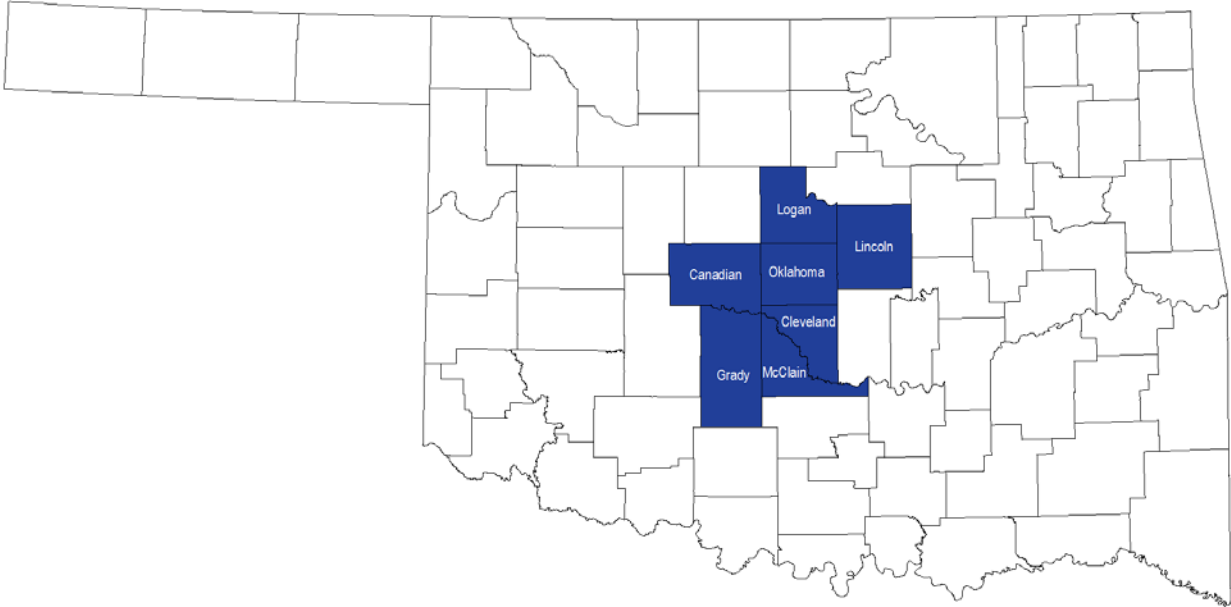


OKLAHOMA CITY METROPOLITAN STATISTICAL AREA



2023 LOCAL BRIEFING

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Table of Contents

Introduction	5
Population	5
Population by County	7
Population by Age.....	7
Population by Race and Ethnicity	9
Education	11
Educational Attainment.....	11
Educational Attainment by Race and Ethnicity	13
Education Mismatch.....	13
Educational Assets.....	14
Labor Force	14
Labor Force Participation by County	15
Median Earnings	15
Commuter Data	15
Top Industries by Total Jobs	16
Key Industry Sectors	16
Key Sector Staffing Patterns	16
Long Term Industry and Occupational Projections.....	16
Summary	17
Appendix	18
Educational Assets.....	18
Key Industries	20
Key Occupations	21
2020-2030 Industry and Occupational Employment Projections	23

Tables

Table 1: Population by County.....	6
Table 2: Projected Population by County.....	6
Table 3: Population by Age.....	7
Table 4: Population by Race and Ethnicity.....	9
Table 5: Educational Attainment.....	11
Table 6: Labor Force Participation Rate by County.....	14
Table 7: Top Industries by Total Jobs.....	16
Table 8: Educational Assets.....	18
Table 9: Industry Location Quotients (LQ).....	20
Table 10: Occupation Location Quotients (LQ).....	21
Table 11: 2020-2030 Industry Employment Projections.....	23
Table 12: 2020-2030 Occupational Employment Projections.....	24

Figures

Figure 1: Population by County	5
Figure 2: Population by Age	7
Figure 3: Population by Race and Ethnicity	8
Figure 4: Educational Attainment	10
Figure 5: Educational Attainment by Race and Ethnicity	11
Figure 6: Educational Attainment Mismatch	12
Figure 7: Labor Force Participation Rate by County	13
Figure 8: Median Earnings by County	14
Figure 9: Local Area Commuter Patterns	15

Introduction

The Oklahoma City Metropolitan Statistical Area (MSA) is comprised of seven Oklahoma counties: Canadian, Cleveland, Grady, Lincoln, Logan, McClain, and Oklahoma. According to the U.S. Census Bureau, this combined centralized region of Oklahoma covers 6,359 square miles and is home to more than 1.4 million residents. It is the largest metropolitan area in the state of Oklahoma and contains the state capital and principal city. The following reviews the population, education, labor force, top industries by total jobs, and staffing patterns of state key industry sectors.

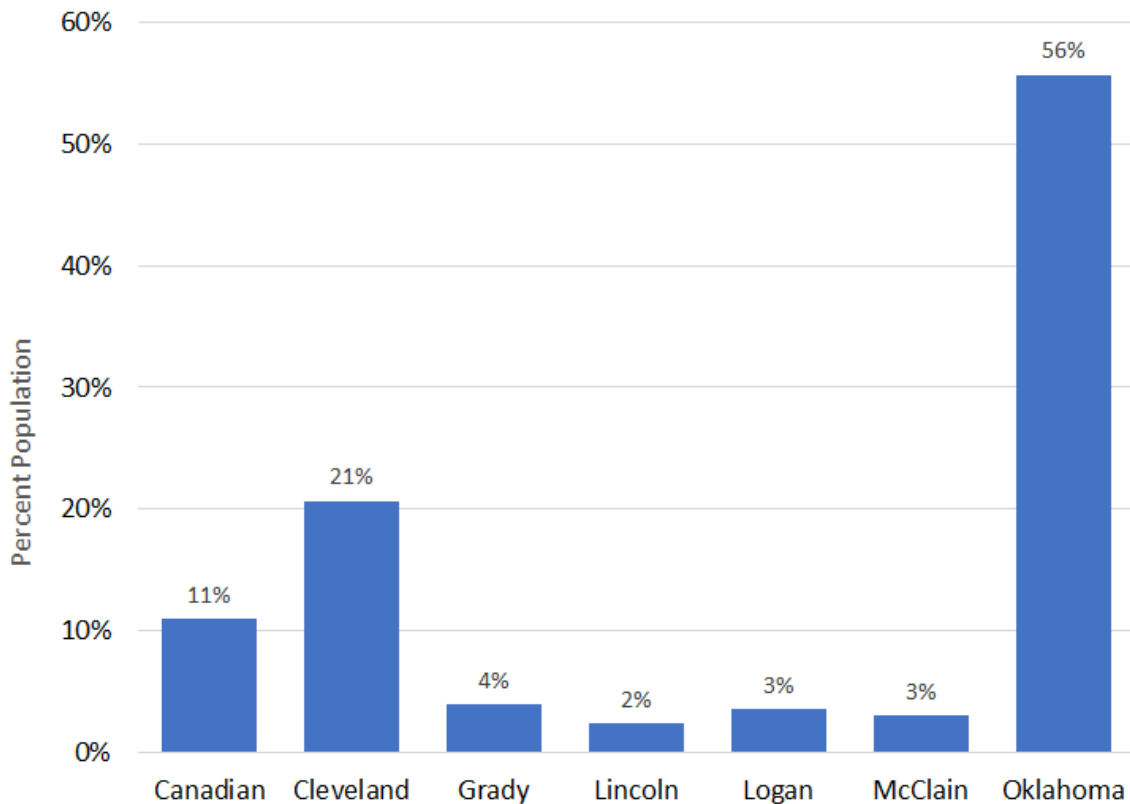
Population

Between 2017 and 2022, the Oklahoma City MSA grew by approximately 5.6 percent, from 1,353,504 to 1,428,923, or around 75,419 additional people. Between 2020 and 2030, the area is expected to grow by an additional 6.2 percent to 1,514,076 people. The following shows population figures and analyses by county, age, race, and ethnicity in the Oklahoma City MSA.

Population by County

Figure 1 shows the Oklahoma City MSA population breakdown by county. Oklahoma County had the largest population, representing 56 percent of the population in the Oklahoma City MSA. Cleveland County had the second largest population at 21 percent. Lincoln County had the smallest population, representing 2 percent of the population in the Oklahoma City MSA.

Figure 1: Population by County



Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates.

Table 1 provides the change in population by county from 2017 to 2022. During this period, all counties grew in population, with the exception of Lincoln County. Canadian County added the most people during this period with an additional 23,759 (17.9 percent) people in 2022. Cleveland County added the second largest number of people at 21,036 (7.7 percent). Grady County added the least number of people at 963 (1.8 percent). Lincoln County was the only county showing a decline in population during this period.

Table 1: Population by County

County	2017 Population	2022 Population	Total Change	Percent Change
Canadian	132,922	156,681	23,759	17.9%
Cleveland	274,024	295,060	21,036	7.7%
Grady	54,351	55,314	963	1.8%
Lincoln	34,759	33,734	-1,025	-2.9%
Logan	45,326	49,919	4,593	10.1%
McClain	37,919	42,393	4,474	11.8%
Oklahoma	774,203	795,822	21,619	2.8%
Total	1,353,504	1,428,923	75,419	5.6%

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates.

Table 2 shows the projected population change from 2020 to 2030 by county. During this period, all but one county in the Oklahoma City MSA is projected to grow in population. Canadian County is projected to have the largest increase in population at 18,576 (12.0 percent) additional people by 2030. Cleveland County is projected to add the second largest number of people at 7,094 (2.4 percent). Population in Grady County is projected to decline, decreasing by 268 people or -0.5 percent.

Table 2: Projected Population by County

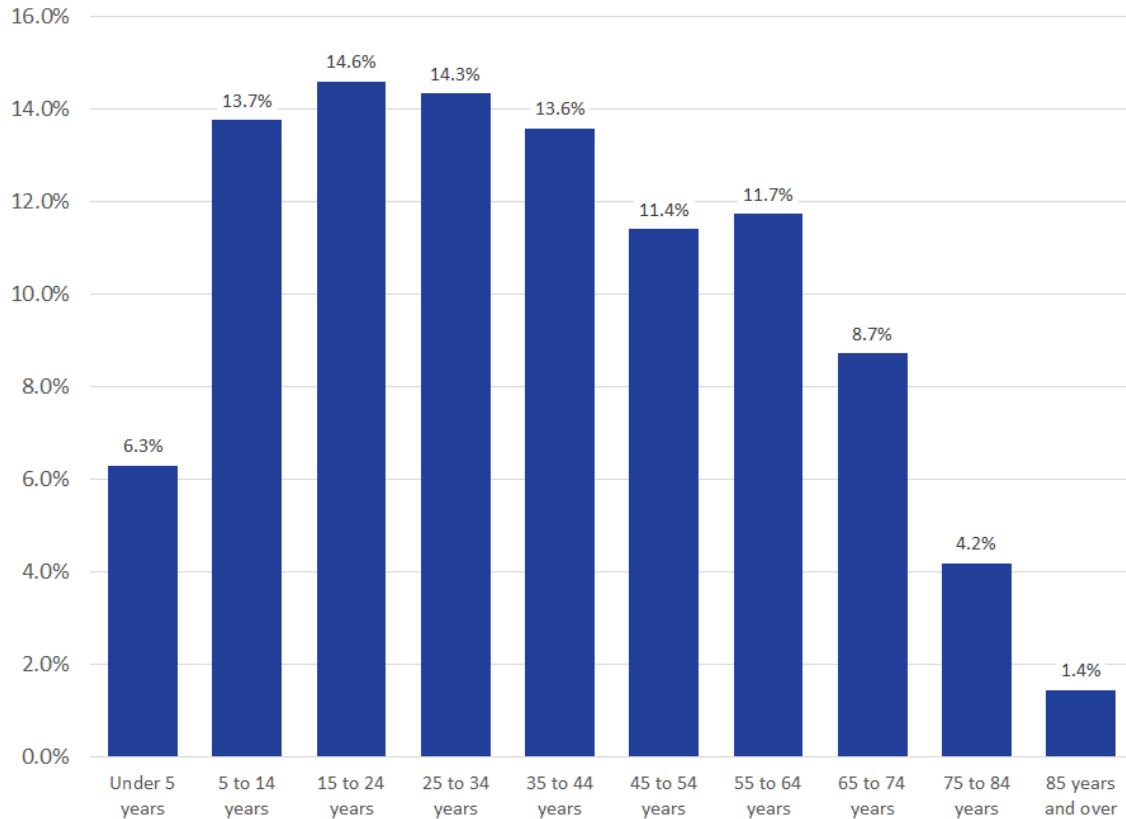
County	2020 Population	2030 Population	Total Change	Percent Change
Canadian	154,405	172,981	18,576	12.0%
Cleveland	295,528	302,622	7,094	2.4%
Grady	54,795	54,527	-268	-0.5%
Lincoln	33,458	34,933	1,475	4.4%
Logan	49,555	51,989	2,434	4.9%
McClain	41,662	42,405	743	1.8%
Oklahoma	796,292	854,619	58,327	7.3%
Total	1,425,695	1,514,076	88,381	6.2%

Source: Oklahoma Department of Commerce, Oklahoma Population Projections 2020-2070.

Population by Age

Figure 2 below shows the population by age in Oklahoma City MSA. In 2022, the 15- to 24- and 25- to 34-year old age groups represented the largest age groups in Oklahoma City MSA at 14.6 percent and 14.3 percent respectively. The next largest age groups were the 35- to 44- (13.6 percent) and 5- to 14- (13.7 percent) year old groups. Those aged 85 and over represent the smallest age group in Oklahoma City MSA at 1.4 percent.

Figure 2: Population by Age



U.S. Census Bureau. 2022 American Community Survey, ACS 5-Year Estimates.

Table 3, on the next page, provides the population change by age group from 2017 to 2022. During this period, most age groups grew in population. In particular, age groups 65- to 74 years old and under years old added the most people at 20,967 (20.3 percent). The 35- to 44-year old age group (12.1 percent). The 85 and over age group grew the least at just 411 (2.0 percent) people in the last 5 years. Alternatively, under 5-year-olds experienced the largest decline at 5,479 (-5.7 percent) fewer people.

