



# LABOR MARKET PROFILE

## A WORKFORCE NEEDS ASSESSMENT FOR YUBA COLLEGE

NORTH/FAR NORTH CENTER OF EXCELLENCE FOR LABOR MARKET RESEARCH



## REPORT DEVELOPMENT

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**COVID-19 Statement:** This report includes employment projection data by EMSI. EMSI's projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy during the projection period will be at approximately full employment or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

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## Table of Contents

Executive Summary .....	4
Introduction .....	5
Methodology .....	6
Population and Demographics .....	6
Population size .....	6
Race and ethnicity .....	7
Age .....	7
Educational attainment .....	9
K-12 Enrollment and Projections .....	9
Labor Force and Unemployment .....	10
Labor Force Commuting Patterns .....	11
Industry Employment .....	13
Occupational Employment .....	15
Yuba College Career Education Program Inventory .....	17
<b>Agriculture and Natural Resources</b> .....	18
Agriculture .....	18
Veterinary Technology .....	18
Veterinary Assistant/ Receptionist .....	19
<b>Arts, Media, and Entertainment</b> .....	19
Mass Communications .....	19
Photographic Imaging .....	20
Commercial Art .....	20
<b>Business and Finance</b> .....	20
Business Administration and Management Programs .....	20
Accounting .....	21
Administrative Assistant .....	22
<b>Education, Child Development, and Family Services</b> .....	22
Early Care and Education .....	22
Human Services .....	23
<b>Health Science and Medical Technology</b> .....	24
Nursing .....	24
Psychiatric Technology .....	24

Radiologic Technology .....	25
<b>Hospitality, Tourism, and Recreation .....</b>	<b>25</b>
Culinary Arts .....	25
<b>Information and Communication Technologies (ICT) .....</b>	<b>26</b>
Computer Science .....	26
<b>Manufacturing and Product Development.....</b>	<b>26</b>
Manufacturing Technology.....	27
Welding.....	28
<b>Marketing, Sales, and Services .....</b>	<b>28</b>
Small Business Management .....	28
Cosmetology .....	29
<b>Public Services .....</b>	<b>30</b>
Administration of Justice .....	30
Fire Technology.....	31
Emergency Medical Technology.....	31
<b>Transportation .....</b>	<b>32</b>
Automotive Technology .....	32
Training Opportunities for Yuba College.....	33
Building and Construction Trades.....	33
Business and Finance .....	34
Education, Child Development, and Family Services.....	34
Engineering and Architecture .....	35
Health Science and Medical Technology .....	35
Information and Communication Technologies.....	36
Marketing, Sales, and Services.....	37
Transportation.....	38
Recommendations .....	39
Appendix A. Data Sources .....	41
Appendix B. Employment by Industry .....	42
Appendix C. Demand for Opportunity Occupations in the North (Greater Sacramento) region.....	44

## Executive Summary

The goal of this labor market profile is to highlight the job opportunities that exist within Yuba College's service area of Sutter and Yuba counties and assess where the college could expand training to meet local employer demand.

To understand and assess for opportunity gaps, the North/Far North Center of Excellence examined characteristics of the region's population and labor market. NFN COE found that:

- Residents in the college's service area tend to be younger than their counterparts across the North region. Nearly 60% of the resident population is under the age of 40 years old, with 45% of the population under 29 years old.
- Residents in the college's service area are more likely to have either attended some college or earned an associate's degree, compared to their counterparts across the North region.
- The region's K-12 student population is expected to increase at a faster rate than the North region. K-12 enrollment in the two-county service area is projected to increase by 18%, or nearly 7,000 students, by the 2028-2029 academic year.
- Yuba College's service area tends to have a higher unemployment rate than that of the region. The 2019 unemployment rate was 6.8% for Sutter-Yuba compared to 3.8% for the North region.
- Key industries in the college's service area include government, health care, agriculture, construction, transportation and warehousing, and retail and wholesale trade.

This report also provides a supply-and-demand analysis of Yuba College's existing career education programs, alignment to the California Department of Education (CDE) career education clusters, and 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:

- Yuba College offers programs that align with 11 of the 15 CDE career education clusters.
- Between 2016 and 2019, the college conferred a majority of awards in four career education clusters: business and finance; education, child development, and family services; healthcare; and, public services.

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

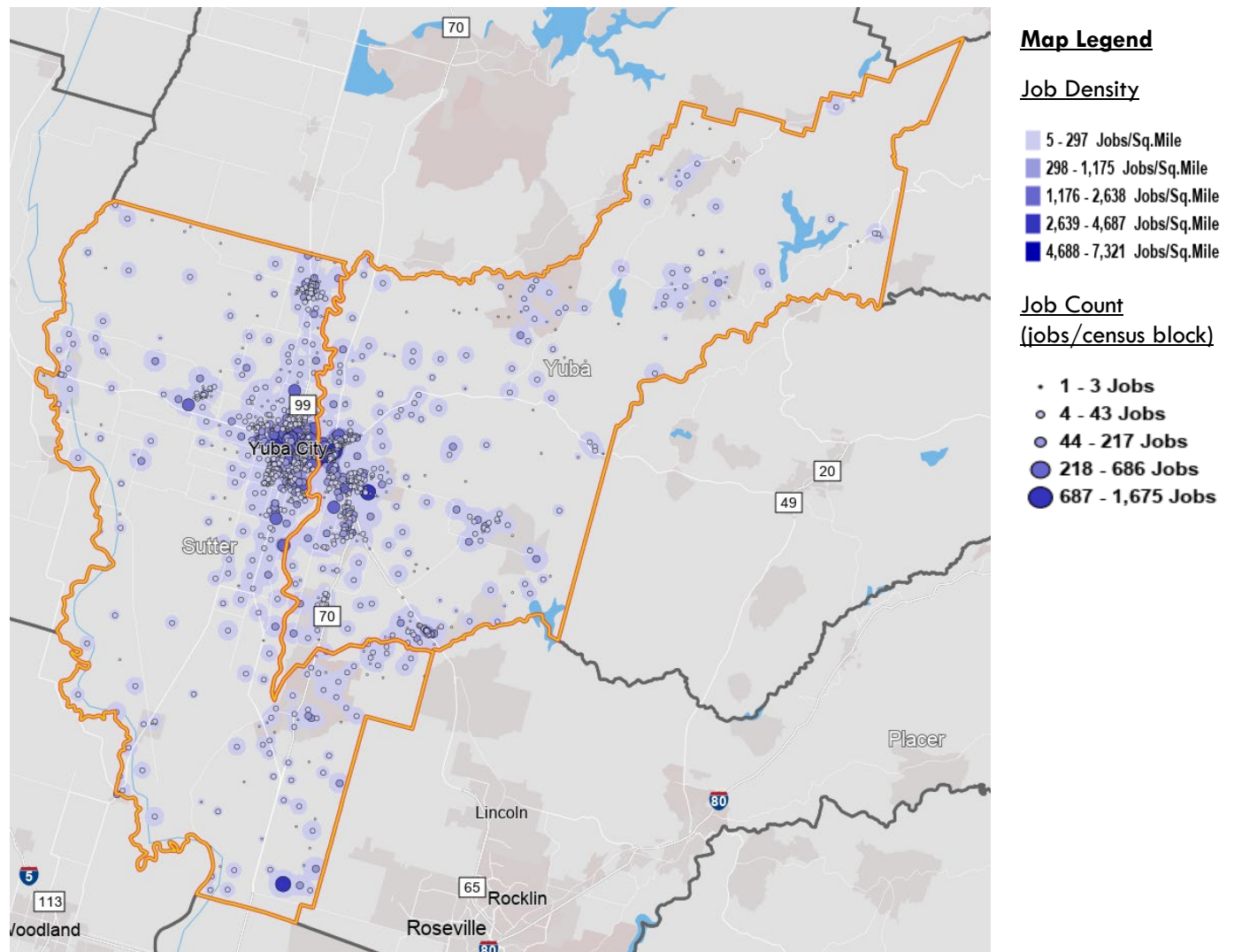
- Building and construction trades,
- Business and finance,
- Information and communication technologies, and
- Marketing, Sales, and Services.



## Introduction

Yuba College is a community college located in Marysville about 40 minutes north of Sacramento, California. The college primarily serves the residents of Sutter and Yuba counties. In addition, two educational centers are operated by the Yuba Community College District: the Sutter County Center in Yuba City, and the Beale Air Force Base Outreach Center, which serves the airmen and airwomen stationed at Beale AFB. Within the two-county service area, much of the job activity is concentrated in and around Yuba City (Exhibit 1).

**Exhibit 1. Job counts and density in Yuba College's service area, 2017<sup>1</sup>**



<sup>1</sup> 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 June 25, 2020, <https://onthemap.ces.census.gov>. LODS 7.4 Version 20170818.

## Methodology

The goal of this labor market profile is to illuminate job opportunities within Yuba College's two-county service area (Sutter and Yuba counties) 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 and 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. Yuba College's career education programs were further organized according to the California Department of Education's career education clusters and framework.<sup>2</sup>

Other analyses included in this report are an examination of Yuba College'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 of Yuba College's two-county service area.

