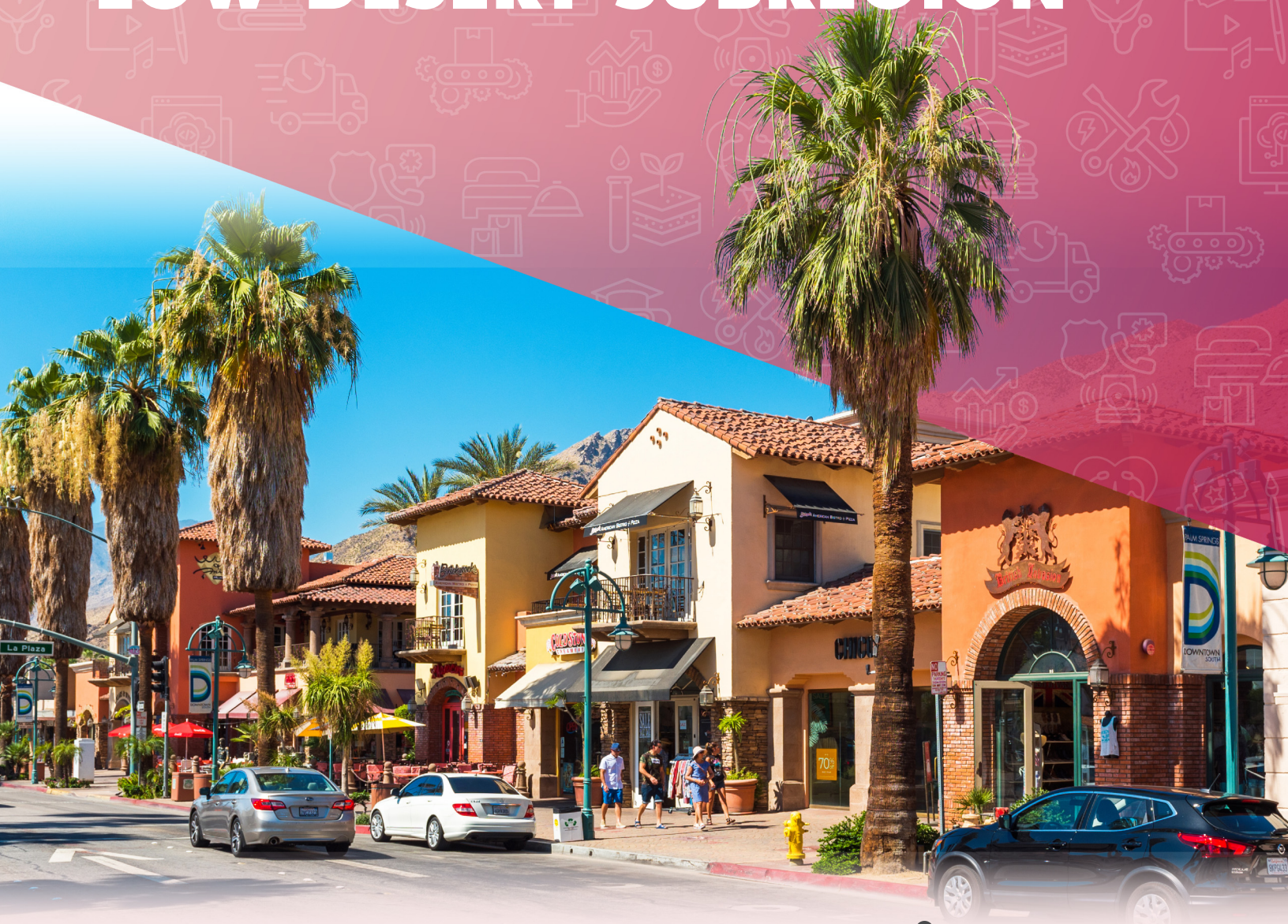


2023

# WORKFORCE DEMAND ASSESSMENT **LOW DESERT SUBREGION**



INLAND EMPIRE/DESERT  
REGIONAL CONSORTIUM  
STRONG WORKFORCE



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CENTERS OF EXCELLENCE  
FOR LABOR MARKET RESEARCH

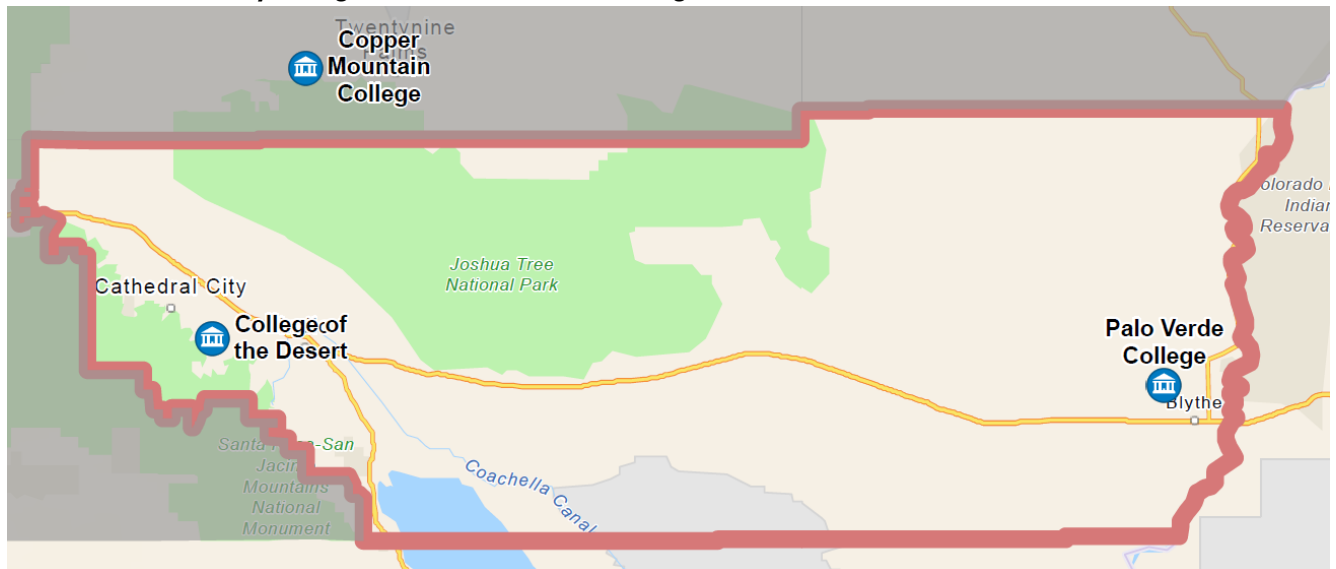
## Low Desert Subregional Overview

The Low Desert Subregion encompasses the eastern portion of Riverside County, extending from the San Jacinto mountains in the west to the Arizona state border in the east, the San Bernardino County border on the north, and the Imperial County border on the south. The Low Desert subregion comprises just over 2/3rds of Riverside County's land area but contains only 19% of the County's total population. Two community colleges and four high school districts are located within this subregion. Exhibit 1 displays a map of the subregion. (See Appendix A for a map of all subregions and a list of ZIP codes associated with this subregion.)

To assist regional community colleges with strategic planning and career education (CE) program development, the Inland Empire/Desert Region Center of Excellence (COE) conducted this series of subregional workforce demand assessments to pinpoint high-quality job opportunities for 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.

Regional demographic, industry, and high-quality jobs information is available in the Inland Empire/Desert Regional Workforce Demand Assessment: <https://bit.ly/2022IED>.

### Exhibit 1. Community colleges in the Low Desert Subregion





## Methodology and Data Sources

This report focuses on occupations identified through the Bureau of Labor Statistics (BLS) Standard Occupational Classification (SOC) System that are crosswalked to California Community Colleges Taxonomy of Programs (TOP) codes. These occupations are most relevant for students who enroll in community college education and training programs. 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 of either high school or community college. 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 (2021 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 designation 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 \$21.82 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>1</sup>

Labor market data in this report is sourced from Lightcast 2022.4. The community college program inventory was sourced from the Chancellor's Office Curriculum Inventory (COCI 2.0) and each community college's course catalogs. Each college verified the inventory to ensure the college offerings are 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>1</sup> "Living Wage Calculator for California," MIT Living Wage, 2023, accessed January 18, 2023, <https://livingwage.mit.edu/states/06>.