Table 3: Population by Age

Age	2017 Population	2022 Population	Total Change	Percent Change
Under 5 years	95,506	90,027	-5,479	-5.7%
5 to 14 years	188,540	196,411	7,871	4.2%
15 to 24 years	191,307	208,425	17,118	8.9%
25 to 34 years	204,111	204,738	627	0.3%
35 to 44 years	172,992	193,888	20,896	12.1%
45 to 54 years	165,552	162,787	-2,765	-1.7%
55 to 64 years	160,768	167,560	6,792	4.2%
65 to 74 years	103,496	124,463	20,967	20.3%
75 to 84 years	50,931	59,912	8,981	17.6%
85 years and over	20,301	20,712	411	2.0%
Total	1,353,504	1,428,923	75,419	5.6%

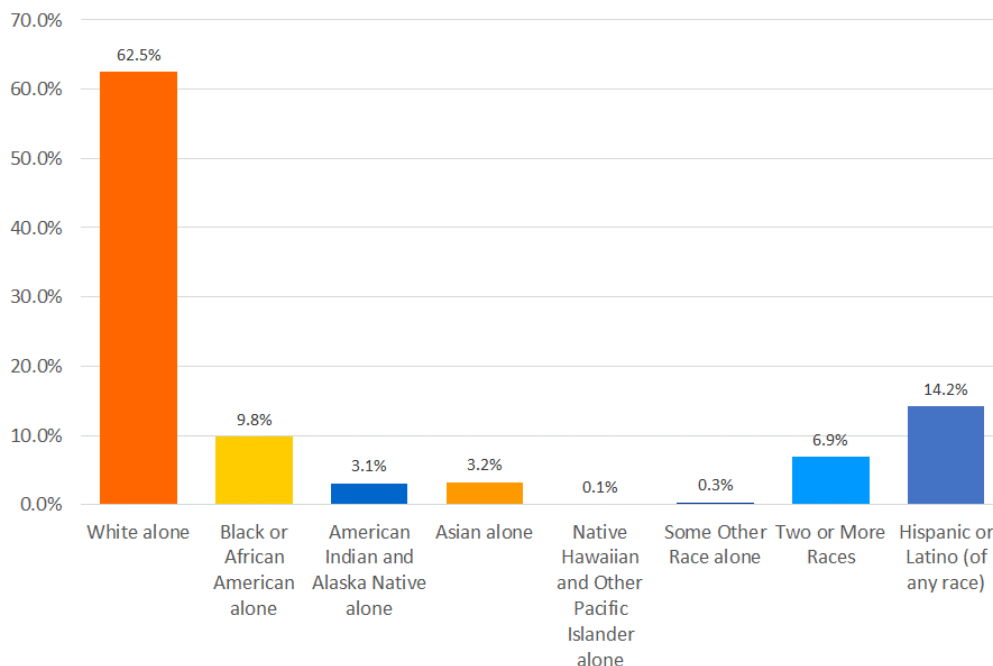
U.S. Census Bureau. American Community Survey, ACS 5-Year Estimates

Population by Race and Ethnicity

The following analyses uses the racial and ethnicity categories designated by the U.S. Census Bureau which categorizes “Hispanic Origin” as an ethnicity rather than a race. People who identify as Hispanic, Latino, or Spanish may be any 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 3 summarizes the Oklahoma City MSA population by race and ethnicity in 2022. White made up the largest percentage of the population at 59.3 percent. Those of Hispanic Ethnicity with Any Race were the second largest percentage of the population at 14.2 percent. Native Hawaiians or Pacific Islanders were the smallest percentage of the population at 0.1 percent.

Figure 3: Population by Race and Ethnicity



SOURCE: U.S. Census Bureau, American Community Survey, 5-Year Estimates.

Table 4 provides the population change by demographic group from 2017 to 2022. During this period, most demographic groups grew in population. Two or More Races and Hispanic Ethnicity with Any Race added the most population during this period at 29,634 (17.1 percent) additional people in 2022, respectively. Alternatively, Native Hawaiian or Pacific Islanders added the least in total population during this period at 29 (3.7 percent) additional people. Some Other Race had the largest percent gain over the past five years more than doubling.

Table 4: Population by Race and Ethnicity

Demographic	2017 Population	2022 Population	Total Change	Percent Change
White	881,097	892,406	11,309	1.3%
Black or African American	136,353	139,676	3,323	2.4%
American Indian and Alaska Native	42,300	43,646	1,346	3.2%
Asian	42,037	45,866	3,829	9.1%
Native Hawaiian and Other Pacific Islander	789	818	29	3.7%
Some Other Race	1,722	4,899	3,177	184.5%
Two or More Races	76,046	98,818	22,772	29.9%
Hispanic Ethnicity with Any Race	173,160	202,794	29,634	17.1%
Total	1,353,504	1,428,923	75,419	5.6%

SOURCE: U.S. Census Bureau. American Community Survey, ACS 5-Year Estimates.

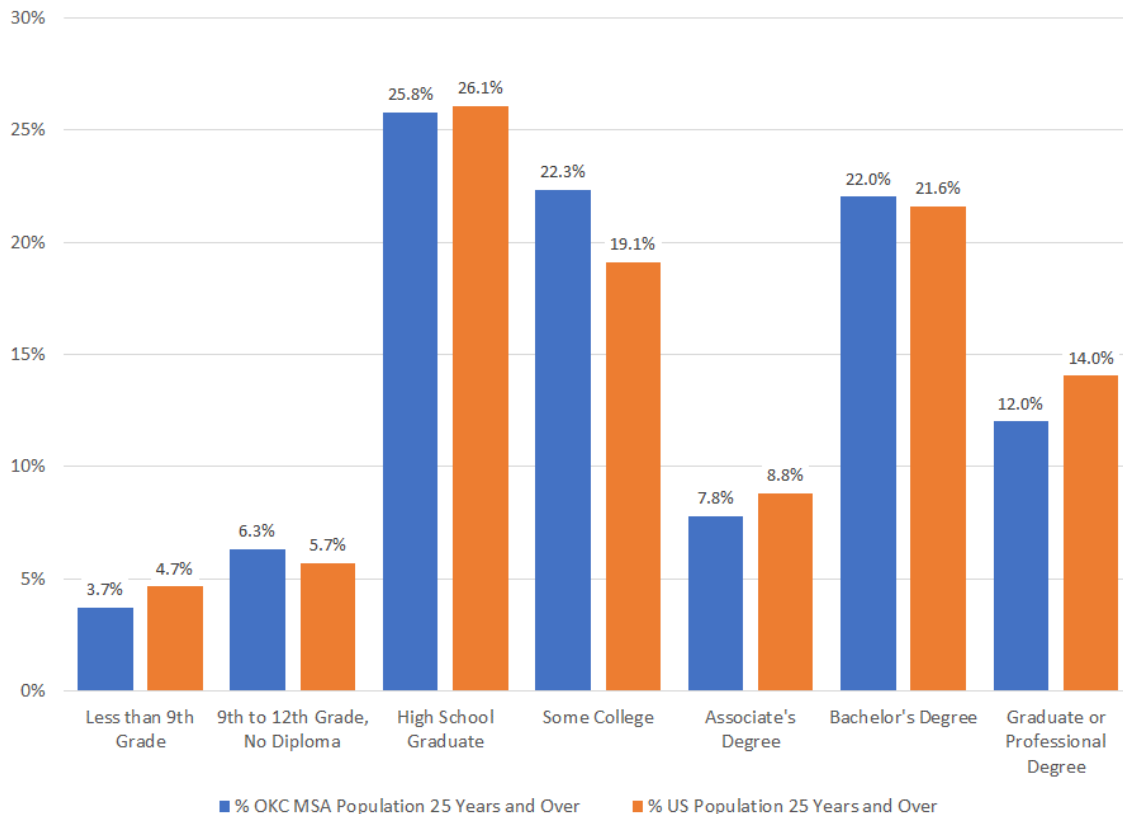
Education

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 education and skills to be competitive in today’s economy. The following section reviews Oklahoma’s educational attainment and provides an educational attainment mismatch analysis, and details the State’s educational assets.

Educational Attainment

Figure 4 compares Oklahoma City MSA’s educational attainment levels with the United States educational attainment levels in 2022. In Oklahoma City MSA, High School Graduates made up the largest share of the population at 26.1 percent. This was 4.5 percentage points higher than the U.S. average of 26.1 percent. The second largest share of the population was Some College at 22.1 percent. Those with less than 9th grade educational attainment represented the smallest group at 3.5 percent, 1.2 percentage point below the national average.

Figure 4: Educational Attainment



SOURCE: U.S. Census Bureau. 2022 American Community Survey, ACS 5-Year Estimates.

Table 5 provides the change in educational attainment levels in Oklahoma City MSA from 2017 to 2022. By 2022, more people achieved higher levels of education than in 2017, while fewer people had below high school graduate. In particular, those with a Bachelor’s Degree grew the most during this period adding 27,081 more people. Those with a Graduate or Professional Degree were next with an additional 19,436 people by 2022. Alternatively, only a combined 664 more people had an education below the High School Diploma level by 2022.

Table 5: Educational Attainment

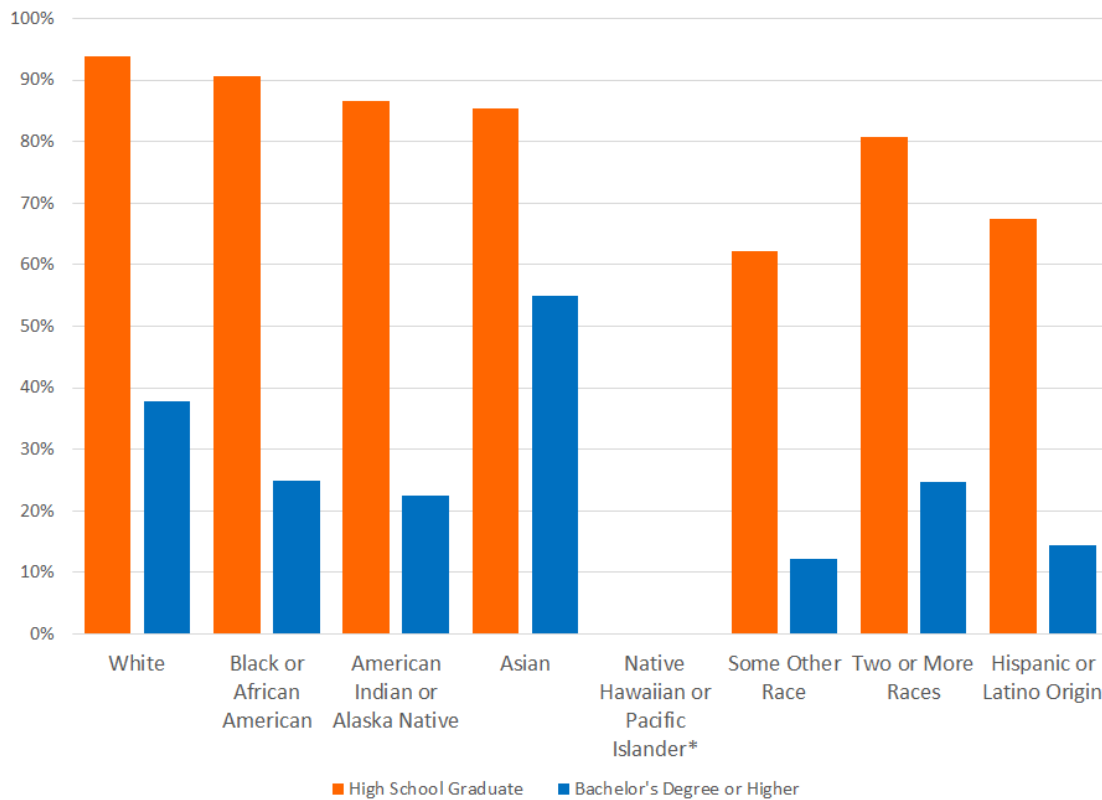
Educational Attainment	2017 Population	2022 Population	Total Change	Percent Change
Less than 9th Grade	35,098	35,428	330	0.9%
9th to 12th Grade, No Diploma	60,078	60,412	334	0.6%
High School Graduate	245,830	246,553	723	0.3%
Some College	210,930	213,694	2,764	1.3%
Associate's Degree	70,420	74,778	4,358	6.2%
Bachelor's Degree	183,576	210,657	27,081	14.8%
Graduate or Professional Degree	95,405	114,841	19,436	20.4%
Total	901,337	956,363	55,026	6.1%

SOURCE: U.S. Census Bureau. American Community Survey, ACS 5-Year Estimates.

Educational Attainment by Race and Ethnicity

Figure 5 shows Oklahoma City MSA’s education attainment levels by race and ethnicity in 2022. Across almost all racial and ethnic groups, High School Graduate represented the largest percentage of the respective population groups. White and Black or African American had the largest population percentage at the High School Graduate level at over 90 percent. Asian Americans had the largest population percentage at the Bachelor’s Degree or Higher level at 54.9 percent.

Figure 5: Educational Attainment by Race and Ethnicity



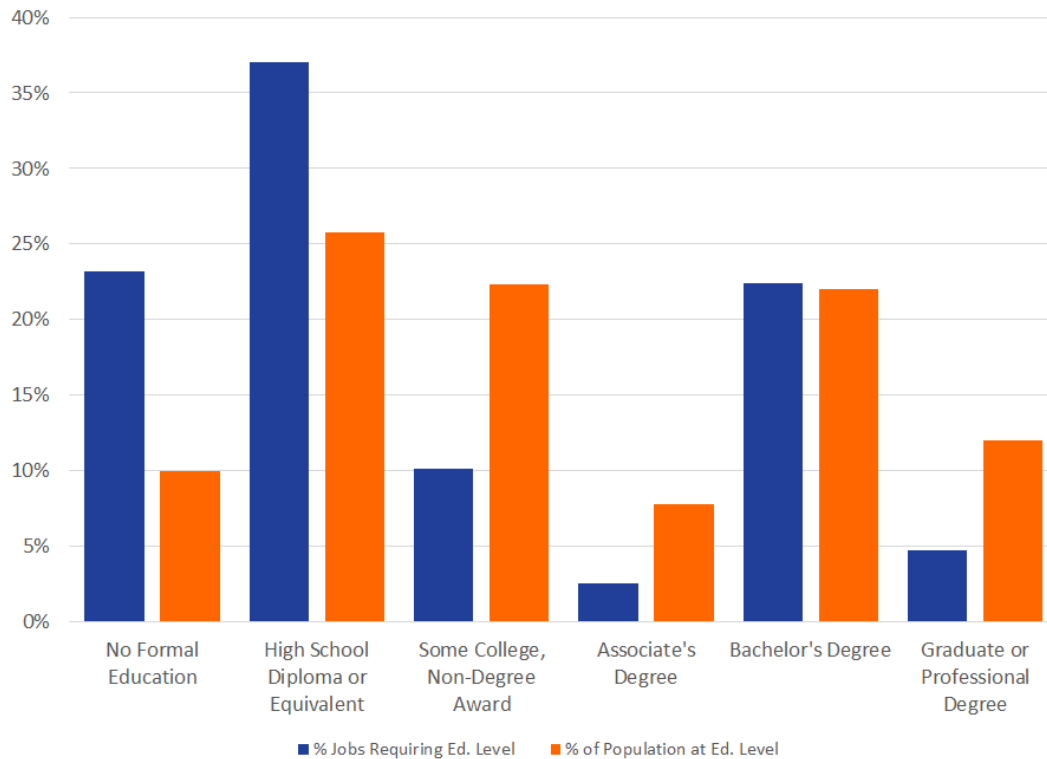
*The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area.

SOURCE: U.S. Census Bureau. 2022 American Community Survey, ACS 1-Year Estimates.

Educational Attainment Mismatch

Figure 6 below shows an educational attainment mismatch analysis for Oklahoma City MSA.¹ This compares the typical education required for jobs to the educational attainment of the population in 2022. In 2022, approximately 23.2 percent of jobs in Oklahoma City MSA required no formal education while just 10 percent of the population have an education at this level. This suggests that many of these jobs may be filled by those with an education level beyond what is required. At the High School Diploma level, 37 percent of jobs in Oklahoma City MSA require this level of education while 25.8 percent of the population have this level of education. The percent of population with Some College, Non-Degree Award was 22.3 percent, while just 10.1 percent of jobs required these levels of education, suggesting underemployment. At the Bachelor’s Degree level, 22 percent of the population hold the degree while 22.4 percent of jobs require it. For those with a Graduate Degree or Higher, 12 percent of the population is prepared for 4.7 percent of the jobs in the market.

Figure 6: Educational Attainment Mismatch



Educational Assets

Oklahoma City MSA has 29 distinct post-secondary educational institutions, ranging from universities, technical colleges, community colleges, and specialty training schools. These institutions are important educational and professional assets as they help connect students of all backgrounds and circumstances with resources, degrees, certifications, and higher knowledge. Table 8 in the Appendix details accredited institutions and their programs of study.

¹ The educational attainment mismatch analysis, formerly known as skills gaps analysis, is attained by comparing the working age (25 years and older) population’s educational attainment and typical entry level education for the total number of jobs. The analysis does not account for individuals’ actual educational attainment and their current employment. The analysis compares American Community Survey data from the Census Bureau with occupation data from OESC’s Economic Research and Analysis Division and Bureau of Labor Statistics.

