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WORKFORCE DEMAND ASSESSMENT

# High Desert Region

INLAND EMPIRE / DESERT



**2024**

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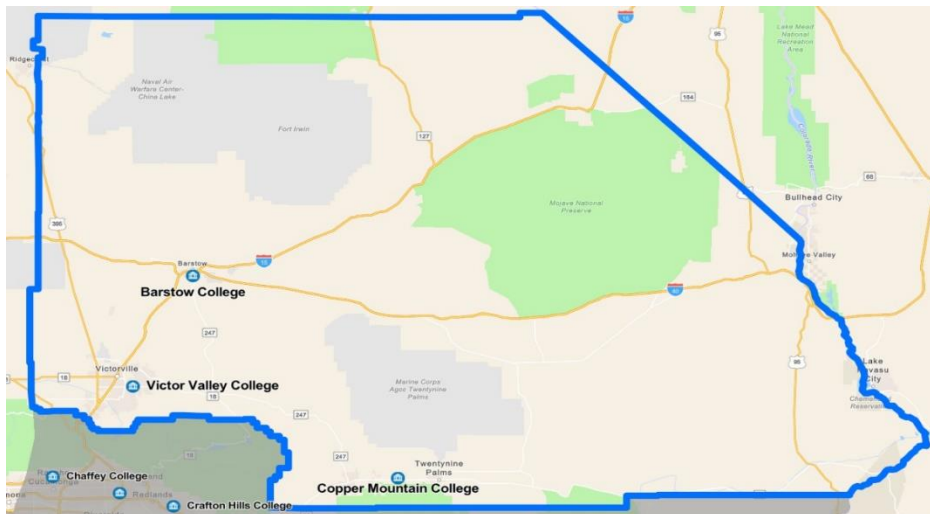
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## High Desert Subregional Overview

San Bernardino County's High Desert Subregion extends north from the San Bernardino Mountains and San Gabriel Mountains to the southern border of Inyo County. The subregion extends east from the Los Angeles County border to the Arizona and Nevada state lines. The High Desert subregion is the largest of the four subregions by area but contains about 11.8% of the regional population and 9.4% of its jobs. The subregion is home to three community colleges and 10 high school districts. See Appendix B for a list of ZIP codes associated with this subregion.<sup>1</sup>

To assist regional community colleges with strategic planning and career education (CE) program development, the Inland Empire/Desert Region Center of Excellence (COE) conducted a series of subregional workforce demand assessments to pinpoint high-quality job opportunities for program investment. This analysis identifies occupations that show strong workforce demand and offer median hourly earnings that exceed the state's living wage standard. The occupations highlighted in this assessment may be used to calibrate or develop CE training programs designed to address the region's in-demand and high-wage job opportunities. This subregional brief also presents demographic, industry, and occupation data in the Inland Empire-San Bernardino County Metro Subregion. See A for Methodology and Data Sources used in this report.

### Community colleges in the High Desert Subregion



NOTE: The data presented in this report was derived from Lightcast's Analyst program, data set 2023.4 and U.S. Census Bureau American Community Survey tables and will be individually cited as applicable.

<sup>1</sup> ZIP-level data in Lightcast is based on county-level data using U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW) dataset. It is important to note that ZIP codes are not geographical areas and are typically points on a map that may be used to approximate geographical boundaries. ([kb.lightcast.io/en/articles/6957501-zip-level-employment-data](https://kb.lightcast.io/en/articles/6957501-zip-level-employment-data))

# Overview of the Inland Empire- High Desert Subregion

**Exhibit 1.** Overview of the High Desert Subregion



**549,903**  
Population (2022)

Population grew by 22,165 over the last 5 years and is projected to grow by 965 over the next 5 years.



**\$76.4**  
Avg. Earnings Per Job (2022)

Regional average earnings per job are \$4.4K below the national average earnings of \$80.1K per job.



**175,186**  
Total Regional Employment

Jobs grew by 13,333 over the last 5 years and are projected to grow by 15,320 over the next 5 years.



**175,186**  
Projected Job Growth (2023)

From 2017 to 2022, jobs increased by 8.2% in High Desert from 161,852 to 175,186. This change outpaced the national growth rate of 3.8% by 4.4%.



**115,032**

## Millennials

High Desert Region has 115,032 millennials (ages 25-39). The national average for an area this size is 111,815.



**132,627**

## Retirement risk is low in your area.

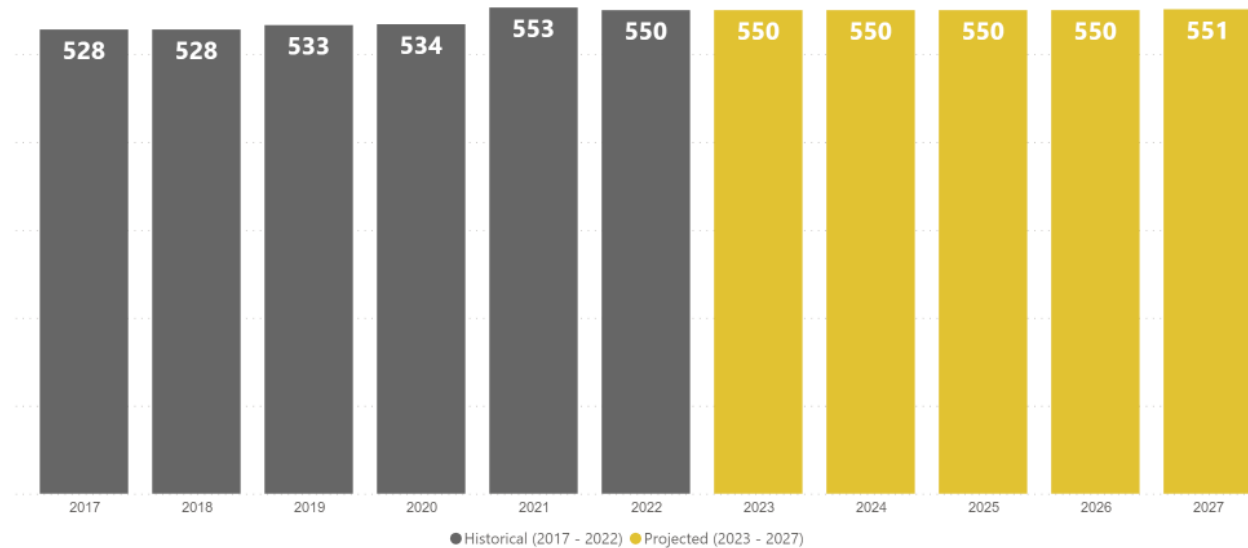
The national average for an area this size is 164,796 people 55 or older, while there are 132,627 here.

## Demographics and Labor Force

### Population

In 2022, the High Desert Subregion contained about 549,900 residents, or 11.7% of the region's 4.68 million residents (Exhibit 2). As of 2022 the subregion's population increased by 4.2% since 2017, growing by 22,165. Population is expected to increase by 0.2% between 2023 and 2027, adding only 1k of residents.<sup>2</sup>

**Exhibit 2.** Population change, in thousands, High Desert Region, 2017-2027



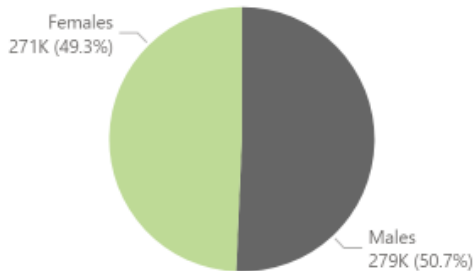
### Gender

The subregion's population has slightly more male (50.7%) than female (49.3%) residents (Exhibit 3). The subregional gender distribution percentage is similar to that of the entire region.<sup>2</sup>

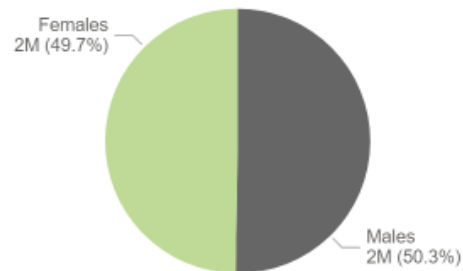
<sup>2</sup> Lightcast 2023.4 – QCEW, Non-QCEW Employees, Self-Employed

**Exhibit 3.** Population Gender Region to Subregion comparison, High Desert Region, 2022

Subregional 2022 Population by Gender



Regional 2022 Population by Gender



### Age

The size of population represented in age categories may provide insight into future demand for housing, services, and educational enrollment needs. Age categories used in this report are as follows and includes 550k individuals in this cohort. (Exhibit 4 & 5)

- ◆ School age is generally 0 – 24, which represented 38.2% of the subregion’s ~550K 2022 population.
- ◆ Working-age is 25 – 64 which represented 48.4% of the subregion’s ~550K 2022 population. This group is projected to grow to 48.9% in 2027; whereas School age category is projected to decline to 37.3% which could potentially be due to aging population and slow group in the total population.

An interesting way to further disaggregate this cohort is to filter the age of the working-age (Exhibit 4) to include between 25 and 69 years of age which equates to ~292K individuals. Note that the Bureau of Labor Statistics defines individuals between ages of 25 – 54 as the “prime-working-age”.

- Early career (< 35) represents 26.2% in 2022 of the working-age cohort and is projected to decrease to 25.1% by 2027.
  - Mid-career (35 – 54) represents 44.8% in 2022 of the working-age cohort and is projected to increase to 48.5% by 2027.
  - Late career (55+) represents 29.0% of the working-age cohort and is projected to decrease to 26.4% by 2027.
- ◆ Retirement age is +65 which represented 13.5% of the subregion’s ~550K 2022 population. This group is projected to increase slightly to 13.9% by 2027.

**Exhibit 4.** Working-age Distribution Comparison in Inland Empire/Desert Subregion, 2022

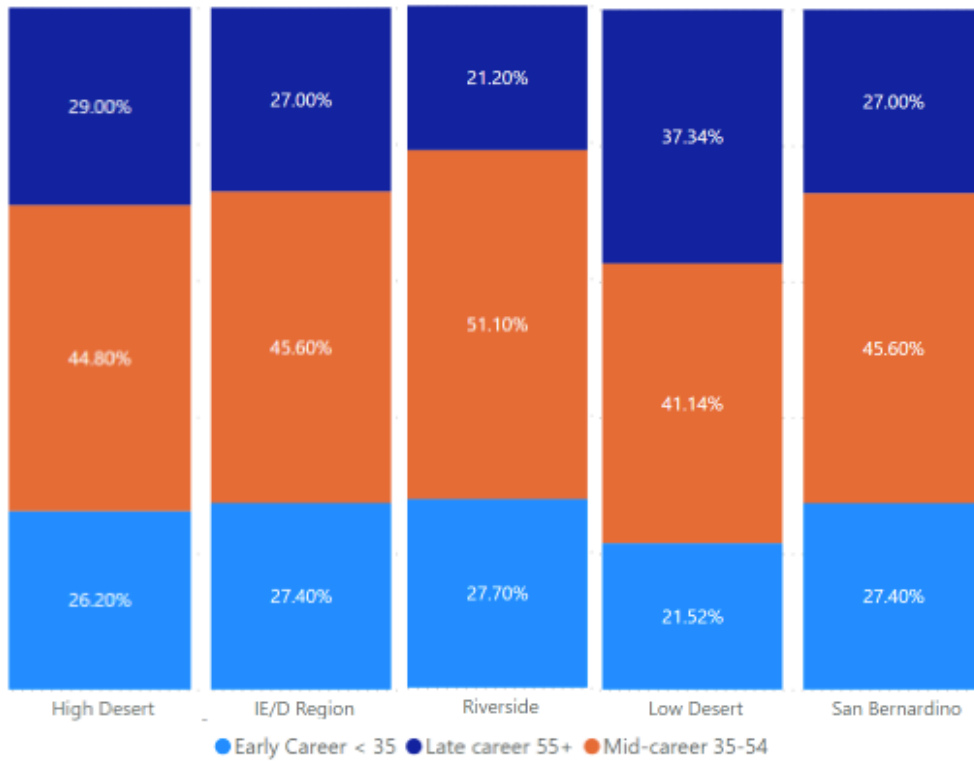
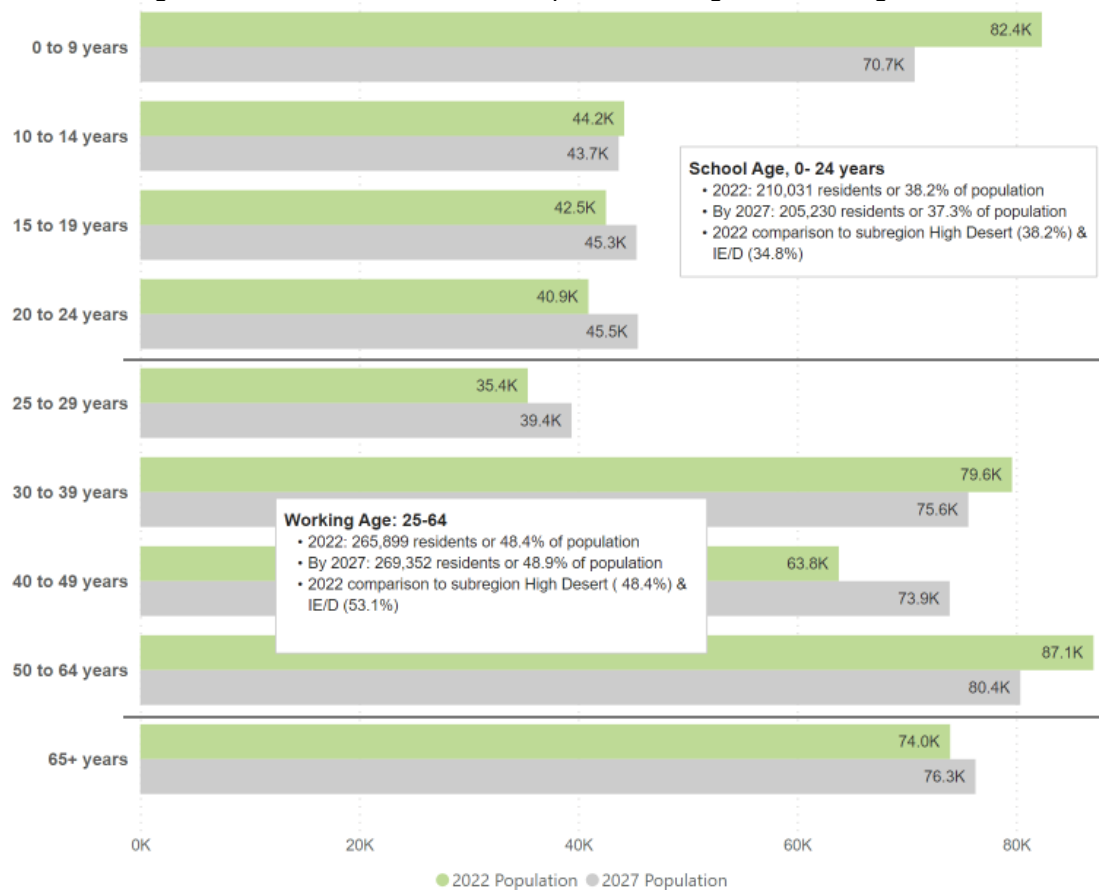