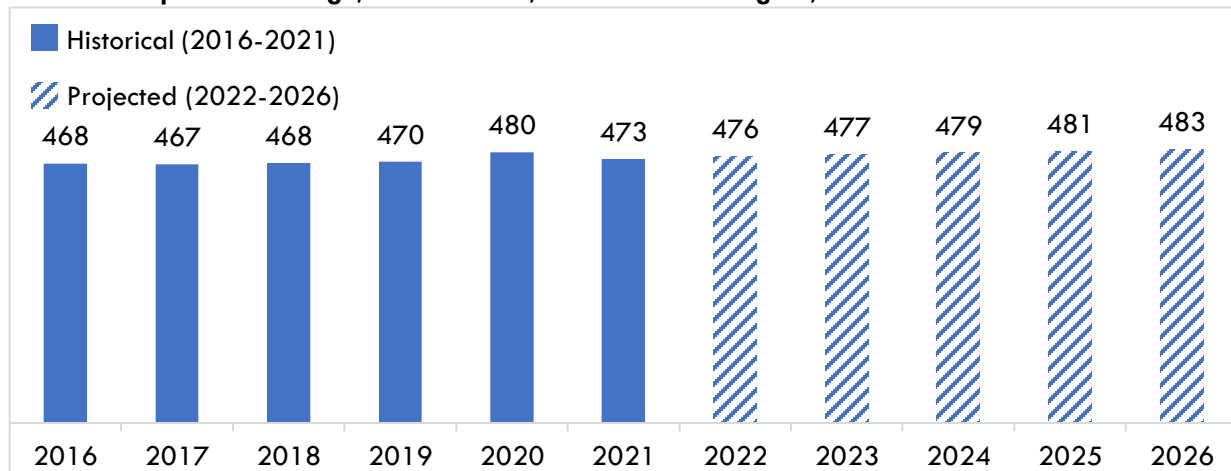
## Subregional Demographics and Labor Force

This section analyzes the Low Desert Subregion's demographic characteristics, including population size, gender, race/ethnicity, age, educational attainment, and labor force participation. Providing foundational information on a subregion's demographic composition ensures that all residents are equitably served by local educational institutions. The demographic data displayed in this report reflects the examined subregional area and may not directly reflect a postsecondary institution's student population.

### Population

In 2021, the Low Desert Subregion contained about 473,000 residents, or 10.2% of the region's 4.65 million residents (Exhibit 2). Over the last five years, between 2016 and 2021, the population of this subregion increased by 1%, while the greater region increased by 3.2%. Over the next five years, between 2021 and 2026, the subregion's population is projected to increase by 2.1%, adding nearly 10,000 residents. Population growth in this subregion, 2.1%, is expected to grow slower than the overall region (up by 4.1%) but faster than the state (declining by -0.4%).

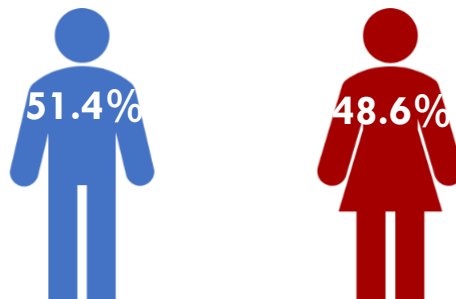
**Exhibit 2. Population change, in thousands, Low Desert Subregion, 2016-2026**



### Gender

The subregional population has more male residents (51.4%) than female residents (48.6%) (Exhibit 3). The subregion has a greater share of male residents than the greater region (50.3%) and a smaller share of female residents (49.7%).

