



LABOR MARKET PROFILE

A WORKFORCE NEEDS ASSESSMENT FOR WOODLAND COMMUNITY COLLEGE

NORTH/ FAR NORTH CENTER OF EXCELLENCE FOR LABOR MARKET RESEARCH



REPORT DEVELOPMENT

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Centers of Excellence for Labor Market Research, Economic and Workforce Development Program

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Executive Summary

To understand and assess for opportunity gaps, the North/Far North Center of Excellence (NFN COE) examined characteristics of the service area's population and labor market. Key findings from the service areas characteristics include:

- Residents in the college's service area tend to be younger than their counterparts across the North region. Nearly 50% of the resident population is under the age of 30 years old. A significant proportion of future population growth will happen among younger residents; residents aged 20-29 years are projected to increase by 9% over the next five years, adding nearly 5,500 more individuals to the group.
- Residents of the service area tend to have educational attainment levels consistent with community college offerings. Between 2014 and 2018, 30% of service area residents have attended some college or earned an associate's degree.
- The K-12 student population in the service area is expected to decline over the next decade. Enrollment in K-12 schools within Woodland's service area is projected to decrease by 2.5%, or just over 1,100 students, by the 2028-2029 academic year.
- The number of jobs is projected to increase by 7% in the service area, adding 10,000 new jobs by 2024. About half of that job growth will happen in the government and healthcare sectors.
- Important industries in the college's service area include government, health care, agriculture, transportation and warehousing, and wholesale trade.

This report also provides a supply-and-demand analysis of Woodland Community College's existing career education programs, alignment to the California Department of Education (CDE) career education clusters. The inventory also discusses how well the programs align with local needs, with a focus on middle- and above-middle-skill occupations. Key findings from the program inventory include:

- Woodland Community College offers programs that align with eight of the 15 CDE career education clusters.
- Between 2016 and 2019, the college conferred a majority of awards in three career education clusters: business and finance; education, child development, and family services; and, public services.

The analysis of Woodland's career education programs has identified many promising training opportunities. Potential training pathways include, but are not limited to:

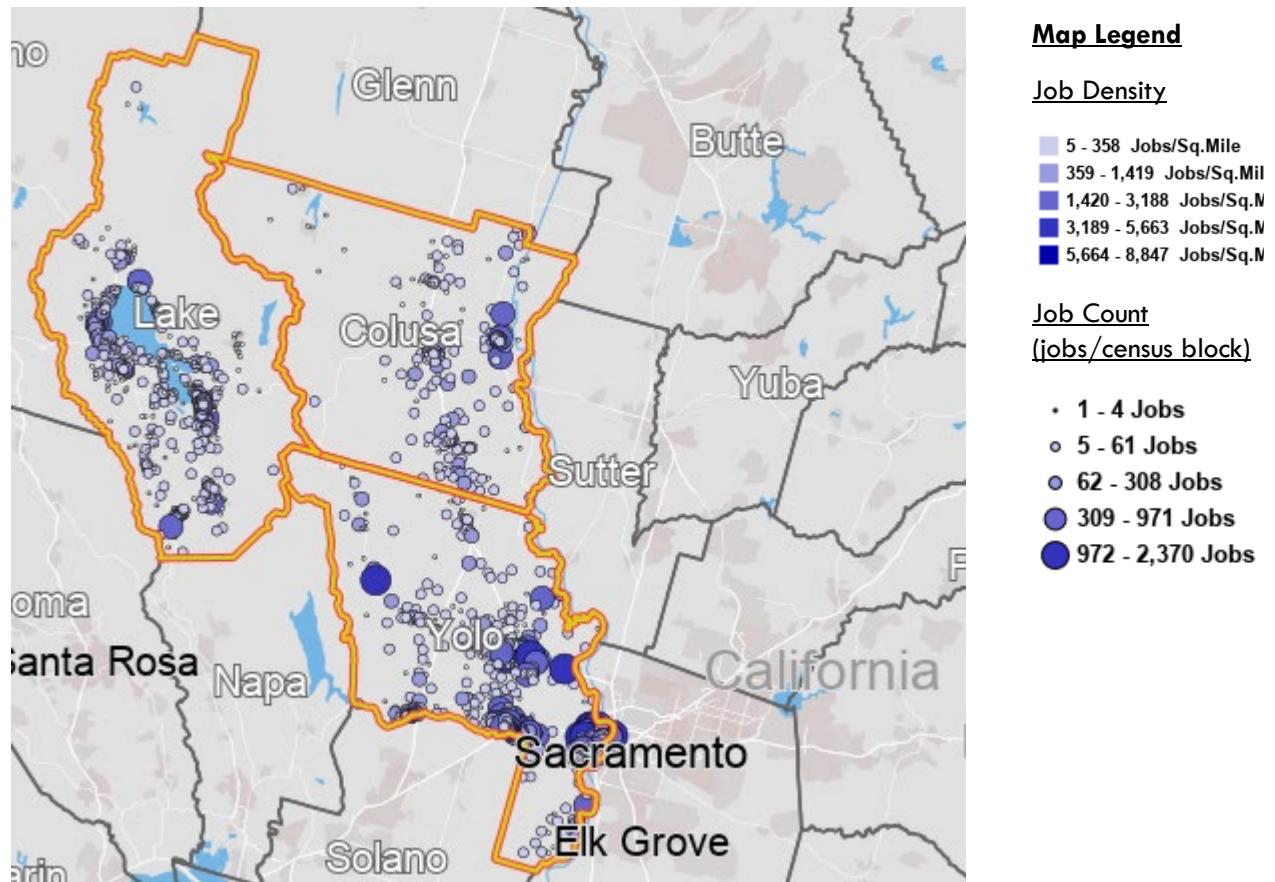
- Building and construction,
- Engineering and architecture,
- Health sciences,
- Information and communication technologies and
- Transportation.

Introduction

Woodland Community College is a two-year college located about 20 miles northwest of Sacramento, California. The college serves Yolo, Colusa, and Lake counties through three campuses: the main campus, located in Woodland, California, and two satellite campuses, each located in the other counties of the service area.

The goal of this labor market profile is to determine the job opportunities that exist within Woodland's primary service area, and assess where the college might have opportunities to expand training to meet local employer demand. This report also provides a supply and demand analysis of existing career education programs, and how well they align with local needs.

Exhibit 1. Job counts and density in Woodland Community College's service area, 2017¹



Methodology

This labor market profile assesses the demand for middle- and above-middle-skill occupations located in Woodland Community College's service area of Yolo, Lake, and Colusa counties.

¹ U.S. Census Bureau. (2020). LEHD Origin-Destination Employment Statistics (2002-2017) Work Area Profile Analysis. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, accessed on June 25, 2020 at <https://onthemap.ces.census.gov>. LODS 7.4 Version 20170818

The goal of this labor market profile is to highlight job opportunities within Woodland Community College's three-county service area and assess where the college could expand training to meet local employer demand. Industry and occupation data, including location quotients, projected changes, and wages, comes from EMSI and covers the period 2019 to 2024. Job counts in both contexts represent employed and self-employed workers. Industries were classified according to the North American Industry Classification System (NAICS).

This report also provides a supply-and-demand analysis of existing career education programs. It discusses how well they align with local needs, with a focus on middle- and above-middle-skill occupations. Occupations were selected using the TOP-CIP-SOC crosswalk developed by the Centers of Excellence for Labor Market Research. Woodland Community College's career education programs were further organized according to the California Department of Education's career education clusters and framework.²

Other analyses included in this report are an examination of Woodland's service area, including population, demographics, educational attainment, and labor force. This data comes from a variety of state and federal sources, including the California Employment Development Department (EDD) Labor Market Division, the California Department of Finance, and the United States Census Bureau. Please see Appendix A for a full listing of data sources.

Population and Demographics

The following sections provide an analysis of the resident population and demographic composition in Woodland Community College's three-county service area.

Population size

In 2019, about 310,000 residents lived within Woodland Community College's service area of Yolo, Colusa, and Lake counties (Exhibit 2). Residents of this area make up nearly 12% of the North (Greater Sacramento) region's population.

Between 2019 and 2024, the service area population is expected to increase by 2%, adding more than 5,800 residents to the area. Woodland's service area resident population is expected to grow at a slower rate than the North region (5%) and California (2.5%).