Exhibit 5 is showing the age distribution comparison between 2022 and 2027. The data shows a significant increase by 2027 in the traditional college going years (20–24-year-old) and in early career (25-29 old) individuals in this subregion.

**Exhibit 5. Age Distribution 2022 - 2027 comparison in High Desert Region**



## Ethnicity

The U.S. Census Bureau adheres to the U.S. Office of Management and Budget Guidelines when collecting race and ethnicity data from residents. This includes the decision to employ separate questions for race and ethnicity, as outlined in the Office of Management and Budget (OMB) 1994 directives. It's essential to acknowledge that while this approach complies with established guidelines, the Center of Excellence (COE) recognizes that this representation may not fully capture the nuanced diversity within the population.

Race and ethnicity data can be interpreted in several different ways:

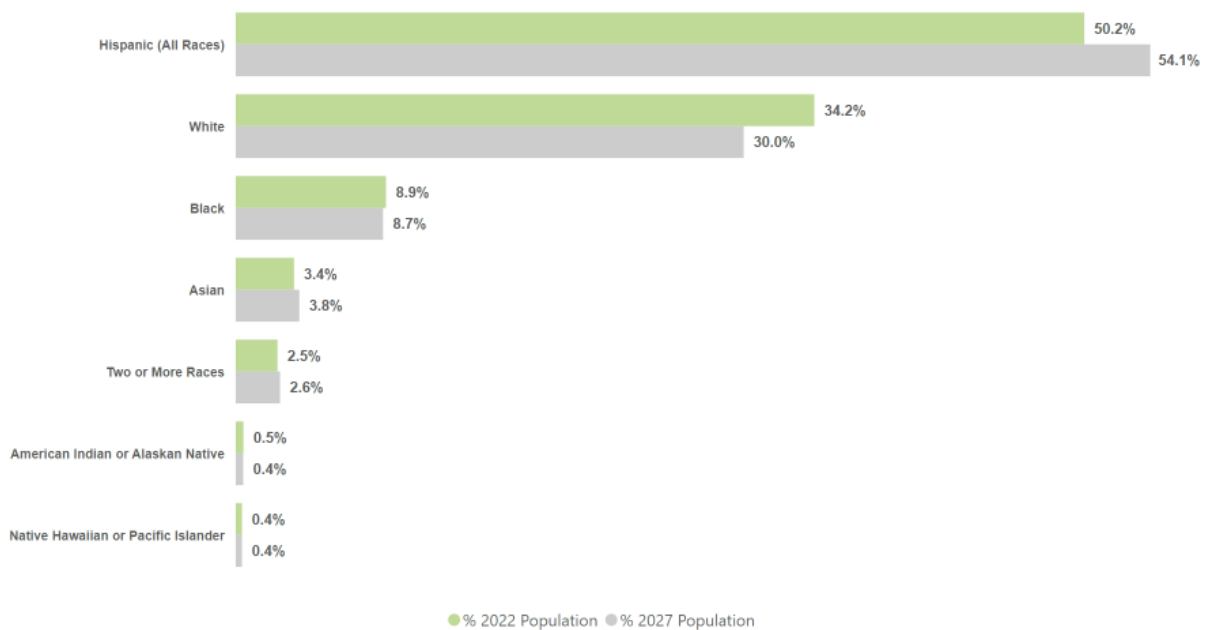
1. **Understanding Student Diversity:** Analyzing race and ethnicity figures helps faculty understand the demographic composition of their student body. This understanding is essential for creating inclusive learning environments and ensuring that programs are accessible and relevant to students from diverse backgrounds.
2. **Addressing Equity and Access:** Examining race and ethnicity data allows faculty to identify disparities in educational outcomes among different demographic groups. This information can inform efforts to address equity gaps by implementing targeted support services, scholarships, and outreach programs to improve access and success for underrepresented minorities.



3. **Fostering Community Partnerships:** Race and ethnicity data can also inform efforts to build partnerships with community organizations, employers, and other stakeholders that serve diverse racial and ethnic communities. Collaborating with these partners can help faculty better understand the needs and preferences of local communities and ensure that program offerings are responsive to the cultural and linguistic diversity of the populations they serve.

In 2022, 50.2% of the High Desert’s population was Hispanic (All races), which is less than 54.9% of the population in the entire Inland Empire region. By 2027, that percentage of Hispanic individuals in the High Desert’s population is projected to increase to 54.8% (Exhibit 5). By 2027, percentage of White, Non-Hispanic individuals in the High Desert is expected to decline from 34.2% to 30.0%.

**Exhibit 6.** Ethnicity 2022 - 2037 comparison in High Desert Region



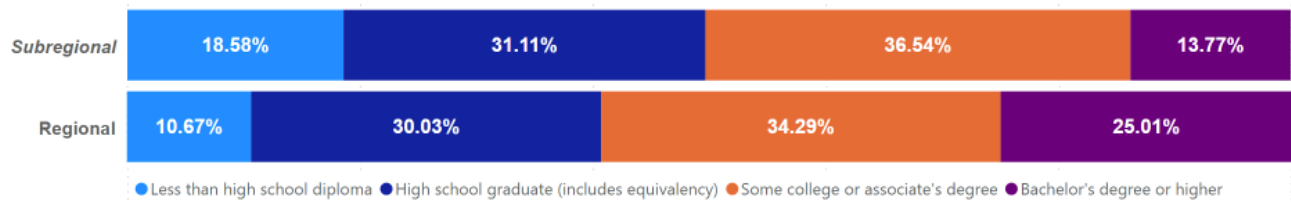
### Educational Attainment

Educational attainment refers to the highest level of education that residents aged 25 and older have completed. Educational attainment data can be leveraged in several ways:

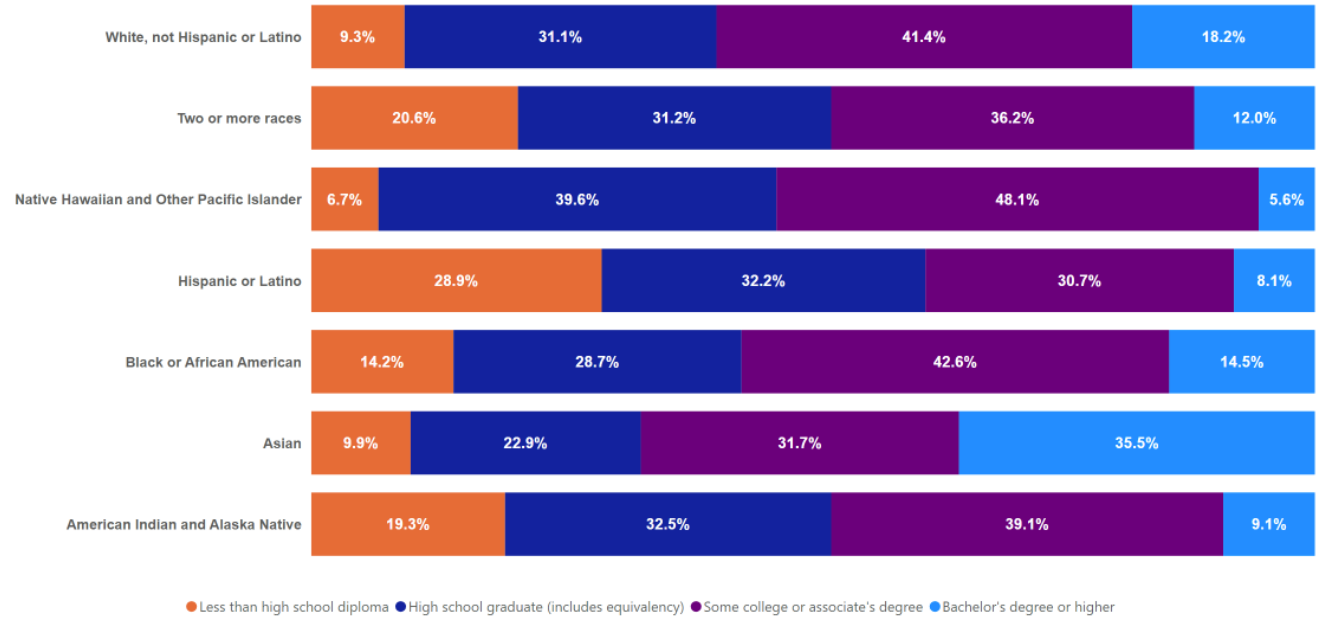
1. **Identifying Target Demographics:** Analyzing educational attainment data helps faculty understand the educational background of their potential student base. This information can guide them in tailoring program offerings to meet the needs and aspirations of specific demographic groups, such as first-generation college students or adult learners returning to education.

2. **Informing Curriculum Development:** Understanding the educational levels of the local population helps faculty design curricula that build upon existing knowledge and skills. Programs can be structured to provide foundational education for those with lower levels of educational attainment while offering advanced coursework and enrichment opportunities for more academically prepared students.
3. **Addressing Workforce Needs:** Educational attainment data can highlight areas where there is a need for workforce development initiatives. Faculty can develop programs that provide training and credentials aligned with the educational requirements of high-demand industries, thereby increasing employment opportunities for graduates, and contributing to economic growth in the community.

**Exhibit 7.** Educational Attainment comparison in High Desert Region, 2022 <sup>3</sup>



**Exhibit 8.** Educational Attainment Race & Ethnicity Distribution in High Desert Region, 2022



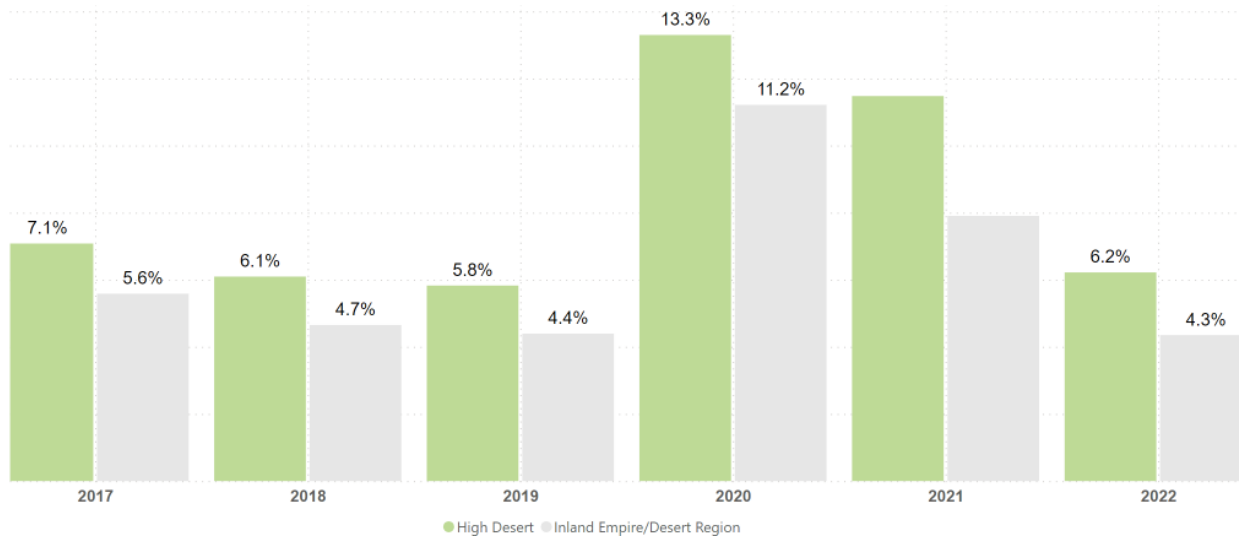
<sup>3</sup> U.S. Census Bureau. (2022). American Community Survey C15002D Retrieved from Census Bureau website: <https://data.census.gov/>

## Labor Force and Unemployment Rate

Labor force data reflects the employment status of people based on where they reside. The labor force is the total of employed residents or those that are unemployed and are seeking work. The unemployment rate represents the number of unemployed individuals as a share of the total labor force. Exhibit 9 displays city-level unemployment rates for those cities that have population greater than 25k and contain community college main campuses. In 2023, all cities had greater unemployment rates versus Inland Empire/Desert region.