**Exhibit 3. Gender composition, Low Desert Subregion, 2021**



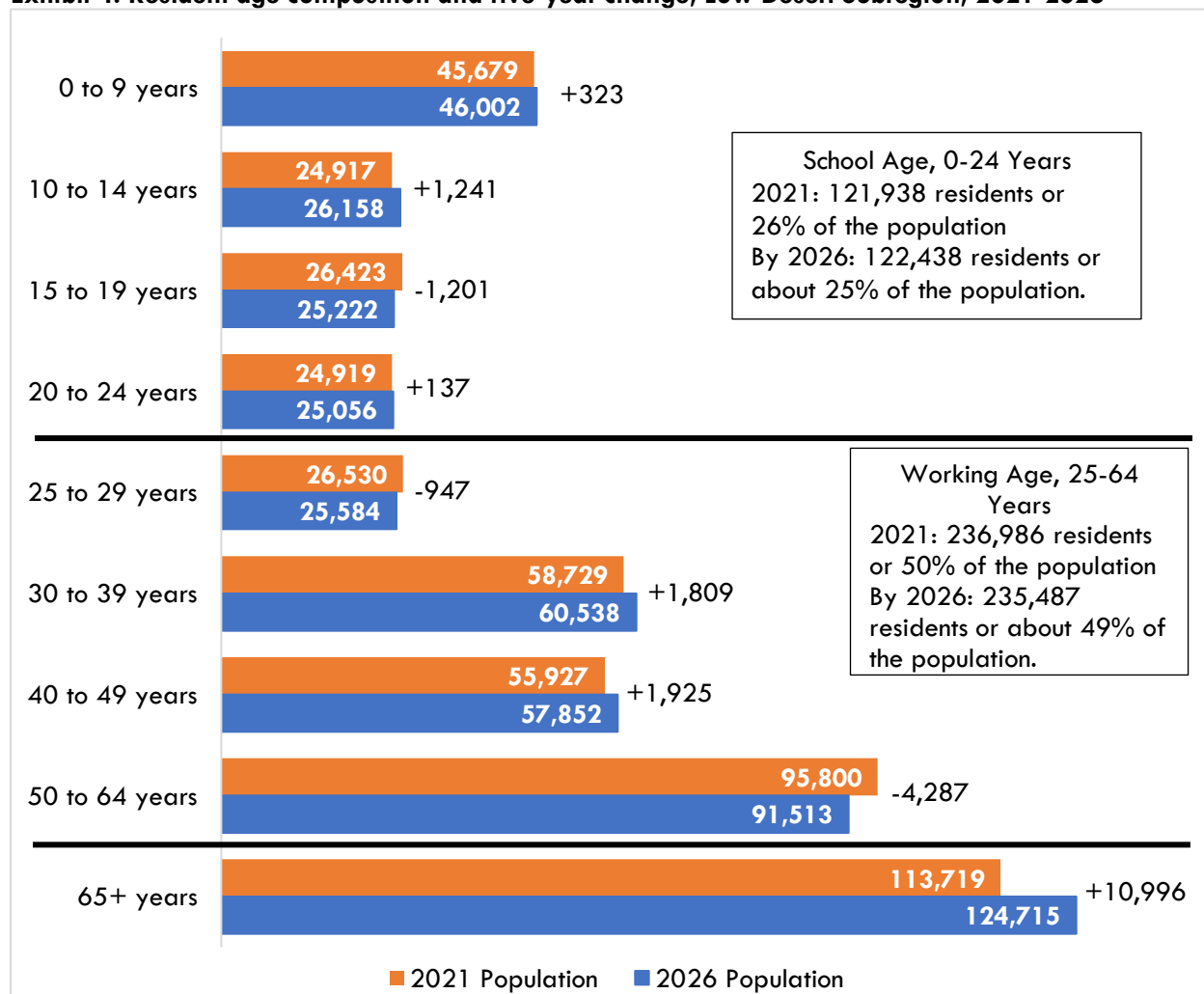
## Age

The size of resident age categories may provide insight into future demand for housing, services, and educational enrollment needs. In 2021, the 0-to-24 age group represented nearly 26% of the Low Desert Subregion's population (Exhibit 4). By 2026, the 0-to-24 age group is projected to increase by nearly 500 residents or 0.4%. There will be a notable decline in the 15-to-19 age group, which may indicate lower community college enrollment in the next five years. However, this trend may be reversed by the 10-to-14 age group, which is projected to grow by 5%, adding 1,241 residents to the subregion through 2026.

The working-age population, those residents age 25 to 64, comprised more than 50% of the subregion's population in 2021. Over the next five years, the working-age population is expected to shed about 1,500 residents, shrinking by 0.6%. Within the working-age population, notable growth over the next five years is projected in the 40-to-49 age group, an increase of 3.4%.

The age group comprised of residents 65 years and older is the largest age group in the subregion, accounting for 24.1% of the population, compared to the greater region, 13.5%. This age group is projected to rise by 9.7% over the next five years, adding nearly 11,000 residents.