Exhibit 2. Resident population, Woodland Community College service area, 2019-2024 estimates, with 2010 census benchmark³

Geography	2010 Population	2019 Population	2024 Population	2019-2024 Projected % Change
Woodland Community College service area	289,004	310,240	316,100	1.9%
North (Greater Sacramento) region	2,423,484	2,642,553	2,769,554	4.8%
California	37,367,579	39,959,095	40,938,929	2.5%

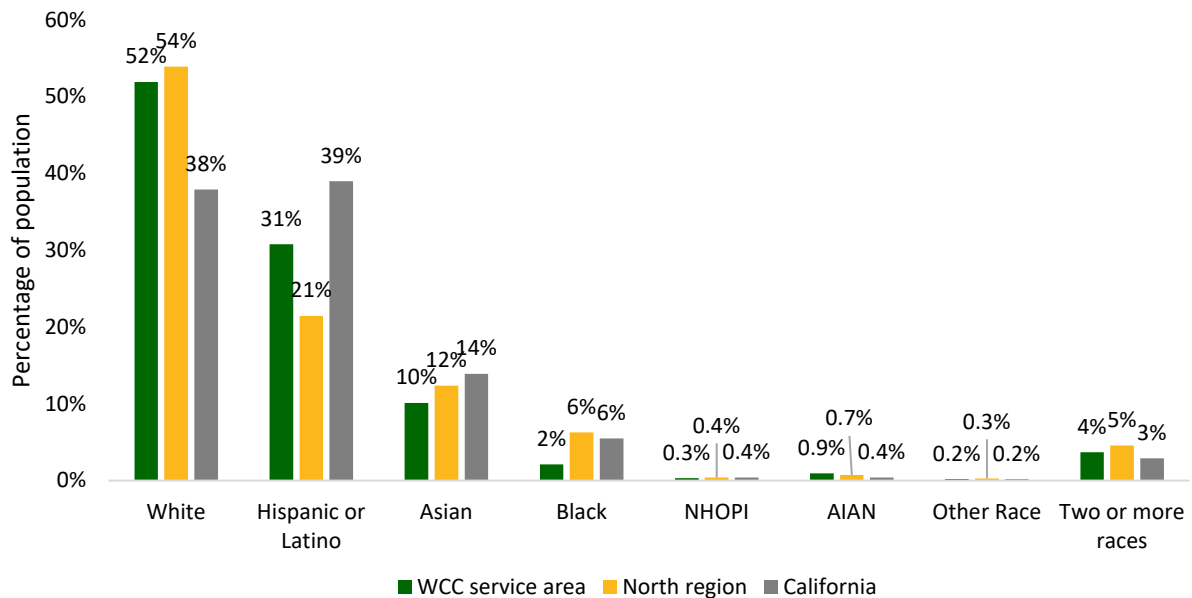
² California Department of Education, "CTE Model Curriculum Standards," July 16, 2020, accessed July 23, 2020, <https://www.cde.ca.gov/ci/ct/sf/ctemcstandards.asp>.

³ California Department of Finance, "P-1 State Population Projections (2010-2060)," released July 1, 2019, accessed May 1, 2020, <http://www.dof.ca.gov/Forecasting/Demographics/Projections/>.

Race and ethnicity

Compared to California as a whole, residents of both the North region and those living in Woodland Community College's service area predominantly identify as non-Hispanic Whites (Exhibit 3). According to U.S. Census data, about 52% of the residents living within Woodland's service area identified as White, compared to 38% of California residents. Within the service area, 31% of residents identify as Hispanic/Latinx, 10% as Asian, 2% as Black, 0.9% as American Indian/Alaskan Native, 0.3% as Native Hawaiian/Pacific Islander, and 0.2% as another race besides the ones categorized here. Four percent of Woodland's residents identify as bi- or multi-racial.

Exhibit 3. Population by race and ethnicity, Woodland Community College service area, 2014-2018⁴



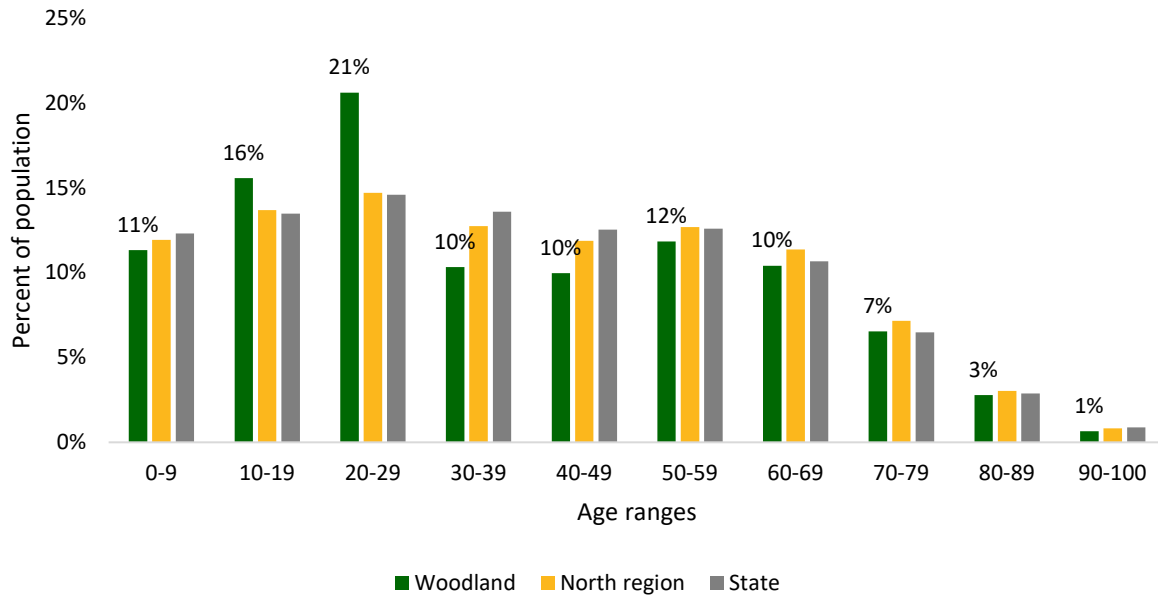
Age

Overall, residents in Woodland Community College's service area are younger than the North region and the State (Exhibit 4). Nearly 50% of residents within Woodland's service area are under the age of 30 years old. The estimated median age of all residents within Woodland's service area is 36.8 years old, about the same age as California residents (36.7 years old).⁵

⁴ U.S. Census Bureau. (2020). 2014-2018 American Community Survey, 5-year estimates. Retrieved from California Department of Finance State Census Data Center (SCDC), http://www.dof.ca.gov/Reports/Demographic_Reports/American_Community_Survey/. Accessed June 1, 2020.

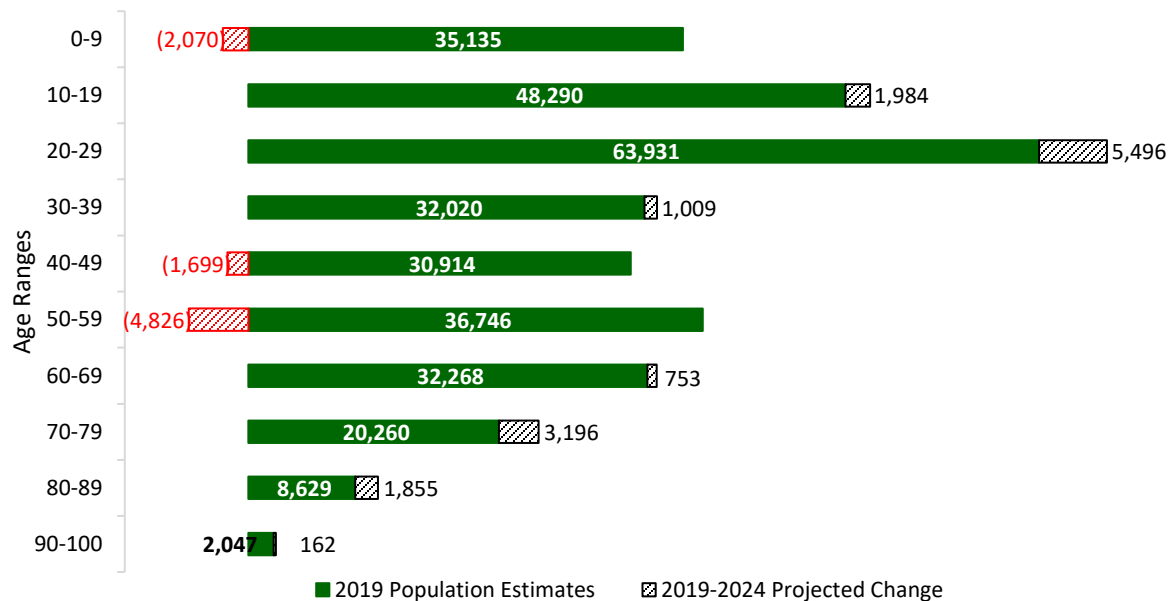
⁵ Ibid. California's median age comes from U.S. Census Bureau. (2020). Median Age by Sex (Table B01002). Retrieved from data.census.gov. Accessed June 1, 2020.

