electrical and Electronic Equipment Manufacturing

33633 Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing

33634 Motor Vehicle Brake System Manufacturing

33635 Motor Vehicle Transmission and Power Train Parts Manufacturing

33636 Motor Vehicle Seating and Interior Trim Manufacturing

33637 Motor Vehicle Metal Stamping

33639 Other Motor Vehicle Parts Manufacturing

33651 Railroad Rolling Stock Manufacturing

33661 Ship and Boat Building

33699 Other Transportation Equipment Manufacturing

42311 Automobile and Other Motor Vehicle Merchant Wholesalers

42312 Motor Vehicle Supplies and New Parts Merchant Wholesalers

42313 Tire and Tube Merchant Wholesalers

42314 Motor Vehicle Parts (Used) Merchant Wholesalers

42321 Furniture Merchant Wholesalers

42322 Home Furnishing Merchant Wholesalers

42331 Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers

42332 Brick, Stone, and Related Construction Material Merchant Wholesalers

42333 Roofing, Siding, and Insulation Material Merchant Wholesalers

42339 Other Construction Material Merchant Wholesalers

42341	Photographic Equipment and Supplies Merchant Wholesalers
42342	Office Equipment Merchant Wholesalers
42343	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers
42344	Other Commercial Equipment Merchant Wholesalers
42345	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers
42346	Ophthalmic Goods Merchant Wholesalers
42349	Other Professional Equipment and Supplies Merchant Wholesalers
42351	Metal Service Centers and Other Metal Merchant Wholesalers
42352	Coal and Other Mineral and Ore Merchant Wholesalers
42361	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers
42362	Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers
42369	Other Electronic Parts and Equipment Merchant Wholesalers
42371	Hardware Merchant Wholesalers
42372	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers
42373	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers
42374	Refrigeration Equipment and Supplies Merchant Wholesalers
42381	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers
42382	Farm and Garden Machinery and Equipment Merchant Wholesalers
42383	Industrial Machinery and Equipment Merchant Wholesalers
42384	Industrial Supplies Merchant Wholesalers
42385	Service Establishment Equipment and Supplies Merchant Wholesalers
42386	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers
42391	Sporting and Recreational Goods and Supplies Merchant Wholesalers
42392	Toy and Hobby Goods and Supplies Merchant Wholesalers
42393	Recyclable Material Merchant Wholesalers
42394	Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers

42399	Other Miscellaneous Durable Goods Merchant Wholesalers
42411	Printing and Writing Paper Merchant Wholesalers
42412	Stationery and Office Supplies Merchant Wholesalers
42413	Industrial and Personal Service Paper Merchant Wholesalers
42421	Drugs and Druggists' Sundries Merchant Wholesalers
42431	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers
42432	Men's and Boys' Clothing and Furnishings Merchant Wholesalers
42433	Women's, Children's, and Infants' Clothing and Accessories Merchant Wholesalers
42434	Footwear Merchant Wholesalers
42441	General Line Grocery Merchant Wholesalers
42442	Packaged Frozen Food Merchant Wholesalers
42443	Dairy Product (except Dried or Canned) Merchant Wholesalers
42444	Poultry and Poultry Product Merchant Wholesalers
42445	Confectionery Merchant Wholesalers
42446	Fish and Seafood Merchant Wholesalers
42447	Meat and Meat Product Merchant Wholesalers
42448	Fresh Fruit and Vegetable Merchant Wholesalers
42449	Other Grocery and Related Products Merchant Wholesalers
42451	Grain and Field Bean Merchant Wholesalers
42452	Livestock Merchant Wholesalers
42459	Other Farm Product Raw Material Merchant Wholesalers
42461	Plastics Materials and Basic Forms and Shapes Merchant Wholesalers
42469	Other Chemical and Allied Products Merchant Wholesalers
42471	Petroleum Bulk Stations and Terminals
42472	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)
42481	Beer and Ale Merchant Wholesalers
42482	Wine and Distilled Alcoholic Beverage Merchant Wholesalers
42491	Farm Supplies Merchant Wholesalers
42492	Book, Periodical, and Newspaper Merchant Wholesalers

42493	Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers
42494	Tobacco and Tobacco Product Merchant Wholesalers
42495	Paint, Varnish, and Supplies Merchant Wholesalers
42499	Other Miscellaneous Nondurable Goods Merchant Wholesalers
42511	Business to Business Electronic Markets
42512	Wholesale Trade Agents and Brokers
48111	Scheduled Air Transportation
48121	Nonscheduled Air Transportation
48211	Rail Transportation
48321	Inland Water Transportation
48411	General Freight Trucking, Local
48412	General Freight Trucking, Long-Distance
48422	Specialized Freight (except Used Goods) Trucking, Local
48423	Specialized Freight (except Used Goods) Trucking, Long-Distance
48611	Pipeline Transportation of Crude Oil
48621	Pipeline Transportation of Natural Gas
48691	Pipeline Transportation of Refined Petroleum Products
48699	All Other Pipeline Transportation
48811	Airport Operations
48819	Other Support Activities for Air Transportation
48821	Support Activities for Rail Transportation
48839	Other Support Activities for Water Transportation
48841	Motor Vehicle Towing
48849	Other Support Activities for Road Transportation
48851	Freight Transportation Arrangement
48899	Other Support Activities for Transportation
49311	General Warehousing and Storage
49312	Refrigerated Warehousing and Storage
49313	Farm Product Warehousing and Storage
49319	Other Warehousing and Storage

Transportation & Distribution Occupations

11-1021	General and Operations Managers
11-9199	Managers, All Other
13-1071	Human Resources Specialists
13-1111	Management Analysts
13-1161	Market Research Analysts and Marketing Specialists
13-1199	Business Operations Specialists, All Other
13-2011	Accountants and Auditors
15-1132	Software Developers, Applications
41-3099	Sales Representatives, Services, All Other
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
43-3031	Bookkeeping, Accounting, and Auditing Clerks
43-4051	Customer Service Representatives
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks
43-5011	Cargo and Freight Agents
43-5021	Couriers and Messengers
43-5032	Dispatchers, Except Police, Fire, and Ambulance
43-5071	Shipping, Receiving, and Traffic Clerks
43-5081	Stock Clerks and Order Fillers
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
43-9061	Office Clerks, General
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists
53-1048	First-line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians
53-3021	Bus Drivers, Transit and Intercity
53-3022	Bus Drivers, School or Special Client
53-3032	Heavy and Tractor-Trailer Truck Drivers

- 53-3033 Light Truck or Delivery Services Drivers
- 53-3041 Taxi Drivers and Chauffeurs
- 53-7051 Industrial Truck and Tractor Operators
- 53-7062 Laborers and Freight, Stock, and Material Movers, Hand
- 53-7064 Packers and Packagers, Hand