Since 2017, all cities had greater unemployment rates versus Inland Empire/Desert region. Higher city-level unemployment compared to regional figures can impact students' abilities to find work due to localized labor market dynamics, limited job accessibility, transportation constraints, industry concentration, local policies, network effects, and cost of living considerations. Understanding these factors is essential for community college faculty to effectively support their students in navigating the job market and achieving successful employment outcomes.

**Exhibit 9.** Unemployment rate for High Desert Region, 2017-2022



## Subregional Industries

Industries are groups of employer establishments and categorized by their primary business activity using a North American Industry Classification System (NAICS). NAICS codes are a standardized classification system used to categorize businesses and industries for the purpose of collecting, analyzing, and publishing statistical data. These codes are based on the economic activities of businesses and are used for various purposes, including economic analysis, policymaking, and business research.

In the subregion, industry employers reported 175,176 total jobs in 2022, or about 9.4% of the Inland Empire/Desert Region's total employment (nearly 1.87 million jobs) (Exhibit 10). Over the next five years, the subregion's industry employment is projected to grow by 8.7% adding 15,303 jobs which slower than the region's projected job growth of 10.8%. The subregion is projected to contribute 7.6% of the region's net job growth over the next five years. Over the past five years, from 2017 to 2022, subregional employment rose by 8.2%, a net increase of over 13,320 jobs.

**Exhibit 10.** Historical and projected job trend in High Desert Region, 2017-2027

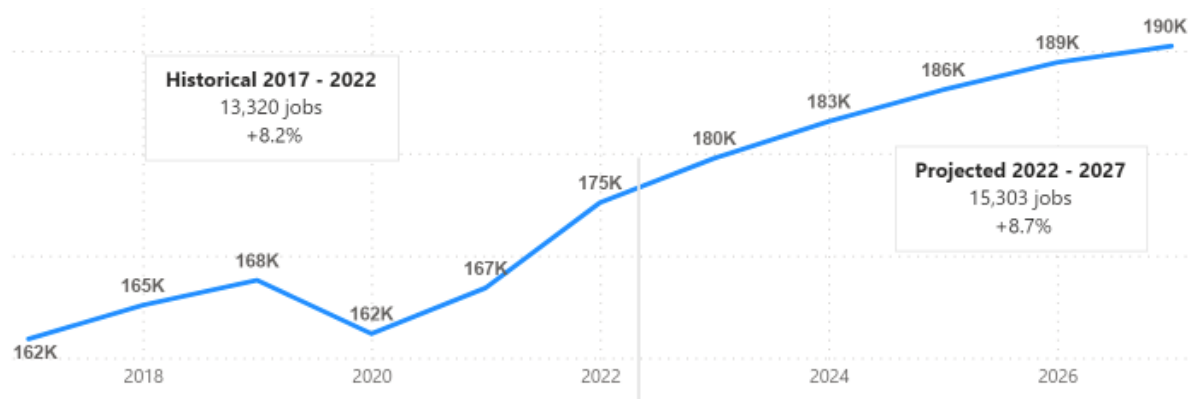
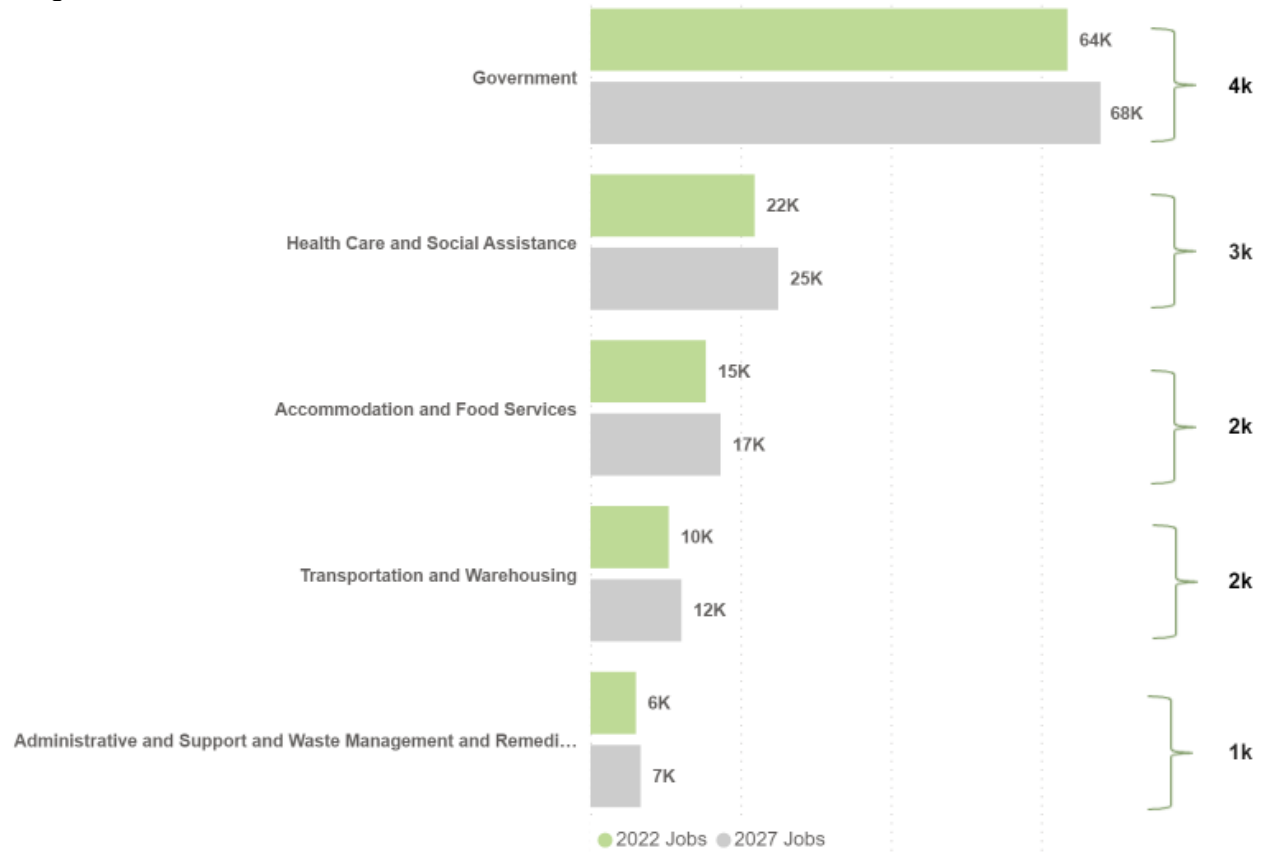


Exhibit 11 is reporting on the industries with the highest number of jobs reported in 2022 and includes 2027 projection and percentage of change. Each industry job is counted, whether full-time or part-time, usually where the business conducts its payroll activity. The labor force is the total count of residents working (employed) or seeking work (unemployed). The unemployment rate represents the number of unemployed individuals expressed as a percent of the total labor force.

In 2022, the top 10 industries that are producing the greatest number of jobs are shown as compared to the job number projection for 2027. The 2027 top industry project growth is Government (14.4%) producing more than 4,400 into the market over the next 5 years.

The top 5 industries adding jobs to the subregion are Government, Health Care and Social Assistance, Accommodation and Food Services, Transportation and Warehousing, and Retail Trade. These industries are projected to contribute 78.1% of the subregion's job growth through 2027.

**Exhibit 11. Job numbers by Industry & Projected Percentage Change in High Desert Region, 2022-2027**



## Industry Groups

The previous section described the employment share of the region’s major industry sectors. NAICS codes facilitate a detailed analysis of subindustries within these major sectors. This analysis provides a clearer picture of industry activity that drives that regional economy.

Exhibit 12 provides a sample of high-quality industry groups. High-quality industries are those that are growing faster than the region overall (at or above 9.0% growth), have average per-job earnings above the living wage standard (\$53,518 annually/25.74 hourly), and have a high location quotient at or above 1.2. A location quotient reflects the concentration of an industry in an area compared to the nation overall. Highly concentrated industries, those with a high location quotient, often describe the type of business activity an area is “known for.” See Appendix C for terms and definitions.

In 2022, over 32,000 jobs were employed by industry groups that met the high-quality industry group definition and account for 18.3% of subregional employment (175,176).

**Exhibit 12.** High-quality industry groups that are growing faster than the region in High Desert Region, 2022-2027

Industry Group (NAICS4)	2022 Jobs	2022 - 2027 Change	Growth Rate	Location Quotient	Average Earnings per Job
<b>Public Administration</b>					
Local Government, Excluding Education and Hospitals (903999)	13,576	2,141	15.8%	2.33	123,423
State Government, Excluding Education and Hospitals (902999)	2,862	403	14.1%	1.26	112,405
Hospitals (Local Government) (903622)	1,064	110	10.4%	1.53	106,698
<b>Health Care and Social Assistance</b>					
All Other Outpatient Care Centers (621498)	337	139	41.2%	1.33	78,889
HMO Medical Centers (621491)	1,420	370	26.1%	6.68	143,904
Family Planning Centers (621410)	77	20	25.7%	2.24	86,477
Diagnostic Imaging Centers (621512)	132	33	24.9%	1.44	65,441
Offices of Dentists (621210)	1,739	297	17.1%	1.57	65,034

Kidney Dialysis Centers (621492)	277	25	9.1%	1.89	83,698
<b>Manufacturing</b>					
Aircraft Engine and Engine Parts Manufacturing (336412)	900	569	63.3%	10.67	89,609
Other Snack Food Manufacturing (311919)	191	87	45.3%	3.93	72,669
Confectionery Manufacturing from Purchased Chocolate (311352)	74	30	40.0%	2.21	72,102
Mineral Wool Manufacturing (327993)	114	21	18.5%	6.41	138,982
Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding (331491)	23	4	18.3%	1.56	117,525
Precision Turned Product Manufacturing (332721)	176	23	13.2%	4.29	77,024
<b>Transportation and Warehousing</b>					
Specialized Freight (except Used Goods) Trucking, Long-Distance (484230)	208	98	47.1%	1.44	84,222
Support Activities for Rail Transportation (488210)	73	24	32.4%	1.98	65,887
Refrigerated Warehousing and Storage (493120)	97	21	21.3%	1.29	70,205
All Other Support Activities for Transportation (488999)	97	20	21.1%	5.80	62,403
Other Support Activities for Road Transportation (488490)	95	19	19.6%	2.02	55,276
General Freight Trucking, Long-Distance,	445	86	19.5%	1.42	85,383

Less Than Truckload (484122)					
Pipeline Transportation of Natural Gas (486210)	89	15	17.2%	2.70	185,893
Specialized Freight (except Used Goods) Trucking, Local (484220)	2,198	330	15.0%	8.86	95,035
General Freight Trucking, Local (484110)	899	119	13.2%	2.30	76,803
Pipeline Transportation of Refined Petroleum Products (486910)	45	6	12.8%	6.03	137,711
<b>Utilities</b>					
Solar Electric Power Generation (221114)	109	23	20.9%	10.89	107,229
Hydroelectric Power Generation (221111)	64	7	10.6%	7.87	135,712

**Job Posting Information**

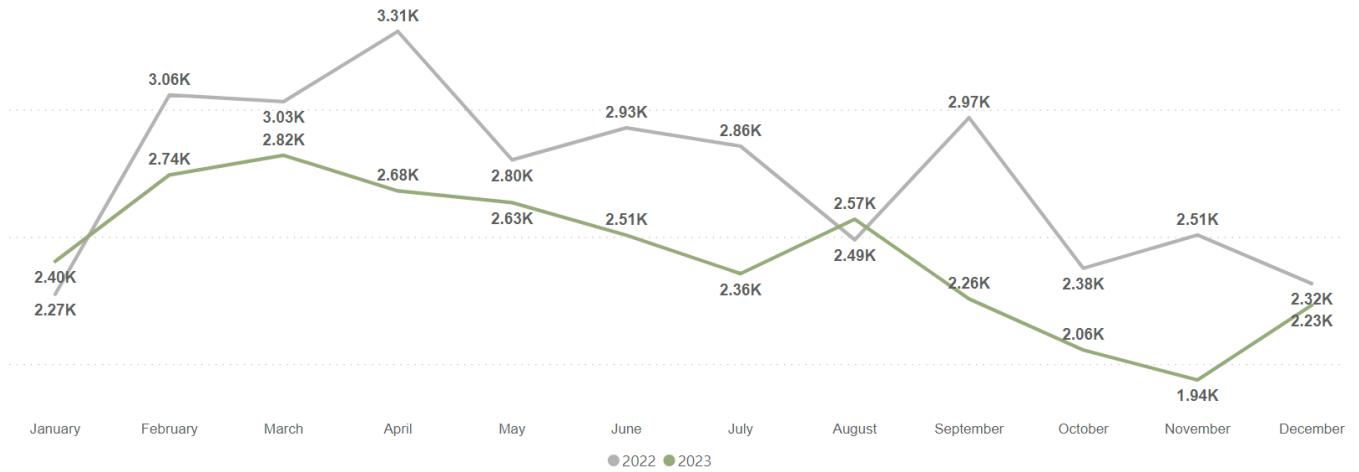
Job posting data can provide insights into employer demand and is different dataset versus job data we retrieve from BLS Quarterly Census of Employment and Wages (QCEW). The job posting data is collected from scraping online job boards such as LinkedIn, Indeed, Glassdoor and many others. The process Lightcast uses to assemble this data does have some limitations due to methods that recruitment professionals sometimes use (e.g., posting one job to fill multiple positions). For example, the number of jobs posted is not necessarily the same as the number of job vacancies. While not perfect, Lightcast leverages machine learning and other AI technologies as well as government data sourced from the Job Openings and Labor Turnover Survey (JOLTS), a monthly survey conducted by the Bureau of Labor Statistics (BLS). to enrich, deduplicate and aggregate this information to make it a meaningful dataset.