### Population size

In 2019, about 182,000 residents lived within Yuba College's service area of Sutter and Yuba counties (Exhibit 2). Residents make up nearly 7% of the North (Greater Sacramento) region's population.

Between 2019 and 2024, the service area population is expected to increase by 8%, adding more than 14,000 residents. Yuba's service area population is expected to increase faster than the North region, 5%, and California, 2.5%.

### Exhibit 2. Resident population, Yuba College service area, 2019-2024 estimates, with 2010 census benchmark<sup>3</sup>

Geography	2010 Population	2019 Population	2024 Population	2019-2024 Projected % Change
Yuba College service area	167,251	181,872	196,194	7.9%
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%

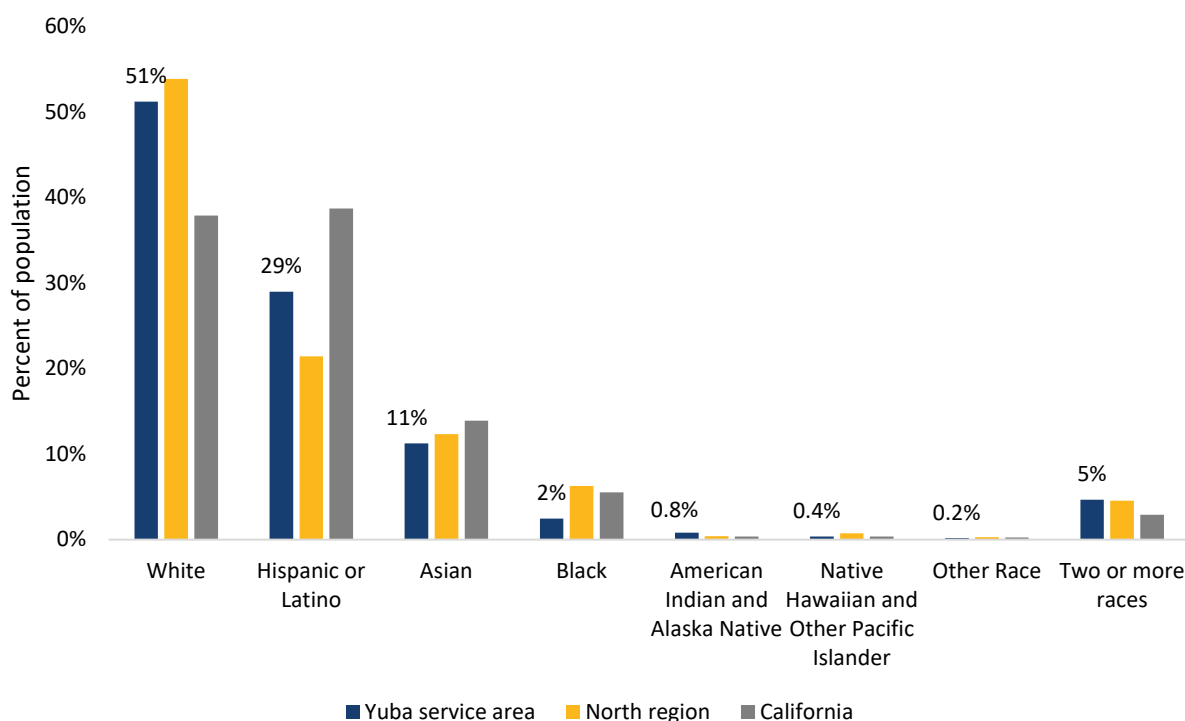
<sup>2</sup> California Department of Education, "CTE Model Curriculum Standards," July 16, 2020, accessed July 23, 2020, <https://www.cde.ca.gov/ci/ct/sf/ctemstandards.asp>.

<sup>3</sup> 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 the North region and those living in Yuba College’s service area predominantly identify as non-Hispanic white (Exhibit 3). According to U.S. Census data, about 51% of the residents living within Yuba College’s service area identify as white, compared to 38% of California residents. Within the service area, 29% of residents identify as Hispanic/Latinx, 11% as Asian, 2% as Black, 0.8% as American Indian/Alaskan Native, 0.4% as Native Hawaiian/Pacific Islander, and 0.2% as another race besides the ones categorized here. Five percent of service area residents identify as bi- or multi-racial.

**Exhibit 3. Population by race and ethnicity, Yuba College service area, 2014-2018<sup>4</sup>**



## Age

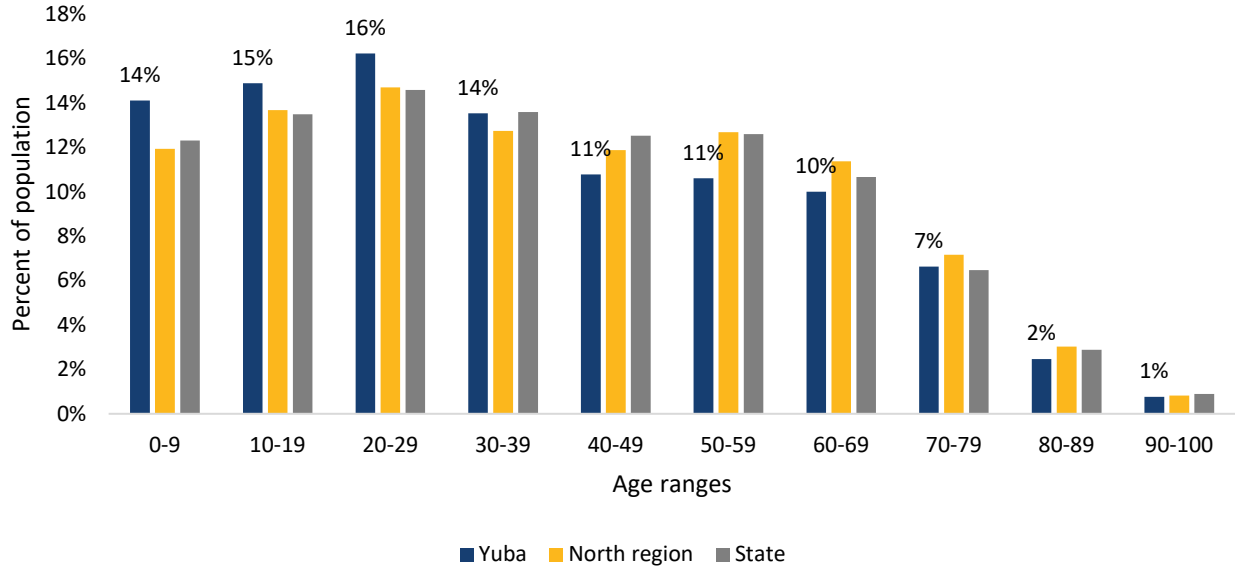
Overall, residents in Yuba College’s service area are younger than those in the North region and California (Exhibit 4). Nearly 60% of residents within Yuba’s service area are under the age of 40, and 45% of the population is under the age of 29. The estimated median age of all residents within Yuba’s service area is 36.2, about half a year younger than California residents, 36.7.<sup>5</sup>

<sup>4</sup> U.S. Census Bureau. (2020). *2014-2018 American Community Survey, 5-year estimates*. Retrieved from California Department of Finance State Census Data Center (SCDC), accessed June 1, 2020, [http://www.dof.ca.gov/Reports/Demographic\\_Reports/American\\_Community\\_Survey/](http://www.dof.ca.gov/Reports/Demographic_Reports/American_Community_Survey/).

<sup>5</sup> Ibid. California’s median age derived from the U.S. Census Bureau. (2020). *Median Age by Sex* (Table B01002). Accessed June 1, 2020, retrieved from <data.census.gov>.