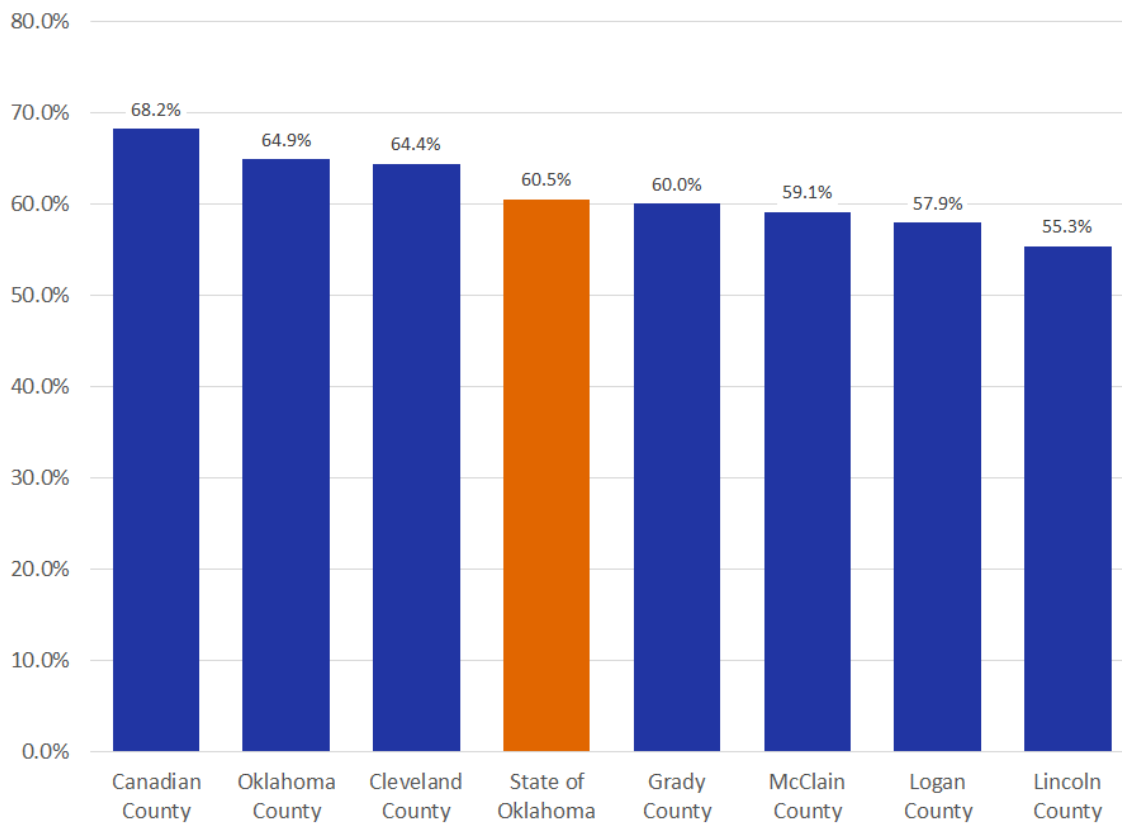
Labor Force

The labor force may be considered one of the foremost assets of a particular region, providing key goods and services, collaborating across industries, and participating in economic and skills development. The following section reviews labor force participation rates broken down by county, median earnings, as well as commuter data detailing inflow, outflow, and circulation in the Oklahoma City MSA.

Labor Force Participation by County

Figure 7 shows the Oklahoma City MSA labor force participation rate by county. In 2022, three of seven counties in the Oklahoma City MSA exceeded the statewide average labor force participation rate of 60.5 percent. The highest percentage is in Canadian County at 68.2 percent. The second highest is in Oklahoma County at 64.9 percent. The third highest is in Cleveland County at 64.4 percent. The lowest labor force participation rate was in Lincoln County at 55.3 percent.

Figure 7: Labor Force Participation by County, 2022



Source: American Community Survey (ACS) 2022 5-Year Estimates

Table 6 below shows the labor force participation rate by Oklahoma City MSA county from 2021 to 2022. During this period, five of Oklahoma City MSA’s county labor force participation rates decreased. This follows the general decline of the state’s rate at -0.3 percent since 2021. Lincoln County’s labor force participation rate grew during this period at an additional 0.7 percentage point. Logan County’s rate decreased by the most at -1.9 percentage points.

Table 6: Labor Force Participation by County

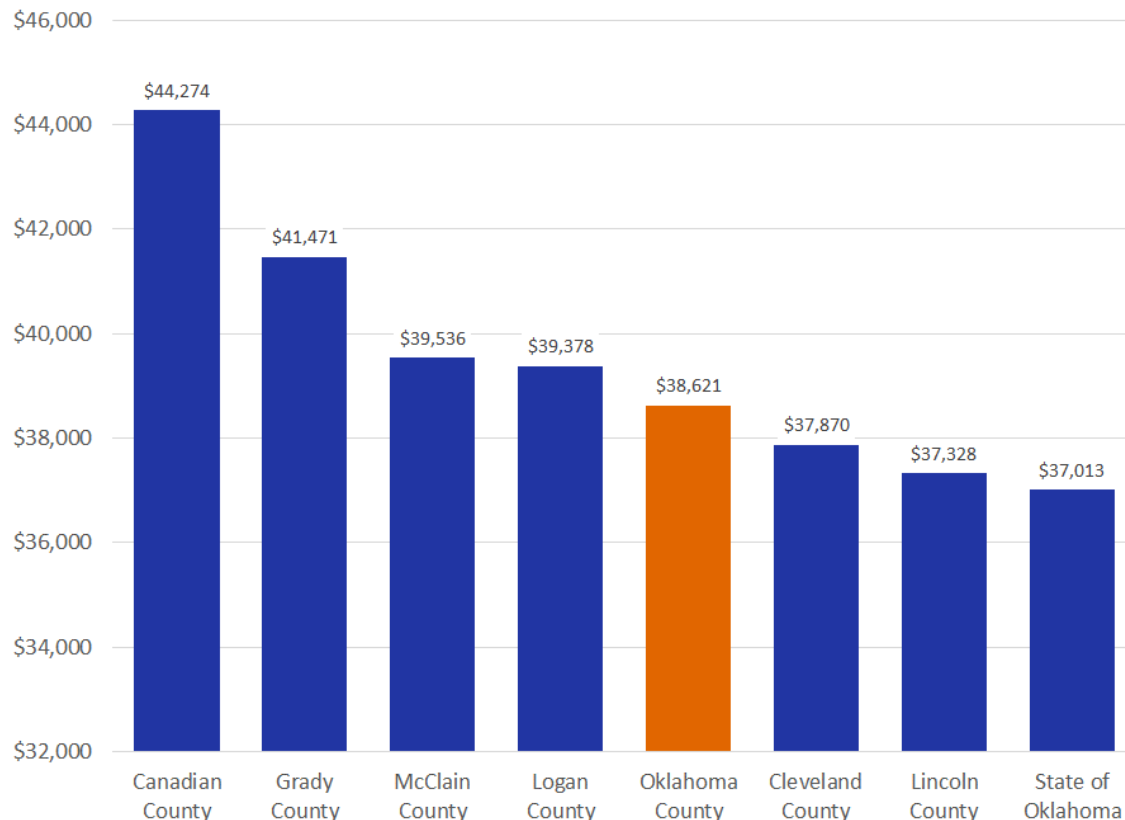
Area	LFPR 2021	LFPR 2022	Total Change
State of Oklahoma	60.8%	60.5%	-0.3%
Canadian County	68.9%	68.2%	-0.7%
Cleveland County	65.0%	64.4%	-0.6%
Grady County	59.8%	60.0%	0.2%
Lincoln County	54.7%	55.3%	0.7%
Logan County	59.7%	57.9%	-1.9%
McClain County	58.9%	59.1%	0.2%
Oklahoma County	65.2%	64.9%	-0.4%

Source: U.S. Census Bureau. American Community Survey (ACS), 5-Year Estimates.

Median Earnings

Figure 8 provides the median earnings of those that are over the age of 16 in each of Oklahoma City MSA’s counties and the State of Oklahoma for 2022. The highest earnings were found in Canadian County at \$44,274. The second highest median earnings was Grady County at \$41,471, followed by McClain County at \$39,536. The lowest median earnings were in Lincoln County at \$37,328. Overall, all of Oklahoma City MSA’s counties boasted median earnings beyond those found at the state level.

Figure 8: Median Earnings by County, 2022

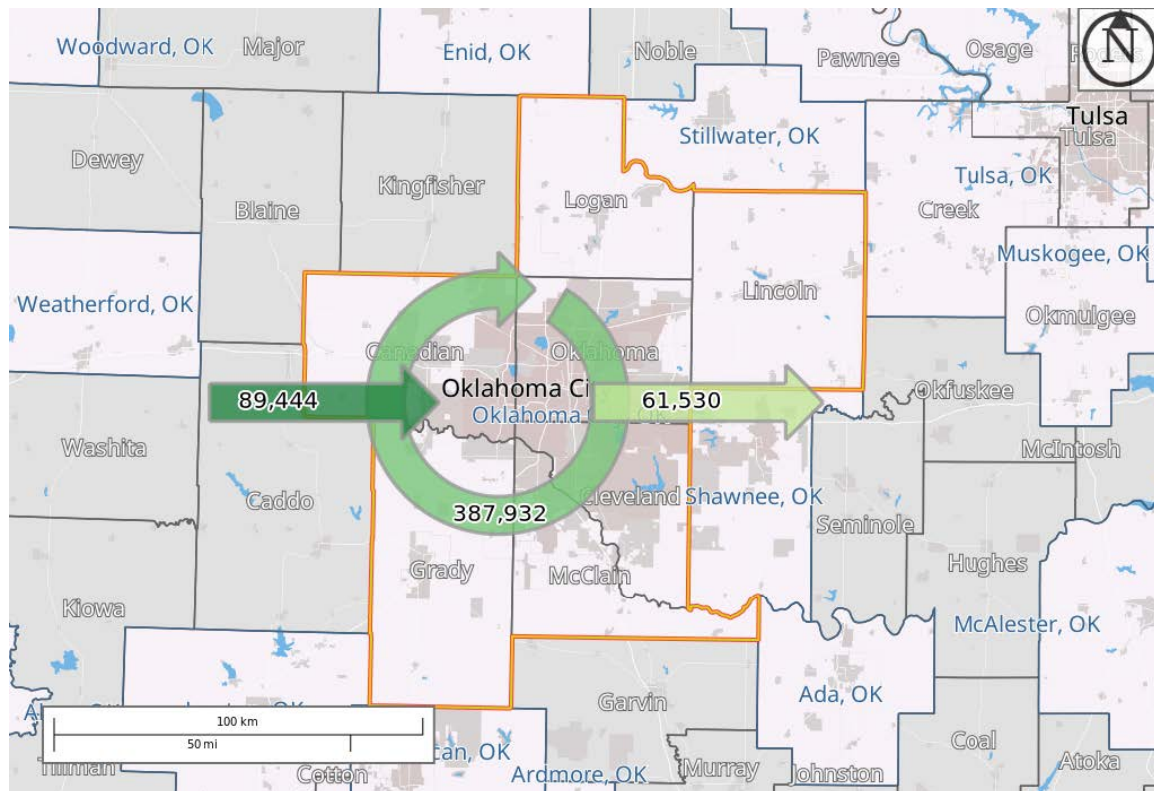


Source: U.S. Census Bureau. American Community Survey (ACS), 5-Year Estimates.

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 2021, 89,444 (18.7 percent) worked in the Oklahoma City MSA and did not live there, 387,932 lived and worked in the Oklahoma City MSA, and 61,530 (13.7 percent) lived in Oklahoma City MSA and worked outside the area. See Figure 9 below.

Figure 9: Commuter Patterns



Source: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program (LEHD), 2021, <https://onthemap.ces.census.gov>.

Top Industries 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.

Table 7 below shows the top ten industries in the Oklahoma City MSA by the total number of jobs in 2022. There was an estimated 635,628 number of total jobs in the Oklahoma City MSA in 2022. The largest sector was Government with 114,216 jobs. The second largest sector was Health Care and Social Assistance with 82,040 jobs. The tenth largest sector was Finance and Insurance with 23,272 jobs. Together, these industries made up 84.4 percent of the total jobs in the area.

Table 7: Top Industries by Total Jobs

NAICS Code	Industry Description	2022 Jobs	Percentage of Total Employment
90	Government	114,216	18.0%
62	Health Care and Social Assistance*	82,040	12.9%
44-45	Retail trade	70,005	11.0%
72	Accommodation and Food Services	66,730	10.5%
56	Administrative and Support and Waste Management	42,306	6.7%
54	Professional, Scientific, and Technical Services	38,914	6.1%
31-33	Manufacturing	34,880	5.5%
23	Construction	32,489	5.1%
48-49	Transportation and Warehousing*	29,975	4.7%
52	Finance and insurance	24,878	3.9%

**Data for at least one county in the region does not meet BLS disclosure requirements and is not included in the statistics listed above.*

SOURCE: Quarterly Census of Employment and Wages (QCEW), Bureau of Labor Statistics.

Key Sectors

This section will provide both data and analysis of key industries and occupations in Oklahoma using official labor market statistics from the Oklahoma Employment Security Commission (OESC), the U.S. Bureau of Labor Statistics (BLS), and the Census Bureau.

It is well understood that some industries are more heavily concentrated in some geographic areas than in others as individual firms have realized advantages in being close to competitors, customers, supply chain sources, etc. Knowing this policy makers can profit by understanding the long-standing (and perhaps even the emerging) economic geography of their state and sub-state regions. Using location quotients, we can identify those industries and occupation that already exist and are thriving within our state.

Utilizing 4-digit NAICS codes we have identified industries with at least 500 employees within the private and federal government sectors that have an employment concentration that is at least twice that of the nation. Table 9 in the Appendix outlines the top 4-digit NAICS industries in Oklahoma based on location quotients.

Key Occupations

Table 10 in the Appendix shows similar employment concentration data but from an occupational perspective. Here we are illustrating occupations that have LQs of at least 3.0 and at least 100 employees.

Long Term Industry and Occupational Employment Projections

Next, we transition to looking at the industry and occupational projections produced by the OESC's Economic Research & Analysis division in partnership with the U.S. Department of Labor, (see Tables 11 and 12 in the Appendix). These data products are produced every-other year in

accordance with national standards. They provide labor market participants with an informed guide of how current trends may play out over the next decade.

Summary

This local briefing reviewed Oklahoma City MSA's population, educational attainment and assets, labor force information, top industry data, and target and complementary sectors. The Oklahoma City MSA is one of five Metropolitan Statistical Areas (MSAs) in Oklahoma. The Oklahoma Employment Security Commission prepares briefings for each of the Metropolitan and four Nonmetropolitan Areas, including a state-level briefing.