The following data was filtered to include jobs where the advertised educational requirement was High school or GED or associate degree as well as excluded jobs posted by staffing companies and internships.

In 2023, there were more than 4,600 employers, with over 62,000 unique job postings in High Desert Subregion (Exhibit 13).



**Exhibit 13.** Number of Unique Online Job Postings for all cities in this subregion, 2022 - 2023



**Exhibit 14.** Top Company Job Postings for all cities in this subregion, 2022 - 2023

Company Name	Unique Postings (Jan 2022 - Dec 2023)	Company Name	Unique Postings (Jan 2022 - Dec 2023)
Elevance Health	966	Pilot Company	299
Providence	920	The Home Depot	289
Victor Valley College	895	Starbucks	287
CareInHomes	828	JPMorgan Chase	263
Prime Healthcare Services	797	Domino's Pizza	213
Apple	642	General Atomics	213
Healthcare Employment Network	612	Great Clips	197
Walmart	602	The USA Exchange	197
Hesperia Unified School District	424	Amentum	160
Desert Valley Hospital	355	CalPortland	160
Focus Staff	315	Kpc Health	160
Amazon	311	City Of Victorville	144
Pilot Company	299	Lowe's	144

## Occupational Overview

An occupation is a collection of jobs, and job titles, which perform similar work tasks and share similar work knowledge, skills, and abilities. Employees who perform essentially the same tasks are classified in the same occupation, whether or not they are in the same industry. It's important to note that some occupations are concentrated in a few industries (e.g., police officers are only employed in government), whereas other occupations are found in most industries (e.g., information technology workers and maintenance workers).<sup>4</sup>

Inland Empire/Desert community colleges currently offer programs that train for occupations associated with the 10 CCCCCO. The following sections discuss current employment and future demand for high-quality occupations related to regional training programs that align with the CCCCCO sectors. For each sector, existing programs and programs not currently offered by community colleges in the subregion have been identified. The occupations listed for each sector meet the high-quality job designation, i.e., occupations that are both in-demand (at least 100 annual job openings) and high-wage (\$25.73 and higher).<sup>5</sup>

In this study, occupational employment in the subregion was analyzed in terms of each occupation's educational requirements, i.e., the entry-level education level needed to enter employment, such as a high school diploma; community college coursework, a degree, or certificate; or a bachelor's degree. Employers report typical entry-level educational requirements at the national level, and alternative paths to securing employment may exist depending on employer preferences and state licensing requirements.

California Community Colleges provide education and training that generally prepares workers to enter community-college-level jobs. These jobs typically require an education beyond a high school diploma but less than a four-year degree. Most community-college-level jobs offer a higher pay rate than jobs requiring less education, making them an excellent fit for community college students on a CE pathway who want to enter in-demand careers that offer a living wage.

High-school-level jobs illuminate possibilities open to those choosing to enter the workforce after securing a high school diploma or G.E.D., or jobs typically open to those who choose to work while attending college.

Bachelor's-level jobs require a four-year degree from a college or university. This assessment does not include occupations that typically require an education beyond a

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<sup>4</sup> "Concepts and Definitions," U.S. Bureau of Labor Statistics, 2022, accessed on August 8, 2022, <https://www.bls.gov/cps/definitions.htm>.

<sup>5</sup> Note the [UW self-sufficiency standard](#) is currently used by the CO and other COEs as the self-sufficiency wage criteria for labor market assessment reports. Also note that this hourly rate was last updated by UW in 2021 and does not account for significant increases in the cost of living in the Inland Empire in the last three years and at \$14.00 is below the State of California minimum wage of \$16.00. For these reasons, the COE will provide an averaged living wage calculation from MIT in the analysis below as an additional reference point. MIT estimates, the living wage for an adult with no kids living in 2024 is \$26.30 in Riverside County and \$25.17 in San Bernardino County.

bachelor's degree, such as physicians, lawyers, and most scientists; however, other occupations may be included when the number of jobs that require a community college degree are low or non-existent in the report.

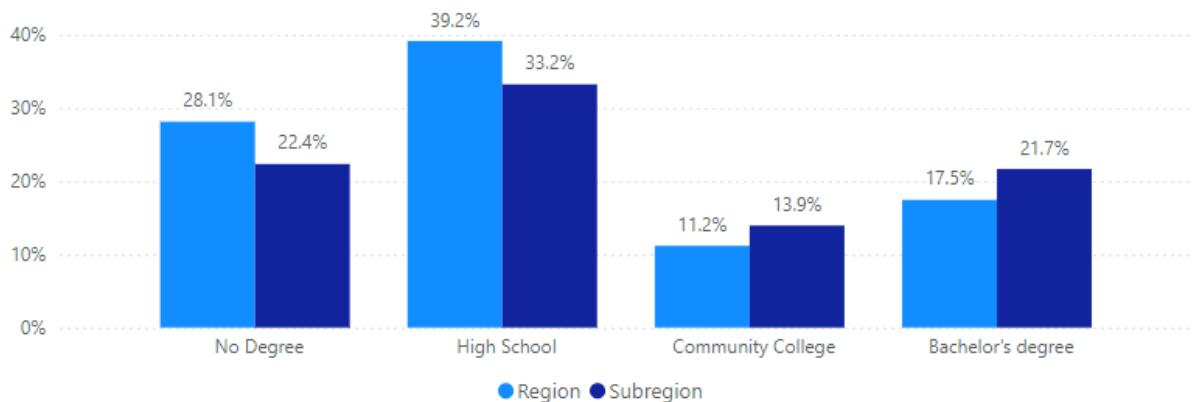
Also excluded are those occupations that do not typically require formal education to enter employment. Military occupations (in 2022 there were approximately 7,737 regional military jobs in the region) were also excluded from the following sections of this assessment. Definitions for education levels are available in Appendix C.

Of the more than 175,100 jobs in the subregion in 2022, 62.7% are included in the following reports. A crosswalk file, which associates TOP codes to occupations and sectors was used to produce the following sector specific reports. This data source included 476 occupations, of which 451 were mapped to sectors. Also included in this crosswalk dataset was 410 TOP codes, of which 272 were mapped to sectors.

Please be aware that the job demand figures presented in the following reports may not encompass total demand. It is recommended that you collaborate with the COE to assess occupations aligned with your specific program requirements.

Exhibit 15 includes 109,793 jobs as a result of the above crosswalk and displays the share of jobs by entry level educational requirements.

**Exhibit 15.** Share of jobs by education level, High Desert Subregion, and Inland Empire/Desert Region, 2022



## Advanced Manufacturing

The CCCC CO advanced manufacturing sector aligns with the CDE manufacturing and product development sector. Two colleges in the Inland Empire-High Desert Subregion currently use six program codes for their advanced manufacturing programs (Exhibit 16).

**Exhibit 16.** Programs offered by community colleges in the subregion.

### Programs Offered:

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0934.00 - Electronics and Electric Technology

0934.10 - Computer Electronics

0945.00 - Industrial Systems Technology and Maintenance

0950.00 - Aeronautical and Aviation Technology

0950.50 - Aircraft Fabrication

0956.50 - Welding Technology

Advanced manufacturing programs in the subregion prepare students for employment in one high-quality high school-level occupation, two high-quality community college-level occupations, and one high-quality bachelor's degree-level occupation. High-quality occupations have at least 100 annual job openings and offer a median hourly wage of \$25.74 at the regional level.

In 2022, there were over 1,380 high-quality advanced manufacturing jobs in the subregion related to subregional training programs (Exhibit 17).

By 2027, annual job opening projections:

- There are more than 35 high school-level job openings projected annually for this occupational group in the subregion; over 360 job openings are projected annually in the greater region.
- There are 80 community-college-level job openings projected annually for this occupational group in the subregion; over 350 job openings are projected annually in the greater region.
- There are 10 bachelor's degree-level job openings are projected annually for this occupational group in the subregion; over 110 job openings are projected annually in the greater region.

**Exhibit 17.** Education level, projected demand, and earnings for high-quality occupations, 2022 – 2027

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Industrial Machinery Mechanics	High School	363	38	365	\$29.80
Aircraft Mechanics and Service Technicians	Community College	691	63	238	\$36.35
Electrical and Electronics Repairers, Commercial and Industrial Equipment	Community College	191	17	121	\$30.13
Architectural and Engineering Managers	Bachelor's degree	139	13	113	\$74.96

**Community College Programs Not Offered**

In the subregion, 20 programs in the advanced manufacturing sector are currently not offered (Exhibit 18).

**Exhibit 18.** Programs not offered by community colleges in the subregion.

**Programs Not Offered:**

0924.00 - Engineering Technology, General (requires Trigonometry)	0954.20 - Plastics and Composites
0934.20 - Industrial Electronics	0954.30 - Petroleum Technology
0934.80 - Laser and Optical Technology	0956.00 - Manufacturing and Industrial Technology
0935.10 - Appliance Repair	0956.30 - Machining and Machine Tools
0936.00 - Printing and Lithography	0956.70 - Industrial and Occupational Safety and Health
0943.00 - Instrumentation Technology	0956.80 - Industrial Quality Control
0950.40 - Aircraft Electronics (Avionics)	0957.30 - Surveying
0953.30 - Electrical, Electronic, and Electro-Mechanical Drafting	0961.00 - Optics
0953.40 - Mechanical Drafting	1303.30 - Fashion Production
0953.60 - Technical Illustration	1920.00 - Ocean Technology

**Occupational Training Opportunities**

There are three programs that community colleges are not currently offering in the subregion that align with high-quality, growing occupations:

- 0934.20 - Industrial Electronics
- 0956.00 - Manufacturing and Industrial Technology
- 0956.70 - Industrial and Occupational Safety and Health

In 2022, there were over 1,570 high-quality advanced manufacturing jobs in the subregion (Exhibit 19).

By 2027, annual job opening projections:

- There are 170 community-college-level job openings projected annually for this occupational group in the subregion; over 1,310 job openings are projected annually in the greater region.
- There are 15 bachelor's degree-level job openings projected annually for this occupational group in the subregion; over 140 job openings are projected annually in the greater region.

**Exhibit 19.** High-quality occupations without training programs in the subregion.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Architectural and Civil Drafters	Community College	51	6	101	\$29.29
Automotive Service Technicians and Mechanics	Community College	1,416	164	1,211	\$25.88
Occupational Health and Safety Specialists	Bachelor's degree	110	15	143	\$40.30

Finally, the below occupation is currently being served by existing programs offered in the subregion AND could also be served by the above programs that are not offered in the subregion. If one or more of the above programs are not currently offered in the subregion and are of interest, the COE can perform a full Labor Market Analysis (LMA) on the occupation below to analyze if additional education capacity is needed (Exhibit 20).

**Exhibit 20.** High-quality occupation with training programs in the subregion but aligned to training programs not offered.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Electrical and Electronics Repairers, Commercial and Industrial Equipment	Community College	191	17	121	\$30.13

## Advanced Transportation and Logistics

The CCCCCO advanced transportation and logistics sector aligns with the CDE transportation sector. Three colleges in the Inland Empire-High Desert Subregion currently use 6 program codes for their advanced transportation and logistics programs (Exhibit 21).

**Exhibit 21.** Programs offered by community colleges in the subregion.

### Programs Offered:

0510.00 - Logistics and Materials Transportation
0947.00 - Diesel Technology
0948.00 - Automotive Technology
0948.40 - Alternative Fuels and Advanced Transportation Technology
0950.10 - Aviation Airframe Mechanics
0950.20 - Aviation Powerplant Mechanics

Advanced transportation and logistics programs in the subregion prepare students for employment in four high-quality high school-level occupations and two high-quality community college-level occupations. High-quality occupations have at least 100 annual job openings and offer a median hourly wage of \$25.74 at the regional level.

In 2022, there were over 4,050 high-quality transportation and logistics jobs in the subregion related to subregional training programs (Exhibit 22).

By 2027, annual job opening projections:

- There are more than 210 high school-level job openings projected annually for this occupational group in the subregion; over 1,870 job openings are projected annually in the greater region.
- There are more than 220 community-college-level job openings projected annually for this occupational group in the subregion; over 1,440 job openings are projected annually in the greater region.