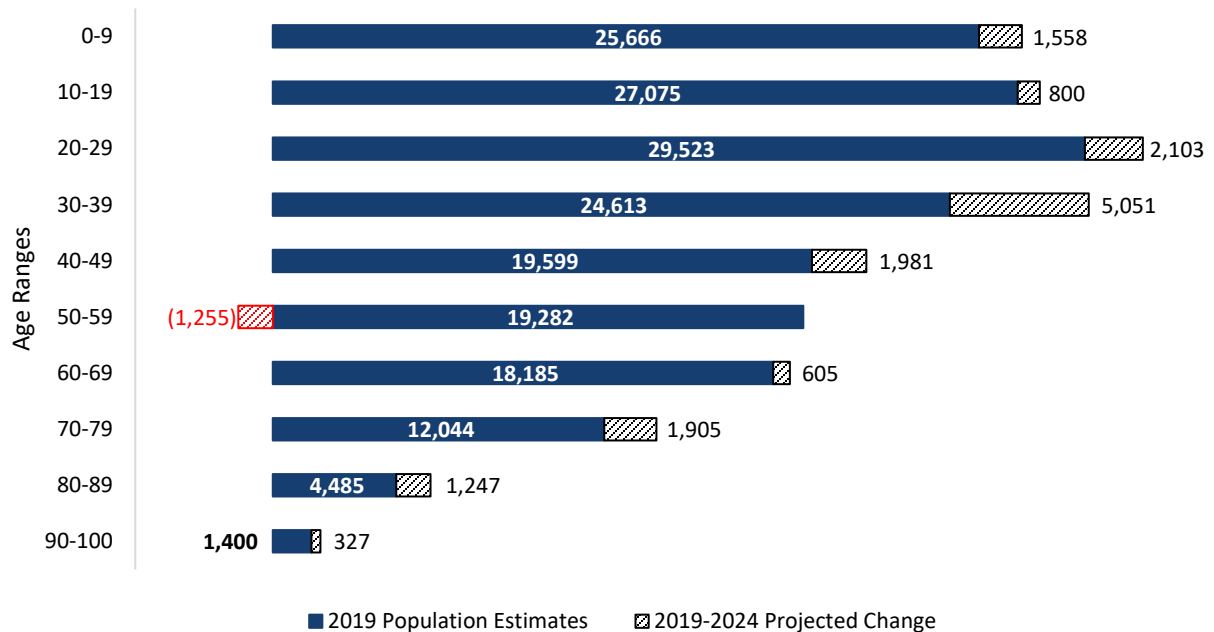


**Exhibit 4. Age group composition in the Yuba College service area, region, and California<sup>6</sup>**



Over the next five years, 66% of the projected changes in age groups will occur among residents under age 40 (Exhibit 5). While the 20-29 age group is the largest in Yuba College’s service area, the 30-39 age group will experience the most growth over the next five years, increasing by nearly 5,000 individuals or 21%.

**Exhibit 5. Projected change by age group, Yuba College service area<sup>7</sup>**



<sup>6</sup> 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/>.

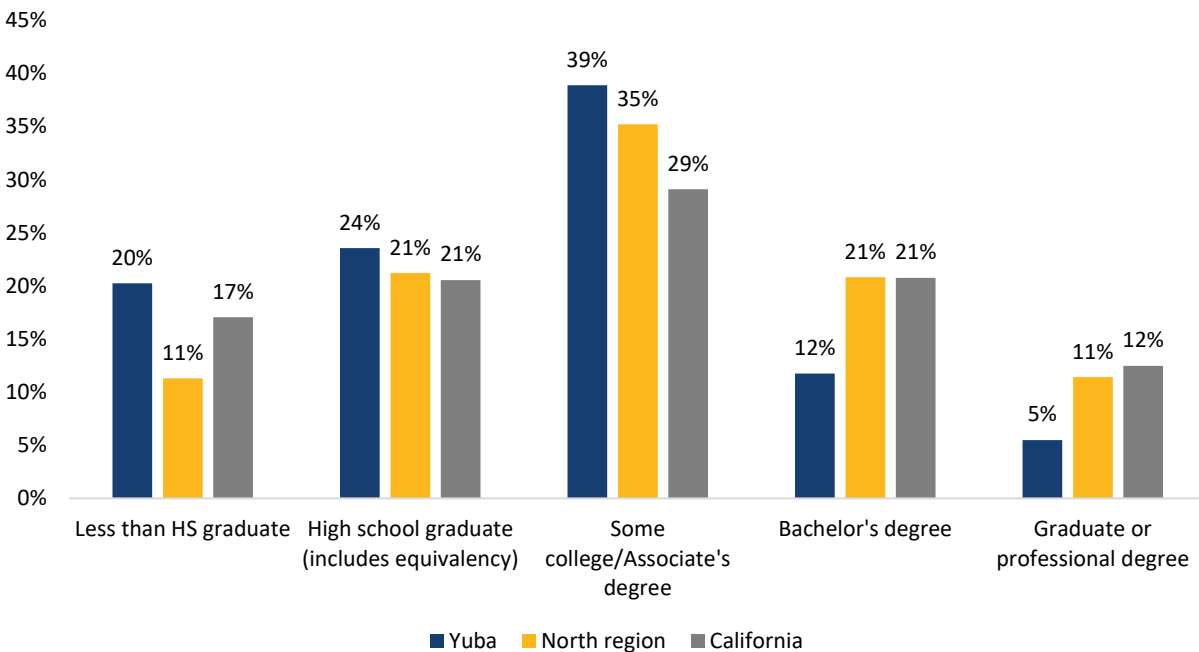
<sup>7</sup> Ibid.

## Educational attainment

Between 2014 and 2018, residents of Yuba College’s service area were more likely to have graduated high school and attended some college or earned an associate degree than California residents overall (Exhibit 6). Twenty-four percent of residents have graduated from high school, and 39% of residents have either attended some college or earned an associate 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 or advanced degree. Only 17% of service area residents hold a bachelor’s degree or higher, compared to 33% of Californians.

**Exhibit 6. Educational attainment of residents, Yuba College service area, 2014-2018<sup>8</sup>**



## K-12 Enrollment and Projections

The California Department of Finance publishes annual K-12 enrollment and projections for each county in the state. The latest set of data, the 2019 series, provides a 10-year projection based on 2018-19 enrollments.

Analysis of this dataset shows that K-12 enrollment in the two-county area is projected to increase at a faster rate than the North region and California (Exhibit 7). K-12 enrollment within the service area is projected to increase by nearly 18% over the next 10 years, which equates to an increase of 6,964 students in K-12 schools within Yuba College’s service boundaries by the 2028-29 academic year.

<sup>8</sup> U.S. Census Bureau. (2020). 2014-2018 American Community Survey, 5-year estimates. Retrieved from California Department of Finance State Census Data Center (SCDC), accessed June 1, 2020, [http://www.dof.ca.gov/Reports/Demographic\\_Reports/American\\_Community\\_Survey/](http://www.dof.ca.gov/Reports/Demographic_Reports/American_Community_Survey/).

**Exhibit 7. K-12 enrollment projections in Yuba College service area, North region, and California<sup>9</sup>**

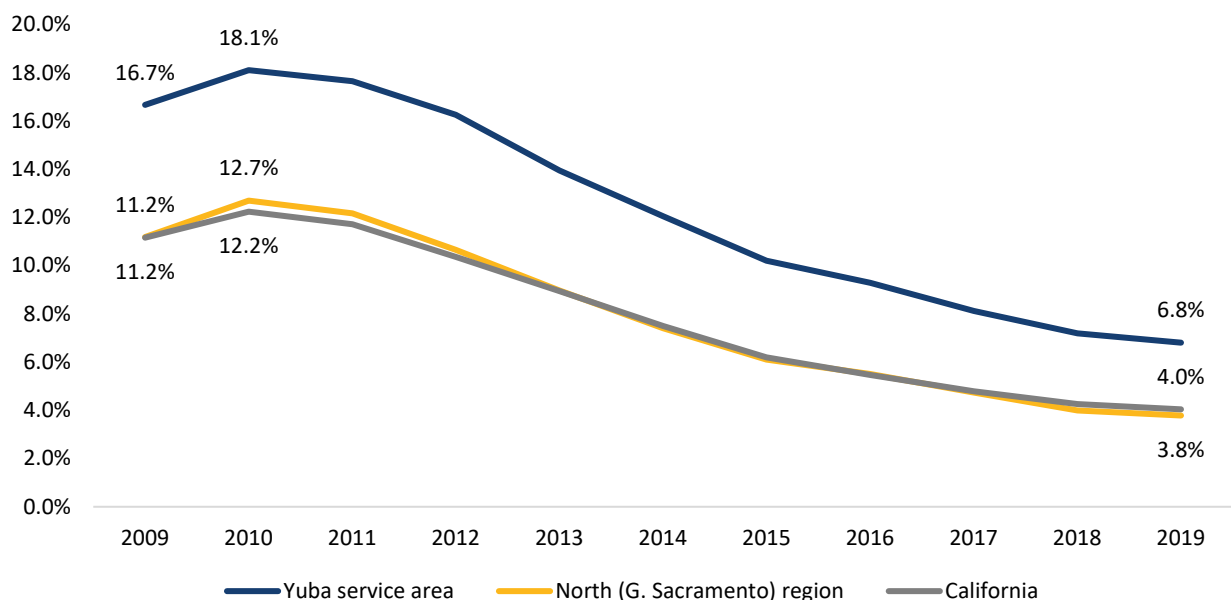
Geography	2018-19 K-12 Enrollment	2028-29 Projected K-12 Enrollment	10-year Projected % Change
Yuba College service area	39,568	46,532	18%
North (Greater Sacramento) region	430,502	453,079	5%
California	6,185,200	5,759,521	(7%)

## Labor Force and Unemployment

Unemployment rates and labor force data are based on an individual’s place of residence, rather than place of work. Unemployment, therefore, reflects the location’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 the service area are typically higher than those across the state (Exhibit 8). Unemployment in Sutter and Yuba counties peaked at 18% in 2010, six percentage points higher than the state’s and North region’s rates. Between 2010 and 2019, the service area’s unemployment steadily declined until it hit a low of just below 7%. While unemployment is still greater in the service area, the gap has considerably narrowed to less than three percentage points above the state’s unemployment rate.