**Exhibit 4. Resident age composition and five-year change, Low Desert Subregion, 2021-2026**

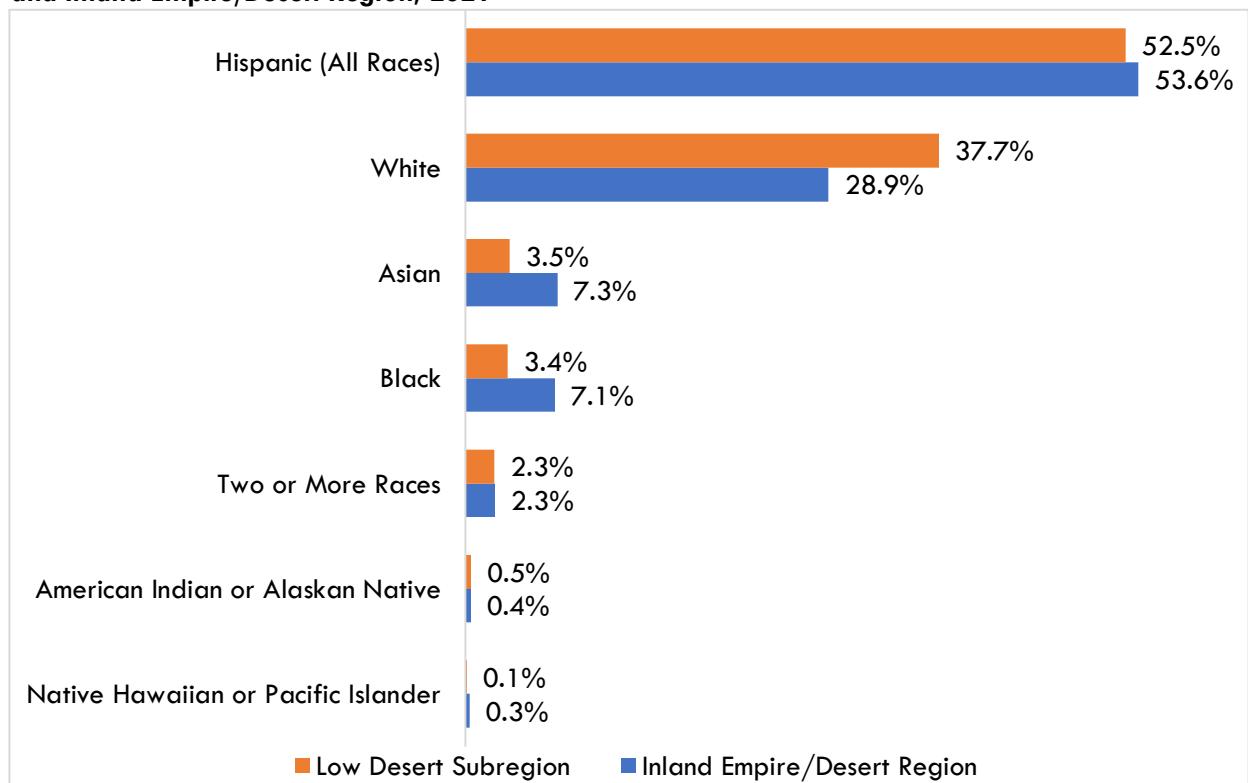


## Race and Ethnicity

The U.S. Census Bureau collects race and ethnicity data from residents in accordance with the U.S. Office of Management and Budget's guidelines.<sup>2</sup> The Census questionnaire asks each resident to self-identify by selecting their race and whether they are of Hispanic origin. These are categories that generally reflect an individual's social definition and are "not an attempt to define race biologically, anthropologically, or genetically." Race and ethnicity data is particularly critical in federal and state civil rights policymaking, addressing issues such as providing equal employment opportunities and addressing racial disparities in health and the environmental assessments.<sup>3</sup> (See Appendix B for terms and definitions related to population demographics.)

In 2021, residents identifying as Hispanic (all races) made up more than half, 52.5%, of the subregion's population, a slightly smaller share than the region, 53.6% (Exhibit 5). The subregion contains a smaller share of Black (alone) residents than the region, 3.4% compared to 7.1% respectively. Asian (alone) residents comprised a smaller portion of the population in the subregion, 3.5%, compared to 7.3% in the region. White residents comprise a larger proportion of the subregion's population, 37.7%, compared to the region, 28.9%.

**Exhibit 5. Race (non-Hispanic) and ethnicity (Hispanic, all races) composition, Low Desert Subregion and Inland Empire/Desert Region, 2021**



<sup>2</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>.