**Exhibit 22.** Education level, projected demand, and earnings for high-quality occupations, 2022 – 2027

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Bus and Truck Mechanics and Diesel Engine Specialists	High School	562	64	482	\$27.90
First-Line Supervisors of Mechanics, Installers, and Repairers	High School	710	74	655	\$36.86
Mobile Heavy Equipment Mechanics, Except Engines	High School	225	24	244	\$30.82
Operating Engineers and Other Construction Equipment Operators	High School	453	52	494	\$36.94
Aircraft Mechanics and Service Technicians	Community College	691	63	238	\$36.35
Automotive Service Technicians and Mechanics	Community College	1,416	164	1,211	\$25.88



### Community College Programs Not Offered

In the subregion, thirteen programs in the advanced transportation and logistics sector are currently not offered (Exhibit 23).

**Exhibit 23.** Programs not offered by community colleges in the subregion.

#### Programs Not Offered:

0947.20 - Heavy Equipment Maintenance	
0947.30 - Heavy Equipment Operation	0949.10 - Upholstery Repair - Automotive
0947.40 - Railroad and Light Rail Operations	0959.00 - Marine Technology
0947.50 - Truck and Bus Driving	3020.00 - Aviation and Airport Management and Services
0948.30 - Motorcycle, Outboard and Small Engine Repair	3020.10 - Aviation and Airport Management
0948.50 - Recreational Vehicle Service	3020.20 - Piloting
0949.00 - Automotive Collision Repair	3020.30 - Air Traffic Control

### Occupational Training Opportunities

There are seven programs that community colleges are not currently offering in the subregion that align with high-quality, growing occupations:

- 3020.00 - Aviation and Airport Management and Services
- 3020.20 - Piloting
- 0947.20 - Heavy Equipment Maintenance
- 0947.30 - Heavy Equipment Operation
- 0947.40 - Railroad and Light Rail Operations
- 0948.50 - Recreational Vehicle Service
- 0949.00 - Automotive Collision Repair

In 2022, there were over 1,460 high-quality advanced transportation and logistics jobs in the subregion (Exhibit 24).

By 2027, annual job opening projections:

- There are more than 130 high school-level job openings projected annually for this occupational group in the subregion; 2,080 job openings are projected annually in the greater region.
- There are no community college-level job openings projected annually for this occupational group in the greater region.
- There are more than 35 bachelor's degree-level job openings projected annually for this occupational group in the subregion; over 130 job openings are projected annually in the greater region.



**Exhibit 24.** High-quality occupations without training programs in the subregion.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Automotive Body and Related Repairers	High School	244	29	236	\$27.60
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	High School	561	73	1,322	\$29.62
Transportation, Storage, and Distribution Managers	High School	334	34	522	\$39.44
Airline Pilots, Copilots, and Flight Engineers	Bachelor's degree	326	38	134	\$135.55

Finally, the below occupations are currently being served by existing programs offered in the subregion AND could also be served by the above programs that are not offered in the subregion. If one or more of the above programs are not currently offered in the subregion and are of interest, the COE can perform a full Labor Market Analysis (LMA) on the occupations below to analyze if additional education capacity is needed (Exhibit 25).

**Exhibit 25.** High-quality occupations with training programs in the subregion but aligned to training programs not offered.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
First-Line Supervisors of Mechanics, Installers, and Repairers	High School	710	74	655	\$36.86
Mobile Heavy Equipment Mechanics, Except Engines	High School	225	24	244	\$30.82
Operating Engineers and Other Construction Equipment Operators	High School	453	52	494	\$36.94

## Agriculture, Water, and Environmental Technologies

The CCCCCO agriculture, water, and environmental technologies sector aligns with the CDE agriculture and natural resources sector. One college in the Inland Empire-High Desert Subregion currently offers 6 programs in the agriculture, water, and environmental technologies sector (Exhibit 26).

**Exhibit 26.** Programs offered by community colleges in the subregion.

### Programs Offered:

0102.00 - Animal Science
0102.40 - Equine Science
0103.00 - Plant Science
0109.00 - Horticulture
0109.30 - Nursery Technology
0115.00 - Natural Resources

Agriculture, water, and environmental technologies programs in the subregion prepare students for employment in one high-quality high school-level occupation. High-quality occupations have at least 100 annual job openings and offer a median hourly wage of \$25.74 at the regional level.

In 2022, there were 130 high-quality agriculture, water, and environmental technologies jobs in the subregion related to subregional training programs (Exhibit 27).

By 2027, annual job opening projections:

- There are 15 high school-level job openings projected annually for this occupational group in the subregion; over 320 job openings are projected annually in the greater region.
- There are no community college-level job openings projected annually for this occupational group in the greater region.

**Exhibit 27.** Education level, projected demand, and earnings for high-quality occupations, 2022 – 2027

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	High School	130	15	328	\$26.17

### Community College Programs Not Offered

In the subregion, 17 programs in the agriculture, water, and environmental technologies sector are currently not offered (Exhibit 28).

**Exhibit 28.** Programs not offered by community colleges in the subregion.

**Programs Not Offered:**

0101.00 - Agriculture Technology and Sciences, General	0112.00 - Agriculture Business, Sales and Service
0102.10 - Veterinary Technician (Licensed)	0113.00 - Food Processing and Related Technologies
0102.20 - Artificial Inseminator (Licensed)	0114.00 - Forestry
0102.30 - Dairy Science	0115.10 - Parks and Outdoor Recreation
0103.10 - Agricultural Pest Control Adviser and Operator (Licensed)	0115.20 - Wildlife and Fisheries
0104.00 - Viticulture, Enology and Wine Business	0116.00 - Agricultural Power Equipment Technology
0109.10 - Landscape Design and Maintenance	0199.00 - Other Agriculture and Natural Resources
0109.20 - Floriculture / Floristry	0303.00 - Environmental Technology
0109.40 - Turfgrass Technology	

**Occupational Training Opportunities**

There are three programs that community colleges are not currently offering in the subregion that align with high-quality, growing occupations:

- 0109.10 - Landscape Design and Maintenance
- 0112.00 - Agriculture Business, Sales and Service
- 0116.00 - Agricultural Power Equipment Technology

In 2022, there were more than 770 high-quality agriculture, water, and environmental technologies jobs in the subregion (Exhibit 29).

By 2027, annual job opening projections:

- There are more than 80 high school-level job openings projected annually for this occupational group in the subregion; over 1,770 job openings are projected annually in the greater region.
- There are no community college-level job openings projected annually for this occupational group in the greater region.

**Exhibit 29.** High-quality occupations without training programs in the subregion

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Mobile Heavy Equipment Mechanics, Except Engines	High School	225	24	244	\$30.82
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	High School	533	58	1,528	\$29.84

Finally, the below occupations are currently being served by existing programs offered in the subregion AND could also be served by the above programs that are not offered in the subregion. If one or more of the above programs are not currently offered in the subregion and are of interest, the COE can perform a full Labor Market Analysis (LMA) on the occupations below to analyze if additional education capacity is needed (Exhibit 30).

**Exhibit 30.** High-quality occupations with training programs in the subregion but aligned to training programs not offered.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	High School	130	15	328	\$26.17

## Business and Entrepreneurship

The CCCC business and entrepreneurship sector aligns with both CDE Business and Finance and Marketing, Sales, and Services sectors. Three colleges in the Inland Empire-High Desert Subregion currently use 8 program codes for their business and entrepreneurship programs (Exhibit 31).

**Exhibit 31.** Programs offered by community colleges in the subregion.

### Programs Offered:

0501.00 - Business and Commerce, General

0502.00 - Accounting

0505.00 - Business Administration

0506.00 - Business Management

0506.40 - Small Business and Entrepreneurship

0511.00 - Real Estate

0511.10 - Escrow

3007.00 - Cosmetology and Barbering

Business and entrepreneurship programs in the subregion prepare students for employment in four high-quality high school-level occupations and 12 high-quality bachelor's degree-level occupations. High-quality occupations have at least 100 annual job openings and offer a median hourly wage of \$25.74 at the regional level.

In 2022, there were over 7,310 high-quality business and entrepreneurship jobs in the subregion related to subregional training programs (Exhibit 32).

By 2027, annual job opening projections:

- There are more than 90 high school-level job openings projected annually for this occupational group in the subregion; over 1,320 job openings are projected annually in the greater region.
- There are no community college-level job openings projected annually for this occupational group in the greater region.
- There are more than 650 bachelor's degree-level job openings projected annually for this occupational group in the subregion; 8,260 job openings are projected annually in the greater region.

**Exhibit 32.** Education level, projected demand, and earnings for high-quality occupations, 2022 – 2027

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Payroll and Timekeeping Clerks	High School	224	23	248	\$26.95
Property, Real Estate, and Community Association Managers	High School	221	23	355	\$29.59
Real Estate Brokers	High School	122	13	198	\$39.09
Transportation, Storage, and Distribution Managers	High School	334	34	522	\$39.44
Accountants and Auditors	Bachelor's degree	792	77	958	\$37.36
Construction Managers	Bachelor's degree	413	37	644	\$41.10
Cost Estimators	Bachelor's degree	229	22	370	\$35.61
General and Operations Managers	Bachelor's degree	1,824	199	2,550	\$48.75
Human Resources Managers	Bachelor's degree	196	18	142	\$61.26
Human Resources Specialists	Bachelor's degree	877	90	834	\$30.82
Industrial Production Managers	Bachelor's degree	152	12	147	\$47.04
Logisticians	Bachelor's degree	392	38	266	\$34.58
Management Analysts	Bachelor's degree	570	64	735	\$40.41
Market Research Analysts and Marketing Specialists	Bachelor's degree	337	42	728	\$29.79
Sales Managers	Bachelor's degree	417	36	644	\$46.18
Social and Community Service Managers	Bachelor's degree	217	23	242	\$33.15

**Community College Programs Not Offered**

In the subregion, fifteen programs in the business and entrepreneurship sector are currently not offered (Exhibit 33).

**Exhibit 33.** Programs not offered by community colleges in the subregion.

**Programs Not Offered:**

0502.10 - Tax Studies	0509.70 - E-Commerce (Business emphasis)
0504.00 - Banking and Finance	0512.00 - Insurance
0506.30 - Management Development and Supervision	0514.10 - Legal Office Technology
0508.00 - International Business and Trade	0518.00 - Customer Service
0509.00 - Marketing and Distribution	0599.00 - Other Business and Management
0509.10 - Advertising	1255.00 - Mortuary Science
0509.20 - Purchasing	1262.00 - Massage Therapy
0509.40 - Sales and Salesmanship	

### **Occupational Training Opportunities**

There are seven programs that community colleges are not currently offering in the subregion that align with high-quality, growing occupations:

- 0502.10 - Tax Studies
- 0504.00 - Banking and Finance
- 0506.30 - Management Development and Supervision
- 0509.00 - Marketing and Distribution
- 0509.20 - Purchasing
- 0509.40 - Sales and Salesmanship
- 0512.00 - Insurance

In 2022, there were over 4,790 high-quality business and entrepreneurship jobs in the subregion (Exhibit 34).

By 2027, annual job opening projections:

- There are more than 360 high school-level job openings projected annually for this occupational group in the subregion; over 4,430 job openings are projected annually in the greater region.
- There are no community college-level job openings projected annually for this occupational group in the greater region.
- There are more than 130 bachelor's degree-level job openings projected annually for this occupational group in the subregion; over 1,790 job openings are projected annually in the greater region.

**Exhibit 34.** High-quality occupations without training programs in the subregion.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Claims Adjusters, Examiners, and Investigators	High School	191	14	101	\$38.08
First-Line Supervisors of Mechanics, Installers, and Repairers	High School	710	74	655	\$36.86
First-Line Supervisors of Non-Retail Sales Workers	High School	245	21	324	\$31.75
First-Line Supervisors of Office and Administrative Support Workers	High School	1,300	145	1,763	\$30.34
First-Line Supervisors of Production and Operating Workers	High School	423	45	553	\$29.58
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	High School	559	66	1,039	\$27.58
Buyers and Purchasing Agents	Bachelor's degree	352	36	387	\$30.50
Computer and Information Systems Managers	Bachelor's degree	217	20	237	\$77.28
Financial Managers	Bachelor's degree	421	40	507	\$63.05
Loan Officers	Bachelor's degree	125	14	163	\$30.08
Marketing Managers	Bachelor's degree	116	12	208	\$58.58
Personal Financial Advisors	Bachelor's degree	80	8	122	\$38.22
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	Bachelor's degree	54	6	170	\$39.78

Finally, the below occupations are currently being served by existing programs offered in the subregion AND could also be served by the above programs that are not offered in the subregion. If one or more of the above programs are not currently offered in the subregion and are of interest, the COE can perform a full Labor Market Analysis (LMA) on the occupations below to analyze if additional education capacity is needed (Exhibit 35).

**Exhibit 35.** High-quality occupations with training programs in the subregion but aligned to training programs not offered.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Accountants and Auditors	Bachelor's degree	792	77	958	\$37.36
Construction Managers	Bachelor's degree	413	37	644	\$41.10
General and Operations Managers	Bachelor's degree	1,824	199	2,550	\$48.75
Industrial Production Managers	Bachelor's degree	152	12	147	\$47.04
Logisticians	Bachelor's degree	392	38	266	\$34.58
Market Research Analysts and Marketing Specialists	Bachelor's degree	337	42	728	\$29.79
Sales Managers	Bachelor's degree	417	36	644	\$46.18



## Education and Human Development

The CCCCCO education and human development sector aligns with CDE education, child development, and family services sector. Three colleges in the Inland Empire-High Desert Subregion currently use 2 program codes for their business and entrepreneurship programs (Exhibit 36).