Table 8: Educational Assets

Institution Name	Institution Type	City	County	Area	Degree Types
Langston University	Public	Langston	Logan	OKC MSA	Associate, Bachelor, Master, Ph.D.
Langston University	Public	Oklahoma City	Oklahoma	OKC MSA	Associate, Bachelor, Master, Ph.D.
Oklahoma City Community College	Public	Oklahoma City	Oklahoma	OKC MSA	Associate, Certificate
Oklahoma State University	Public	Oklahoma City	Oklahoma	OKC MSA	Bachelor, Master, Ph.D.
Oklahoma State University Oklahoma City	Public	Oklahoma City	Oklahoma	OKC MSA	Associate, Certificate
Redlands Community College	Public	El Reno	Canadian	OKC MSA	Associate
Rose State College	Public	Midwest City	Oklahoma	OKC MSA	Associate
University of Central Oklahoma	Public	Edmond	Oklahoma	OKC MSA	Bachelor, Master, Ph.D., Graduate
University of Oklahoma	Public	Norman	Cleveland	OKC MSA	Bachelor, Master, Ph.D., Graduate Certificate
University of Oklahoma Health Sciences Center	Public	Oklahoma City	Oklahoma	OKC MSA	Residency
University of Science and Arts of Oklahoma	Public	Chickasha	Grady	OKC MSA	Bachelor
Central Oklahoma College	For Profit	Oklahoma City	Oklahoma	OKC MSA	Certificate
Mid-America Christian University	Private Non-Profit	Oklahoma City	Oklahoma	OKC MSA	Associate, Bachelor, Master, Certificate

Table 10: Educational Assets (continued)

Institution Name	Institution Type	City	County	Area	Degree Types
Oklahoma Christian University	Private Non-Profit	Oklahoma City	Oklahoma	OKC MSA	Bachelor, Master, Certificate
Oklahoma City University	Private Non-Profit	Oklahoma City	Oklahoma	OKC MSA	Bachelor, Master, Ph.D., JD
Platt College	Private For Profit	Oklahoma City	Oklahoma	OKC MSA	Certificates
Randall University	Private Non-Profit	Moore	Cleveland	OKC MSA	Associate, Bachelor, Master
Southern Nazarene University	Private Non-Profit	Bethany	Oklahoma	OKC MSA	Bachelor, Master, Ph.D.
Southwestern Christian University	Private Non-Profit	Bethany	Oklahoma	OKC MSA	Bachelor, Master
University of Phoenix	Private For Profit	Oklahoma City	Oklahoma	OKC MSA	Bachelor, Master
Canadian Valley Technology Center	Technical School	Yukon	Canadian	OKC MSA	Certificate
Canadian Valley Technology Center	Technical School	Chickasha	Grady	OKC MSA	Certificate
Canadian Valley Technology Center	Technical School	El Reno	Canadian	OKC MSA	Certificate
Eastern Oklahoma County Technology Center	Technical School	Choctaw	Oklahoma	OKC MSA	Certificate
Francis Tuttle Technology Center	Technical School	3 Campuses in Oklahoma City	Oklahoma	OKC MSA	Certificate
Metro Tech Technology Center	Technical School	4 OKC Locations	Oklahoma	OKC MSA	Certificate
Mid-Del Technology Center	Technical School	Midwest City	Oklahoma	OKC MSA	Certificate
Moore Norman Technology Center	Technical School	Norman	Cleveland	OKC MSA	Certificate
Moore Norman Technology Center	Technical School	Oklahoma City	Oklahoma	OKC MSA	Certificate

SOURCE: Oklahoma State Regents of Higher Education, CareerTech.org.

Key Industries

Table 9: Industry Location Quotients (LQ)

NAICS Code	Industry Title	2022 Average Employment	2022 Average Annual Earnings	Employment LQ
Aerospace and Defense Industries				
3329	Other Fabricated Metal Product Manufacturing - Federal Government	1,634	\$67,581	39.24
9281	National Security and International Affairs	21,590	\$79,377	3.38
3364	Aerospace Product and Parts Manufacturing	11,690	\$96,525	2.16
6211	Offices of Physicians - Federal Government	693	\$91,330	2.56
Energy Industries				
4869	Other Pipeline Transportation	1,275	\$156,838	14.47
2111	Oil and Gas Extraction	11,965	\$159,860	9.8
4862	Pipeline Transportation of Natural Gas	2,248	\$118,726	6.58
2131	Support Activities for Mining	16,315	\$84,665	5.75
Agribusiness and Biosciences Industries				
1122	Hog and Pig Farming	1,636	\$49,110	5.21
4245	Farm Product Raw Material Merchant Wholesalers	1,960	\$39,219	2.59
3111	Animal Food Manufacturing	1,851	\$64,187	2.39
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	870	\$114,517	2.14
3116	Animal Slaughtering and Processing	11,834	\$49,125	2.06
Manufacturing Industries				
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	6,429	\$58,148	4.18
3324	Boiler, Tank, and Shipping Container Manufacturing	4,094	\$76,039	4.11
3274	Lime and Gypsum Product Manufacturing	607	\$68,555	3.62
3262	Rubber Product Manufacturing	4,931	\$70,199	3.39
3331	Agriculture, Construction, and Mining Machinery Manufacturing	7,493	\$72,907	3.27
3312	Steel Product Manufacturing from Purchased Steel	1,567	\$73,056	2.58
3221	Pulp, Paper, and Paperboard Mills	2,385	\$80,124	2.49
3352	Household Appliance Manufacturing	1,785	\$47,029	2.37
3271	Clay Product and Refractory Manufacturing	926	\$53,039	2.35

Source: Bureau of Labor Statistics. Quarterly Census of Employment and Wages (QCEW).

Key Occupations

Table 10: Employment Location Quotients (LQ)

SOC Code	Occupational Title	Employment	Annual Average Wage	Employment LQ
33-9031	Gambling Surveillance Officers and Gambling Investigators	1,700	\$31,310	14.94
47-5012	Rotary Drill Operators, Oil and Gas	1,770	\$56,380	13.37
43-3041	Gambling Cage Workers	1,310	\$25,740	10.27
41-2012	Gambling Change Persons and Booth Cashiers	1,870	\$26,400	9.16
47-5032	Explosives Workers, Ordnance Handling Experts, and Blasters	420	\$50,890	8.18
47-5071	Roustabouts, Oil and Gas	3,370	\$44,660	7.94
47-5013	Service Unit Operators, Oil and Gas	2,730	\$56,330	6.92
17-2171	Petroleum Engineers	1,470	\$144,160	6.62
17-2021	Agricultural Engineers	110	\$62,890	6.56
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	2,050	\$83,850	6.01
47-5081	Helpers--Extraction Workers	420	\$50,350	5.6
11-9071	Gambling Managers	270	\$66,670	5.15
49-9043	Maintenance Workers, Machinery	3,500	\$57,840	5.14
49-9081	Wind Turbine Service Technicians	540	\$53,870	5.03
49-3011	Aircraft Mechanics and Service Technicians	6090	\$75,590	4.18
19-4043	Geological Technicians, Except Hydrologic Technicians	400	\$73,300	4.05

Key Occupations

Table 10: Employment Location Quotients (LQ)

SOC Code	Occupational Title	Employment	Annual Average Wage	Employment LQ
47-5011	Derrick Operators, Oil and Gas	470	\$54,200	3.94
53-7073	Wellhead Pumpers	580	\$59,810	3.68
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	1400	\$31,190	3.62
45-2011	Agricultural Inspectors	540	\$42,820	3.56
29-9021	Health Information Technologists and Medical Registrars	1340	\$49,340	3.49
39-1013	First-Line Supervisors of Gambling Services Workers	830	\$44,000	3.49
47-5051	Rock Splitters, Quarry	140	\$30,640	3.3
43-4141	New Accounts Clerks	1,610	\$37,320	3.28
51-8092	Gas Plant Operators	480	\$70,670	3.09

Source: Bureau of Labor Statistics. Occupational Employment and Wage Statistics (OEWS).

Industry and Occupational Employment Projections

Table 11: 2020-2030 Oklahoma City MSA Industry Employment Projections

NAICS Code	Industry	2020 Employment	2030 Employment	Numeric Change	Percent Change
000000	Total All Industries	632,050	702,280	70,230	11.1%
000670	Self Employed and Unpaid Family Workers, All Jobs	34,910	35,220	310	0.9%
110000	Agriculture, Forestry, Fishing and Hunting	1,390	1,080	-310	-22.3%
210000	Mining	11,150	15,520	4,370	39.2%
220000	Utilities	*	*	*	*
230000	Construction	31,550	35,490	3,940	12.5%
310000	Manufacturing	32,070	35,750	3,690	11.5%
420000	Wholesale Trade	*	*	*	*
440000	Retail Trade	65,480	69,760	4,290	6.6%
480000	Transportation and Warehousing	27,310	27,840	530	1.9%
510000	Information	*	*	*	*
520000	Finance and Insurance	23,910	24,740	840	3.5%
530000	Real Estate and Rental and Leasing	8,970	9,190	220	2.5%
540000	Professional, Scientific, and Technical Services	35,080	41,710	6,630	18.9%
550000	Management of Companies and Enterprises	9,650	9,940	300	3.1%
560000	Administrative and Support and Waste Management and Remediation Services	37,850	42,000	4,150	11.0%
610000	Educational Services	*	*	*	*
620000	Health Care and Social Assistance	*	*	*	*
710000	Arts, Entertainment, and Recreation	*	*	*	*
720000	Accommodation and Food Services	*	*	*	*
810000	Other Services (except Government)	*	*	*	*
910000	Total Federal Government Employment	30,060	28,580	-1,480	-4.9%
999200	State Government, Excluding Education and Hospitals	19,190	19,120	-70	-0.4%
999300	Local Government, Excluding Education and Hospitals	16,220	16,630	410	2.5%

*Data does not meet BLS disclosure requirements.

Source: Employment Projections (EP) program. Oklahoma Employment Security Commission, Economic Research & Analysis Division, [Industry and Occupational Employment Projections \(oklahoma.gov\)](https://oklahoma.gov).

Industry and Occupational Employment Projections

Table 12: 2020-2030 Oklahoma City MSA Occupational Employment Projections

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
00-0000	Total, All Occupations	632,050	702,280	70,230	11.11	793,120	\$39,080			
11-1011	Chief Executives	1,590	1,540	-50	-3.21	1,010	\$129,460	Bachelor's degree	5 years or more	None
11-1021	General and Operations Managers	9,070	10,450	1,380	15.21	9,380	\$94,230	Bachelor's degree	5 years or more	None
11-1031	Legislators	170	180	10	4.12	130	*	Bachelor's degree	Less than 5 years	None
11-2011	Advertising and Promotions Managers	120	140	20	16.39	150	\$88,830	Bachelor's degree	Less than 5 years	None
11-2021	Marketing Managers	500	570	70	13.92	520	\$122,090	Bachelor's degree	5 years or more	None
11-2022	Sales Managers	920	1,050	130	14.08	940	\$100,410	Bachelor's degree	Less than 5 years	None
11-2030	Public Relations and Fundraising Managers	180	200	20	13.56	180	\$94,760	Bachelor's degree	5 years or more	None
11-3010	Administrative Services and Facilities Managers	2,410	2,720	300	12.47	2310	\$86,280	Bachelor's degree	Less than 5 years	None
11-3021	Computer and Information Systems Managers	1,760	1,960	200	11.24	1560	\$120,290	Bachelor's degree	5 years or more	None
11-3031	Financial Managers	2460	2890	430	17.51	2320	\$103,610	Bachelor's degree	5 years or more	None
11-3051	Industrial Production Managers	470	540	70	14.19	400	\$106,160	Bachelor's degree	5 years or more	None
11-3061	Purchasing Managers	200	220	20	7.43	170	\$106,780	Bachelor's degree	5 years or more	None
11-3071	Transportation, Storage, and Distribution Managers	440	480	40	8.16	380	\$97,210	High school diploma or	5 years or more	None
11-3111	Compensation and Benefits Managers	60	70	0	3.12	50	\$111,550	Bachelor's degree	5 years or more	None
11-3121	Human Resources Managers	540	590	60	10.26	500	\$97,420	Bachelor's degree	5 years or more	None
11-3131	Training and Development Managers	160	180	20	13.58	170	\$77,220	Bachelor's degree	5 years or more	None
11-9013	Farmers, Ranchers, and Other Agricultural Managers	130	130	0	-1.53	120	\$56,620	High school diploma or	5 years or more	None
11-9021	Construction Managers	1,530	1,830	300	19.49	1500	\$85,940	Bachelor's degree	None	Moderate-term on-the-job
11-9031	Education and Childcare Administrators, Preschool and Daycare	250	290	40	14.86	230	\$38,040	Bachelor's degree	Less than 5 years	None
11-9032	Education Administrators, Kindergarten through Secondary	1020	1100	80	8.18	840	\$78,700	Master's degree	5 years or more	None
11-9033	Education Administrators, Postsecondary	770	830	60	7.69	630	\$99,420	Master's degree	Less than 5 years	None
11-9039	Education Administrators, All Other	120	130	10	6.84	90	\$96,100	Bachelor's degree	Less than 5 years	None
11-9041	Architectural and Engineering Managers	980	1,060	80	7.98	780	\$136,630	Bachelor's degree	5 years or more	None

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required
11-9051	Food Service Managers	1,640	1,990	360	21.81	2,360	\$59,710	High school diploma or equivalent	Less than 5 years
11-9081	Lodging Managers	240	270	40	15.32	310	\$51,190	High school diploma or equivalent	Less than 5 years
11-9111	Medical and Health Services Managers	2,940	3,920	980	33.44	3,590	\$84,730	Bachelor's degree	Less than 5 years
11-9121	Natural Sciences Managers	150	160	20	10.88	120	\$110,910	Bachelor's degree	5 years or more
11-9141	Property, Real Estate, and Community Association Managers	1,220	1,270	50	3.69	990	\$78,820	High school diploma or equivalent	Less than 5 years
11-9151	Social and Community Service Managers	410	470	60	14.81	420	\$62,660	Bachelor's degree	Less than 5 years
11-9161	Emergency Management Directors	70	80	10	8.33	70	\$62,270	Bachelor's degree	5 years or more
11-9198	Personal Service Managers; Entertainment & Recreation Managers, Except Gambling; and Managers, All Other	1,370	1,420	60	4.03	1,060	\$101,470	Bachelor's degree	Less than 5 years
13-1020	Buyers and Purchasing Agents	2,080	2,010	-70	-3.13	1,940	\$66,460	Bachelor's degree	None
13-1031	Claims Adjusters, Examiners, and Investigators	1,620	1,630	0	0.18	1,230	\$61,230	High school diploma or equivalent	None
13-1041	Compliance Officers	2,090	2,260	170	8.2	1,850	\$55,980	Bachelor's degree	None
13-1051	Cost Estimators	890	970	70	8.17	900	\$59,980	Bachelor's degree	None
13-1071	Human Resources Specialists	3,130	3,530	400	12.64	3,510	\$52,710	Bachelor's degree	None
13-1075	Labor Relations Specialists	110	110	0	-1.77	100	\$68,240	Bachelor's degree	Less than 5 years
13-1081	Logisticians	2,190	2,490	300	13.87	2,310	\$79,280	Bachelor's degree	None
13-1111	Management Analysts	3,350	3,940	590	17.73	3,860	\$76,730	Bachelor's degree	Less than 5 years
13-1121	Meeting, Convention, and Event Planners	490	580	100	19.55	650	\$41,180	Bachelor's degree	None
13-1131	Fundraisers	250	290	40	15.87	300	\$58,830	Bachelor's degree	None
13-1141	Compensation, Benefits, and Job Analysis Specialists	400	480	70	18.11	460	\$48,010	Bachelor's degree	Less than 5 years
13-1151	Training and Development Specialists	2,000	2,250	260	12.87	2,200	\$54,860	Bachelor's degree	Less than 5 years
13-1161	Market Research Analysts and Marketing Specialists	2,210	2,830	620	28.29	3,060	\$55,990	Bachelor's degree	None
13-1198	Project Management Specialists and Business Operations Specialists, All Other	5,830	5,880	40	0.72	4,270	\$74,690	Bachelor's degree	None
13-2011	Accountants and Auditors	6,110	6,840	730	11.9	6,370	\$67,800	Bachelor's degree	None