Exhibit 4. Age group composition in the Woodland service area, region, and California⁶



Younger age groups are projected to grow the most over the next five years (Exhibit 5). Residents aged 20-29 years old are expected to increase by 9% over the next five years, adding nearly 5,500 more individuals to their ranks.

Exhibit 5. Projected changes by age group, Woodland Community College service area⁷



⁶ California Department of Finance, "P-2 County Population Projections (2010-2060)," released July 1, 2019, accessed May 1, 2020, <http://www.dof.ca.gov/Forecasting/Demographics/Projections/>.

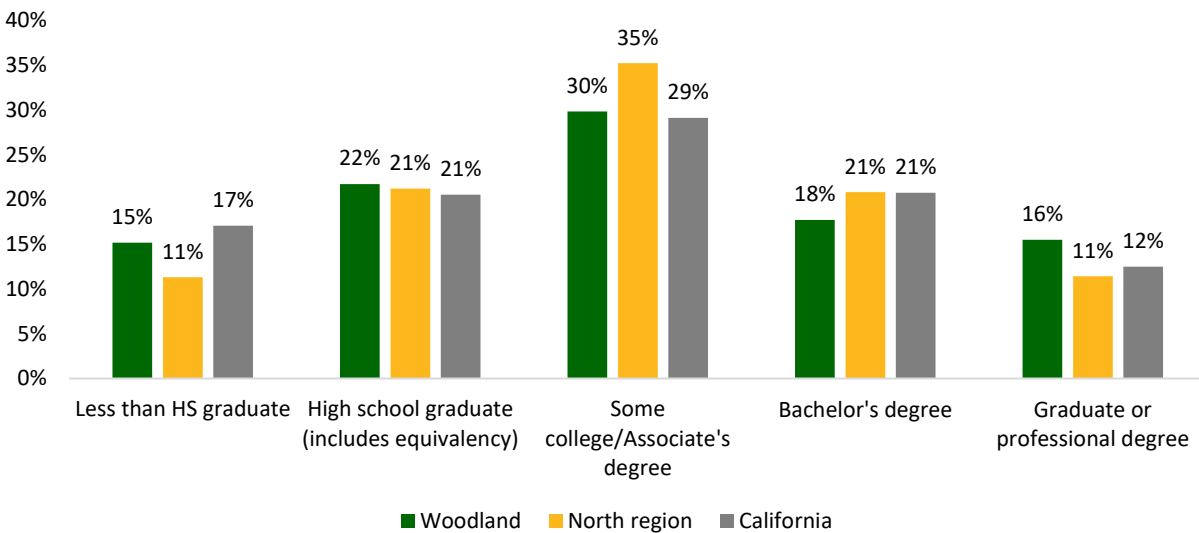
⁷ Ibid.

Educational attainment

Between 2014 and 2018, the educational attainment of Woodland's service area residents closely modeled that of the state (Exhibit 6). Twenty-two percent of Woodland Community College residents have graduated from high school, and 30% of residents have either attended some college or earned an associate's degree, compared to 21% and 29% of California residents, respectively.

While service area residents have higher levels of educational attainment consistent with community college offerings, they are less likely to hold a bachelor's degree. Eighteen percent of service area residents hold a bachelor's degree, compared to 21% of Californians.

Exhibit 6. Educational attainment of residents, Woodland Community College service area, 2014-2018⁸



K12 Enrollment and Projections

The California Department of Finance publishes annual K-12 grades enrollment and projections for each county in the state. The latest set of data, the 2019 series, provides a 10-year forecast based on actual 2018-2019 enrollments.

Analysis of this dataset shows that K-12 enrollment in the three-county region is projected to decrease over the next decade (Exhibit 7). K-12 enrollment within the service area is expected to reduce by 3% over the next ten years, which equates to a loss of 1,129 students in K-12 schools within Woodland's service boundaries by the 2028-2029 academic year.

⁸ U.S. Census Bureau. (2020). 2014-2018 American Community Survey, 5-year estimates. Retrieved from California Department of Finance State Census Data Center (SCDC), http://www.dof.ca.gov/Reports/Demographic_Reports/American_Community_Survey/. Accessed June 1, 2020.

Exhibit 8. K12 enrollment projections within Woodland Community College's service area⁹

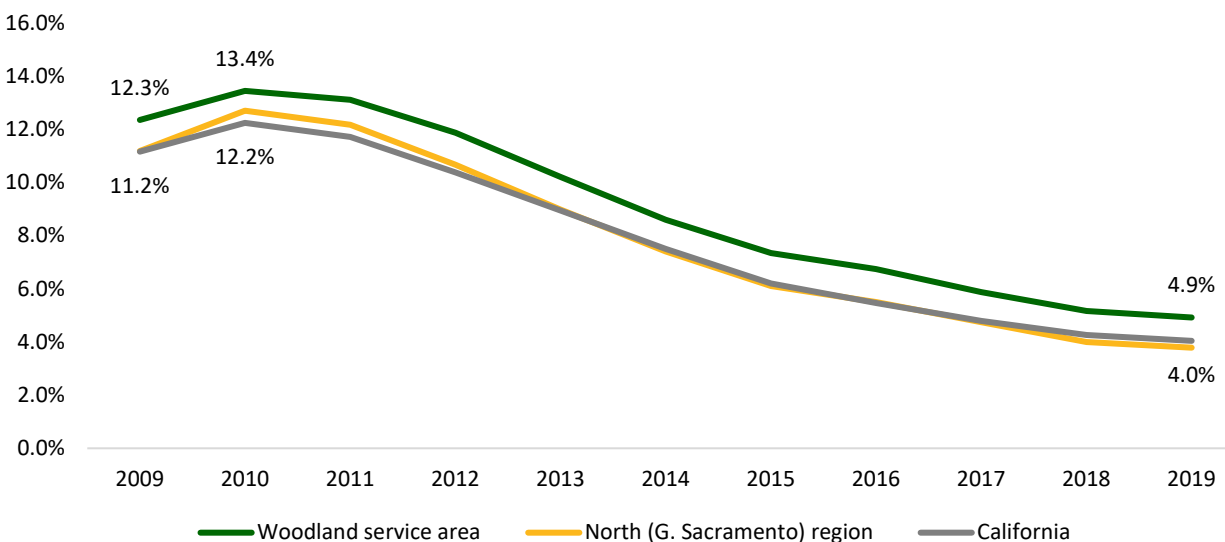
Geography	2018-2019 Actual K12 Enrollment	2028-2029 Projected K12 Enrollment	10-Year Projected % Change
Woodland Community College service area	44,406	43,277	(2.5%)
North (G. Sacramento) region	430,502	453,079	5.2%
California	6,185,200	5,759,521	(6.9%)

Labor Force and Unemployment

Unemployment rates and labor force data are based on an individual's place of residence rather than the place of work. Unemployment, therefore, reflects the geography's resident unemployment (i.e., those living in the area) and not individuals commuting into the area for work.

Compared to California, the unemployment rates in Woodland Community College's service area are just above that of the state (Exhibit 8). Unemployment in the three counties peaked at 13.4% in 2010, about one percentage point above the state's and North region's rate. Between 2010 and 2019, the service area's unemployment steadily declined until it hit a low of just below 5%. While unemployment is still higher in the service area, the gap has narrowed to less than one percentage point by 2019.

Exhibit 8. Unemployment rates in Woodland service area, North region, and California¹⁰



⁹ California Department of Finance, "Education Projections," released July 1, 2019, accessed May 1, 2020, <http://www.dof.ca.gov/Forecasting/Demographics/Projections/>.

¹⁰ State of California, Employment Development Division, Labor Market Information Division, Annual Averages Unemployment Rate and Labor Force Data Table, accessed June 1, 2020, <https://www.labormarketinfo.edd.ca.gov/>.

Labor Force Commuting Patterns

Worker commuting patterns show the characteristics of resident and non-resident workers within a geographic location. The data is derived from payroll tax (unemployment insurance) records, maintained by the state and aggregated and modeled by the U.S. Census Bureau Longitudinal Employer-Household Dynamics division.¹¹ The most up-to-date version of this data comes from 2017 records, released in August 2019.