**Exhibit 36.** Programs offered by community colleges in the subregion.

### Programs Offered:

1305.00 - Child Development/Early Care and Education

1305.80 - Child Development Administration and Management

Education and human development programs in the subregion prepare students for employment in one high-quality bachelor's degree-level occupation. High-quality occupations have at least 100 annual job openings and offer a median hourly wage of \$25.74 at the regional level.

In 2022, there were over 4,130 high-quality education and human development jobs in the subregion related to subregional training programs (Exhibit 37).

By 2027, annual job opening projections:

- There are more than 350 bachelor's degree-level job openings projected annually for this occupational group in the subregion; over 1,650 job openings are projected annually in the greater region.
- There are no community college-level job openings projected annually for this occupational group in the greater region.

**Exhibit 37.** Education level, projected demand, and earnings for high-quality occupations, 2022 – 2027

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Elementary School Teachers, Except Special Education	Bachelor's degree	4,136	353	1,658	\$46.56

### Community College Programs Not Offered

In the subregion, sixteen programs in the education and human development sector are currently not offered (Exhibit 38).

**Exhibit 38.** Programs not offered by community colleges in the subregion.

**Programs Not Offered:**

0802.00 - Educational Aide (Teacher Assistant)	0899.00 - Other Education
0802.10 - Educational Aide (Teacher Assistant), Bilingual	1305.20 - Children with Special Needs
0809.00 - Special Education	1305.40 - Preschool Age Children
0835.60 - Coaching	1305.50 - The School Age Child
0836.00 - Recreation	1305.60 - Parenting and Family Education
0836.10 - Recreation Assistant	1305.70 - Foster and Kinship Care
0850.10 - Sign Language Interpreting	1305.90 - Infants and Toddlers
0860.00 - Educational Technology	1308.00 - Family Studies

**Occupational Training Opportunities**

There are 7 programs that community colleges are not currently offering in the subregion that align with high-quality, growing occupations:

- 0802.10 - Educational Aide (Teacher Assistant), Bilingual
- 0809.00 - Special Education
- 0836.10 - Recreation Assistant
- 0850.10 - Sign Language Interpreting
- 0860.00 - Educational Technology
- 1305.20 - Children with Special Needs
- 1308.00 - Family Studies

In 2022, there were over 6,600 high-quality education and human development jobs in the subregion (Exhibit 39).

By 2027, annual job opening projections:

- There are more than 630 bachelor's degree-level job openings projected annually for this occupational group in the subregion; over 5,120 job openings are projected annually in the greater region.
- There are no community college-level job openings projected annually for this occupational group in the greater region.

**Exhibit 39.** High-quality occupations without training programs in the subregion.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Child, Family, and School Social Workers	Bachelor's degree	655	70	454	\$29.56
General and Operations Managers	Bachelor's degree	1,824	199	2,550	\$48.75
Interpreters and Translators	Bachelor's degree	127	15	111	\$27.67
Middle School Teachers, Except Special and Career/Technical Education	Bachelor's degree	585	57	278	\$48.89
Personal Financial Advisors	Bachelor's degree	80	8	122	\$38.22
Secondary School Teachers, Except Special and Career/Technical Education	Bachelor's degree	2,168	178	856	\$50.72
Special Education Teachers, Kindergarten and Elementary School	Bachelor's degree	536	47	217	\$40.69
Special Education Teachers, Secondary School	Bachelor's degree	319	28	133	\$53.44
Training and Development Specialists	Bachelor's degree	313	33	407	\$27.18

Finally, the below occupations are currently being served by existing programs offered in the subregion AND could also be served by the above programs that are not offered in the subregion. If one or more of the above programs are not currently offered in the subregion and are of interest, the COE can perform a full Labor Market Analysis (LMA) on the occupations below to analyze if additional education capacity is needed (Exhibit 40).

**Exhibit 40.** High-quality occupations with training programs in the subregion but aligned to training programs not offered.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Elementary School Teachers, Except Special Education	Bachelor's degree	4,136	353	1,658	\$46.56

## Energy, Construction, and Utilities

The CCCCO energy, environment, and utilities sector aligns with the CDE building and construction trades sector; energy, environment, and utilities sector; and engineering and architecture sector. In the High Desert Subregion, one college currently utilizes five energy, construction, and utilities program codes (Exhibit 41).

**Exhibit 41.** Programs offered by community colleges in the subregion.

### Programs Offered:

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0946.10 - Energy Systems Technology

0952.00 - Construction Crafts Technology

0952.20 - Electrical

0953.00 - Drafting Technology

0953.10 - Architectural Drafting

Energy, construction, and utilities programs in the subregion prepare students for employment in six high-quality high school-level occupations, one high-quality community college-level occupation, and two bachelor's degree-level occupations. High-quality occupations have at least 100 annual job openings and offer a median hourly wage of \$25.74 at the regional level.

In 2022, there were over 3,220 high-quality energy, construction, and utilities jobs in the subregion related to subregional training programs (Exhibit 42).

By 2027, annual job opening projections:

- There are more than 280 high school-level job openings projected annually for this occupational group in the subregion; over 3,410 job openings are projected annually in the greater region.
- There are 6 community-college-level job openings projected annually for this occupational group in the subregion; over 100 job openings are projected annually in the greater region.
- There are 50 bachelor's degree-level job openings projected annually for this occupational group in the subregion; over 750 job openings are projected annually in the greater region.

**Exhibit 42.** Education level, projected demand, and earnings for high-quality occupations, 2022 – 2027

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Electrical Power-Line Installers and Repairers	High School	198	17	137	\$47.27
Electricians	High School	701	90	1,191	\$28.36
First-Line Supervisors of Construction Trades and Extraction Workers	High School	612	64	945	\$36.47
First-Line Supervisors of Mechanics, Installers, and Repairers	High School	710	74	655	\$36.86
Industrial Machinery Mechanics	High School	363	38	365	\$29.80
Security and Fire Alarm Systems Installers	High School	37	5	122	\$27.78
Architectural and Civil Drafters	Community College	51	6	101	\$29.29
Architectural and Engineering Managers	Bachelor's degree	139	13	113	\$74.96
Construction Managers	Bachelor's degree	413	37	644	\$41.10

**Community College Programs Not Offered**

In the subregion, 19 programs in the energy, construction, and utilities sector are currently not offered (Exhibit 43).

**Exhibit 43.** Programs not offered by community colleges in the subregion.

**Programs Not Offered:**

0201.00 - Architecture and Architectural Technology	0952.70 - Painting, Decorating, and Flooring
0299.00 - Other Architecture and Environmental Design	0952.80 - Drywall and Insulation
0934.40 - Electrical Systems and Power Transmission	0952.90 - Roofing
0935.00 - Electro-Mechanical Technology	0953.20 - Civil Drafting
0946.00 - Environmental Control Technology	0956.40 - Sheet Metal and Structural Metal
0952.10 - Carpentry	0957.00 - Civil and Construction Management Technology
0952.30 - Plumbing, Pipefitting and Steamfitting	0957.20 - Construction Inspection
0952.40 - Glazing	0958.00 - Water and Wastewater Technology
0952.50 - Mill and Cabinet Work	2102.10 - Public Works
0952.60 - Masonry, Tile, Cement, Lath and Plaster	

### Occupational Training Opportunities

There are 10 programs that community colleges are not currently offering in the subregion that align with high-quality, growing occupations:

- 0201.00 - Architecture and Architectural Technology
- 0934.40 - Electrical Systems and Power Transmission
- 0935.00 - Electro-Mechanical Technology
- 0952.10 - Carpentry
- 0952.30 - Plumbing, Pipefitting and Steamfitting
- 0952.40 - Glazing
- 0956.40 - Sheet Metal and Structural Metal
- 0957.00 - Civil and Construction Management Technology
- 0957.20 - Construction Inspection
- 0958.00 - Water and Wastewater Technology

In 2022, there were more than 2,110 high-quality energy, construction, and utilities jobs in the subregion (Exhibit 44).

By 2027, annual job opening projections:

- There are more than 200 high school-level job openings projected annually for this occupational group in the subregion; over 3,330 job openings are projected annually in the greater region.
- There are 17 community-college-level job openings projected annually for this occupational group in the subregion; over 120 job openings are projected annually in the greater region.

**Exhibit 44.** High-quality occupations without training programs in the subregion.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Carpenters	High School	1,027	94	2,072	\$28.05
Construction and Building Inspectors	High School	172	25	204	\$37.79
Glaziers	High School	51	6	123	\$27.07
Plumbers, Pipefitters, and Steamfitters	High School	348	39	620	\$27.67
Sheet Metal Workers	High School	85	9	153	\$30.18
Water and Wastewater Treatment Plant and System Operators	High School	240	29	163	\$37.49
Electrical and Electronics Repairers, Commercial and Industrial Equipment	Community College	191	17	121	\$30.13

Finally, the below occupations are currently being served by existing programs offered in the subregion AND could also be served by the above programs that are not offered in the subregion. If one or more of the above programs are not currently offered in the subregion and are of interest, the COE can perform a full Labor Market Analysis (LMA) on the occupations below to analyze if additional education capacity is needed (Exhibit 45).

**Exhibit 45.** High-quality occupations with training programs in the subregion but aligned to training programs not offered.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Electrical Power-Line Installers and Repairers	High School	198	17	137	\$47.27
First-Line Supervisors of Construction Trades and Extraction Workers	High School	612	64	945	\$36.47
First-Line Supervisors of Mechanics, Installers, and Repairers	High School	710	74	655	\$36.86
Architectural and Civil Drafters	Community College	51	6	101	\$29.29
Architectural and Engineering Managers	Bachelor's degree	139	13	113	\$74.96
Construction Managers	Bachelor's degree	413	37	644	\$41.10

## Health

The CCCC health sector aligns with the CDE health science and medical technology sector. In the High Desert Subregion, 3 colleges currently utilize 9 health program codes (Exhibit 46).

**Exhibit 46.** Programs offered by community colleges in the subregion.

### Programs Offered:

0514.20 - Medical Office Technology
1201.00 - Health Occupations, General
1208.00 - Medical Assisting
1210.00 - Respiratory Care/Therapy
1230.10 - Registered Nursing
1230.20 - Licensed Vocational Nursing
1250.00 - Emergency Medical Services
1251.00 - Paramedic
1306.00 - Nutrition, Foods, and Culinary Arts

Health programs in the subregion prepare students for employment in one high-quality high school-level occupation, two high-quality community college-level occupations, and one bachelor's degree-level occupation. High-quality occupations have at least 100 annual job openings and offer a median hourly wage of \$25.74 at the regional level.

In 2022, there were over 5,050 high-quality health jobs in the subregion related to subregional training programs (Exhibit 47).

By 2027, annual job opening projections:

- There are more than 20 high school-level job openings projected annually for this occupational group in the subregion; over 290 job openings are projected annually in the greater region.
- There are more than 110 community-college-level job openings projected annually for this occupational group in the subregion; over 1,010 job openings are projected annually in the greater region.
- There more 310 bachelor's degree-level job openings projected annually for this occupational group in the subregion; over 2,610 job openings are projected annually in the greater region.



**Exhibit 47.** Education level, projected demand, and earnings for high-quality occupations, 2022 – 2027

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Chefs and Head Cooks	High School	160	24	295	\$27.08
Licensed Practical and Licensed Vocational Nurses	Community College	927	98	873	\$30.36
Respiratory Therapists	Community College	190	17	143	\$37.99
Registered Nurses	Bachelor's degree	3,779	318	2,616	\$58.62

**Community College Programs Not Offered**

In the subregion, 40 programs in the health sector are currently not offered (Exhibit 48).

**Exhibit 48.** Programs not offered by community colleges in the subregion.

**Programs Not Offered:**

0514.20 - Medical Office Technology	1223.10 - Health Information Coding
1201.00 - Health Occupations, General	1224.00 - School Health Clerk
1202.00 - Hospital and Health Care Administration	1225.00 - Radiologic Technology
1205.00 - Medical Laboratory Technology	1226.00 - Radiation Therapy Technician
1205.10 - Phlebotomy	1227.00 - Diagnostic Medical Sonography
1206.00 - Physicians Assistant	1228.00 - Athletic Training and Sports Medicine
1208.00 - Medical Assisting	1230.00 - Nursing
1208.10 - Clinical Medical Assisting	1230.10 - Registered Nursing
1208.20 - Administrative Medical Assisting	1230.20 - Licensed Vocational Nursing
1208.30 - Health Facility Unit Coordinator	1230.30 - Certified Nurse Assistant
1209.00 - Hospital Central Service Technician	1230.80 - Home Health Aide
1210.00 - Respiratory Care/Therapy	1239.00 - Psychiatric Technician
1211.00 - Polysomnography	1240.00 - Dental Occupations
1212.00 - Electro-Neurodiagnostic Technology	1240.10 - Dental Assistant
1213.00 - Cardiovascular Technician	1240.20 - Dental Hygienist
1214.00 - Orthopedic Assistant	1240.30 - Dental Laboratory Technician
1215.00 - Electrocardiography	1250.00 - Emergency Medical Services
1217.00 - Surgical Technician	1251.00 - Paramedic
1218.00 - Occupational Therapy Technology	1261.00 - Community Health Care Worker
1219.00 - Optical Technology	1299.00 - Other Health Occupations
1220.00 - Speech/Language Pathology and Audiology	1306.00 - Nutrition, Foods, and Culinary Arts
1221.00 - Pharmacy Technology	1306.20 - Dietetic Services and Management
1222.00 - Physical Therapist Assistant	1306.60 - Dietetic Technology
1223.00 - Health Information Technology	1309.00 - Gerontology
	2104.40 - Alcohol and Controlled Substances

### Occupational Training Opportunities

There are 7 programs that community colleges are not currently offering in the subregion that align with high-quality, growing occupations:

- 1202.00 - Hospital and Health Care Administration
- 1214.00 - Orthopedic Assistant
- 1225.00 - Radiologic Technology
- 1230.00 - Nursing
- 1239.00 - Psychiatric Technician
- 1240.00 - Dental Occupations
- 2104.40 - Alcohol and Controlled Substances

In 2022, there were over 1,610 high-quality health jobs in the subregion (Exhibit 49).