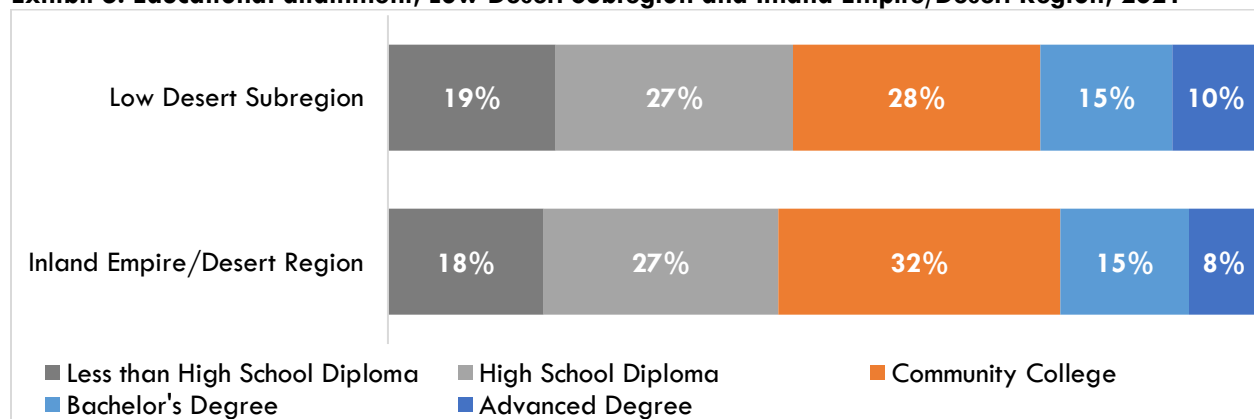
<sup>3</sup> "2020 Census Frequently Asked Questions About Race and Ethnicity," United States Census Bureau, 2023, accessed January 23, 2023, <https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/release/faqs-race-ethnicity.html>.

## Educational Attainment

Educational attainment refers to the highest level of education that residents age 25 and older have completed. Educational attainment data may illuminate mismatches between resident skills and employment needs and the need for additional regional postsecondary program offerings.

Approximately 47% of the residents in the subregion have a high school diploma or less, a greater share than the Inland Empire/Desert Region overall (Exhibit 6). This may indicate an opportunity for more CE program outreach with the goal of increasing educational attainment in the region. The subregion has a smaller share of residents with a community college education (some college but no degree, or an associate degree), 28%, than the region, 32%. The subregion has more residents who have a bachelor's degree or higher, 25%, compared to 23% in the region.

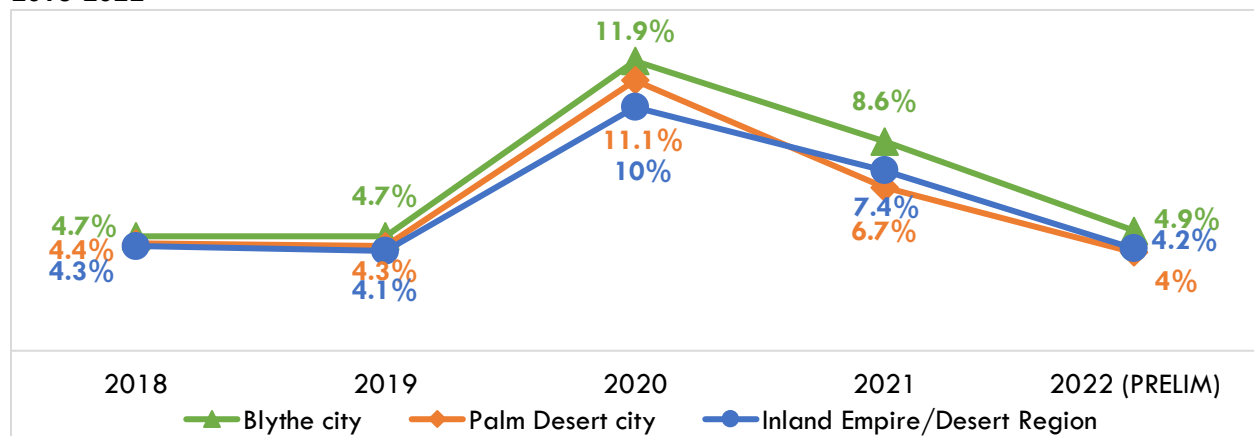
**Exhibit 6. Educational attainment, Low Desert Subregion and Inland Empire/Desert Region, 2021**



## Labor Force and Unemployment Rate

Labor force data reflects the employment status of people by where they live. 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 share of the total labor force. Exhibit 7 displays city-level unemployment rate trends for cities containing community college main campuses.