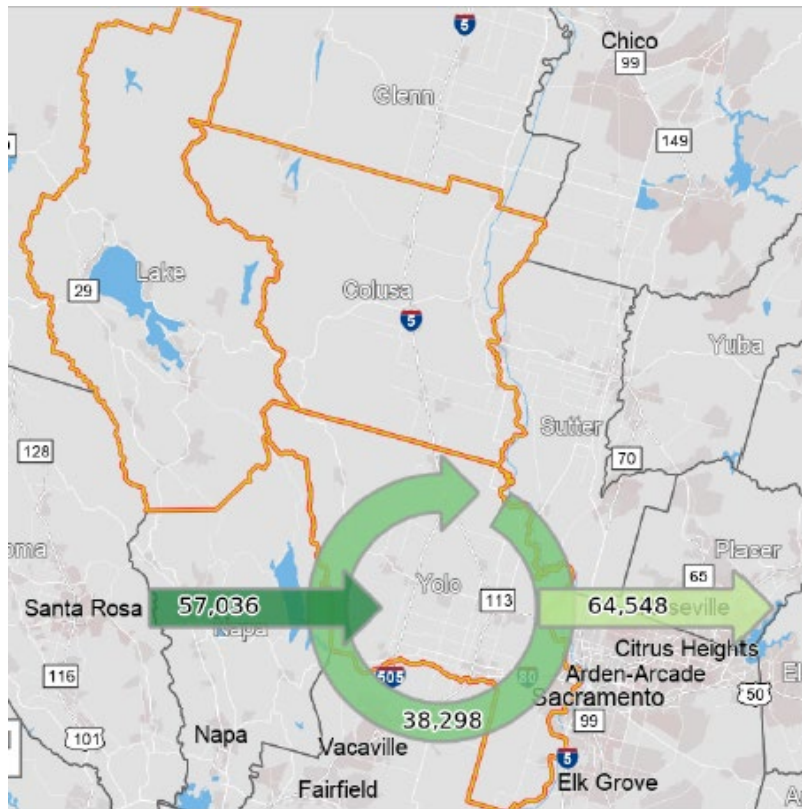
Analysis of commuting patterns shows that more residents are commuting out of the region for work than those staying (Exhibit 9). In 2017, the three-county service area workforce was comprised of 61% residents and 39% non-residents. However, nearly 60% of the area's residents commute outside of the service area for work.

Of the 95,334 individuals employed within the three-county service area, 60% (57,036) lived outside of the area, while 40% (38,298) lived in the area. This analysis suggests that employers within Woodland Community College's local labor market are more likely to have individuals that commute into the service area for work. In other words, if we were to view Woodland's service area as a labor force hub (i.e., a destination for work), local workers more likely to be non-residents.

The three-county service area can also be thought of as a labor force provider (i.e., supplying workers to jobs outside of the area). Of the 102,846 workers living within the service area boundaries, 63% (64,548) work outside of the area while 37% (38,298) work in the area.

Exhibit 10 shows where residents go to work, by county. Outside of the service area, Sacramento is a top destination for workers.

Exhibit 9. Worker flow dynamics of Woodland's service area, 2017



¹¹ U.S. Census Bureau. (2020). LEHD Origin-Destination Employment Statistics (2002-2017). Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, accessed on June 1, 2020. at <https://onthemap.ces.census.gov>. LODS 7.4 Version 20170818.

Exhibit 10. Work destinations for residents by place, 2017¹²

Work Destination (County)	Number of workers	Share of workers
Sacramento, CA (Sacramento)	16,560	14.8%
Woodland, CA (Yolo)	9,813	8.7%
Davis, CA (Yolo)	6,644	5.9%
West Sacramento, CA (Yolo)	4,480	4.0%
Lakeport, CA (Lake)	2,488	2.2%
Clearlake, CA (Lake)	2,141	1.9%
Vacaville, CA (Solano)	1,938	1.7%
Roseville, CA (Placer)	1,806	1.6%
San Francisco, CA (San Francisco)	1,701	1.5%
Arden-Arcade CDP, CA (Sacramento)	1,587	1.4%
All Other Locations	63,076	56.2%
Total All Jobs	65,478	100.0%

Industry Employment

Industry employment is the count of all jobs within a particular geography. Businesses operating within the same industry produce similar goods and services, and also share similar production processes for creating those goods and services. The North American Industry Classification System (NAICS) is the federal system used to classify all business establishments into specific industries. Regional educational institutions should be aware of the sectors in an area to inform the type of occupational and skills training that might be needed, as well as the relative size of the programs offered.

In 2019, there were 152,349 jobs across all industries in the service area, accounting for approximately 12% of all jobs in the North (Greater Sacramento) region (Exhibit 11). Over the next five years, employment in the Woodland service area is projected to increase by 7%, similar to the growth in the North region (7%) and across the state (6%). Woodland Community College's service area will add 10,000 new jobs by 2024.

¹² Ibid.

Exhibit 11. Five-year job projection changes by region, 2019-2024¹³

Geography	2019 Jobs	2024 Jobs	2019-2024 Projected % Change
Woodland Community College service area	152,349	162,397	7%
North (G. Sacramento) region	1,232,397	1,318,772	7%
California	19,939,649	21,131,526	6%

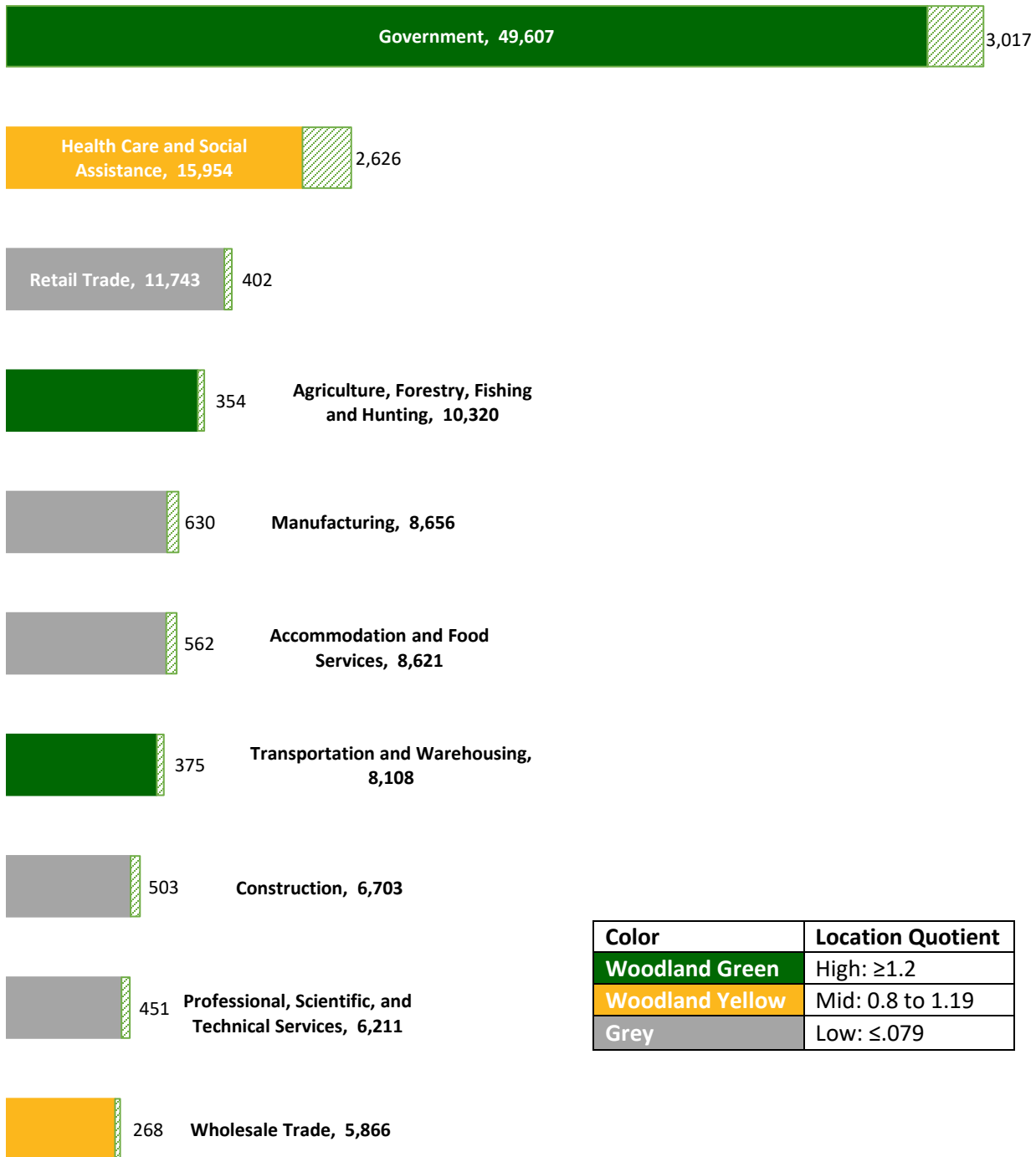
Eleven industry sectors held 90% of all jobs (or, 137,125 jobs) in Woodland Community College's service area (Exhibit 12). The remaining 15,000 jobs are distributed across nine other industries, which can be found in Appendix B. The top five sectors with the most employment in 2019 were government (49,607 jobs), healthcare (15,954 jobs), retail (11,743 jobs), agriculture, forestry, fishing and hunting (10,320 jobs), and manufacturing (8,656 jobs). The industries projected to add the highest number of jobs through 2024 are government (+3,017 jobs), health care (+2,626 jobs), administrative and support and waste management and remediation services (+694 jobs), manufacturing (+630 jobs), and accommodations and food services (+562 jobs).