By 2027, annual job opening projections:

- There are more than 70 community-college-level job openings projected annually for this occupational group in the subregion; over 650 job openings are projected annually in the greater region.
- There are 120 bachelor's degree-level job openings projected annually for this occupational group in the subregion; over 1,040 job openings are projected annually in the greater region.

**Exhibit 49.** High-quality occupations without training programs in the subregion

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Dental Hygienists	Community College	206	25	166	\$47.19
Physical Therapist Assistants	Community College	75	15	182	\$37.00
Psychiatric Technicians	Community College	152	17	148	\$31.54
Radiologic Technologists and Technicians	Community College	222	20	156	\$45.54
Medical and Health Services Managers	Bachelor's degree	534	66	562	\$59.13
Substance Abuse, Behavioral Disorder, and Mental Health Counselors	Bachelor's degree	430	54	485	\$28.09

Finally, the below occupations are currently being served by existing programs offered in the subregion AND could also be served by the above programs that are not offered in the subregion. If one or more of the above programs are not currently offered in the subregion and are of interest, the COE can perform a full Labor Market Analysis (LMA) on the occupations below to analyze if additional education capacity is needed (Exhibit 50).

**Exhibit 50.** High-quality occupations with training programs in the subregion but aligned to training programs not offered.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Licensed Practical and Licensed Vocational Nurses	Community College	927	98	873	\$30.36
Registered Nurses	Bachelor's degree	3,779	318	2,616	\$58.62

## Information and Communication Technologies (ICT)/Digital Media

The CCCC information and communication technologies/digital media (ICT/DM) sector aligns with the CDE arts, media, and entertainment sector and the information and communication technologies sector. Three colleges in the High Desert Subregion currently utilize 9 ICT/DM program codes (Exhibit 51).

**Exhibit 51.** Programs offered by community colleges in the subregion.

### Programs Offered:

0514.00 - Office Technology/Office Computer Applications

0614.00 - Digital Media

0614.40 - Animation

0702.00 - Computer Information Systems

0702.10 - Software Applications

0707.10 - Computer Programming

0707.20 - Database Design and Administration

0708.10 - Computer Networking

1012.00 - Applied Photography

ICT/DM programs in the subregion prepare students for employment in two high-quality high school-level occupations and five bachelor's degree-level occupations. High-quality occupations have at least 100 annual job openings and offer a median hourly wage of \$25.74 at the regional level.

In 2022, there were over 2,970 high-quality ICT/DM jobs in the subregion related to subregional training programs (Exhibit 52).

By 2027, annual job opening projections:

- There are more than 180 high school-level job openings projected annually for this occupational group in the subregion; over 2,100 job openings are projected annually in the greater region.
- There are no community college-level job openings projected annually for this occupational group in the greater region.
- There are more than 110 bachelor's degree-level job openings projected annually for this occupational group in the subregion; over 1,130 job openings are projected annually in the greater region.

**Exhibit 52.** Education level, projected demand, and earnings for high-quality occupations, 2022 – 2027

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Executive Secretaries and Executive Administrative Assistants	High School	336	36	340	\$33.46
First-Line Supervisors of Office and Administrative Support Workers	High School	1,300	145	1,763	\$30.34
Computer and Information Systems Managers	Bachelor's degree	217	20	237	\$77.28
Computer Occupations, All Other	Bachelor's degree	547	45	302	\$36.36
Computer Systems Analysts	Bachelor's degree	229	20	210	\$48.96
Graphic Designers	Bachelor's degree	162	16	252	\$26.52
Network and Computer Systems Administrators	Bachelor's degree	186	14	134	\$44.40

**Community College Programs Not Offered**

In the subregion, 27 programs in the ICT/DM sector are currently not offered (Exhibit 53).

**Exhibit 53.** Programs not offered by community colleges in the subregion.

**Programs Not Offered:**

0602.00 - Journalism	0701.00 - Information Technology, General
0604.00 - Radio and Television	0707.00 - Computer Software Development
0604.10 - Radio	0707.30 - Computer Systems Analysis
0604.20 - Television (including combined TV/Film/Video)	0708.00 - Computer Infrastructure and Support
0604.30 - Broadcast Journalism	0708.20 - Computer Support
0607.00 - Technical Communication	0709.00 - World Wide Web Administration
0610.00 - Mass Communications	0709.10 - E-Commerce (Technology emphasis)
0612.20 - Film Production	0799.00 - Other Information Technology
0614.10 - Multimedia	0934.30 - Telecommunications Technology
0614.20 - Electronic Game Design	1005.00 - Commercial Music
0614.30 - Website Design and Development	1013.00 - Commercial Art
0614.50 - Desktop Publishing	1030.00 - Graphic Art and Design
0614.60 - Computer Graphics and Digital Imagery	2206.10 - Geographic Information Systems
0699.00 - Other Media and Communications	

**Occupational Training Opportunities**

There are 6 programs that community colleges are not currently offering in the subregion that align with high-quality, growing occupations:

- 0602.00 - Journalism
- 0614.30 - Website Design and Development
- 0701.00 - Information Technology, General
- 0708.00 - Computer Infrastructure and Support
- 0709.10 - E-Commerce (Technology emphasis)
- 0934.30 - Telecommunications Technology

In 2022, there were over 580 high-quality ICT/DM jobs in the subregion (Exhibit 54).

By 2027, annual job opening projections:

- There are 9 high school-level job openings projected annually for this occupational group in the subregion; over 130 job openings are projected annually in the greater region.
- There are 40 community-college-level job openings projected annually for this occupational group in the subregion; over 470 job openings are projected annually in the greater region.
- There are 10 bachelor’s degree-level job openings projected annually for this occupational group in the subregion; over 140 job openings are projected annually in the greater region.

**Exhibit 54.** High-quality occupations without training programs in the subregion.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Telecommunications Line Installers and Repairers	High School	86	9	136	\$30.45
Computer User Support Specialists	Community College	287	26	326	\$29.25
Telecommunications Equipment Installers and Repairers, Except Line Installers	Community College	121	14	151	\$30.08
Writers and Authors	Bachelor's degree	82	10	146	\$26.32

Finally, the below occupations are currently being served by existing programs offered in the subregion AND could also be served by the above programs that are not offered in the subregion. If one or more of the above programs are not currently offered in the subregion and are of interest, the COE can perform a full Labor Market Analysis (LMA) on the occupations below to analyze if additional education capacity is needed (Exhibit 55).

**Exhibit 55.** High-quality occupations with training programs in the subregion but aligned to training programs not offered.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
First-Line Supervisors of Office and Administrative Support Workers	High School	1,300	145	1,763	\$30.34
Computer and Information Systems Managers	Bachelor's degree	217	20	237	\$77.28
Computer Occupations, All Other	Bachelor's degree	547	45	302	\$36.36
Computer Systems Analysts	Bachelor's degree	229	20	210	\$48.96
Graphic Designers	Bachelor's degree	162	16	252	\$26.52
Network and Computer Systems Administrators	Bachelor's degree	186	14	134	\$44.40

## Public Safety

The CCCC public safety sector aligns with the CDE public services sector. Three colleges in the High Desert Subregion currently utilize four public safety program codes (Exhibit 56).

**Exhibit 56.** Programs offered by community colleges in the subregion.

### Programs Offered:

2105.00 - Administration of Justice  
 2105.10 - Corrections  
 2133.00 - Fire Technology  
 2133.50 - Fire Academy

Public safety programs in the subregion prepare students for employment in three high-quality high school-level occupations, one high-quality community college-level occupation, and one bachelor's degree-level occupation. High-quality occupations have at least 100 annual job openings and offer a median hourly wage of \$25.74 at the regional level.

In 2022, there were more than 3,650 high-quality public safety jobs in the subregion related to subregional training programs (Exhibit 57).

By 2027, annual job opening projections:

- There are more than 260 high school-level job openings projected annually for this occupational group in the subregion; over 1,350 job openings are projected annually in the greater region.
- There are more than 65 community-college-level job openings projected annually for this occupational group in the subregion; over 380 job openings are projected annually in the greater region.
- There are 70 bachelor's degree-level job openings projected annually for this occupational group in the subregion; over 450 job openings are projected annually in the greater region.

**Exhibit 57.** Education level, projected demand, and earnings for high-quality occupations, 2022 – 2027

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Correctional Officers and Jailers	High School	754	84	441	\$42.42
Detectives and Criminal Investigators	High School	303	29	128	\$53.18
Police and Sheriff's Patrol Officers	High School	1,369	154	787	\$48.44
Firefighters	Community College	574	67	385	\$31.07
Child, Family, and School Social Workers	Bachelor's degree	655	70	454	\$29.56



### Community College Programs Not Offered

In the subregion, 10 programs in the public safety sector are currently not offered (Exhibit 58).

**Exhibit 58.** Programs not offered by community colleges in the subregion.

#### Programs Not Offered:

2105.00 - Administration of Justice	2133.00 - Fire Technology
2105.10 - Corrections	2133.10 - Wildland Fire Technology
2105.20 - Probation and Parole	2133.50 - Fire Academy
2105.30 - Industrial and Transportation Security	2199.00 - Other Public and Protective Services
2105.40 - Forensics, Evidence, and Investigation	
2105.50 - Police Academy	

### Occupational Training Opportunities

There are 3 programs that community colleges are not currently offering in the subregion that align with high-quality, growing occupations:

- 2105.20 - Probation and Parole
- 2105.40 - Forensics, Evidence, and Investigation
- 2133.10 - Wildland Fire Technology

Currently, all high-quality public safety jobs in the subregion aligned with the above programs are being served by existing training programs.

However, the below occupations are currently being served by existing programs offered in the subregion AND could also be served by the above programs that are not offered in the subregion. If one or more of the above programs are not currently offered in the subregion and are of interest, the COE can perform a full Labor Market Analysis (LMA) on the occupations below to analyze if additional education capacity is needed (Exhibit 59).

**Exhibit 59.** High-quality occupations with training programs in the subregion but aligned to training programs not offered.

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Correctional Officers and Jailers	High School	754	84	441	\$42.42
Detectives and Criminal Investigators	High School	303	29	128	\$53.18
Police and Sheriff's Patrol Officers	High School	1,369	154	787	\$48.44
Firefighters	Community College	574	67	385	\$31.07



## Retail, Hospitality, and Tourism

The CCCCO retail, hospitality, and tourism sector aligns with the CDE fashion and interior design sector and the hospitality, tourism, and recreation sector. Two colleges in the High Desert Subregion currently utilize 2 retail, hospitality, and tourism program codes (Exhibit 60).

**Exhibit 60.** Programs offered by community colleges in the subregion.

### Programs Offered:

1306.30 - Culinary Arts

1307.10 - Restaurant and Food Services and Management

Retail, hospitality, and tourism programs in the subregion prepare students for employment in three high-quality high school-level occupations, one high-quality community college-level occupation, and one bachelor's degree-level occupation. High-quality occupations have at least 100 annual job openings and offer a median hourly wage of \$25.74 at the regional level.

In 2022, there were 166 high-quality retail, hospitality, and tourism jobs in the subregion related to subregional training programs (Exhibit 61).

By 2027, annual job opening projections:

- There are more than 20 high school-level job openings projected annually for this occupational group in the subregion; over 290 job openings are projected annually in the greater region.
- There are no community-college-level job openings projected annually.
- There are no bachelors-level job openings projected annually.

**Exhibit 61.** Education level, projected demand, and earnings for high-quality occupations, 2022 – 2027

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
Chefs and Head Cooks	High School	160	24	295	\$27.08

### Community College Programs Not Offered

In the subregion, 19 programs in the retail, hospitality, and tourism sector are currently not offered (Exhibit 62).

**Exhibit 62.** Programs not offered by community colleges in the subregion.

**Programs Not Offered:**

0506.50 - Retail Store Operations and Management	1303.00 - Fashion
0509.60 - Display	1303.10 - Fashion Design
0514.40 - Office Management	1303.20 - Fashion Merchandising
0516.00 - Labor and Industrial Relations	1307.00 - Hospitality
0606.00 - Public Relations	1307.20 - Lodging Management
0835.70 - Aquatics and Lifesaving	1307.30 - Resort and Club Management
0959.10 - Diving and Underwater Safety	3008.00 - Dry Cleaning
1301.00 - Family and Consumer Sciences, General	3009.00 - Travel Services and Tourism
1301.10 - Consumer Services	3020.40 - Flight Attendant
1302.00 - Interior Design and Merchandising	

**Occupational Training Opportunities**

There are 8 programs that community colleges are not currently offering in the subregion that align with high-quality, growing occupations:

- 0506.50 - Retail Store Operations and Management
- 0509.60 - Display
- 0514.40 - Office Management
- 0516.00 - Labor and Industrial Relations
- 1301.00 - Family and Consumer Sciences, General
- 1302.00 - Interior Design and Merchandising
- 1303.20 - Fashion Merchandising
- 3020.40 - Flight Attendant

In 2022, there were more than 8,540 high-quality public safety jobs in the subregion (Exhibit 63).