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
13-2020	Property Appraisers and Assessors	380	410	20	5.99	320	\$51,460	Bachelor's degree	None	Long-term on-the-job training
13-2031	Budget Analysts	270	270	10	1.89	210	\$74,690	Bachelor's degree	None	None
13-2041	Credit Analysts	350	350	0	0.85	300	\$53,880	Bachelor's degree	None	None
13-2052	Personal Financial Advisors	670	730	60	8.67	560	\$49,720	Bachelor's degree	None	Long-term on-the-job training
13-2053	Insurance Underwriters	490	500	10	1.02	360	\$62,450	Bachelor's degree	None	Moderate-term on-the-job training
13-2061	Financial Examiners	220	260	30	14.73	210	\$84,980	Bachelor's degree	None	Long-term on-the-job training
13-2071	Credit Counselors	220	250	30	11.71	200	\$48,760	Bachelor's degree	None	Moderate-term on-the-job training
13-2072	Loan Officers	1,470	1,560	90	5.98	1240	\$68,060	Bachelor's degree	Less than 5 years	Moderate-term on-the-job training
13-2081	Tax Examiners and Collectors, and Revenue Agents	150	140	-10	-5.96	110	\$46,440	Bachelor's degree	None	Moderate-term on-the-job training
13-2082	Tax Preparers	390	430	40	9.41	490	\$43,970	High school diploma or equivalent	None	Moderate-term on-the-job training
13-2098	Financial and Investment Analysts, Financial Risk Specialists, and Financial Specialists, All Other	1,100	1,190	90	7.99	940	\$74,250	Bachelor's degree	None	None
15-1211	Computer Systems Analysts	1,750	1,980	230	13.17	1510	\$74,950	Bachelor's degree	None	None
15-1212	Information Security Analysts	380	530	150	37.86	470	\$78,750	Bachelor's degree	Less than 5 years	None
15-1231	Computer Network Support Specialists	940	1,050	110	11.29	820	\$60,790	Associate's degree	None	None
15-1232	Computer User Support Specialists	2,550	2,860	310	12.21	2250	\$48,860	Some college, no degree	None	None
15-1241	Computer Network Architects	530	590	70	12.57	400	\$88,520	Bachelor's degree	5 years or more	None
15-1244	Network and Computer Systems Administrators	880	970	80	9.4	670	\$74,210	Bachelor's degree	None	None
15-1245	Database Administrators and Architects	1,060	1,180	120	10.95	920	\$71,800	Bachelor's degree	None	None
15-1251	Computer Programmers	440	400	-30	-7.78	240	\$76,960	Bachelor's degree	None	None
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	4,920	6,450	1,530	31.15	5640	\$86,270	Bachelor's degree	None	None
15-1299	Computer Occupations, All Other	1,550	1,740	190	12	1370	\$86,950	Bachelor's degree	None	None
15-2031	Operations Research Analysts	360	480	110	31.32	390	\$71,000	Bachelor's degree	None	None
15-2041	Statisticians	150	210	60	37.25	190	\$61,900	Master's degree	None	None
15-2098	Data Scientists and Mathematical Science Occupations, All Other	520	680	160	30.46	580	\$60,050	Bachelor's degree	None	None

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
17-1011	Architects, Except Landscape and Naval	340	380	40	10.59	290	\$73,590	Bachelor's degree	None	Internship /residency
17-1022	Surveyors	340	400	60	16.18	360	\$64,480	Bachelor's degree	None	Internship /residency
17-2011	Aerospace Engineers	820	920	100	12.27	580	\$96,700	Bachelor's degree	None	None
17-2051	Civil Engineers	670	770	100	14.84	610	\$98,040	Bachelor's degree	None	None
17-2061	Computer Hardware Engineers	140	140	0	0.71	90	\$124,460	Bachelor's degree	None	None
17-2071	Electrical Engineers	610	710	100	16.37	520	\$95,780	Bachelor's degree	None	None
17-2072	Electronics Engineers, Except Computer	1,240	1,210	-40	-2.82	750	\$98,320	Bachelor's degree	None	None
17-2081	Environmental Engineers	200	210	10	7.04	160	\$96,060	Bachelor's degree	None	None
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	190	210	20	12.23	150	\$94,030	Bachelor's degree	None	None
17-2112	Industrial Engineers	590	710	120	20.2	520	86940	Bachelor's degree	None	None
17-2131	Materials Engineers	90	100	10	7.87	60	\$94,080	Bachelor's degree	None	None
17-2141	Mechanical Engineers	790	870	80	9.63	560	\$86,300	Bachelor's degree	None	None
17-2171	Petroleum Engineers	880	1,060	180	20.52	800	\$141,880	Bachelor's degree	None	None
17-2199	Engineers, All Other	1,390	1,490	100	7.49	1,000	\$90,460	Bachelor's degree	None	None
17-3011	Architectural and Civil Drafters	670	710	40	6.6	690	52850	Associate's degree	None	None
17-3012	Electrical and Electronics Drafters	110	120	10	10	120	\$50,340	Associate's degree	None	None
17-3013	Mechanical Drafters	260	270	10	3.41	260	\$59,460	Associate's degree	None	None
17-3022	Civil Engineering Technologists and Technicians	110	120	10	8.33	110	55720	Associate's degree	None	None
17-3023	Electrical and Electronics Engineering Technologists and Technicians	590	610	20	3.2	570	\$71,150	Associate's degree	None	None
17-3025	Environmental Engineering Technologists and Technicians	190	200	10	6.32	190	\$57,750	Associate's degree	None	None
17-3026	Industrial Engineering Technologists and Technicians	420	420	0	-0.95	380	\$70,420	Associate's degree	None	None
17-3027	Mechanical Engineering Technologists and Technicians	90	100	10	13.64	100	\$65,160	Associate's degree	None	None
17-3031	Surveying and Mapping Technicians	430	500	70	16.43	630	\$40,940	High school diploma or equivalent	None	Moderate-term on-the-job training

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
17-3098	Calibration and Engineering Technologists and Technicians, Except Drafters, All Other	600	630	30	5.7	600	\$63,220	Associate's degree	None	None
19-1022	Microbiologists	140	160	20	13.57	150	\$49,640	Bachelor's degree	None	None
19-1029	Biological Scientists, All Other	160	170	10	5.56	150	\$63,240	Bachelor's degree	None	None
19-1042	Medical Scientists, Except Epidemiologists	440	560	120	26.71	470	\$72,670	Doctoral or professional degree	None	None
19-2021	Atmospheric and Space Scientists	130	140	0	0.75	110	\$107,870	Bachelor's degree	None	None
19-2031	Chemists	150	160	10	9.59	150	\$74,360	Bachelor's degree	None	None
19-2041	Environmental Scientists and Specialists, Including Health	170	190	20	11.11	190	\$64,820	Bachelor's degree	None	None
19-2042	Geoscientists, Except Hydrologists and Geographers	460	570	110	23.86	610	\$129,310	Bachelor's degree	None	None
19-3031	Clinical, Counseling, and School Psychologists	210	230	20	10.58	170	\$9300	Doctoral or professional degree	None	Internship/residency
19-3039	Psychologists, All Other	220	200	-20	-6.88	120	\$95,140	Master's degree	None	Internship/residency
19-3051	Urban and Regional Planners	110	120	10	6.42	100	\$64,010	Master's degree	None	None
19-3099	Social Scientists and Related Workers, All Other	90	80	0	-4.71	70	\$78,950	Bachelor's degree	None	None
19-4021	Biological Technicians	250	270	20	8.73	350	\$41,570	Bachelor's degree	None	None
19-4031	Chemical Technicians	180	210	30	15.56	240	\$38,820	Associate's degree	None	Moderate-term on-the-job training
19-4042	Environmental Science and Protection Technicians, Including Health	120	130	20	16.52	170	\$37,720	Associate's degree	None	None
19-4045	Geological and Hydrologic Technicians	300	360	70	23.05	470	\$58,430	Associate's degree	None	Moderate-term on-the-job training
19-4061	Social Science Research Assistants	130	140	20	14.29	180	\$35,560	Bachelor's degree	None	None
19-4092	Forensic Science Technicians	110	120	10	12.73	160	*	Bachelor's degree	None	Moderate-term on-the-job training
19-4099	Life, Physical, and Social Science Technicians, All Other	290	290	10	1.75	350	\$91,250	Associate's degree	None	None
19-5011	Occupational Health and Safety Specialists	440	480	40	10.05	370	\$72,210	Bachelor's degree	None	None
21-1012	Educational, Guidance, and Career Counselors and Advisors	1,310	1,460	150	11.67	1430	\$48,980	Master's degree	None	None
21-1013	Marriage and Family Therapists	350	390	50	13.91	390	\$89,070	Master's degree	None	Internship/residency
21-1015	Rehabilitation Counselors	380	430	50	12.14	420	43190	Master's degree	None	None
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	1110	1380	270	23.9	1410	\$47,320	Bachelor's degree	None	None

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
21-1021	Child, Family, and School Social Workers	2,860	3,020	170	5.85	2,850	\$39,130	Bachelor's degree	None	None
21-1022	Healthcare Social Workers	890	1,020	130	14.56	1,000	\$31,200	Master's degree	None	Internship /residency
21-1023	Mental Health and Substance Abuse Social Workers	410	470	60	14.25	460	\$34,260	Master's degree	None	Internship /residency
21-1029	Social Workers, All Other	220	220	-10	-2.24	200	\$64,010	Bachelor's degree	None	None
21-1091	Health Education Specialists	450	510	60	12.8	550	\$63,850	Bachelor's degree	None	None
21-1092	Probation Officers and Correctional Treatment Specialists	600	630	30	4.17	530	\$40,420	Bachelor's degree	None	Short-term on-the-job training
21-1093	Social and Human Service Assistants	350	390	50	13.29	470	\$30,960	High school diploma or equivalent	None	Short-term on-the-job training
21-1094	Community Health Workers	260	320	60	22.61	360	\$47,110	High school diploma or equivalent	None	Short-term on-the-job training
21-2011	Clergy	130	150	20	12.31	150	\$54,520	Bachelor's degree	None	Moderate-term on-the-job training
23-1011	Lawyers	4,930	5,690	760	15.33	3,210	\$97,090	Doctoral or professional degree	None	None
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	70	70	0	-1.43	30	\$107,210	Doctoral or professional degree	5 years or more	Short-term on-the-job training
23-1023	Judges, Magistrate Judges, and Magistrates	480	490	10	2.73	240	\$62,300	Doctoral or professional degree	5 years or more	Short-term on-the-job training
23-2011	Paralegals and Legal Assistants	1,510	1,780	270	18.1	2,020	\$42,750	Associate's degree	None	None
23-2093	Title Examiners, Abstractors, and Searchers	650	750	110	16.28	770	\$72,200	High school diploma or equivalent	None	Moderate-term on-the-job training
23-2099	Legal Support Workers, All Other	80	80	0	-1.23	80	\$51,560	Associate's degree	None	None
25-1011	Business Teachers, Postsecondary	280	300	20	6.69	290	\$64,930	Doctoral or professional degree	None	None
25-1021	Computer Science Teachers, Postsecondary	140	150	10	7.3	140	\$75,310	Doctoral or professional degree	None	None
25-1022	Mathematical Science Teachers, Postsecondary	160	170	10	5.7	160	\$58,470	Doctoral or professional degree	None	None
25-1032	Engineering Teachers, Postsecondary	100	110	10	12.63	100	\$62,200	Doctoral or professional degree	None	None
25-1042	Biological Science Teachers, Postsecondary	140	150	20	13.24	150	\$55,900	Doctoral or professional degree	None	None
25-1052	Chemistry Teachers, Postsecondary	70	70	10	7.35	70	\$60,780	Doctoral or professional degree	None	None
25-1066	Psychology Teachers, Postsecondary	100	110	10	11.22	110	\$57,590	Doctoral or professional degree	None	None
25-1071	Health Specialties Teachers, Postsecondary	1,780	2,220	440	24.48	2,260	\$77,920	Doctoral or professional degree	Less than 5 years	None
25-1072	Nursing Instructors and Teachers, Postsecondary	210	260	50	21.96	260	\$61,060	Doctoral or professional degree	Less than 5 years	None

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required
25-1121	Art, Drama, and Music Teachers, Postsecondary	380	420	40	9.95	400	\$50,150	Master's degree	None
25-1122	Communications Teachers, Postsecondary	80	80	10	7.89	80	\$59,280	Doctoral or professional degree	None
25-1123	English Language and Literature Teachers, Postsecondary	270	290	20	6.2	280	\$49,280	Doctoral or professional degree	None
25-1125	History Teachers, Postsecondary	120	130	10	8.26	130	\$56,120	Doctoral or professional degree	None
25-1126	Philosophy and Religion Teachers, Postsecondary	90	100	10	12.22	100	53360	Doctoral or professional degree	None
25-1193	Recreation and Fitness Studies Teachers, Postsecondary	130	140	10	7.09	130	\$64,940	Doctoral or professional degree	None
25-1194	Career/Technical Education Teachers, Postsecondary	470	490	20	4.28	460	\$60,070	Bachelor's degree	Less than 5 years
25-1199	Postsecondary Teachers, All Other	560	600	30	5.85	560	\$52,150	Doctoral or professional degree	None
25-2011	Preschool Teachers, Except Special Education	2,170	2,680	510	23.34	2,920	26270	Associate's degree	None
25-2012	Kindergarten Teachers, Except Special Education	520	560	40	8.27	580	\$48,170	Bachelor's degree	None
25-2021	Elementary School Teachers, Except Special Education	4,980	5,360	380	7.63	4040	\$46,460	Bachelor's degree	None
25-2022	Middle School Teachers, Except Special and Career/Technical Education	2,300	2,480	180	7.65	1870	\$48,000	Bachelor's degree	None
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	5,540	5,990	450	8.13	4310	\$48,090	Bachelor's degree	None
25-2032	Career/Technical Education Teachers, Secondary School	340	360	30	7.4	260	\$42,700	Bachelor's degree	Less than 5 years
25-2052	Special Education Teachers, Kindergarten and Elementary School	530	570	40	8.37	440	\$52,000	Bachelor's degree	None
25-2057	Special Education Teachers, Middle School	280	300	20	7.53	230	\$49,810	Bachelor's degree	None
25-2058	Special Education Teachers, Secondary School	880	950	70	7.7	730	\$47,760	Bachelor's degree	None
25-3011	Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors	330	310	-10	-3.69	350	\$29,380	Bachelor's degree	None
25-3021	Self-Enrichment Teachers	940	1,140	200	21.47	1370	\$38,200	High school diploma or equivalent	Less than 5 years
25-3031	Substitute Teachers, Short-Term	1,290	1,460	170	12.97	1720	\$19,590	Bachelor's degree	None
25-3097	Teachers and Instructors, All Other, Except Substitute Teachers	720	820	100	13.31	970	\$32,530	Bachelor's degree	None
25-4011	Archivists	60	60	0	5.26	70	\$38,990	Master's degree	None
25-4012	Curators	60	70	10	13.33	80	\$51,400	Master's degree	None
25-4013	Museum Technicians and Conservators	100	120	20	18.56	140	\$34,810	Bachelor's degree	None