The eleven industries shown in exhibit 12 are also color-coded by location quotient. A location quotient measures an industry's level of job concentration within the given geography compared to a national average. Industries with a high location quotient, greater than 1, have a larger share of jobs in the regional economy compared to the national economy. Conversely, industries with a low location quotient, less than 1, have a smaller percentage of jobs than the national average. Industries with a high location quotient, at least 1.2 in the service area, include agriculture, forestry, fishing and hunting (5.81LQ), government (2.18 LQ), and transportation and warehousing (1.43 LQ). Jobs in these three industries represent 45% of all jobs in the service area. These location quotients indicate that these industries are essential to the service area's economy.

Industries with mid-value location quotients, or those that are similar to the national economy, include wholesale trade (1.05 LQ) and healthcare (0.82 LQ).

¹³ EMSI 2020.2. QCEW, non-QCEW, and self-employed. Accessed June 1, 2020.

Exhibit 13. Major industries, 2019 jobs, projected occupational demand, and location quotients in the Woodland's service area¹⁴



■ 2019 Jobs ▨ 2019-2024 Projected Change

¹⁴ EMSI 2020.2. QCEW, non-QCEW, and self-employed. Accessed June 1, 2020.

Occupational Employment

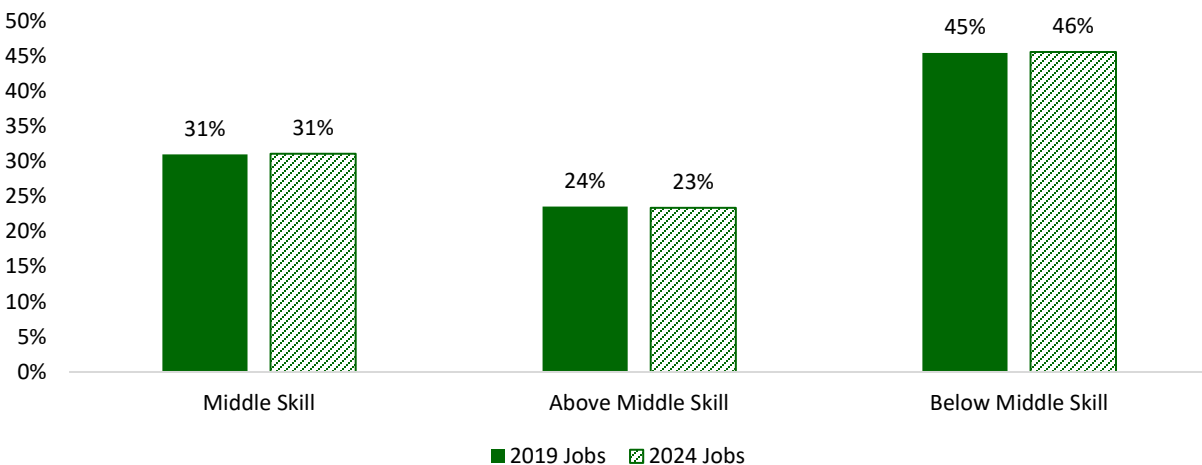
An occupation is a categorization that groups jobs with similar work tasks and functions. In other words, workers that perform the same or similar sets of tasks are in the same occupation, regardless of the industry in which they work. Occupations are organized into groups based on the federal Standard Occupational Classification (SOC) system, of which there are about 775 detailed occupations.

For California Community Colleges, occupational employment can also be analyzed based on the skill level required for jobs. Community colleges typically provide training that prepares workers for middle-skill careers; these are jobs that usually require more education than a high school diploma but less than a four-year degree.

The colleges also offer training for above-middle-skill jobs, mainly through transfer-oriented programs. These jobs typically require a minimum of a bachelor's degree, and community college students would need to transfer to a four-year college or university to achieve this goal. Analyzing both the middle-skill and above-middle-skill education pathways provides a better assessment of local employment needs.

In 2019, 31% of the 152,349 jobs in the three-county service area were classified as middle-skill, requiring more education and training than a high school diploma, but less than a bachelor's degree (Exhibit 13). Another 24% were categorized as above-middle-skill, and the remaining 45% were below-middle-skill. The shares of jobs by skill level will remain the same over the next five years. Employers are expected to have 20,599 annual openings across all occupations - an estimate of more than 100,000 new and replacement jobs available - between 2019 and 2024.¹⁵

Exhibit 13. Share of current and projected jobs by skill level, Woodland Community College service area, 2019 and 2024¹⁶



Community colleges have also been charged with ensuring that their training programs lead to job opportunities that pay at or above a regional living wage. The 2020 living wage for a single adult living in the seven-county North region (which includes the Woodland service area) is \$13.18 per hour or

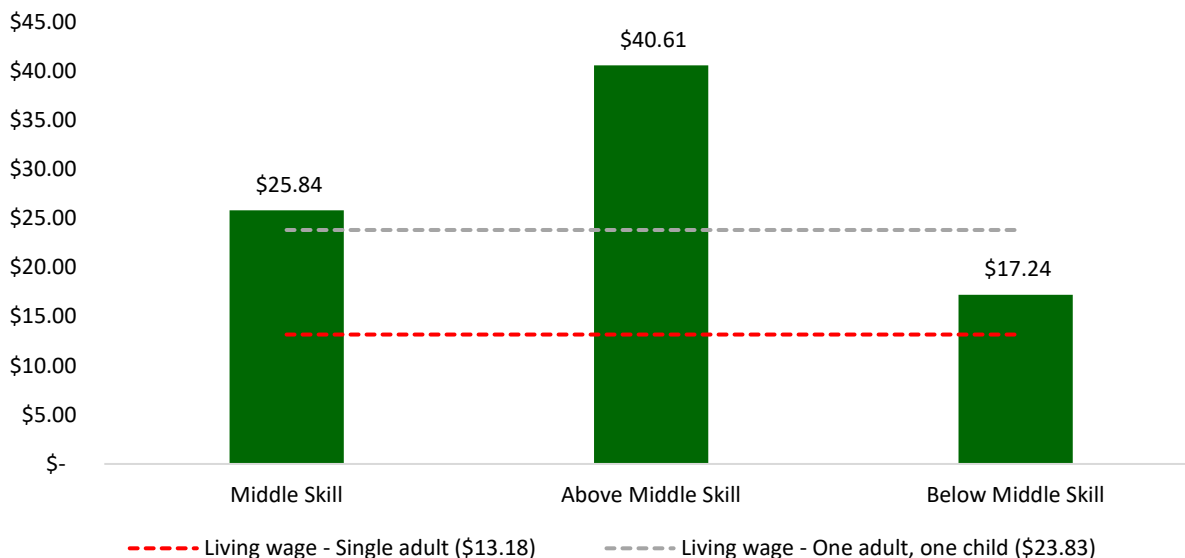
¹⁵ Ibid.

¹⁶ Ibid.

\$27,833.57 per year.¹⁷ For one adult and one school-aged child household, the living wage is \$23.83 per hour or \$50,330.14 per year.¹⁸

In 2019, the average median hourly wage for middle-skill and above-middle-skill jobs in the service area exceeded the living wage for one adult (Exhibit 14). The average median hourly wage of below middle-skill jobs is \$4 above the living wage for a single adult.

Exhibit 14. Average median hourly wage by skill level, North region, 2019¹⁹



Woodland Community College Career Education Program Inventory

This section of the report reviews the programs offered by Woodland Community College, which are organized by career education (CE) cluster. The California Department of Education (CDE) developed the career education model curriculum standards and framework for grades seven through 12.²⁰ Programs and coursework can be categorized into 15 industry clusters. Comparison at the community college level can identify career education pathways between high schools in the service area and Woodland Community College.