By 2027, annual job opening projections:

- There are more than 360 high school-level job openings projected annually for this occupational group in the subregion; over 5,970 job openings are projected annually in the greater region.
- There are no community-college-level job openings projected annually.
- There are more than 520 bachelor's degree-level job openings projected annually for this occupational group in the subregion; over 5,160 job openings are projected annually in the greater region.

**Exhibit 63.** High-quality occupations without training programs in the subregion

Description	Entry level Education	Subregion 2022 Jobs	Subregion 2022 - 2027 Avg. Annual Openings	Regional 2022 - 2027 Avg. Annual Openings	Regional Median Hourly Earnings
First-Line Supervisors of Non-Retail Sales Workers	High School	245	21	324	\$31.75
First-Line Supervisors of Office and Administrative Support Workers	High School	1,300	145	1,763	\$30.34
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	High School	561	73	1,322	\$29.62
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	High School	559	66	1,039	\$27.58
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	High School	533	58	1,528	\$29.84
Buyers and Purchasing Agents	Bachelor's degree	352	36	387	\$30.50
Compliance Officers	Bachelor's degree	489	48	319	\$34.02
General and Operations Managers	Bachelor's degree	1,824	199	2,550	\$48.75
Interior Designers	Bachelor's degree	62	8	114	\$31.68
Market Research Analysts and Marketing Specialists	Bachelor's degree	337	42	728	\$29.79
Marketing Managers	Bachelor's degree	116	12	208	\$58.58
Secondary School Teachers, Except Special and Career/Technical Education	Bachelor's degree	2,168	178	856	\$50.72

## Appendix A: Methodology and Data Sources

This report focuses on occupations identified through the Bureau of Labor Statistics (BLS) Standard Occupational Classification (SOC) System that are cross walked to California Community Colleges Taxonomy of Programs (TOP) codes. These occupations are most relevant for students who enroll in community college career education training programs (CE). This report analyzes occupations related to the 10 sectors designated by the California Community Colleges Chancellor's Office (CCCCO) with a typical entry-level education requirement of either high school, community college, or a bachelor's degree. The subregional analysis by sector allows for a comprehensive evaluation of where high-quality jobs exist and where colleges may invest in CE programs to address labor market demand.

A program inventory was conducted for each CCCCCO sector, examining programs offered by community colleges in the region. Education levels, current employment (2022 job count), projected occupational demand (annual job openings), and earnings associated with occupations in each sector are included in the assessment.

For each sector, occupations that meet the high-quality job definition are highlighted, i.e., occupations that are both in-demand and have high-wages. For this study, an occupation is considered in-demand if it has 100 or more regional annual job openings over the next five years. Occupations are considered high wage if their median hourly wage meets or exceeds \$25.74 per hour, the MIT living wage standard for a single adult in California. Further information on MIT Living Wage Standard Methodology is available on their website.<sup>6</sup>

Labor market data in this report is sourced from Lightcast 2023.4. The community college program inventory was sourced from the Chancellor's Office Curriculum Inventory (COCI 2.0) and each community college's course catalog. Each college verified the program inventory to ensure the college offerings were current and accurate. Each sector contains a list of existing program offerings and programs currently not offered by community colleges in the subregion.

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<sup>6</sup> While the [UW self-sufficiency standard](#) is currently used by the CO and other COEs, the self-sufficiency standard was last updated by UW in 2021, does not account for significant increases in the cost of living in the Inland Empire the last three years, and is below the State of California minimum wage of \$16.00. For these reasons, the COE will provide an alternative living wage calculation from MIT in the analysis below as an additional reference point. MIT estimates, the living wage for an adult with no kids living in 2024 is \$26.30 in Riverside County and \$25.17 in San Bernadino County.

## Appendix B: Zip codes used in this report.

Zip Code and Area	2022 Population	2027 Population	Projected % Change
92301 Adelanto	38,455	40,698	5.83%
92310 Fort Irwin	8,914	9,380	5.24%
92393 Victorville	3,743	3,918	4.69%
92394 Victorville	39,870	41,252	3.47%
92312 Barstow	1,929	1,988	3.04%
92392 Victorville	64,107	65,906	2.81%
92344 Hesperia	21,445	22,023	2.70%
92311 Barstow	32,666	33,150	1.48%
92395 Victorville	45,257	45,739	1.06%
92277 Twentynine Palms	29,216	29,504	0.98%
92345 Hesperia	85,615	86,402	0.92%
92267 Parker Dam	*Insf Data.	*Insf Data.	0.00%
92278 Twentynine Palms	*Insf Data.	*Insf Data.	0.00%
92304 Amboy	*Insf Data.	*Insf Data.	0.00%
92371 Phelan	17,725	17,569	-0.88%
92307 Apple Valley	43,105	42,390	-1.66%
92286 Yucca Valley	2,450	2,370	-3.26%
92368 Oro Grande	1,138	1,098	-3.59%
92329 Phelan	4,385	4,220	-3.77%
92308 Apple Valley	38,814	37,191	-4.18%
92327 Daggett	207	198	-4.48%
92356 Lucerne Valley	6,631	6,320	-4.70%

92363 Needles	6,246	5,903	-5.49%
92309 Baker	48	45	-5.57%
92323 Cima	65	61	-5.57%
92338 Ludlow	82	77	-5.57%
92364 Nipton	190	179	-5.57%
92366 Mountain Pass	24	23	-5.57%
92365 Newberry Springs	2,744	2,591	-5.59%
92332 Essex	58	55	-5.60%
92347 Hinkley	1,111	1,047	-5.76%
92280 Vidal	38	36	-6.10%
92252 Joshua Tree	8,973	8,420	-6.17%
92372 Pinon Hills	4,594	4,311	-6.17%
92284 Yucca Valley	22,490	21,036	-6.46%
92340 Hesperia	1,606	1,472	-8.33%
92342 Helendale	5,994	5,456	-8.98%
92398 Yermo	389	352	-9.49%
92256 Morongo Valley	3,160	2,856	-9.61%
93562 Trona	1,669	1,500	-10.11%
93592 Trona	25	22	-10.11%
92285 Landers	2,967	2,621	-11.65%
92268 Pioneertown	471	401	-14.75%
92242 Earp	1,288	1,088	-15.52%

\*The population for this zip code was too small for the data source, Lightcast, to provide data.

## Appendix C: Terms & Definitions

### Labor Market Definitions

**Industry Employment** is a count of jobs in a given geography. Businesses operating within the same industry produce similar goods and services and share comparable production processes for creating these goods and services. The North American Industry Classification System (NAICS) is the federal system used to classify all business establishments into specific industries. Staffing patterns show the distribution of occupational employment and demand for each industry. For example, Community Colleges employ faculty, but the institutions also hire a variety of administrators and support staff to maintain operations.

The same is true for most industries. Regional educational institutions should be aware of the types of industries in their area to help inform the needed industry-specific occupational skills that may be required by local employers.

A **location quotient** quantifies how concentrated a particular industry, cluster, occupation, or demographic group is in a region compared to the nation. It can reveal what makes a particular region “unique.” A high location quotient (1.2 times or greater concentration in the local region compared to the nation) reveals industries that are highly represented and make the area unique. Conversely, industries with a low location quotient account for a smaller share of jobs than the national average, indicating that while job seekers may find work in these industries, they are more likely to find a higher concentration of these jobs elsewhere in the nation.

**An occupation** is a set of activities or tasks employees are paid to perform. Employees that perform essentially the same tasks are in the same occupation, whether or not they work in the same industry. Some occupations are concentrated in a few particular industries; other occupations are found in many industries. For example, jobs for registered nurses are concentrated in the healthcare industry sector, but educational industries may also employ these jobs. The Standard Occupational Classification (SOC) System classifies 775 detailed occupations according to the tasks and duties of each job.

**Annual Job Openings** are calculated by the sum of projected growth and replacement jobs ( $\text{Growth} + \text{Replacements} = \text{Openings}$ ). Growth captures the changes in the total number of workers employed in an occupation, while replacement jobs are estimates of workers permanently leaving an occupation and needing to be replaced by new hires. A combination of both numbers indicates the total openings for the time frame.

**High-Quality Occupation Definition:** The analysis identified high-quality occupations that show relatively strong workforce demand (100+ regional annual job openings) and offer a median hourly wage that is higher than the California living wage standard (\$25.74 per hour). As a result, the occupations highlighted in this report can be used to calibrate training programs to address regional in-demand jobs that pay self-sustaining earnings.

## Education Definitions

- **No-degree-level:** Occupations that require no formal education.
- **High-school-level:** Occupations that require a high school diploma or equivalent.
- **Community-college-level:** Occupations that mostly require some college, a postsecondary certificate, or an associate degree. These are occupations relevant to community college training.
- **Bachelor’s-degree-level:** Occupations that mostly require a bachelor’s degree. These occupations are mostly trained by four-year colleges and universities.
- **Advanced-degree-level:** Occupations that typically require education and training beyond a bachelor’s degree.

## Demographic Definitions<sup>7</sup>

**White:** includes all individuals who identify with one or more nationalities or ethnic groups originating in Europe, the Middle East, or North Africa. Examples of these groups include, but are not limited to, German, Irish, English, Italian, Lebanese, Egyptian, Polish, French, Iranian, Slavic, Cajun, and Chaldean.

**Black or African American:** includes all individuals who identify with one or more nationalities or ethnic groups originating in any of the black racial groups of Africa. Examples of these groups include, but are not limited to, African American, Jamaican, Haitian, Nigerian, Ethiopian, and Somali.

**American Indian or Alaska Native:** includes all individuals who identify with any of the original peoples of North and South America (including Central America) and who maintain tribal affiliation or community attachment. It includes people who identify as “American Indian” or “Alaska Native” and includes groups such as the Navajo Nation, Blackfeet Tribe, Mayan, Aztec, Native Village of Barrow Inupiat Traditional Government, and Nome Eskimo Community.

**Asian:** includes all individuals who identify with one or more nationalities or ethnic groups originating in the Far East, Southeast Asia, or the Indian subcontinent. Examples of these groups include, but are not limited to, Chinese, Filipino, Asian Indian, Vietnamese, Korean, and Japanese. The category also includes groups such as Pakistani, Cambodian, Hmong, Thai, Bengali, Mien, etc.

**Native Hawaiian and Pacific Islander:** includes all individuals who identify with one or more nationalities or ethnic groups originating in Hawaii, Guam, Samoa, or other Pacific Islands. Examples of these groups include, but are not limited to, Native Hawaiian, Samoan, Chamorro, Tongan, Fijian, and Marshallese.

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<sup>7</sup> This report uses race and ethnicity data from Lightcast collected by the U.S. Census Bureau through the American Community Survey. The terms in this document, including white, Hispanic, and Black, adhere to the terms and definitions the Census Bureau uses in collecting its data. For definitions, please refer to <https://www.census.gov/topics/population/race/about.html>.



























**Hispanic, Latino, or Spanish origin:** includes all individuals who identify with one or more nationalities or ethnic groups originating in Mexico, Puerto Rico, Cuba, Central, and South America, and other Spanish cultures. Examples of these groups include, but are not limited to, Mexican or Mexican American, Puerto Rican, Cuban, Salvadoran, Dominican, Colombian, Guatemalan, Honduran, Spaniard, Ecuadorian, Peruvian, and Venezuelan.

## Appendix D: Sector Crosswalk Used for Program Inventory

A program inventory study was conducted for each CCCC sector, examining each college with related programs that align with CDE sectors. The CDE developed Career Education (CE) Model Curriculum Standards for grades 7 through 12 that categorize courses and programs into 15 industry sectors. The CE model sectors are not to be confused with the NAICS employment industry sectors discussed in the previous section of this report or with the CCCC sectors. The CE model provides a useful way to classify postsecondary CE offerings and connect career pathways from high school to college. The relationship between the CDE and CCCC sectors is illustrated below.

**Exhibit C1.** Crosswalk showing CCCC priority and emerging sector alignment with CDE sectors

CCCCO Priority and Emerging Sectors		CDE Industry Sectors	
	Advanced Manufacturing	Manufacturing and Product Development	
	Advanced Transportation	Transportation	
	Agriculture, Water & Environmental Technologies	Agriculture and Natural Resources	
	Business & Entrepreneurship	Business and Finance	
		Marketing, Sales, and Services	
	Education & Human Development	Education, Child Development, and Family Services	
	Energy, Construction & Utilities	Building and Construction Trades	
		Energy, Environment, and Utilities	
		Engineering and Architecture	
	Health	Health Science and Medical Technology	
	Information & Communication Technologies (ICT)/Digital Media	Arts, Media, and Entertainment	
		Information and Communication Technologies	
	Public Safety	Public Services	
	Retail, Hospitality & Tourism	Fashion and Interior Design	
		Hospitality, Tourism, and Recreation	