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
25-4022	Librarians and Media Collections Specialists	680	730	50	6.88	700	\$49,550	Master's degree	None	None
25-4031	Library Technicians	300	290	-10	-4.29	410	\$32,800	Postsecondary non-degree award	None	None
25-9031	Instructional Coordinators	1,060	1,160	100	9.46	1130	\$48,960	Master's degree	5 years or more	None
25-9044	Teaching Assistants, Postsecondary	90	100	10	6.74	90	37350	Bachelor's degree	None	None
25-9045	Teaching Assistants, Except Postsecondary	3,580	3,900	320	8.97	3740	\$20,370	Some college, no degree	None	None
27-1011	Art Directors	250	310	60	24.1	340	\$36,090	Bachelor's degree	5 years or more	None
27-1012	Craft Artists	270	290	20	7.09	300	\$40,610	No formal educational credential	None	Long-term on-the-job training
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	70	70	0	3.08	70	*	Bachelor's degree	None	Long-term on-the-job training
27-1014	Special Effects Artists and Animators	110	130	20	13.27	140	\$86,930	Bachelor's degree	None	None
27-1021	Commercial and Industrial Designers	60	70	10	9.38	70	52310	Bachelor's degree	None	None
27-1023	Floral Designers	170	140	-20	-14.29	120	\$23,860	High school diploma or equivalent	None	Moderate-term on-the-job training
27-1024	Graphic Designers	1,060	1,160	100	9.46	1100	\$42,510	Bachelor's degree	None	None
27-1025	Interior Designers	340	370	30	8.16	350	\$50,560	Bachelor's degree	None	None
27-2012	Producers and Directors	250	320	80	30.65	320	\$50,070	Bachelor's degree	Less than 5 years	None
27-2021	Athletes and Sports Competitors	230	290	50	22.84	410	32380	No formal educational credential	None	Long-term on-the-job training
27-2022	Coaches and Scouts	1,030	1,270	240	23.03	1810	\$23,490	Bachelor's degree	None	None
27-2023	Umpires, Referees, and Other Sports Officials	90	120	30	27.17	170	\$18,330	High school diploma or equivalent	None	Moderate-term on-the-job training
27-2032	Choreographers	150	200	50	29.87	330	*	High school diploma or equivalent	5 years or more	Long-term on-the-job training
27-2041	Music Directors and Composers	120	160	40	32.52	200	\$43,400	Bachelor's degree	Less than 5 years	None
27-2042	Musicians and Singers	100	130	30	28.28	160	*	No formal educational credential	None	Long-term on-the-job training
27-3011	Broadcast Announcers and Radio Disc Jockeys	140	170	20	17.02	170	\$24,170	Bachelor's degree	None	None
27-3023	News Analysts, Reporters, and Journalists	200	230	30	13.43	260	\$45,250	Bachelor's degree	None	None
27-3031	Public Relations Specialists	910	1,030	120	13.64	1000	\$52,330	Bachelor's degree	None	None
27-3041	Editors	410	460	50	11.68	460	\$58,140	Bachelor's degree	Less than 5 years	None

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
27-3042	Technical Writers	380	450	70	16.93	430	\$65,700	Bachelor's degree	Less than 5 years	Short-term on-the-job training
27-3043	Writers and Authors	710	790	80	11.35	790	\$43,530	Bachelor's degree	None	Long-term on-the-job training
27-3091	Interpreters and Translators	330	370	40	12.84	370	\$25,110	Bachelor's degree	None	None
27-4011	Audio and Video Technicians	270	330	60	22.1	350	\$51,080	Postsecondary non-degree award	None	Short-term on-the-job training
27-4012	Broadcast Technicians	130	150	20	17.69	160	\$29,840	Associate's degree	None	Short-term on-the-job training
27-4021	Photographers	580	720	140	23.97	730	\$35,310	High school diploma or equivalent	None	Moderate-term on-the-job training
27-4031	Camera Operators, Television, Video, and Film	210	250	50	21.84	260	\$70,200	Bachelor's degree	None	None
27-4032	Film and Video Editors	130	170	40	33.85	190	\$38,900	Bachelor's degree	None	None
29-1011	Chiropractors	340	390	40	12.57	130	*	Doctoral or professional degree	None	None
29-1021	Dentists, General	780	850	80	9.77	300	\$152,510	Doctoral or professional degree	None	None
29-1031	Dietitians and Nutritionists	340	380	40	12.24	280	\$60,010	Bachelor's degree	None	Internship/residency
29-1041	Optometrists	330	370	40	11.08	140	*	Doctoral or professional degree	None	None
29-1051	Pharmacists	1,710	1,780	70	4.22	730	\$123,960	Doctoral or professional degree	None	None
29-1071	Physician Assistants	810	1,070	260	31.53	770	\$121,380	Master's degree	None	None
29-1122	Occupational Therapists	270	310	50	16.92	200	\$92,310	Master's degree	None	None
29-1123	Physical Therapists	720	870	150	20.97	470	\$91,280	Doctoral or professional degree	None	None
29-1124	Radiation Therapists	110	120	10	11.01	70	\$78,610	Associate's degree	None	None
29-1125	Recreational Therapists	80	90	10	10.84	70	\$37,420	Bachelor's degree	None	None
29-1126	Respiratory Therapists	770	950	190	24.28	590	\$60,170	Associate's degree	None	None
29-1127	Speech-Language Pathologists	640	830	180	28.3	620	\$83,040	Master's degree	None	Internship/residency
29-1131	Veterinarians	560	700	140	25.27	340	\$50,850	Doctoral or professional degree	None	None
29-1141	Registered Nurses	14,770	16,260	1,490	10.07	9530	\$68,020	Bachelor's degree	None	None
29-1171	Nurse Practitioners	880	1,270	380	43.26	940	\$108,600	Master's degree	None	None
29-1215	Family Medicine Physicians	830	890	60	7.13	290	\$180,220	Doctoral or professional degree	None	Internship/residency

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
29-1223	Psychiatrists	50	60	10	12	20	#	Doctoral or professional degree	None	Internship /residency
29-1228	Physicians, All Other; and Ophthalmologists, Except Pediatric	1,260	1,310	50	3.72	400	#	Doctoral or professional degree	None	Internship /residency
29-1292	Dental Hygienists	1,480	1,670	190	13.01	1,150	\$75,760	Associate's degree	None	None
29-1298	Acupuncturists and Healthcare Diagnosing or Treating Practitioners, All Other	290	330	50	16.03	230	\$55,890	Master's degree	None	None
29-2010	Clinical Laboratory Technologists and Technicians	2,190	2,470	280	12.9	1,750	\$45,070	Bachelor's degree	None	None
29-2031	Cardiovascular Technologists and Technicians	280	310	30	10.21	240	\$52,320	Associate's degree	None	None
29-2032	Diagnostic Medical Sonographers	450	540	90	20.04	440	\$74,610	Associate's degree	None	None
29-2033	Nuclear Medicine Technologists	80	90	10	9.76	70	\$70,490	Associate's degree	None	None
29-2034	Radiologic Technologists and Technicians	1,110	1,220	110	9.93	930	\$59,400	Associate's degree	None	None
29-2035	Magnetic Resonance Imaging Technologists	280	300	30	9.82	230	\$71,310	Associate's degree	Less than 5 years	None
29-2040	Emergency Medical Technicians and Paramedics	870	980	110	13.15	710	\$39,780	Postsecondary non-degree award	None	None
29-2052	Pharmacy Technicians	1,810	2,030	220	11.91	1,570	\$32,210	High school diploma or equivalent	None	Moderate-term on-the-job training
29-2053	Psychiatric Technicians	560	640	90	15.21	510	\$27,240	Postsecondary non-degree award	Less than 5 years	Short-term on-the-job training
29-2055	Surgical Technologists	760	840	80	10.41	640	\$48,980	Postsecondary non-degree award	None	None
29-2061	Licensed Practical and Licensed Vocational Nurses	4,350	4,800	460	10.54	3,910	44510	Postsecondary non-degree award	None	None
29-2081	Opticians, Dispensing	310	340	40	11.69	280	\$28,450	High school diploma or equivalent	None	Long-term on-the-job training
29-2091	Orthotists and Prosthetists	60	70	10	20	60	\$61,330	Master's degree	None	Internship /residency
29-2098	Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other	1,670	1,850	180	10.95	1,420	\$42,880	Postsecondary non-degree award	None	None
29-9098	Health Information Technologists, Medical Registrars, Surgical Assistants, & Healthcare Practitioners, AO	970	1,110	140	14.04	870	38180	Postsecondary non-degree award	None	None
31-1120	Home Health and Personal Care Aides	5,630	7,550	1,920	34.08	9,870	21960	High school diploma or equivalent	None	Short-term on-the-job training
31-1131	Nursing Assistants	7,120	7,820	700	9.87	9,720	\$27,580	Postsecondary non-degree award	None	None
31-1132	Orderlies	280	310	30	9.15	380	\$24,510	High school diploma or equivalent	None	Short-term on-the-job training
31-2021	Physical Therapist Assistants	550	750	200	36.23	970	\$52,220	Associate's degree	None	None
31-2022	Physical Therapist Aides	400	510	110	28.18	660	\$20,900	High school diploma or equivalent	None	Short-term on-the-job training

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
31-9091	Dental Assistants	1,620	1,830	210	12.69	2,200	\$38,710	Postsecondary non-degree award	None	None
31-9092	Medical Assistants	4,090	4,890	800	19.62	6,000	\$31,710	Postsecondary non-degree award	None	None
31-9093	Medical Equipment Preparers	260	290	30	10	360	\$36,070	High school diploma or equivalent	None	Moderate-term on-the-job training
31-9094	Medical Transcriptionists	250	240	-20	-5.95	320	\$39,630	Postsecondary non-degree award	None	None
31-9095	Pharmacy Aides	340	310	-30	-8.66	390	\$28,600	High school diploma or equivalent	None	Short-term on-the-job training
31-9097	Phlebotomists	710	880	170	24.23	1,090	\$30,630	Postsecondary non-degree award	None	None
31-9099	Healthcare Support Workers, All Other	500	550	60	11.29	690	\$30,520	High school diploma or equivalent	None	None
33-1011	First-Line Supervisors of Correctional Officers	290	280	-10	-2.43	220	\$50,800	High school diploma or equivalent	Less than 5 years	None
33-1012	First-Line Supervisors of Police and Detectives	1,440	1,520	80	5.57	1,010	\$91,250	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training
33-1021	First-Line Supervisors of Firefighting and Prevention Workers	690	730	40	5.92	500	\$90,830	Postsecondary non-degree award	Less than 5 years	Moderate-term on-the-job training
33-1090	Miscellaneous First-Line Supervisors, Protective Service Workers	310	340	40	12.46	350	\$54,080	High school diploma or equivalent	Less than 5 years	None
33-2011	Firefighters	1,340	1,440	100	7.79	1,130	\$49,150	Postsecondary non-degree award	None	Long-term on-the-job training
33-3012	Correctional Officers and Jailers	1,800	1,680	-120	-6.77	1,480	\$37,230	High school diploma or equivalent	None	Moderate-term on-the-job training
33-3021	Detectives and Criminal Investigators	470	480	0	0.84	350	\$63,080	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training
33-3031	Fish and Game Wardens	110	110	0	1.8	110	\$46,470	Bachelor's degree	None	Moderate-term on-the-job training
33-3051	Police and Sheriff's Patrol Officers	1,660	1,740	80	4.64	1,370	\$57,930	High school diploma or equivalent	None	Moderate-term on-the-job training
33-9011	Animal Control Workers	60	70	0	4.69	60	\$39,920	High school diploma or equivalent	None	Moderate-term on-the-job training
33-9031	Gambling Surveillance Officers and Gambling Investigators	170	180	20	10.91	250	\$29,320	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training
33-9032	Security Guards	3,740	4,350	610	16.21	5,880	\$32,850	High school diploma or equivalent	None	Short-term on-the-job training
33-9091	Crossing Guards and Flaggers	110	120	10	10.81	240	\$29,980	No formal educational credential	None	Short-term on-the-job training
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	320	410	90	28.57	1,010	\$18,840	No formal educational credential	None	Short-term on-the-job training
33-9093	Transportation Security Screeners	140	130	-10	-5.88	110	\$39,950	High school diploma or equivalent	None	Short-term on-the-job training

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
33-9098	School Bus Monitors and Protective Service Workers, All Other	400	430	30	7.04	1,050	\$25,970	High school diploma or equivalent	None	Short-term on-the-job training
35-1011	Chefs and Head Cooks	200	240	40	21.21	320	\$57,920	High school diploma or equivalent	5 years or more	None
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	4,670	6,020	1,340	28.75	9,170	\$33,380	High school diploma or equivalent	Less than 5 years	None
35-2011	Cooks, Fast Food	5,030	5,250	220	4.33	7,640	\$20,550	No formal educational credential	None	Short-term on-the-job training
35-2012	Cooks, Institution and Cafeteria	3,210	3,520	320	9.92	5,180	\$22,460	No formal educational credential	None	Short-term on-the-job training
35-2014	Cooks, Restaurant	6,660	10,450	3,790	56.89	16,150	\$26,100	No formal educational credential	Less than 5 years	Moderate-term on-the-job training
35-2021	Food Preparation Workers	3,640	4,340	700	19.19	7,500	\$20,180	No formal educational credential	None	Short-term on-the-job training
35-3011	Bartenders	2,780	3,770	980	35.32	6,440	\$19,080	No formal educational credential	None	Short-term on-the-job training
35-3023	Fast Food and Counter Workers	17,010	20,960	3,950	23.24	42,440	\$20,880	No formal educational credential	None	Short-term on-the-job training
35-3031	Waiters and Waitresses	9,800	12,400	2,600	26.49	24,000	\$19,560	No formal educational credential	None	Short-term on-the-job training
35-3041	Food Servers, Nonrestaurant	680	810	130	18.91	1,300	\$19,490	No formal educational credential	None	Short-term on-the-job training
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	1,700	2,250	550	32.29	3,960	\$19,120	No formal educational credential	None	Short-term on-the-job training
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	1,510	2,010	500	33.13	4,580	\$19,440	No formal educational credential	None	Short-term on-the-job training
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	900	930	30	3.1	1,060	\$39,740	High school diploma or equivalent	Less than 5 years	None
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	780	810	30	4.26	850	\$46,860	High school diploma or equivalent	Less than 5 years	None
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	5,780	6,170	400	6.84	8,310	\$24,020	No formal educational credential	None	Short-term on-the-job training
37-2012	Maids and Housekeeping Cleaners	5,300	6,090	790	14.81	8,320	\$23,140	No formal educational credential	None	Short-term on-the-job training
37-3011	Landscaping and Groundskeeping Workers	4,240	4,530	300	6.99	5,940	\$29,500	No formal educational credential	None	Short-term on-the-job training
37-3013	Tree Trimmers and Pruners	560	600	40	6.57	790	\$36,290	High school diploma or equivalent	None	Short-term on-the-job training
37-3019	Grounds Maintenance Workers, All Other	110	110	10	6.54	150	\$32,660	No formal educational credential	None	Short-term on-the-job training
39-2011	Animal Trainers	140	190	50	35.25	240	\$28,870	High school diploma or equivalent	None	Moderate-term on-the-job training
39-2021	Animal Caretakers	1,200	1,570	370	31.22	2,410	\$23,920	High school diploma or equivalent	None	Short-term on-the-job training
39-3031	Ushers, Lobby Attendants, and Ticket Takers	270	470	200	76.4	1,050	\$18,650	No formal educational credential	None	Short-term on-the-job training
39-3091	Amusement and Recreation Attendants	670	790	130	18.74	1,650	\$19,620	No formal educational credential	None	Short-term on-the-job training