Woodland Community College offers programs in eight of the 15 clusters. An overview of the findings from the career education cluster analysis is highlighted in Exhibit 15. This table contains the number of middle- and above-middle-skill occupations aligned to programs within each cluster, the number of jobs in 2019 in the service area, and the number of annual openings for the aligned occupations through 2024. The alignment of the occupations is based on the TOP-to-CIP-to-SOC crosswalk maintained by the Centers of Excellence. Subsequent sections of this report offer a detailed examination of awards data and employment projections for the aligned occupations by skill level in each cluster.

¹⁷ Pearce, Diana, ed. "California Self Sufficiency Standard." The Self-Sufficiency Standard. The Center for Women's Welfare, 2020. <http://www.selfsufficiencystandard.org/California>.

¹⁸ Ibid.

¹⁹ EMSI 2020.2. QCEW, non-QCEW, and self-employed. Accessed June 1, 2020.

²⁰ California Department of Education. (2020). CTE Model Curriculum Standards. Retrieved from <https://www.cde.ca.gov/ci/ct/sf/ctemstandards.asp>

Exhibit 15. Alignment of Woodland Community College's career education programs with CDE industry clusters

CDE Career Education Industry Cluster	Number of Programs (by catalog description)	Number of Occupations Aligned to Cluster	2019 Jobs	2019-2024 Annual Openings
Agriculture and Natural Resources	5	9	2,366	273
Arts, Media and Entertainment	--	--	--	--
Building and Construction Trades	--	--	--	--
Business and Finance	4	15	12,925	1,491
Education, Childhood Development and Family Services	2	5	2,198	323
Energy, Environment, and Utilities	1	1	212	22
Engineering and Architecture	--	--	--	--
Fashion and Interior Design	--	--	--	--
Health Science and Medical Technology	--	--	--	--
Hospitality, Tourism, and Recreation	2	4	782	129
Information and Communications Technologies	--	--	--	--
Manufacturing and Product Development	1	2	300	43
Marketing, Sales, and Services	1	5	4,411	466
Public Service	2	7	1,599	162
Transportation	--	--	--	--
Totals	18	48	24,793	2,909

Agriculture and Natural Resources

Agriculture and natural resource programs train students for careers in all aspects of agriculture, from business to machinery to plant and soil sciences. There are seven pathways within this industry sector: Agricultural Business, Agricultural Mechanics, Agriscience, Animal Science, Forestry and Natural Resources, Ornamental Horticulture, and Plant and Soil Science.

Agriculture

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Agriculture Science (0101.00)	<ul style="list-style-type: none"> A.S. Degree 	6
Agriculture Research Technician (0101.00)	<ul style="list-style-type: none"> Certificate of Achievement 	
Sustainable Agriculture (0101.00)	<ul style="list-style-type: none"> Certificate of Achievement 	

Occupations	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Agricultural and Food Science Technicians	Middle	313	39	\$23.40	99
Farmers, Ranchers, and Other Agricultural Managers	Middle	1,119	114	\$19.62	228
Food Scientists and Technologists	Above	68	8	\$30.72	26
Soil and Plant Scientists	Above	129	15	\$35.26	47

Animal Science

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Agriculture Animal Science (0102.00)	<ul style="list-style-type: none"> A.S.-T. Degree 	No awards

Occupations	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Farmers, Ranchers, and Other Agricultural Managers	Middle	1,119	114	\$19.62	228

Plant Protection

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Pest Control (0103.10)	<ul style="list-style-type: none"> Certificate of Achievement 	No awards

*Unable to disaggregate from administrative assistant certificate at this time

Occupations	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Pesticide Handlers, Sprayers, and Applicators, Vegetation	Middle	56	8	\$18.39	48

Environmental Horticulture

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Horticulture (0109.00)	<ul style="list-style-type: none"> A.S. Degree Certificate of Achievement 	3

Occupations	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Farmers, Ranchers, and Other Agricultural Managers	Middle	1,119	114	\$19.62	228
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	Middle	120	15	\$21.87	156

Agriculture Business

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Agriculture Business, Sales and Service (0112.00)	<ul style="list-style-type: none"> A.S.-T. Degree Certificate of Achievement 	2

Occupations	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Farmers, Ranchers, and Other Agricultural Managers	Middle	1,119	114	\$19.62	228
Buyers and Purchasing Agents, Farm Products	Above	305	32	\$31.45	251

Business and Finance

Business and Finance programs prepare students for careers in fields such as business management, international trade, and various types of financial services (accounting, banking, investing, etc.). Knowledge and skills in these areas apply to nearly every kind of business and industry, so program completers may find opportunities across multiple career paths.

Business Administration and Management Programs

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Business Administration (0505.00)	<ul style="list-style-type: none"> A.S.-T. Degree A.S. Degree 	46
General Business Management (0506.00)	<ul style="list-style-type: none"> A.S. Degree 	6
Personnel Management (0506.00)	<ul style="list-style-type: none"> A.S. Degree 	
Business Management (0506.00)	<ul style="list-style-type: none"> Certificate of Achievement 	

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Administrative Services Managers	Middle	267	28	\$44.41	2,343
Cost Estimators	Middle	151	19	\$34.34	247
Management Analysts	Above	2,012	236	\$34.99	2,491
General and Operations Managers	Above	1,717	183	\$45.90	1,740
Managers, All Other	Above	895	84	\$37.04	720
Sales Managers	Above	390	39	\$48.63	366
Industrial Production Managers	Above	145	12	\$49.68	63

Accounting

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Accounting (0502.00)	<ul style="list-style-type: none"> A.S. Degree Certificate of Achievement 	8

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Bookkeeping, Accounting, and Auditing Clerks	Middle	1,643	206	\$20.98	1,551
Payroll and Timekeeping Clerks	Middle	267	31	\$24.33	243
Tax Preparers	Middle	49	6	\$19.98	90
Brokerage Clerks	Middle	<10	Insf. Data	Insf. Data	25
Accountants and Auditors	Above	1,231	135	\$33.66	1,354

Business Information Professional

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Business Computer Applications(0514.00)	<ul style="list-style-type: none"> A.S. Degree 	3
Business Information Professional (0514.00)	<ul style="list-style-type: none"> A.S. Degree 	
Business Information Worker - Administrative Assistant (0514.00)	<ul style="list-style-type: none"> Certificate of Achievement 	
Business Computer Applications Basics (0514.00)	<ul style="list-style-type: none"> Noncredit 	
Business Information Worker - Clerical (0514.00)	<ul style="list-style-type: none"> Certificate of Achievement 	

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	Middle	3,080	373	\$19.27	2,075
Executive Secretaries and Executive Administrative Assistants	Middle	469	53	\$29.35	464

Medical Office Specialist

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Medical Office Technology (0514.20)	<ul style="list-style-type: none"> Certificate of Achievement 	No awards

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Medical Secretaries	Middle	575	82	\$20.75	968
Medical Transcriptionists	Middle	33	5	\$22.19	75

Education, Child Development, and Family Services

Education, child development, and family service programs train students for the occupations listed below. This industry sector has four pathways: Child Development, Consumer Services, Education, and Family and Human Services.

Early Childhood Education

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Early Childhood Education (1305.00)	<ul style="list-style-type: none"> A.S.-T. Degree A.S. Degree 	50
Early Childhood Education Associate Teacher (1305.00)	<ul style="list-style-type: none"> Certificate 	
Child Development Teacher (1305.00)	<ul style="list-style-type: none"> Certificate 	
Child and Adolescent Development (1305.10)	<ul style="list-style-type: none"> A.A.-T. Degree 	No Awards
School age Children (1305.50)	<ul style="list-style-type: none"> Certificate 	2
Infant and Toddler (1305.90)	<ul style="list-style-type: none"> Certificate 	7

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Childcare Workers	Middle	1,038	157	\$12.06	1,334
Preschool Teachers, Except Special Education	Middle	491	58	\$13.59	475
Special Education Teachers, Preschool	Above	<10	<10	Insf. Data	6

Human Services

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Human Services (2104.00)	<ul style="list-style-type: none"> A.S. Degree 	5
Chemical Dependency Counselor (2104.40)	<ul style="list-style-type: none"> A.S. Degree Certificate of Achievement 	8

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Social and Human Service Assistants	Middle	534	86	\$18.87	737
Community Health Workers	Middle	49	7	\$14.74	74
Community and Social Service Specialists, All Other	Above	85	14	\$21.95	125

Energy, Environment, and Utilities

This sector trains workers for careers related to the environment, energy, and utilities. The pathways are Environmental Resources, Energy and Power Technology, and Telecommunications.