**Exhibit 8. Unemployment rates in the Yuba College service area, North region, and California<sup>10</sup>**



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

<sup>10</sup> 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.<sup>11</sup> The most up-to-date version of this data comes from 2017 records, released in August 2019.

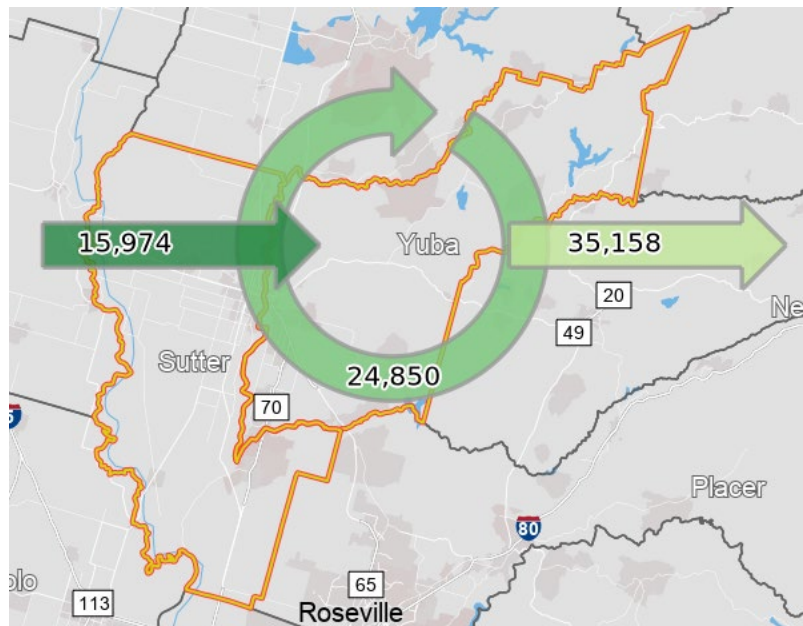
Analysis of commuting patterns shows that there are more residents commuting out of the region for work than those staying (Exhibit 9). In 2017, the two-county service area workforce comprised 61% residents and 39% non-residents. However, nearly 60% of the area's residents commute outside the two-county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

Of the 40,824 workers within the Yuba-Sutter boundary, 39% (15,974) lived outside of the area while 61% (24,850) lived in the area. This analysis suggests that employers within Yuba College's local labor market are more likely to hire workers among the service area's residents. In other words, if we were to view the service area as a labor force hub (i.e., a destination for work), local workers who are residents are more likely to fill jobs needed in the local labor market.

The two-county area can also be thought of as a labor force provider (i.e., supplying workers to jobs outside of the area). Of the 60,000 residents living within the service area boundaries, 59% (24,850 residents) work outside of the area while 41% (35,158 residents) work in the area.

Exhibit 10 shows where residents go to work, by city or place. Exhibit 11 shows this by county. Top commuting locations include destinations within the service area, as well as Sacramento and Placer counties.

**Exhibit 9. Worker flow dynamics of Yuba College's service area, 2017**



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

**Exhibit 10. Work destinations for residents by city or place, 2017<sup>12</sup>**

Work Destination (City or Place)	Number of workers	Share of workers
Yuba City (Yuba)	13,107	20.0%
Sacramento (Sacramento)	4,954	7.6%
Marysville (Yuba)	4,907	7.5%
Roseville (Placer)	2,155	3.3%
Linda (Yuba)	1,596	2.4%
Chico (Butte)	1,204	1.8%
San Francisco (San Francisco)	1,063	1.6%
Woodland (Yolo)	931	1.4%
Olivehurst (Yuba)	840	1.3%
Rancho Cordova (Sacramento)	800	1.2%
All Other Locations	33,921	51.8%
<b>Total All Jobs</b>	<b>65,478</b>	<b>100.0%</b>

**Exhibit 11. Work destinations for residents by county, 2017<sup>13</sup>**

Work Destination (County)	Number of workers	Share of workers
Sutter County	17,899	27.3%
Sacramento County	10,519	16.1%
Yuba County	9,383	14.3%
Placer County	5,100	7.8%
Butte County	3,443	5.3%
Yolo County	2,475	3.8%
Alameda County	1,611	2.5%
Colusa Count	1,264	1.9%
Santa Clara County	1,202	1.8%
Solano County	1,126	1.7%
All Other Locations	11,456	17.5%
<b>Total All Jobs</b>	<b>65,478</b>	<b>100.0%</b>

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<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

## 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 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 industries 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 61,044 jobs across all industries in the service area, accounting for approximately 5% of all jobs in the North (Greater Sacramento) region (Exhibit 12). Over the next five years, jobs in the Yuba service area are projected to increase by 14%, double the growth in the North region (7%) and more than double the growth across the state (6%). Yuba College's service area will add more than 4,000 new jobs by 2024.

**Exhibit 12. Five-year job projection changes by region, 2019-2024**

Geography	2019 Jobs	2024 Jobs	2019-2024 Projected % Change
Yuba College service area	61,044	65,490	14%
North (G. Sacramento) region	1,232,397	1,318,772	7%
California	19,939,649	21,131,526	6%

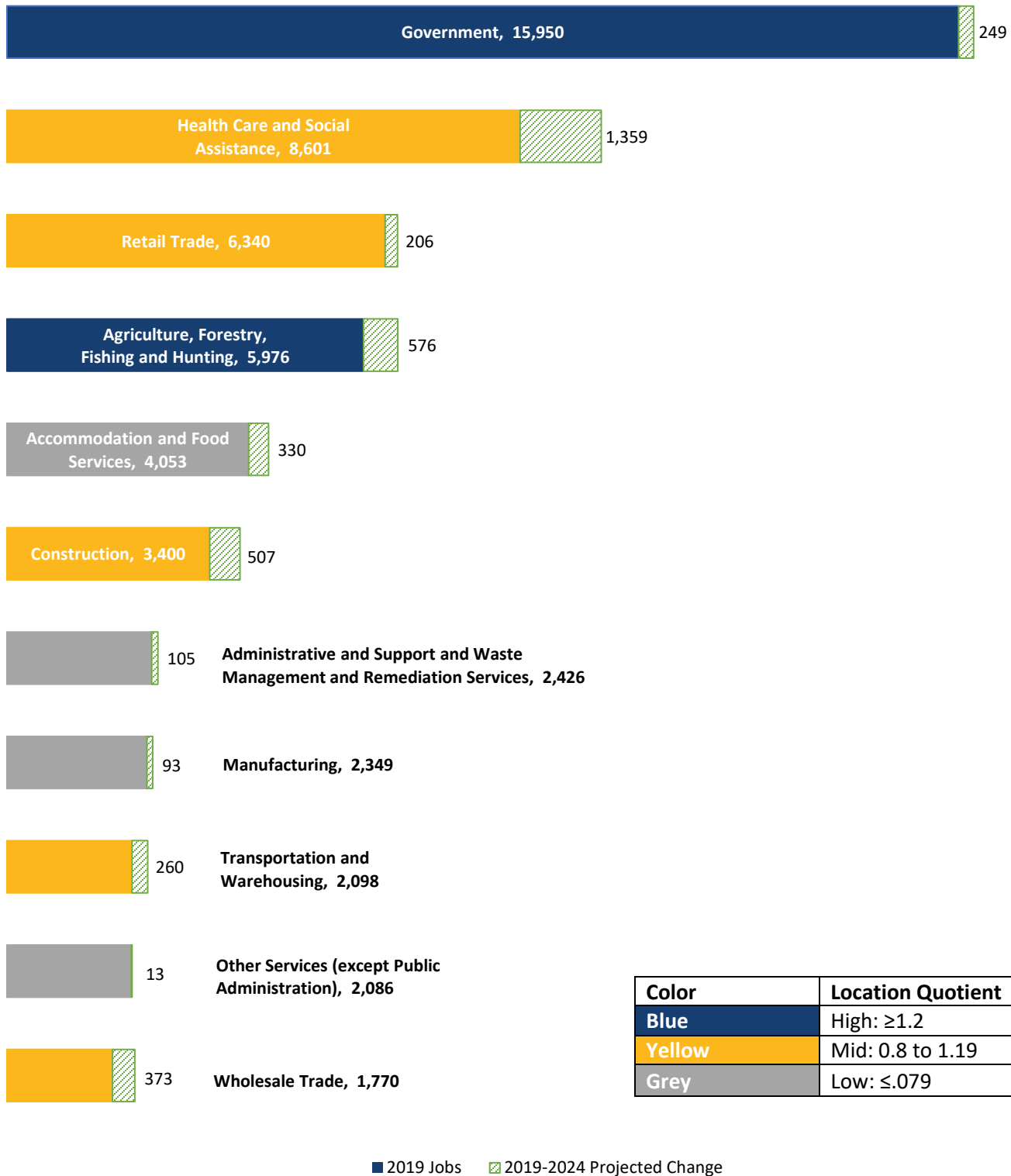
Eleven industries held 90% of all jobs (or, 55,050 jobs total) in Yuba College's service area (Exhibit 13). The remaining 6,000 jobs are distributed across nine other industries, which are listed in Appendix B. The top five industries with the most employment in 2019 were government (15,950 jobs), healthcare (8,601 jobs), retail (6,340 jobs), agriculture, forestry, fishing, and hunting (5,976 jobs), and accommodations and food services (4,053 jobs). The industries projected to add the greatest number of jobs through 2024 are health care (+1,376 jobs), agriculture, forestry, fishing, and hunting (+576 jobs), construction (+507 jobs), wholesale trade (+373 jobs), and accommodations and food services (+330 jobs).