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
33-9098	School Bus Monitors and Protective Service Workers, All Other	400	430	30	7.04	1,050	\$25,970	High school diploma or equivalent	None	Short-term on-the-job training
35-1011	Chefs and Head Cooks	200	240	40	21.21	320	\$57,920	High school diploma or equivalent	5 years or more	None
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	4,670	6,020	1,340	28.75	9,170	\$33,380	High school diploma or equivalent	Less than 5 years	None
35-2011	Cooks, Fast Food	5,030	5,250	220	4.33	7,640	\$20,550	No formal educational credential	None	Short-term on-the-job training
35-2012	Cooks, Institution and Cafeteria	3,210	3,520	320	9.92	5,180	\$22,460	No formal educational credential	None	Short-term on-the-job training
35-2014	Cooks, Restaurant	6,660	10,450	3,790	56.89	16,150	\$26,100	No formal educational credential	Less than 5 years	Moderate-term on-the-job training
35-2021	Food Preparation Workers	3,640	4,340	700	19.19	7,500	\$20,180	No formal educational credential	None	Short-term on-the-job training
35-3011	Bartenders	2,780	3,770	980	35.32	6,440	\$19,080	No formal educational credential	None	Short-term on-the-job training
35-3023	Fast Food and Counter Workers	17,010	20,960	3,950	23.24	42,440	\$20,880	No formal educational credential	None	Short-term on-the-job training
35-3031	Waiters and Waitresses	9,800	12,400	2,600	26.49	24,000	\$19,560	No formal educational credential	None	Short-term on-the-job training
35-3041	Food Servers, Nonrestaurant	680	810	130	18.91	1,300	\$19,490	No formal educational credential	None	Short-term on-the-job training
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	1,700	2,250	550	32.29	3,960	\$19,120	No formal educational credential	None	Short-term on-the-job training
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	1,510	2,010	500	33.13	4,580	\$19,440	No formal educational credential	None	Short-term on-the-job training
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	900	930	30	3.1	1,060	\$39,740	High school diploma or equivalent	Less than 5 years	None
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	780	810	30	4.26	850	\$46,860	High school diploma or equivalent	Less than 5 years	None
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	5,780	6,170	400	6.84	8,310	\$24,020	No formal educational credential	None	Short-term on-the-job training
37-2012	Maids and Housekeeping Cleaners	5,300	6,090	790	14.81	8,320	\$23,140	No formal educational credential	None	Short-term on-the-job training
37-3011	Landscaping and Groundskeeping Workers	4,240	4,530	300	6.99	5,940	\$29,500	No formal educational credential	None	Short-term on-the-job training
37-3013	Tree Trimmers and Pruners	560	600	40	6.57	790	\$36,290	High school diploma or equivalent	None	Short-term on-the-job training
37-3019	Grounds Maintenance Workers, All Other	110	110	10	6.54	150	\$32,660	No formal educational credential	None	Short-term on-the-job training
39-2011	Animal Trainers	140	190	50	35.25	240	\$28,870	High school diploma or equivalent	None	Moderate-term on-the-job
39-2021	Animal Caretakers	1,200	1,570	370	31.22	2,410	\$23,920	High school diploma or equivalent	None	Short-term on-the-job training
39-3031	Ushers, Lobby Attendants, and Ticket Takers	270	470	200	76.4	1,050	\$18,650	No formal educational credential	None	Short-term on-the-job training
39-3091	Amusement and Recreation Attendants	670	790	130	18.74	1,650	\$19,620	No formal educational credential	None	Short-term on-the-job training
39-5012	Hairdressers, Hairstylists, and Cosmetologists	2,910	3,460	550	18.88	4,010	\$26,810	Postsecondary non-degree award	None	None

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
39-6011	Baggage Porters and Bellhops	120	150	30	25	200	\$19,880	High school diploma or equivalent	None	Short-term on-the-job training
39-6012	Concierges	430	490	60	13.39	650	\$23,520	High school diploma or equivalent	None	Moderate-term on-the-job training
39-7010	Tour and Travel Guides	160	180	30	18.06	290	\$23,020	High school diploma or equivalent	None	Moderate-term on-the-job training
39-9011	Childcare Workers	2,520	2,800	280	11.12	3,920	\$20,890	High school diploma or equivalent	None	Short-term on-the-job training
39-9031	Exercise Trainers and Group Fitness Instructors	1,710	2,160	450	26.26	3,420	\$34,910	High school diploma or equivalent	None	Short-term on-the-job training
39-9032	Recreation Workers	760	870	110	14.57	1,370	\$26,410	High school diploma or equivalent	None	Short-term on-the-job training
41-1011	First-Line Supervisors of Retail Sales Workers	7,330	7,520	190	2.55	7,950	\$39,250	High school diploma or equivalent	Less than 5 years	None
41-1012	First-Line Supervisors of Non-Retail Sales Workers	2,020	2,060	40	1.93	1,850	\$64,900	High school diploma or equivalent	Less than 5 years	None
41-2011	Cashiers	13,020	12,820	-200	-1.56	23,150	\$21,980	No formal educational credential	None	Short-term on-the-job training
41-2022	Parts Salespersons	1,410	1,620	220	15.59	2,020	\$33,860	No formal educational credential	None	Moderate-term on-the-job training
41-2031	Retail Salespersons	18,170	19,720	1,560	8.56	27,800	\$24,300	No formal educational credential	None	Short-term on-the-job training
41-3011	Advertising Sales Agents	390	430	40	11.08	550	\$45,480	High school diploma or equivalent	None	Moderate-term on-the-job training
41-3021	Insurance Sales Agents	2,250	2,480	230	10.23	2,340	\$46,240	High school diploma or equivalent	None	Moderate-term on-the-job training
41-3031	Securities, Commodities, and Financial Services Sales Agents	1,090	1,190	100	9.15	1,070	\$49,500	Bachelor's degree	None	Moderate-term on-the-job training
41-3041	Travel Agents	90	100	10	5.49	110	\$39,460	High school diploma or equivalent	None	Moderate-term on-the-job training
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	3,870	4,440	570	14.72	5,270	\$43,000	High school diploma or equivalent	None	Moderate-term on-the-job training
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	2,630	3,000	370	14.12	3,100	\$75,490	Bachelor's degree	None	Moderate-term on-the-job training
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	3,220	3,670	450	13.96	3,790	\$52,210	High school diploma or equivalent	None	Moderate-term on-the-job training
41-9021	Real Estate Brokers	1,000	1,010	20	1.5	880	\$31,330	High school diploma or equivalent	Less than 5 years	None
41-9022	Real Estate Sales Agents	3,380	3,540	160	4.65	3,120	\$39,730	High school diploma or equivalent	None	Moderate-term on-the-job training
41-9031	Sales Engineers	150	180	30	18.95	200	\$82,500	Bachelor's degree	None	Moderate-term on-the-job training

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
41-9041	Telemarketers	610	490	-120	-19.71	700	\$29,390	No formal educational credential	None	Short-term on-the-job training
41-9099	Sales and Related Workers, All Other	1,220	1,310	90	7.19	1,700	\$24,130	High school diploma or equivalent	None	None
43-1011	First-Line Supervisors of Office and Administrative Support Workers	7,620	7,750	130	1.71	7,680	\$51,740	High school diploma or equivalent	Less than 5 years	None
43-2011	Switchboard Operators, Including Answering Service	230	180	-50	-21.12	180	\$27,540	High school diploma or equivalent	None	Short-term on-the-job training
43-3011	Bill and Account Collectors	1,170	1,080	-90	-7.3	1,120	\$29,790	High school diploma or equivalent	None	Moderate-term on-the-job training
43-3021	Billing and Posting Clerks	2,600	2,710	110	4.27	2,830	\$36,530	High school diploma or equivalent	None	Moderate-term on-the-job training
43-3031	Bookkeeping, Accounting, and Auditing Clerks	7,760	7,840	80	1.01	8,630	\$39,580	Some college, no degree	None	Moderate-term on-the-job training
43-3051	Payroll and Timekeeping Clerks	970	890	-80	-8.21	870	\$50,820	High school diploma or equivalent	None	Moderate-term on-the-job training
43-3061	Procurement Clerks	350	330	-20	-6.8	290	\$47,920	High school diploma or equivalent	None	Moderate-term on-the-job training
43-3071	Tellers	2,340	2,010	-340	-14.46	1,910	\$26,240	High school diploma or equivalent	None	Short-term on-the-job training
43-4021	Correspondence Clerks	80	80	0	2.63	80	\$30,540	High school diploma or equivalent	None	Short-term on-the-job training
43-4031	Court, Municipal, and License Clerks	1,030	1,180	150	14.19	1,240	\$32,820	High school diploma or equivalent	None	Long-term on-the-job training
43-4041	Credit Authorizers, Checkers, and Clerks	110	110	0	-2.68	110	\$37,350	High school diploma or equivalent	None	Moderate-term on-the-job training
43-4051	Customer Service Representatives	13,250	13,840	580	4.39	17,600	\$32,490	High school diploma or equivalent	None	Short-term on-the-job training
43-4061	Eligibility Interviewers, Government Programs	90	100	10	7.53	90	\$43,250	High school diploma or equivalent	None	Moderate-term on-the-job training
43-4071	File Clerks	710	630	-80	-10.7	700	\$31,200	High school diploma or equivalent	None	Short-term on-the-job training
43-4081	Hotel, Motel, and Resort Desk Clerks	990	1,220	230	23.51	2,040	\$21,860	High school diploma or equivalent	None	Short-term on-the-job training
43-4111	Interviewers, Except Eligibility and Loan	1,020	980	-40	-4.02	1,180	\$31,640	High school diploma or equivalent	None	Short-term on-the-job training
43-4121	Library Assistants, Clerical	440	420	-20	-3.66	640	\$24,680	High school diploma or equivalent	None	Short-term on-the-job training
43-4131	Loan Interviewers and Clerks	1,110	1,130	20	1.53	1,000	\$35,690	High school diploma or equivalent	None	Short-term on-the-job training
43-4141	New Accounts Clerks	710	610	-100	-13.88	530	\$32,320	High school diploma or equivalent	None	Moderate-term on-the-job training
43-4151	Order Clerks	510	450	-60	-12.48	440	\$33,190	Some college, no degree	None	Short-term on-the-job training

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	290	280	-10	-3.09	280	\$41,500	Associate's degree	None	None
43-4171	Receptionists and Information Clerks	3,360	3,520	150	4.52	4,450	\$29,760	High school diploma or equivalent	None	Short-term on-the-job training
43-4199	Information and Record Clerks, All Other	810	840	30	4.09	910	\$41,910	High school diploma or equivalent	None	Short-term on-the-job training
43-5011	Cargo and Freight Agents	300	300	0	1.01	290	\$35,870	High school diploma or equivalent	None	Short-term on-the-job training
43-5021	Couriers and Messengers	670	610	-60	-9.57	540	\$28,580	High school diploma or equivalent	None	Short-term on-the-job training
43-5031	Public Safety Telecommunicators	410	430	30	6.11	410	\$40,500	High school diploma or equivalent	None	Moderate-term on-the-job training
43-5032	Dispatchers, Except Police, Fire, and Ambulance	770	800	40	5.1	750	\$48,060	High school diploma or equivalent	None	Moderate-term on-the-job training
43-5041	Meter Readers, Utilities	70	70	-10	-9.72	40	\$37,610	High school diploma or equivalent	None	Short-term on-the-job training
43-5051	Postal Service Clerks	250	220	-30	-11.55	160	\$50,170	High school diploma or equivalent	None	Short-term on-the-job training
43-5052	Postal Service Mail Carriers	1,370	1,210	-160	-11.73	750	\$51,800	High school diploma or equivalent	None	Short-term on-the-job training
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	420	350	-70	-15.99	270	\$51,150	High school diploma or equivalent	None	Short-term on-the-job training
43-5061	Production, Planning, and Expediting Clerks	2,620	2,830	210	7.93	2,950	\$49,690	High school diploma or equivalent	None	Moderate-term on-the-job training
43-5071	Shipping, Receiving, and Inventory Clerks	3,770	3,740	-30	-0.82	3,550	\$31,100	High school diploma or equivalent	None	Short-term on-the-job training
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	130	150	20	15.62	150	\$37,320	High school diploma or equivalent	None	Short-term on-the-job training
43-6011	Executive Secretaries and Executive Administrative Assistants	3,110	2,590	-520	-16.8	2,520	\$41,600	High school diploma or equivalent	Less than 5 years	None
43-6012	Legal Secretaries and Administrative Assistants	500	430	-80	-15.67	420	\$36,890	High school diploma or equivalent	None	Moderate-term on-the-job training
43-6013	Medical Secretaries and Administrative Assistants	3,430	3,870	440	12.68	4,330	\$34,870	High school diploma or equivalent	None	Moderate-term on-the-job training
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	8,430	7,960	-470	-5.55	8,280	\$33,360	High school diploma or equivalent	None	Short-term on-the-job training
43-9021	Data Entry Keyers	720	580	-140	-18.99	560	\$31,670	High school diploma or equivalent	None	Short-term on-the-job training
43-9031	Desktop Publishers	60	50	-10	-15.25	50	\$36,170	Associate's degree	None	Short-term on-the-job training
43-9041	Insurance Claims and Policy Processing Clerks	990	1,020	30	3.33	980	\$39,210	High school diploma or equivalent	None	Moderate-term on-the-job training
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	540	540	0	0.37	620	\$32,450	High school diploma or equivalent	None	Short-term on-the-job training

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
43-9061	Office Clerks, General	7,780	7,820	40	0.54	8,920	\$30,520	High school diploma or equivalent	None	Short-term on-the-job training
43-9071	Office Machine Operators, Except Computer	260	240	-20	-9.09	260	\$27,640	High school diploma or equivalent	None	Short-term on-the-job training
43-9111	Statistical Assistants	80	90	10	7.5	100	\$39,820	Bachelor's degree	None	None
43-9199	Office and Administrative Support Workers, All Other	350	370	20	5.97	420	\$40,870	High school diploma or equivalent	None	Short-term on-the-job training
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	310	270	-50	-14.38	360	\$72,820	High school diploma or equivalent	Less than 5 years	None
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	260	270	10	4.69	420	\$28,620	No formal educational credential	None	Short-term on-the-job training
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	170	180	20	10.24	290	\$34,600	No formal educational credential	None	Short-term on-the-job training
45-4022	Logging Equipment Operators	160	130	-30	-21.12	180	*	High school diploma or equivalent	None	Moderate-term on-the-job training
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	4,810	5,530	720	15.06	5,530	\$67,060	High school diploma or equivalent	5 years or more	None
47-2021	Brickmasons and Blockmasons	150	150	0	1.33	140	\$48,050	High school diploma or equivalent	None	Apprenticeship
47-2022	Stonemasons	190	200	20	8.06	200	\$37,340	High school diploma or equivalent	None	Apprenticeship
47-2031	Carpenters	3,540	3,870	340	9.5	3,730	\$41,750	High school diploma or equivalent	None	Apprenticeship
47-2051	Cement Masons and Concrete Finishers	1,130	1,200	80	7.02	1,130	\$38,640	No formal educational credential	None	Moderate-term on-the-job training
47-2061	Construction Laborers	4,370	5,070	700	16.01	5,290	\$33,200	No formal educational credential	None	Short-term on-the-job training
47-2071	Paving, Surfacing, and Tamping Equipment Operators	500	570	70	13.35	630	\$36,490	High school diploma or equivalent	None	Moderate-term on-the-job training
47-2073	Operating Engineers and Other Construction Equipment Operators	1,840	2,020	180	9.63	2,190	\$42,420	High school diploma or equivalent	None	Moderate-term on-the-job training
47-2081	Drywall and Ceiling Tile Installers	260	290	30	12.64	260	\$40,150	No formal educational credential	None	Moderate-term on-the-job training
47-2111	Electricians	2,800	3,280	480	17.11	3,590	\$45,270	High school diploma or equivalent	None	Apprenticeship
47-2141	Painters, Construction and Maintenance	1,430	1,510	80	5.88	1,340	\$44,960	No formal educational credential	None	Moderate-term on-the-job training
47-2151	Pipelayers	330	350	20	5.09	360	\$36,670	No formal educational credential	None	Short-term on-the-job training
47-2152	Plumbers, Pipefitters, and Steamfitters	2,390	2,690	300	12.33	2860	\$56,870	High school diploma or equivalent	None	Apprenticeship
47-2181	Roofers	580	650	70	12.82	660	\$42,180	No formal educational credential	None	Moderate-term on-the-job training