**Exhibit 7. Annual average unemployment rate for Low Desert cities and Inland Empire/Desert Region, 2018-2022**



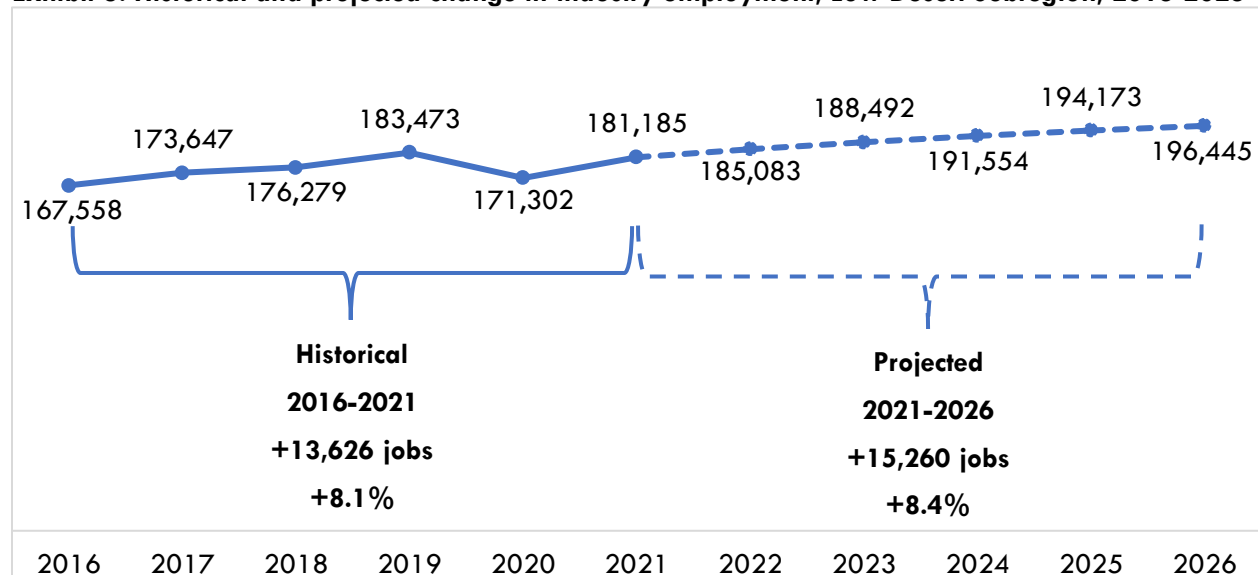
## Subregional Industries

Industries are groups of employer establishments categorized by their primary business activity, e.g., what they produce, sell, or the services they provide.<sup>4</sup> Industries can be measured using many methods. This assessment analyzes industries by their current job count, job change over the next five years, average earnings per worker, and location quotient. It is essential to recognize that industries hire dozens of occupations that support a business's activity, including management, business and financial operations, health care, food preparation, sales, and production occupational categories, to name a few. Each industry job is counted, whether full-time or part-time, usually where the business conducts its payroll activity.

In the subregion, industry employers reported nearly 181,200 total jobs in 2021, or about 10.4% of the Inland Empire/Desert Region's total employment (nearly 1.74 million jobs) (Exhibit 8). Over the next five years, the subregion's industry employment is projected to grow by 8.4% (adding nearly 15,300 jobs), at a slower pace than the greater region's projected job growth of 8.6%. The subregion is projected to contribute 10.2% of the region's net job growth over the next five years.

Over the past five years, from 2016 to 2021, subregional employment rose by 8.1%, a net increase of more than 13,600 jobs. Average employment in the subregion experienced a slight decrease in employment in 2020 due to the effects of the COVID-19 pandemic, shedding an average of nearly 12,200 jobs or about 7% of total employment.

**Exhibit 8. Historical and projected change in industry employment, Low Desert Subregion, 2016-2026**



## 2021 Industry Employment

Employer industries are organized in a hierarchical structure known as the North American Industry Classification System (NAICS). This structure of categorization allows deeper and more detailed analysis of industry sectors and provides a better understanding of the employer activity that powers the region.