Exhibit 13 shows the 11 industries color-coded by location quotient. A location quotient measures an industry's level of job concentration within a 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 share of jobs than the national average. Industries with a high location quotient, at least 1.2 in the service area, include government (1.75 LQ) and agriculture, forestry, fishing, and hunting (8.40 LQ). Jobs in these two industries represent 36% of all jobs in the service area. These location quotients indicate that these industries are important to the service area's economy.

Industries with mid-value location quotients, or those that are similar to the national economy, include healthcare (1.11 LQ), retail (1.04 LQ), construction (0.98 LQ), transportation and warehousing (0.92 LQ), and wholesale trade (0.79 LQ).



**Exhibit 13. Major industries, 2019 jobs, projected occupational demand, and location quotients in the Yuba College service area<sup>14</sup>**



<sup>14</sup> EMSI 2020.2. QCEW, non-QCEW, and self-employed. Accessed June 1, 2020.

## Occupational Employment

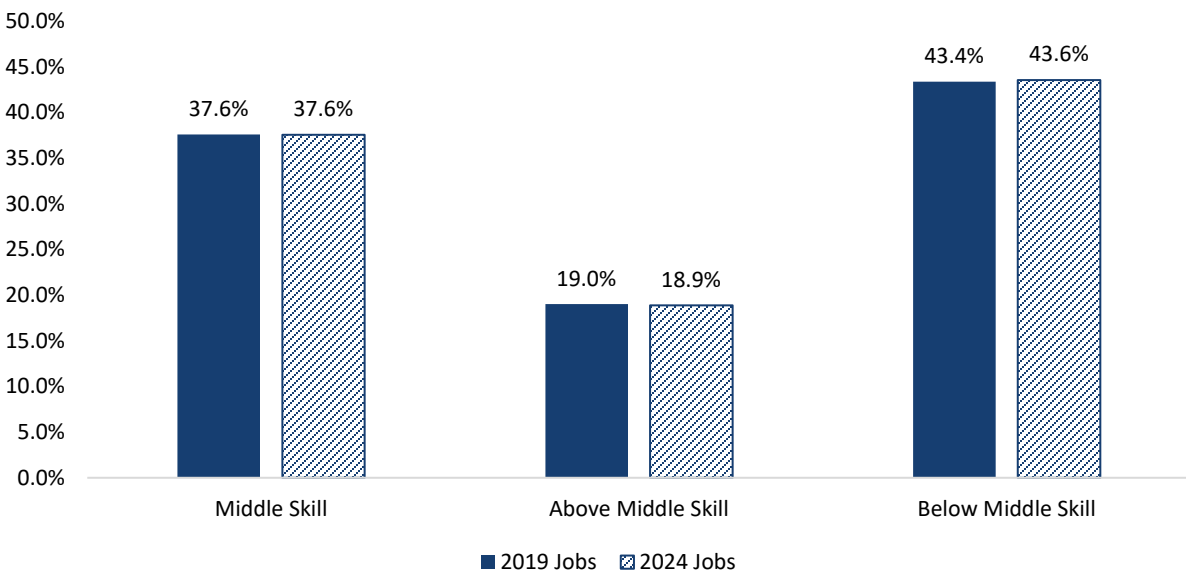
An occupation is a categorization that groups jobs with similar work tasks and functions. In other words, workers who perform the same or similar sets of tasks are grouped in the same occupation, regardless of the industry in which they work. Occupations are organized into groups based on the federal 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 jobs; these are job that tend to 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 more complete assessment of local employment needs.

In 2019, 37% of the 61,044 jobs in the two-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 14). Another 19% were categorized as above-middle-skill, and the remaining 42% were below middle-skill. The shares of jobs by skill level are expected to remain relatively the same over the next five years. Employers are expected to have 8,573 annual openings across all occupations, the equivalent of more than 42,000 new and replacement jobs available between 2019 and 2024.

**Exhibit 14. Share of current and projected jobs by skill level, Yuba College service area, 2019 and 2024<sup>15</sup>**



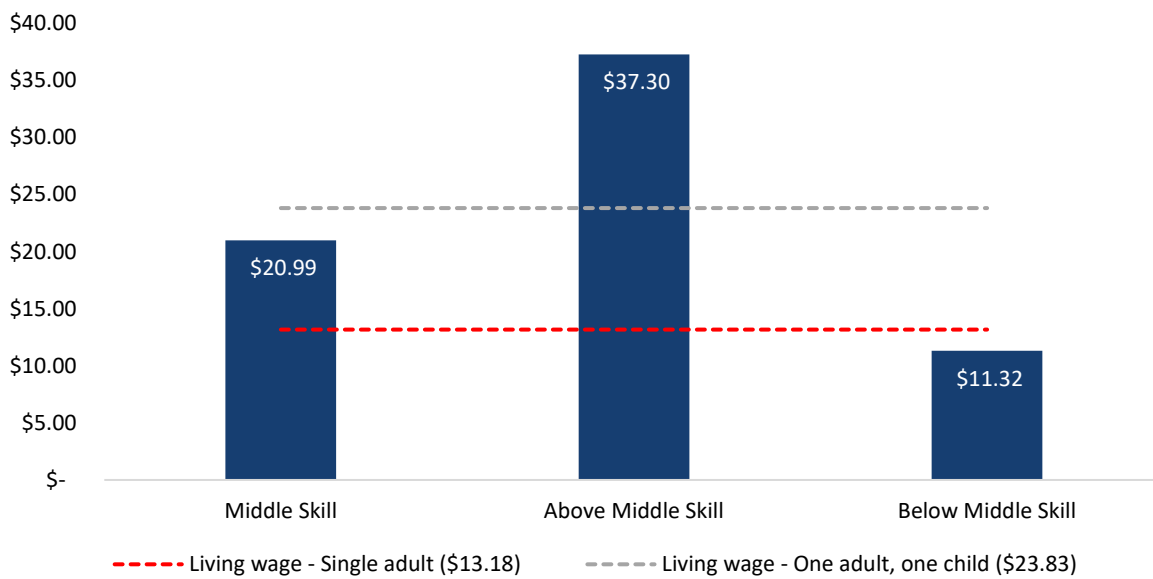
Community colleges have also been charged with ensuring that their training programs lead to job opportunities that pay at or above a regional living wage. The 2020 living wage for a single adult living in the seven-county North region (which includes the Yuba College service area) is \$13.18 per hour,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

<sup>15</sup> Ibid.

\$27,833.57 per year.<sup>16</sup> For a household with one adult and one school-age child, the living wage is \$23.83 per hour or \$50,330.14 per year.<sup>17</sup>

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 15). The average median hourly wage for below-middle-skill jobs is below this mark by \$1.86 and is slightly above the 2019 statewide minimum wage of \$11 per hour.

**Exhibit 15. Average median hourly wage by skill level, North region, 2019**



<sup>16</sup> Diana Pearce, "California Self Sufficiency Standard," the Self-Sufficiency Standard, the Center for Women's Welfare, 2020, accessed July 23, 2020, <http://www.selfsufficiencystandard.org/California>.

<sup>17</sup> Ibid.

## Yuba College Career Education Program Inventory

This section of the report reviews the programs offered by Yuba 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.<sup>18</sup> 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 Yuba College.

Yuba College offers programs in 11 of the 15 clusters<sup>19</sup>. An overview of the findings from the career education cluster analysis is shown in Exhibit 16. 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. 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.

**Exhibit 16. Alignment of Yuba College’s career education programs with CDE industry clusters**

CDE Industry Cluster	Number of Programs (by catalogue description)	Number of Occupations Aligned to Cluster	2019 Jobs	2019-2024 Annual Openings
Agriculture and Natural Resources	3	7	1,727	207
Arts, Media, and Entertainment	3	7	101	13
Building and Construction Trades	--	--	--	--
Business and Finance	6	16	4,151	479
Education, Childhood Development, and Family Services	6	6	1,281	190
Energy, Environment, and Utilities	--	--	--	--
Engineering and Architecture	--	--	--	--
Fashion and Interior Design	--	--	--	--
Health Science and Medical Technology	7	6	1,388	126
Hospitality, Tourism, and Recreation	1	2	394	67
Information and Communications Technologies	1	4	92	10
Manufacturing and Product Development	4	8	467	60
Marketing, Sales, and Services	2	9	1,795	204
Public Service	10	10	691	53
Transportation	7	3	422	48
<b>Total</b>	<b>50</b>	<b>78</b>	<b>12,509</b>	<b>1,457</b>

<sup>18</sup> 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>.