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
47-2211	Sheet Metal Workers	2,770	2,750	-20	-0.58	2,520	\$56,800	High school diploma or equivalent	None	Apprenticeship
47-2221	Structural Iron and Steel Workers	910	1,040	130	14.62	1,130	\$38,070	High school diploma or equivalent	None	Apprenticeship
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	170	180	10	4.07	210	\$30,000	No formal educational credential	None	Short-term on-the-job training
47-3013	Helpers--Electricians	330	370	40	12.05	450	\$37,390	High school diploma or equivalent	None	Short-term on-the-job training
47-3015	Helpers--Pipefitters, Plumbers, Pipefitters, and Steamfitters	640	730	90	13.91	890	\$38,190	High school diploma or equivalent	None	Short-term on-the-job training
47-4011	Construction and Building Inspectors	1,050	1,090	40	4.19	1,270	\$56,400	High school diploma or equivalent	5 years or more	Moderate-term on-the-job training
47-4051	Highway Maintenance Workers	520	550	40	6.74	580	\$38,070	High school diploma or equivalent	None	Moderate-term on-the-job training
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	130	140	10	10.77	170	\$32,870	High school diploma or equivalent	None	Moderate-term on-the-job training
47-4090	Miscellaneous Construction and Related Workers	440	520	80	17.19	630	\$34,590	High school diploma or equivalent	None	Moderate-term on-the-job training
47-5011	Derrick Operators, Oil and Gas	240	360	130	54.24	480	\$57,920	No formal educational credential	None	Short-term on-the-job training
47-5012	Rotary Drill Operators, Oil and Gas	800	1,190	400	49.5	1,560	\$60,920	No formal educational credential	None	Moderate-term on-the-job training
47-5013	Service Unit Operators, Oil and Gas	870	1,210	340	38.49	1,560	\$39,790	No formal educational credential	None	Moderate-term on-the-job training
47-5071	Roustabouts, Oil and Gas	1,080	1,660	580	54.17	2,190	\$43,530	No formal educational credential	None	Moderate-term on-the-job training
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	2,450	2,640	200	8.05	2,450	\$70,900	High school diploma or equivalent	Less than 5 years	None
49-2011	Computer, Automated Teller, and Office Machine Repairers	540	590	50	9.39	660	\$41,330	Some college, no degree	None	Short-term on-the-job training
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	50	60	10	11.32	70	\$46,020	Associate's degree	None	Moderate-term on-the-job training
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	470	490	20	4.88	560	\$52,150	Postsecondary non-degree award	None	Moderate-term on-the-job training
49-2091	Avionics Technicians	380	380	-10	-1.3	260	\$57,650	Associate's degree	None	None
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	590	630	30	5.74	500	\$61,100	Postsecondary non-degree award	None	Long-term on-the-job training
49-2098	Security and Fire Alarm Systems Installers	490	560	70	15.26	600	\$50,870	High school diploma or equivalent	None	Moderate-term on-the-job training
49-3011	Aircraft Mechanics and Service Technicians	2,320	2,240	-80	-3.28	1,770	\$57,490	Postsecondary non-degree award	None	None

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
49-3021	Automotive Body and Related Repairers	740	800	60	7.4	760	\$37,540	High school diploma or equivalent	None	Long-term on-the-job training
49-3023	Automotive Service Technicians and Mechanics	3,270	3,430	160	4.86	3,430	\$48,200	Postsecondary non-degree award	None	Short-term on-the-job training
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	1,400	1,530	130	9.37	1,460	\$47,210	High school diploma or equivalent	None	Long-term on-the-job training
49-3041	Farm Equipment Mechanics and Service Technicians	160	190	30	17.79	200	\$39,990	High school diploma or equivalent	None	Long-term on-the-job training
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	560	700	140	24.02	750	\$51,050	High school diploma or equivalent	None	Long-term on-the-job training
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	240	260	30	10.5	300	\$34,700	High school diploma or equivalent	None	Moderate-term on-the-job training
49-3092	Recreational Vehicle Service Technicians	140	180	40	27.54	220	\$45,910	High school diploma or equivalent	None	Long-term on-the-job training
49-3093	Tire Repairers and Changers	790	890	90	11.87	1,050	\$34,050	High school diploma or equivalent	None	Short-term on-the-job training
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	540	560	20	4.07	460	\$59,770	High school diploma or equivalent	None	Moderate-term on-the-job training
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	1,760	1,980	220	12.52	1,970	\$45,840	Postsecondary non-degree award	None	Long-term on-the-job training
49-9031	Home Appliance Repairers	250	270	20	7.14	270	\$36,850	High school diploma or equivalent	None	Moderate-term on-the-job training
49-9041	Industrial Machinery Mechanics	1,220	1,530	320	25.88	1,480	\$51,240	High school diploma or equivalent	None	Long-term on-the-job training
49-9043	Maintenance Workers, Machinery	780	910	130	16.45	870	\$45,550	High school diploma or equivalent	None	Long-term on-the-job training
49-9051	Electrical Power-Line Installers and Repairers	550	590	50	8.81	540	\$68,390	High school diploma or equivalent	None	Long-term on-the-job training
49-9062	Medical Equipment Repairers	270	300	30	9.16	320	\$44,400	Associate's degree	None	Moderate-term on-the-job training
49-9071	Maintenance and Repair Workers, General	4,940	5,410	470	9.56	5,310	\$35,960	High school diploma or equivalent	None	Moderate-term on-the-job training
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	140	160	20	14.79	200	\$28,310	High school diploma or equivalent	None	Short-term on-the-job training
49-9096	Riggers	70	70	10	10.45	80	\$54,190	High school diploma or equivalent	None	Moderate-term on-the-job training
49-9098	Helpers--Installation, Maintenance, and Repair Workers	490	550	60	11.99	720	\$29,120	High school diploma or equivalent	None	Short-term on-the-job training
49-9099	Installation, Maintenance, and Repair Workers, All Other	350	380	30	8.31	400	\$41,020	High school diploma or equivalent	None	Moderate-term on-the-job training
51-1011	First-Line Supervisors of Production and Operating Workers	2,430	2,720	300	12.29	2,800	\$65,410	High school diploma or equivalent	Less than 5 years	None
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	100	100	0	3.16	110	\$46,350	High school diploma or equivalent	None	Moderate-term on-the-job training

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
51-2028	Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers	1,230	1,420	190	15	1,570	\$36,600	High school diploma or equivalent	None	Moderate-term on-the-job training
51-2041	Structural Metal Fabricators and Fitters	180	170	-10	-5.98	170	\$28,410	High school diploma or equivalent	None	Moderate-term on-the-job training
51-2051	Fiberglass Laminators and Fabricators	120	130	10	8.7	140	*	High school diploma or equivalent	None	Moderate-term on-the-job training
51-2090	Miscellaneous Assemblers and Fabricators	2,940	2,930	-10	-0.41	3,210	\$32,260	High school diploma or equivalent	None	Moderate-term on-the-job training
51-3011	Bakers	520	620	100	18.23	840	\$24,390	No formal educational credential	None	Long-term on-the-job training
51-3021	Butchers and Meat Cutters	370	380	10	3.84	440	\$35,630	No formal educational credential	None	Long-term on-the-job training
51-3023	Slaughtering and Meat Packers	90	100	10	11.36	120	\$25,300	No formal educational credential	None	Short-term on-the-job training
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	470	490	30	6.02	510	\$34,710	High school diploma or equivalent	None	Moderate-term on-the-job training
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	210	220	10	5.31	250	\$35,690	High school diploma or equivalent	None	Moderate-term on-the-job training
51-4041	Machinists	940	1,070	130	13.54	1,140	\$46,680	High school diploma or equivalent	None	Long-term on-the-job training
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	380	370	0	-1.06	370	\$37,990	High school diploma or equivalent	None	Moderate-term on-the-job training
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	330	380	50	16.51	410	\$34,150	High school diploma or equivalent	None	Moderate-term on-the-job training
51-4111	Tool and Die Makers	120	120	0	1.68	120	\$61,310	Postsecondary non-degree award	None	Long-term on-the-job training
51-4121	Welders, Cutters, Solderers, and Brazers	2,380	2,790	410	17.21	3,120	\$39,880	High school diploma or equivalent	None	Moderate-term on-the-job training
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	160	170	10	8.07	190	\$43,960	High school diploma or equivalent	None	Moderate-term on-the-job training
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	80	80	0	1.25	80	\$51,560	High school diploma or equivalent	None	Moderate-term on-the-job training
51-4199	Metal Workers and Plastic Workers, All Other	140	120	-20	-13.57	110	\$58,330	High school diploma or equivalent	None	Moderate-term on-the-job training
51-5112	Printing Press Operators	580	590	10	2.43	640	\$35,740	High school diploma or equivalent	None	Moderate-term on-the-job training
51-5113	Print Binding and Finishing Workers	120	130	10	6.61	150	\$37,330	High school diploma or equivalent	None	Moderate-term on-the-job training
51-6011	Laundry and Dry-Cleaning Workers	1,260	1,410	150	11.83	1,910	\$21,140	No formal educational credential	None	Short-term on-the-job training

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
51-6021	Pressers, Textile, Garment, and Related Materials	130	120	-10	-10.77	110	\$26,480	No formal educational credential	None	Short-term on-the-job training
51-6031	Sewing Machine Operators	280	250	-30	-9.78	270	\$29,930	No formal educational credential	None	Short-term on-the-job training
51-7011	Cabinetmakers and Bench Carpenters	510	600	90	17.81	610	\$34,900	High school diploma or equivalent	None	Moderate-term on-the-job training
51-7021	Furniture Finishers	60	60	0	0	80	\$35,760	High school diploma or equivalent	None	Short-term on-the-job training
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	70	90	10	19.44	90	\$29,180	High school diploma or equivalent	None	Moderate-term on-the-job training
51-8021	Stationary Engineers and Boiler Operators	50	60	10	12	70	\$50,760	High school diploma or equivalent	None	Long-term on-the-job training
51-8031	Water and Wastewater Treatment Plant and System Operators	340	340	0	-0.88	300	\$43,080	High school diploma or equivalent	None	Long-term on-the-job training
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	210	240	30	13.88	250	\$64,180	High school diploma or equivalent	None	Moderate-term on-the-job training
51-9011	Chemical Equipment Operators and Tenders	150	160	10	6	160	\$42,880	High school diploma or equivalent	None	Moderate-term on-the-job training
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	90	90	10	8.24	100	\$33,430	High school diploma or equivalent	None	Moderate-term on-the-job training
51-9022	Grinding and Polishing Workers, Hand	60	50	0	-7.02	60	\$30,980	No formal educational credential	None	Moderate-term on-the-job training
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	260	300	40	16.15	350	\$32,350	High school diploma or equivalent	None	Moderate-term on-the-job training
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	80	90	10	8.97	110	\$43,100	High school diploma or equivalent	None	Moderate-term on-the-job training
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	60	70	10	10.17	70	\$38,700	High school diploma or equivalent	None	Moderate-term on-the-job training
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	50	60	10	15.09	60	\$35,030	High school diploma or equivalent	None	Moderate-term on-the-job training
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	1,950	1,790	-170	-8.46	2,040	\$47,760	High school diploma or equivalent	None	Moderate-term on-the-job training
51-9071	Jewelers and Precious Stone and Metal Workers	110	110	10	5.61	140	\$45,930	High school diploma or equivalent	None	Long-term on-the-job training
51-9082	Medical Appliance Technicians	50	60	10	18.52	80	\$40,850	High school diploma or equivalent	None	Moderate-term on-the-job training
51-9111	Packaging and Filling Machine Operators and Tenders	580	660	80	14.24	750	\$26,930	High school diploma or equivalent	None	Moderate-term on-the-job training
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	780	930	150	18.74	990	\$37,610	High school diploma or equivalent	None	Moderate-term on-the-job training

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
51-9161	Computer Numerically Controlled Tool Operators	800	860	60	6.84	950	\$40,250	High school diploma or equivalent	None	Moderate-term on-the-job training
51-9162	Computer Numerically Controlled Tool Programmers	170	230	60	37.5	280	\$40,610	Postsecondary non-degree award	None	Moderate-term on-the-job training
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	90	100	10	14.94	110	\$27,350	High school diploma or equivalent	None	Moderate-term on-the-job training
51-9196	Paper Goods Machine Setters, Operators, and Tenders	170	170	10	3.03	190	\$30,890	High school diploma or equivalent	None	Moderate-term on-the-job training
51-9198	Helpers--Production Workers	470	480	20	3.86	690	\$30,580	High school diploma or equivalent	None	Short-term on-the-job training
51-9199	Production Workers, All Other	420	470	50	10.64	530	\$23,520	High school diploma or equivalent	None	Moderate-term on-the-job training
53-1047	FirstLine Supervisors of Transportation & Material Moving Workers, Exc Aircraft Cargo Handling Supervisor	2,650	2,860	210	8.08	3,130	\$53,310	High school diploma or equivalent	Less than 5 years	None
53-2011	Airline Pilots, Copilots, and Flight Engineers	120	110	0	-3.42	120	\$121,700	Bachelor's degree	Less than 5 years	Moderate-term on-the-job training
53-2012	Commercial Pilots	70	80	10	11.94	80	\$94,580	High school diploma or equivalent	None	Moderate-term on-the-job training
53-2021	Air Traffic Controllers	180	190	10	4.37	190	\$116,110	Associate's degree	None	Long-term on-the-job training
53-3031	Driver/Sales Workers	2,340	2,930	590	25.27	3,460	\$29,440	High school diploma or equivalent	None	Short-term on-the-job training
53-3032	Heavy and Tractor-Trailer Truck Drivers	10,540	11,210	670	6.37	12,500	\$47,490	Postsecondary non-degree award	None	Short-term on-the-job training
53-3033	Light Truck Drivers	5,330	5,880	550	10.32	6,650	\$33,860	High school diploma or equivalent	None	Short-term on-the-job training
53-3052	Bus Drivers, Transit and Intercity	350	390	40	10.17	470	\$37,090	High school diploma or equivalent	None	Moderate-term on-the-job training
53-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	2,210	2,580	370	16.62	3,130	\$25,710	No formal educational credential	None	Short-term on-the-job training
53-6021	Parking Attendants	400	460	60	15.11	710	\$22,340	No formal educational credential	None	Short-term on-the-job training
53-6031	Automotive and Watercraft Service Attendants	390	420	40	9.28	580	\$27,240	No formal educational credential	None	Short-term on-the-job training
53-6098	Aircraft Service Attendants and Transportation Workers, All Other	150	170	20	10	230	\$37,640	High school diploma or equivalent	None	Short-term on-the-job training
53-7011	Conveyor Operators and Tenders	120	130	10	8.33	160	\$30,530	No formal educational credential	None	Short-term on-the-job training
53-7021	Crane and Tower Operators	170	190	20	12.94	210	\$58,060	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training
53-7051	Industrial Truck and Tractor Operators	2,800	2,960	160	5.86	3,240	\$38,830	No formal educational credential	None	Short-term on-the-job training

Table 14: 2020-2030 Occupational Employment Projections (continued)

SOC Code	Occupation	2020 Employment	2030 Employment	Numeric Change	Percent Change	Total Annual Openings	Median Annual Wage	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
53-7061	Cleaners of Vehicles and Equipment	1,850	2,050	200	10.59	2,890	\$28,850	No formal educational credential	None	Short-term on-the-job training
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	13,940	14,980	1,040	7.49	19,950	\$35,090	No formal educational credential	None	Short-term on-the-job training
53-7064	Packers and Packers, Hand	970	960	-10	-0.62	1,320	\$24,580	No formal educational credential	None	Short-term on-the-job training
53-7065	Stockers and Order Fillers	7,620	8,610	990	13.05	13530	\$26,320	High school diploma or equivalent	None	Short-term on-the-job training
53-7071	Gas Compressor and Gas Pumping Station Operators	110	100	-10	-11.21	100	\$68,430	High school diploma or equivalent	None	Moderate-term on-the-job training
53-7073	Wellhead Pumpers	200	260	60	28.86	310	\$50,670	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training
53-7081	Refuse and Recyclable Material Collectors	570	640	70	11.67	870	\$42,780	No formal educational credential	None	Short-term on-the-job training
53-7121	Tank Car, Truck, and Ship Loaders	90	90	0	0	110	\$34,890	No formal educational credential	None	Short-term on-the-job training

Source: Employment Projections (EP) program, Oklahoma Employment Security Commission, Economic Research & Analysis Division, [Industry and Occupational Employment Projections \(oklahoma.gov\)](http://oklahoma.gov).