Drinking Water & Wastewater Technology

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Environmental Technology (0303.00)	<ul style="list-style-type: none"> Certificate of Achievement 	12
Water and Wastewater Technology (0958.00)	<ul style="list-style-type: none"> A.S. Degree 	No Awards

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Water and Wastewater Treatment Plant and System Operators	Middle	212	22	\$28.29	85

Hospitality, Tourism, and Recreation

The Hospitality, Tourism, and Recreation sector provides students with the knowledge and skills necessary to pursue high-skill and in-demand careers in related industries. The sector contains three distinct training pathways: Food Science, Dietetics, and Nutrition; Food Service and Hospitality; and Hospitality, Tourism, and Recreation.

Culinary Arts

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Culinary Arts (1306.30)	<ul style="list-style-type: none"> A.A. Degree Certificate 	11
Baking (1306.30)	<ul style="list-style-type: none"> Certificate 	

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
First-Line Supervisors of Food Preparation and Serving Workers	Middle	596	107	\$14.34	1,170
Chefs and Head Cooks	Middle	105	15	\$23.14	215

Nutrition and Dietetics

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Nutrition, Foods, and Culinary Arts (1306.00)	<ul style="list-style-type: none"> A.S.-T. Degree 	No awards

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Dietetic Technicians	Middle	26	3	\$17.94	27
Dietitians and Nutritionists	Above	54	5	\$35.47	54

Manufacturing and Product Development

The manufacturing and product development sector provides training for students interested in manufacturing processes and systems. Students can learn about graphic production technologies, machining and forming, welding and materials joining, and product innovation and design.

Welding

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Welding Technologies (0956.50)	• Certificate	4
Advanced Welding Technologies (0956.50)	• Certificate	

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Welders, Cutters, Solderers, and Brazers	Middle	227	34	\$19.93	238
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	Above	73	9	\$18.12	65

Marketing, Sales, and Services

Programs in the marketing, sales, and service industry sector focus on identifying, promoting, and transferring products or services to consumers. Nearly every business thrives on such services. The three pathways in this sector are Marketing, Professional Sales, and Entrepreneurship/Self-Employment. Principles of promotion, selling, and communication are vital to this sector.

Small Business Management

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Small Business Management (0506.40)	• Certificate	1

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Administrative Services Managers	Middle	267	28	\$44.41	224
Business Operations Specialists, All Other	Above	1,141	134	\$35.58	1,146
General and Operations Managers	Above	1,717	183	\$45.90	1,740
Managers, All Other	Above	895	84	\$37.04	720
Sales Managers	Above	390	39	\$48.63	366

Public Services

Programs in the public service industry sector are focused on services provided by the government to its citizens. The following pathways comprise this industry: Public Safety, Emergency Response, and Legal Practices.

Administration of Justice

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Law Enforcement (2105.00)	<ul style="list-style-type: none"> A.S. Degree 	31
Administration of Justice (2105.00)	<ul style="list-style-type: none"> A.S.-T. Degree 	
Corrections (2105.10)	<ul style="list-style-type: none"> A.S. Degree 	No awards

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Police and Sheriff's Patrol Officers	Middle	838	82	\$41.42	417
Correctional Officers and Jailers	Middle	324	37	\$35.06	247
First-Line Supervisors of Police and Detectives	Middle	77	7	\$60.98	39
Detectives and Criminal Investigators	Middle	74	9	\$42.35	76
First-Line Supervisors of Correctional Officers	Middle	46	5	\$47.24	42
Bailiffs	Middle	32	4	\$28.77	30

Emergency Medical Technician

Programs (TOP)	Award Type Offered	2016-2019 Annual Average Awards Conferred
Emergency Medical Technician (1250.00)	<ul style="list-style-type: none"> Certificate of Training 	No awards

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Emergency Medical Technicians and Paramedics	Middle	103	13	\$20.75	131

Training Opportunities for Woodland Community College

The analysis of community college program alignment with CDE clusters has identified many promising training opportunities for Woodland Community College. The result is a list of "opportunity occupations" in eight CDE clusters for which the college may choose to expand or create new programs. Selection of the opportunity occupations was based on several criteria:

1. High demand at the North subregion level. Selected occupations have more annual openings than the median number of openings across all occupations in the North. In 2019, the median number of the annual openings was 52.
2. High wage at the North subregion level. Selected occupations pay more than the median hourly wage across all jobs in the North. In 2019, the median hourly wage across all occupations was \$24.24 per hour. The living wage for a single adult is \$13.18 per hour.
3. Highly skilled. The selected occupations may require an industry-recognized credential, certification, or degree to obtain employment.
4. Skill level. These occupations are classified as middle- or above-middle-skill jobs, and typically require more education and training beyond a high school diploma.

These opportunity occupations have met at least one of the above criteria, with many occupations meeting more than one. The data shown in the following tables represent 2019 employment and wages, and future demand for selected occupations in Woodland Community College's service area. Employment and occupational demand data for the North region can be found in Appendix C. Opportunity program pathways represent connection points to high school career education programs.

Building and Construction Trades

Opportunity pathways

- Engineering and heavy construction
- Mechanical systems installation and repair
- Residential and commercial construction

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
11-9021	Construction Managers	Above	316	343	9%	29	\$38.10
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	Middle	463	510	10%	61	\$33.18
47-2031	Carpenters	Middle	1,187	1,293	9%	150	\$25.41
47-2073	Operating Engineers and Other Construction Equipment Operators	Middle	364	388	7%	48	\$27.96

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
47-2111	Electricians	Middle	356	395	11%	52	\$27.94
47-2152	Plumbers, Pipefitters, and Steamfitters	Middle	289	307	6%	37	\$25.42
47-4011	Construction and Building Inspectors	Middle	95	104	9%	14	\$33.92
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Middle	243	252	4%	26	\$23.45

Education, Child Development, and Family Services

Opportunity pathways

- Education

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
25-2012	Kindergarten Teachers, Except Special Education	Above	137	139	1%	15	\$40.91
25-2021	Elementary School Teachers, Except Special Education	Above	1,348	1,387	3%	112	\$33.43
25-2022	Middle School Teachers, Except Special and Career/Technical Education	Above	394	414	5%	34	\$33.59
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	Above	952	982	3%	75	\$36.47

Energy, Environment, and Utilities

Opportunity pathways

- Environmental resources
- Telecommunications

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
19-4091	Environmental Science and Protection Technicians, Including Health	Middle	73	77	5%	10	\$22.53
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	Middle	249	257	3%	29	\$27.63
49-9052	Telecommunications Line Installers and Repairers	Middle	89	100	12%	13	\$25.47

Engineering and Architecture

Opportunity pathways

- Engineering technology
- Engineering design

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
17-3011	Architectural and Civil Drafters	Middle	74	77	4%	9	\$29.61
17-3023	Electrical and Electronics Engineering Technicians	Middle	189	183	(3%)	18	\$31.78

Health Science and Medical Technology

Opportunity pathways

- Biotechnology
- Patient care
- Health care administrative services
- Health care operational support services

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
29-2021	Dental Hygienists	Middle	164	193	18%	18	\$47.28

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
29-2061	Licensed Practical and Licensed Vocational Nurses	Middle	473	534	13%	50	\$27.24
29-2071	Medical Records and Health Information Technicians	Middle	161	176	9%	14	\$23.82
31-2021	Physical Therapist Assistants	Middle	35	40	14%	6	\$30.77
31-9093	Medical Equipment Preparers	Middle	51	57	12%	7	\$24.43

Information and Communication Technologies (ICT)

Opportunity pathways

- Information support and services
- Networking
- Software and systems development

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
15-1121	Computer Systems Analysts	Above	720	757	5%	61	\$40.02
15-1131	Computer Programmers	Above	236	234	(1%)	17	\$38.31
15-1132	Software Developers, Applications	Above	381	435	14%	40	\$45.28
15-1133	Software Developers, Systems Software	Above	414	438	6%	35	\$42.26
15-1134	Web Developers	Middle	106	114	8%	10	\$28.68
15-1142	Network and Computer Systems Administrators	Middle	205	214	4%	17	\$43.45
15-1151	Computer User Support Specialists	Middle	659	728	10%	70	\$27.12
15-1152	Computer Network Support Specialists	Middle	175	193	10%	19	\$35.08
15-1199	Computer Occupations, All Other	Middle	304	317	4%	25	\$41.00

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	Middle	249	257	3%	29	\$27.63
49-9052	Telecommunications Line Installers and Repairers	Middle	89	100	12%	13	\$25.47

Marketing, Sales, and Services

Opportunity pathways

- Marketing
- Professional sales

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	Middle	1,287	1,368	6%	156	\$28.47
41-3099	Sales Representatives, Services, All Other	Middle	640	692	8%	95	\$25.14
41-9022	Real Estate Sales Agents	Middle	297	303	2%	30	\$28.01
41-1012	First-Line Supervisors of Non-Retail Sales Workers	Middle	264	278	5%	29	\$29.43
11-2021	Marketing Managers	Above	156	164	5%	16	\$59.51
13-1161	Market Research Analysts and Marketing Specialists	Above	393	434	10%	50	\$27.58

Manufacturing and Product Development

Opportunity pathways

- Machining and forming technologies

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
49-9041	Industrial Machinery Mechanics	Middle	286	306	7%	31	\$28.40

Public Services

Opportunity pathways

- Legal practices

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
23-2011	Paralegals and Legal Assistants	Middle	98	108	10%	13	\$24.96

Transportation

Opportunity pathways

- Systems diagnostics, service, and repair

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	Middle	401	423	5%	43	\$33.17
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	Middle	263	287	9%	30	\$26.03
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	Middle	149	156	5%	17	\$27.27

Recommendations

The primary recommendation from the North/Far North Center of Excellence is that Woodland Community College should examine how its current career education program offerings align with local and regional employer needs.