<sup>19</sup> Note: Based on 2019-2020 Yuba College Catalog with Spring 2020 changes.

## Agriculture and Natural Resources

Agriculture and natural resources 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

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Agriculture (0101.00)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> </ul>	1

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Farmers, Ranchers, and Other Agricultural Managers	Middle	863	104	\$28.97	228
Agricultural and Food Science Technicians	Middle	12	Insf. Data	\$19.51	99
Soil and Plant Scientists	Above	<10	Insf. Data	Insf. Data	47
Food Scientists and Technologists	Above	0	0	N/A	26

### Veterinary Technology

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Veterinary Technician (0102.10)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> </ul>	16

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Veterinary Technologists and Technicians	Middle	<10	Insf. Data	Insf. Data	106

## Veterinary Assistant/ Receptionist

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Veterinary Assistant/ Receptionist (0514.00)</b>	<ul style="list-style-type: none"> <li>Certificate of Achievement</li> </ul>	23*

\*Unable to disaggregate from administrative assistant certificate at this time.

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	693	84	\$17.91	2,075
Executive Secretaries and Executive Administrative Assistants	Middle	148	16	\$28.30	464

## Arts, Media, and Entertainment

Arts, media, and entertainment programs train students for creative, audio/video, and performance occupations. There are four general pathways within this industry sector: Design, Visual, and Media Arts; Performing Arts; Production and Managerial Arts; and Game Design.

### Mass Communications

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Mass Communications (0604.00)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> <li>A.A. Degree</li> <li>Certificate</li> </ul>	7

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Radio and Television Announcers	Middle	<10	Insf. Data	Insf. Data	19
Broadcast News Analysts	Above	<10	Insf. Data	Insf. Data	3
Film and Video Editors	Above	<10	Insf. Data	Insf. Data	22
Producers and Directors	Above	<10	Insf. Data	Insf. Data	84



## Photographic Imaging

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Photographic Imaging (1012.00)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> <li>Certificate of Achievement</li> </ul>	No awards

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Photographers	Middle	28	3	\$23.13	112

## Commercial Art

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Commercial Art (1013.00)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> </ul>	1

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Graphic Designers	Above	63	9	\$12.60	1,586
Commercial and Industrial Designers	Above	<10	Insf. Data	Insf. Data	13

## 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 (such as accounting, banking, and investing). Knowledge and skills in these areas apply to nearly every type of business and industry, so program completers may find opportunities across multiple career paths.

### Business Administration and Management Programs

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Business Administration (0505.00)</b>	<ul style="list-style-type: none"> <li>A.S.-T. Degree</li> </ul>	60

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>General Business Management (0506.00)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> </ul>	9
<b>Personnel Management (0506.00)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> </ul>	
<b>Retail Management (0506.50)</b>	<ul style="list-style-type: none"> <li>Certificate of Achievement</li> </ul>	0

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
First-Line Supervisors of Retail Sales Workers	Middle	515	63	\$19.18	1,222
Administrative Services Managers	Middle	94	9	\$43.72	2,343
Cost Estimators	Middle	77	11	\$35.74	247
General and Operations Managers	Above	586	67	\$41.98	1,740
Managers, All Other	Above	328	30	\$35.10	720
Business Operations Specialists, All Other	Above	286	32	\$33.08	1,146
Management Analysts	Above	234	26	\$35.46	2,491
Sales Managers	Above	125	14	\$43.52	366
Industrial Production Managers	Above	46	4	\$39.32	63

### Accounting

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Accounting (0502.00)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> <li>Certificate of Achievement</li> </ul>	18

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Bookkeeping, Accounting, and Auditing Clerks	Middle	634	80	\$17.19	1,551
Payroll and Timekeeping Clerks	Middle	66	8	\$21.82	243
Tax Preparers	Middle	65	8	\$18.35	90
Accountants and Auditors	Above	254	28	\$32.24	1,354

### Administrative Assistant

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Administrative Assistant (0514.00)</b>	<ul style="list-style-type: none"> <li>Certificate of Achievement</li> </ul>	23*

\*Unable to disaggregate from veterinary assistant certificate at this time.

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	693	84	\$17.91	2,075
Executive Secretaries and Executive Administrative Assistants	Middle	148	16	\$28.30	464

## 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 Care and Education

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Early Childhood Education (1305.00)</b>	<ul style="list-style-type: none"> <li>A.S.-T. Degree</li> <li>A.S. Degree</li> </ul>	100

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Child Development Teacher (1305.00)</b>	<ul style="list-style-type: none"> <li>Multiple Certificates of Achievement</li> <li>Certificates of Training</li> </ul>	
<b>Children with Special Needs Specialization (1305.20)</b>	<ul style="list-style-type: none"> <li>Certificate of Achievement</li> </ul>	1
<b>School Age Children (1305.50)</b>	<ul style="list-style-type: none"> <li>Certificate of Achievement</li> </ul>	0
<b>Infant and Toddler (1305.90)</b>	<ul style="list-style-type: none"> <li>Certificate of Achievement</li> </ul>	1

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Childcare Workers	Middle	655	101	\$11.87	1,334
Preschool Teachers, Except Special Education	Middle	279	34	\$14.38	475
Special Education Teachers, Preschool	Above	<10	Insf. Data	Insf. Data	6

#### Human Services

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Chemical Dependency Counselor (2104.40)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> <li>Certificate of Achievement</li> </ul>	14

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Social and Human Service Assistants	Middle	335	53	\$28.01	737
Community Health Workers	Middle	<10	Insf. Data	Insf. Data	74
Community and Social Service Specialists, All Other	Above	<10	Insf. Data	Insf. Data	125

## Health Science and Medical Technology

Programs in the health science and medical technology industry sector provide training for a wide range of careers in the health care sector, from entry-level to management as well as technical specialties. The knowledge and skills students learn here will allow them to provide safe and effective care or support to other health care practitioners. The six pathways in this sector are Biotechnology, Patient Care, Health Care Administrative Services, Health Care Operational Support Services, Public and Community Health, and Mental and Behavioral Health.

### Nursing

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Nursing (1230.10)</b>	<ul style="list-style-type: none"> <li>A.S. Degree (A.D.N.)</li> </ul>	58
<b>LVN to RN Career Mobility (1230.10)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> </ul>	
<b>LVN to RN Only (1230.10)</b>	<ul style="list-style-type: none"> <li>Certificate of Achievement</li> </ul>	
<b>Vocational Nursing (1230.20)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> </ul>	0

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Registered Nurses	Middle	895	76	\$42.80	1,627
Licensed Practical and Licensed Vocational Nurses	Middle	294	28	\$27.04	475

### Psychiatric Technology

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Psychiatric Technology (1239.00)</b>	<ul style="list-style-type: none"> <li>Certificate of Achievement</li> </ul>	7

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Psychiatric Technicians	Middle	<10	Insf. Data	Insf. Data	75

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Psychiatric Aides	Middle	<10	Insf. Data	Insf. Data	37

### Radiologic Technology

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Radiologic Technology (1225.00)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> </ul>	15

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Radiologic Technologists	Middle	91	7	\$54.13	98

## 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)	Awards	2016-2019 Annual Average Awards Conferred
<b>Culinary Arts (1306.30)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> <li>Certificate</li> </ul>	16

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	317	56	\$14.10	1,170



Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Chefs and Head Cooks	Middle	77	11	\$28.34	215

## Information and Communication Technologies (ICT)

Programs in the ICT sector prepare students for the quickly evolving and emerging technologies involved in computer science, software development, networking, telecommunications, and programming. The four training pathways are Information Support and Services; Networking; Software and Systems Development; Games and Simulation.

### Computer Science

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Computer Science (0707.10)</b>	<ul style="list-style-type: none"> <li>A.S.-T. Degree</li> <li>A.S. Degree</li> <li>Certificate of Achievement</li> </ul>	9

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Web Developers	Middle	14	Insf. Data	\$24.80	98
Software Developers, Applications	Above	60	7	\$33.18	462
Software Developers, Systems Software	Above	<10	Insf. Data	\$58.54	451
Computer Programmers	Above	<10	Insf. Data	Insf. Data	184

## 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.

## Manufacturing Technology

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Manufacturing Technology/Machining (0956.00)</b>	<ul style="list-style-type: none"> <li>• A.S. Degree</li> <li>• Certificate of Achievement</li> </ul>	2

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Inspectors, Testers, Sorters, Samplers, and Weighers	Middle	103	14	\$19.73	248
Machinists	Middle	103	11	\$15.90	121
Computer-Controlled Machine Tool Operators, Metal and Plastic	Middle	<10	Insf. Data	Insf. Data	33
Industrial Engineering Technicians	Middle	<10	Insf. Data	Insf. Data	17
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	Middle	0	0	N/A	7
Industrial Production Managers	Above	46	4	\$39.32	63

## Welding

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Welding Technologies (0956.50)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> </ul>	4
<b>Introductory Welding Technologies (0956.50)</b>	<ul style="list-style-type: none"> <li>Certificate of Achievement</li> </ul>	10
<b>Advanced Welding Technologies (0956.50)</b>	<ul style="list-style-type: none"> <li>Certificate of Achievement</li> </ul>	

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Welders, Cutters, Solderers, and Brazers	Middle	209	30	\$19.36	238
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	Middle	<10	Insf. Data	Insf. Data	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

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Small Business Management (0506.40)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> <li>Certificate of Achievement</li> </ul>	6

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Administrative Services Managers	Middle	94	9	\$43.72	2,343
General and Operations Managers	Above	586	67	\$ 41.98	1,740

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Managers, All Other	Above	328	30	\$ 35.10	720
Business Operations Specialists, All Other	Above	286	32	\$ 33.08	1,146
Sales Managers	Above	125	14	\$ 43.52	366

### Cosmetology

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Cosmetology (3007.00)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> <li>Certificate of Achievement</li> </ul>	11

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Hairdressers, Hairstylists, and Cosmetologists	Middle	258	36	\$12.46	1,069
Manicurists and Pedicurists	Middle	111	15	\$12.73	303
Skincare Specialists	Middle	<10	Insf. Data	Insf. Data	81
Makeup Artists, Theatrical and Performance	Middle	0	0	N/A	Insf. Data

## Public Services

Programs in the public services 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

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Law Enforcement (2105.00)</b>	<ul style="list-style-type: none"> <li>• A.S.-T. Degree</li> <li>• A.S. Degree</li> </ul>	50
<b>Basic Police Academy (2105.50)</b>	<ul style="list-style-type: none"> <li>• A.S. Degree</li> <li>• Certificate of Achievement</li> </ul>	148
<b>Reserve Training Module I Academy (2105.50)</b>	<ul style="list-style-type: none"> <li>• Certificate of Achievement</li> </ul>	
<b>Reserve Training Module II Academy (2105.50)</b>	<ul style="list-style-type: none"> <li>• Certificate of Achievement</li> </ul>	
<b>Reserve Officer Level 3 (2105.50)</b>	<ul style="list-style-type: none"> <li>• Certificate of Training</li> </ul>	
<b>Corrections (2105.10)</b>	<ul style="list-style-type: none"> <li>• A.S. Degree</li> </ul>	4
<b>Correctional Officer Academy (2105.10)</b>	<ul style="list-style-type: none"> <li>• Certificate of Training</li> </ul>	
<b>Special Investigator Academy (2105.40)</b>	<ul style="list-style-type: none"> <li>• Certificate of Achievement</li> </ul>	0

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Police and Sheriff's Patrol Officers	Middle	382	29	\$40.39	417
Correctional Officers and Jailers	Middle	41	4	\$25.01	247
First-Line Supervisors of Police and Detectives	Middle	32	2	\$20.40	39
First-Line Supervisors of Correctional Officers	Middle	27	Insf. Data	\$31.31	42
Detectives and Criminal Investigators	Middle	<10	Insf. Data	Insf. Data	76

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Forensic Science Technicians	Middle	<10	Insf. Data	Insf. Data	14
Bailiffs	Middle	0	0	N/A	30

### Fire Technology

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Fire Technology (2133.00)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> <li>Certificate of Achievement</li> </ul>	3
<b>Fire Technology-Fire Academy (2133.50)</b>	<ul style="list-style-type: none"> <li>A.S. Degree</li> <li>Certificate of Achievement</li> </ul>	22

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Firefighters	Middle	184	14	\$22.27	183
First-Line Supervisors of Fire Fighting and Prevention Workers	Middle	17	Insf. Data	\$39.28	19
Fire Inspectors and Investigators	Middle	<10	Insf. Data	Insf. Data	9

### Emergency Medical Technology

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Emergency Medical Technician (1250.00)</b>	<ul style="list-style-type: none"> <li>Certificate of Training</li> </ul>	N/A

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

## Transportation

Pathways in the transportation sector are designed to provide students with knowledge and skills related to the repair and maintenance of vehicles. There are eight focus areas, each with different career opportunities—on-road, off-road, stationary, rail, water/sear, air, space, and small engines and specialty equipment—across three career pathways: Operations; Structural Repair and Refinishing; and Systems Diagnostics, Service, and Repair.

### Automotive Technology

Program (TOP Code)	Award Type Offered	2016-2019 Annual Average Awards Conferred
<b>Automotive Body and Repair (0949.00)</b>	<ul style="list-style-type: none"> <li>• A.S. Degree</li> <li>• Certificate of Achievement</li> </ul>	2
<b>Master Mechanic (0948.00)</b>	<ul style="list-style-type: none"> <li>• A.S. Degree</li> <li>• Certificate of Achievement</li> </ul>	23
<b>Tune-Up &amp; Drivability (0948.00)</b>	<ul style="list-style-type: none"> <li>• A.S. Degree</li> <li>• Certificate of Achievement</li> </ul>	
<b>Automotive Drive Trains (0948.00)</b>	<ul style="list-style-type: none"> <li>• Certificate of Achievement</li> </ul>	
<b>Automotive Emission Technician (0948.00)</b>	<ul style="list-style-type: none"> <li>• Certificate</li> </ul>	
<b>Automotive Service Technician (0948.00)</b>	<ul style="list-style-type: none"> <li>• Certificate</li> </ul>	
<b>Transportation Engine Repair and Machining (0948.00)</b>	<ul style="list-style-type: none"> <li>• Certificate</li> </ul>	

Occupation	Skill Level	2019 Jobs	2019-2024 Annual Openings	2019 Median Hourly Wage	2019 North Annual Openings
Automotive Service Technicians and Mechanics	Middle	365	42	\$19.72	660
Automotive Body and Related Repairers	Middle	55	6	\$23.09	151
Electronic Equipment Installers and Repairers, Motor Vehicles	Middle	<10	Insf. Data	Insf. Data	4

## Training Opportunities for Yuba College

The analysis of community college program alignment with CDE clusters has identified many promising training opportunities for Yuba 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 in the North (Greater Sacramento) region. Selected occupations have more annual openings than the median number of annual openings across all occupations in the North region. In 2019, the median number of annual opening was 52.
2. High wages in the North (Greater Sacramento) region. Selected occupations pay more than the median hourly wage across all jobs in the North region. 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 represents 2019 employment and wages, and future demand for selected occupations in Yuba 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

Yuba College should consider adding a program focused on construction trades. Demand for construction-related jobs is strong in the college’s service area as well as in the North region. In addition, there is an opportunity for HVAC training, and general maintenance and repair training.

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
47-2031	Carpenters	Middle	598	715	19%	91	\$23.81
47-2111	Electricians	Middle	180	214	19%	30	\$33.09
47-2152	Plumbers, Pipefitters, and Steamfitters	Middle	146	157	8%	20	\$33.55
47-2221	Structural Iron and Steel Workers	Middle	72	110	52%	18	\$22.36



SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
47-2073	Operating Engineers and Other Construction Equipment Operators	Middle	160	161	1%	19	\$26.73
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	Middle	251	282	12%	34	\$30.99
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	Middle	200	212	6%	21	\$35.42
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Middle	94	101	8%	12	\$23.41
49-9071	Maintenance and Repair Workers, General	Middle	459	487	6%	52	\$20.41
11-9021	Construction Managers	Above	149	162	9%	14	\$ 33.25

**Business and Finance**

Opportunity pathways

- Business management

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
13-1081	Logisticians	Middle	156	157	0%	15	\$42.14
13-1071	Human Resources Specialists	Above	220	227	3%	24	\$27.41
11-3121	Human Resources Managers	Above	160	163	2%	15	\$21.57

**Education, Child Development, and Family Services**

Opportunity pathways

- Education

Yuba should consider how to strengthen its existing teacher education pipeline. Jobs for K-12 teachers are projected to have a significant number of openings over the next five years.

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
25-9041	Teacher Assistants	Middle	818	859	5%	96	\$17.60
25-2021	Elementary School Teachers, Except Special Education	Above	1,077	1,123	4%	91	\$37.62
25-2022	Middle School Teachers, Except Special and Career/Technical Education	Above	667	692	4%	55	\$39.61
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	Above	430	459	7%	37	\$58.83

## Engineering and Architecture

### Opportunity pathways

- Architectural design
- Engineering technology
- Engineering design

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
17-3022	Civil Engineering Technicians	Middle	63	62	6	\$32.80	17-3022
17-3029	Engineering Technicians, Except Drafters, All Other	Middle	59	62	6	\$46.71	17-3029
17-2051	Civil Engineers	Above	302	298	24	\$51.77	17-2051

## Health Science and Medical Technology

### Opportunity pathways

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

Yuba College should consider offering training related to clinical and medical laboratory technicians and technologists and health technologists. The health technologists and technicians, all other occupation encompasses a variety of specialized diagnostic technician jobs. This includes neurodiagnostic specialties, such as electroencephalographic (EEG) or electroneurodiagnostic (END) technicians, ophthalmic technicians, radiologic (X-ray) technicians, and surgical assistants.