- Agriculture, forestry, fishing, and hunting is an essential industry within the college's service area. And, the college offers a variety of programs that target various aspects of agriculture, from crop production and animal care to agricultural business and sales. Yet, there is a significant gap between program supply and occupational demand. Woodland Community College should look for ways to tighten alignment between its agriculture programs and local employer demand.
- Government is a critical industry in the college's service area. While the college offers programs that address administrative support needs within this sector, there may be other needs, such as IT support, that warrant further examination. The college should further investigate the need for middle-skill jobs relevant to local and state governments within the service area.

Woodland Community College also has the opportunity to expand into new program areas.

- Healthcare is a critical industry for the college's local service area, and there is considerable local and regional demand for jobs related to the industry. The college should consider where a regional void in training might exist, and offer programs to fulfill the need.
- Transportation and warehousing is another important industry for the college's service area; yet, the college offers few programs related to this industry.
- The trade industries are also crucial to the service area. Woodland Community College should offer training related to these sectors, with a particular focus on sales.
- In addition to sales, a unique opportunity seems to exist for a marketing pathway. Few colleges in the North region offer training related to marketing, so Woodland could potentially fulfill a needed niche.

Woodland Community College should bolster its programs related to education. There are several considerations related to this pathway:

- There is a significant demand for K-12 teachers in the service area and across the region. The college should examine its current teacher preparation pipeline and look for ways to strengthen it.
- Given the current economic climate and uncertainty for K-12 schools to hold in-person classes, the college should consider offering training related to online and distance education pedagogy and instructional practices to support incumbent teachers.

Last, Woodland Community College should share and socialize this report with local stakeholder groups. The North/Far North Center of Excellence's recommendations are strictly based on observable labor market information and conditions, including an analysis of how key industries might contain training opportunities and demand for middle- and above-middle skill occupations most relevant to community college training. This report can serve as a starting point for conversations about local and regional training needs. The Center of Excellence recommends contextualizing and validating this data within the community that Woodland Community College serves. The college should consider the viewpoint of internal and external stakeholders, including but not limited to students, faculty, college administrators, community members, local workforce development partners, and local employers.

Appendix A. Data Sources

California Department of Education. (2020). *CTE Model Curriculum Standards*.
<https://www.cde.ca.gov/ci/ct/sf/ctemcstandards.asp>

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United States Census Bureau. (2020). *Longitudinal Employer-Household Dynamics*.
<https://lehd.ces.census.gov/>

Appendix B. Employment by Industry

Exhibit B1. Current employment, projected occupational demand, and location quotients by industry, Woodland College service area

Industry	2019 Jobs	2024 Jobs	2019- 2024 Projected Change	2019- 2024 Projected % Change	2019 Location Quotient
Government	49,607	52,624	3,017	6%	2.2
Health Care and Social Assistance	15,954	18,579	2,626	16%	0.8
Retail Trade	11,743	12,145	402	3%	0.8
Agriculture, Forestry, Fishing and Hunting	10,320	10,673	354	3%	5.8
Manufacturing	8,656	9,285	630	7%	0.7
Accommodation and Food Services	8,621	9,183	562	7%	0.7
Transportation and Warehousing	8,108	8,483	375	5%	1.4
Construction	6,703	7,205	503	7%	0.8
Professional, Scientific, and Technical Services	6,211	6,662	451	7%	0.6
Wholesale Trade	5,866	6,134	268	5%	1.1
Administrative and Support and Waste Management and Remediation Services	5,337	6,031	694	13%	0.6
Other Services (except Public Administration)	4,781	4,760	(22)	0%	0.7
Real Estate and Rental and Leasing	2,158	2,213	55	3%	0.8
Arts, Entertainment, and Recreation	1,782	1,906	124	7%	0.7
Finance and Insurance	1,596	1,647	51	3%	0.3
Educational Services	1,242	1,379	137	11%	0.3
Management of Companies and Enterprises	1,198	998	(200)	(17%)	0.5
Utilities	1,150	1,205	55	5%	2.2
Information	1,117	1,104	(14)	(1%)	0.4

Industry	2019 Jobs	2024 Jobs	2019- 2024 Projected Change	2019- 2024 Projected % Change	2019 Location Quotient
Mining, Quarrying, and Oil and Gas Extraction	184	180	(4)	(2%)	0.3
Unclassified Industry	15	<10	Insf. Data	Insf. Data	0.1
Totals	152,349	162,397	10,048	7%	--

Appendix C. Demand for Opportunity Occupations in the North (Greater Sacramento) region

Exhibit C1. Current employment, projected occupational demand, and wages for opportunity occupations in the North (Greater Sacramento) region

SOC Code	Occupation	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
11-9021	Construction Managers	3,715	4,090	10%	358	\$39.14
13-1161	Market Research Analysts and Marketing Specialists	3,990	4,458	12%	523	\$28.81
15-1121	Computer Systems Analysts	7,901	8,055	2%	607	\$41.59
15-1131	Computer Programmers	2,627	2,534	-4%	184	\$41.16
15-1132	Software Developers, Applications	4,654	5,239	13%	462	\$48.07
15-1133	Software Developers, Systems Software	5,798	5,984	3%	451	\$46.55
15-1134	Web Developers	1,013	1,104	9%	98	\$28.59
15-1142	Network and Computer Systems Administrators	1,825	1,915	5%	149	\$44.49
15-1151	Computer User Support Specialists	3,670	3,981	8%	377	\$26.44
15-1152	Computer Network Support Specialists	1,071	1,126	5%	101	\$34.96
15-1199	Computer Occupations, All Other	3,423	3,594	5%	290	\$42.22
19-4091	Environmental Science and Protection Technicians, Including Health	548	565	3%	70	\$24.92
23-2011	Paralegals and Legal Assistants	1,961	2,110	8%	245	\$28.67
25-2012	Kindergarten Teachers, Except Special Education	828	889	7%	98	\$39.41
25-2021	Elementary School Teachers, Except Special Education	11,324	12,015	6%	1,000	\$33.83
25-2022	Middle School Teachers, Except Special and Career/Technical Education	3,867	4,152	7%	353	\$33.79
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	7,866	8,377	6%	669	\$39.13
41-1012	First-Line Supervisors of Non-Retail Sales Workers	2,490	2,548	2%	257	\$29.93
41-3099	Sales Representatives, Services, All Other	8,072	8,673	7%	1,183	\$26.04
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	7,928	8,362	5%	952	\$27.31
41-9022	Real Estate Sales Agents	3,574	3,727	4%	379	\$28.84
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	5,381	6,034	12%	734	\$32.81

SOC Code	Occupation	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
47-2031	Carpenters	15,010	16,433	9%	1,914	\$24.76
47-2073	Operating Engineers and Other Construction Equipment Operators	2,831	3,050	8%	383	\$30.87
47-2111	Electricians	5,580	6,726	21%	942	\$25.56
47-2152	Plumbers, Pipefitters, and Steamfitters	4,283	4,927	15%	640	\$27.30
47-4011	Construction and Building Inspectors	823	874	6%	115	\$39.35
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	2,989	3,266	9%	343	\$34.72
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	2,621	2,540	-3%	298	\$28.92
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	1,450	1,581	9%	167	\$25.70
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	918	972	6%	106	\$28.16
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	3,546	4,032	14%	468	\$24.66
49-9041	Industrial Machinery Mechanics	1,237	1,357	10%	144	\$29.74
49-9052	Telecommunications Line Installers and Repairers	915	1,016	11%	128	\$25.44