According to the Chancellor’s Office of Curriculum Inventory (COCI), Yuba College has an active program for licensed practical and vocational nurses. However, there have been few to no awards conferred by the program in the last three years. A deeper dive into DataMart reveals that the last award in this program was in the 2013-14 academic year. Yuba College should reconsider the need for this program and look for ways to improve enrollment, retention, and completion numbers.

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
<b>29-2018</b>	Clinical Laboratory Technologists and Technicians	Middle	102	113	10%	10	\$47.74
<b>29-2099</b>	Health Technologists and Technicians, All Other	Middle	102	116	14%	10	\$19.83
<b>31-1014</b>	Nursing Assistants	Middle	507	555	8%	69	\$15.91
<b>11-9111</b>	Medical and Health Services Managers	Above	108	124	15%	12	\$57.89
<b>11-9151</b>	Social and Community Service Managers	Above	99	118	19%	13	\$39.86
<b>29-2061</b>	Licensed Practical and Licensed Vocational Nurses	Middle	294	317	8%	28	\$27.04

## Information and Communication Technologies

Opportunity pathways

- Information support and services
- Networking

Yuba should consider offering an IT support program, with a focus on computer user support. While network support shows zero growth, consider the transition to the “work-from-home” economy and the need to maintain employer networks to support employee access, which are recent developments not reflected in available data.

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
15-1151	Computer User Support Specialists	Middle	113	121	7%	12	\$22.45
15-1152	Computer Network Support Specialists	Middle	18	18	0%	Insf. Data	\$32.81

## Marketing, Sales, and Services

### Opportunity pathways

- Professional sales

The college should consider a training pathway focused specifically on sales that includes training managers, supervisors, customer service representatives, buying and purchasing agents, and sales representatives across multiple industries.

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
41-1012	First-Line Supervisors of Non-Retail Sales Workers	Middle	100	110	10%	12	\$23.34
41-3099	Sales Representatives, Services, All Other	Middle	210	243	16%	35	\$17.93
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	Middle	506	602	19%	77	\$22.20
43-4051	Customer Service Representatives	Middle	400	422	5%	60	\$16.84
11-2022	Sales Managers	Above	125	136	9%	14	\$43.52
13-1028	Buyers and Purchasing Agents	Above	95	102	7%	11	\$27.00
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	Above	78	96	24%	13	\$35.04

## Transportation

### Opportunity pathways

- Systems diagnostics, service, and repair

A program opportunity exists for the installation, maintenance, and repair of large and heavy equipment, which is important to agriculture, construction, and transportation industries in the college's service area. Also, aircraft maintenance could be a specialized program offered by the college.

SOC	Occupation	Skill Level	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
<b>49-1011</b>	First-Line Supervisors of Mechanics, Installers, and Repairers	Middle	200	212	6%	21	\$35.42
<b>49-3011</b>	Aircraft Mechanics and Service Technicians	Middle	207	209	1%	19	\$31.85
<b>49-3031</b>	Bus and Truck Mechanics and Diesel Engine Specialists	Middle	76	90	17%	10	\$25.01
<b>49-3042</b>	Mobile Heavy Equipment Mechanics, Except Engines	Middle	129	136	5%	15	\$30.40

## Recommendations

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

- Agriculture, forestry, fishing, and hunting is an important industry within the college's service area. While the college offers a variety of programs that seem to align to crop production and animal care, as well as some aspects of agricultural business, there is room to expand programming to meet other needs within the industry. For instance, Yuba College could offer training that targets the operation and use of agricultural machinery, maintenance and repair of large machinery and transportation devices, and sales.
- Government is a key 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 government within the service area.
- Yuba College should also expand its health care training programs. There is substantial need for nursing assistants both within the service area and in the North region, with 69 and 960 annual openings through 2024, respectively. Furthermore, the college should examine its licensed practical and vocational nurse (LVN) program. There are 28 annual openings for licensed practical and vocational nurses in the college's service area, and another 475 annual openings in the North region; yet, Yuba College has conferred zero awards in the program since the 2013-2014 academic. Yuba College's LVN program is one of only two offered by community colleges in the North region.

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

- Construction 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.
- 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 (retail and wholesale) are also important to the service area. Yuba College should offer training related to these sectors, with a particular focus on sales.

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

- There is 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.
- There is also significant demand for teaching assistants. Projected annual openings show 96 openings per year in the service area, and a total of 1,445 annual openings across the North region. Yuba College should explore offering training related to teacher assistants.
- 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, Yuba 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 Yuba College

serves. Yuba 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>

California Department of Finance. (2020). *Forecasting*. <http://www.dof.ca.gov/Forecasting/>

Centers of Excellence for Labor Market Research. (2016). TOP to SOC Crosswalk. <http://coecc.net/>

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National Center for O\*NET Development. (2020). O\*NET OnLine. <https://www.onetonline.org/>

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<https://lehd.ces.census.gov/>



## Appendix B. Employment by Industry

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

Industry	2019 Jobs	2024 Jobs	2019- 2024 Projected Change	2019- 2024 Projected % Change	2019 Location Quotient
Government	15,950	16,199	249	2%	1.75
Health Care and Social Assistance	8,601	9,961	1,359	16%	1.11
Retail Trade	6,340	6,546	206	3%	1.04
Agriculture, Forestry, Fishing, and Hunting	5,976	6,552	576	10%	8.40
Accommodation and Food Services	4,053	4,383	330	8%	0.77
Construction	3,400	3,906	507	15%	0.98
Administrative and Support and Waste Management and Remediation Services	2,426	2,531	105	4%	0.64
Manufacturing	2,349	2,442	93	4%	0.49
Transportation and Warehousing	2,098	2,358	260	12%	0.92
Other Services (except Public Administration)	2,086	2,099	13	1%	0.72
Wholesale Trade	1,770	2,142	373	21%	0.79
Professional, Scientific, and Technical Services	1,491	1,602	111	7%	0.37
Educational Services	1,034	1,151	117	11%	0.66
Finance and Insurance	929	998	69	7%	0.38
Arts, Entertainment, and Recreation	848	891	43	5%	0.79
Real Estate and Rental and Leasing	839	867	28	3%	0.81
Information	282	258	(24)	-8%	0.25
Management of Companies and Enterprises	231	253	22	10%	0.26
Mining, Quarrying, and Oil and Gas Extraction	178	181	4	2%	0.69

Industry	2019 Jobs	2024 Jobs	2019- 2024 Projected Change	2019- 2024 Projected % Change	2019 Location Quotient
Utilities	152	168	16	10%	0.74
Unclassified Industry	11	-	(11)	-100%	0.21
<b>Total</b>	<b>61,044</b>	<b>65,490</b>	<b>4,446</b>	<b>7%</b>	<b>--</b>

## 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
11-2022	Sales Managers	3,631	3,807	5%	366	\$50.24
11-3121	Human Resources Managers	1,217	1,277	5%	118	\$48.07
11-9021	Construction Managers	3,715	4,090	10%	358	\$39.14
11-9111	Medical and Health Services Managers	2,460	2,861	16%	289	\$56.32
11-9151	Social and Community Service Managers	2,301	2,614	14%	275	\$28.70
13-1028	Buyers and Purchasing Agents	2,446	2,467	1%	251	\$31.97
13-1071	Human Resources Specialists	3,515	3,691	5%	397	\$31.81
13-1081	Logisticians	1,083	1,149	6%	120	\$40.10
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
17-2051	Civil Engineers	5,170	5,284	2%	440	\$55.48
17-3022	Civil Engineering Technicians	695	699	1%	72	\$33.52
17-3029	Engineering Technicians, Except Drafters, All Other	584	607	4%	63	\$30.74
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
25-9041	Teacher Assistants	12,186	12,847	5%	1,445	\$15.04
29-2018	Clinical Laboratory Technologists and Technicians	1,719	1,874	9%	159	\$30.74
29-2061	Licensed Practical and Licensed Vocational Nurses	4,512	5,073	12%	475	\$27.48

SOC Code	Occupation	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
29-2099	Health Technologists and Technicians, All Other	1,490	1,812	22%	176	\$24.31
31-1014	Nursing Assistants	6,767	7,562	12%	960	\$15.44
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
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	1,371	1,470	7%	171	\$36.14
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	7,928	8,362	5%	952	\$27.31
43-4051	Customer Service Representatives	14,135	14,911	5%	2,096	\$17.38
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	5,381	6,034	12%	734	\$32.81
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
47-2221	Structural Iron and Steel Workers	367	536	46%	87	\$26.12
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	2,989	3,266	9%	343	\$34.72
49-3011	Aircraft Mechanics and Service Technicians	724	763	5%	71	\$32.30
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

SOC Code	Occupation	2019 Jobs	2024 Jobs	2019-2024 % Change	Annual Openings	Median Hourly Earnings
49-9071	Maintenance and Repair Workers, General	8,734	9,563	9%	1,053	\$19.82