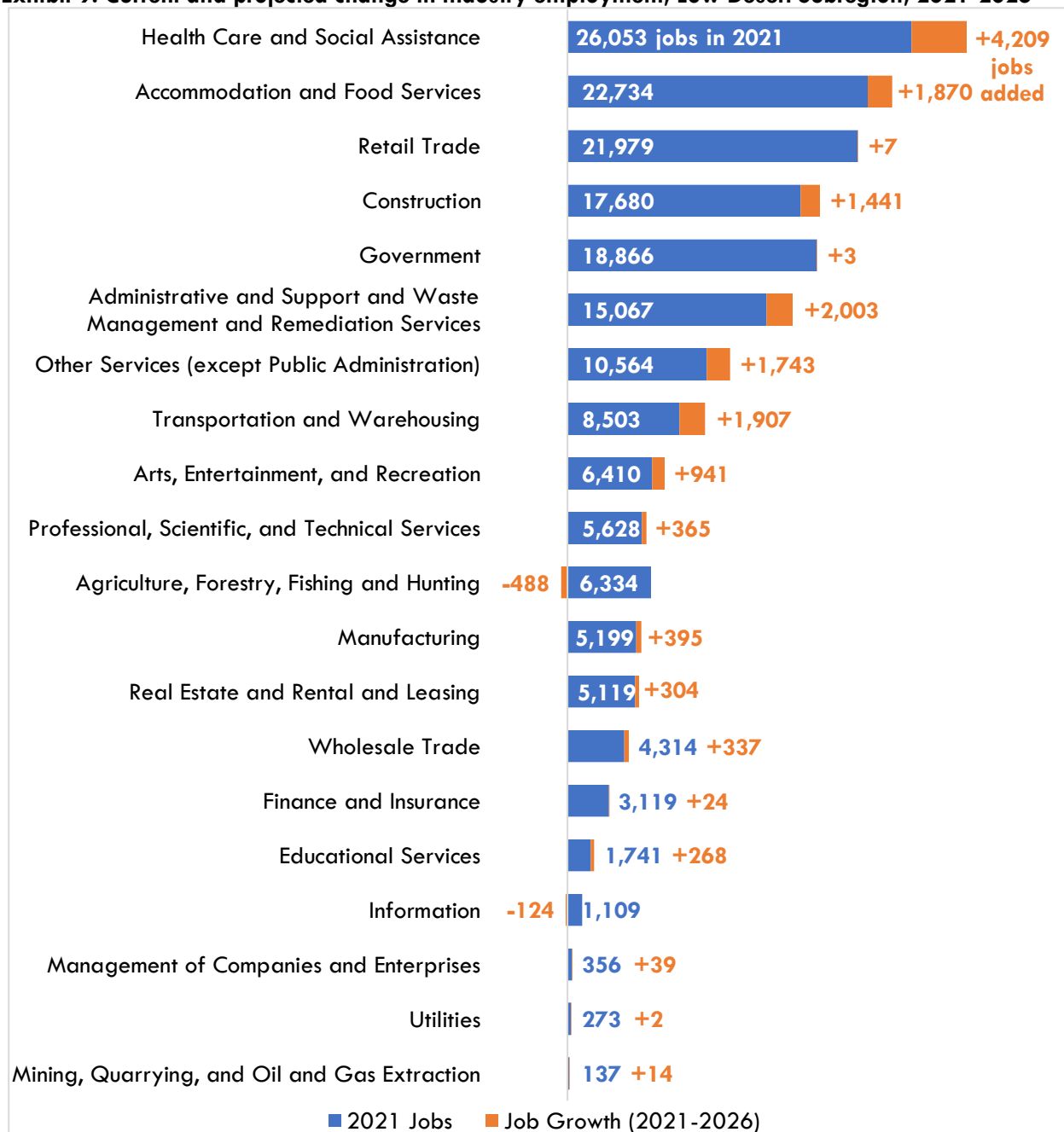
<sup>4</sup> "North American Industry Classification System (NAICS)," United States Census Bureau, 2017, accessed January 18, 2023, <https://www.census.gov/naics/?58967?yearbck=2017>.



In 2021, the largest industries by employment were health care and social assistance, accommodation and food services, retail trade, construction, and government, which accounted for more than 107,300 jobs, or approximately 59% of subregional employment (Exhibit 9).

Over the next five years, the top five industries adding the most jobs to the subregion are: health care and social assistance; administrative and support and waste management and remediation services; transportation and warehousing; accommodation and food services; and other services (except public administration). These industries are projected to contribute 77% of the subregion's job growth through 2026.

**Exhibit 9. Current and projected change in industry employment, Low Desert Subregion, 2021-2026**



## 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 10 provides a sample of high-quality industry groups. High-quality industries are those that are growing faster than the region overall (at or above 8.6% growth), have average per-job earnings above the living wage standard (\$45,386 annually), and have a 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 B for terms and definitions.)

In 2021, more than 18,900 jobs were employed by industry groups that met the high-quality industry group definition. While high-quality industry groups accounted for nearly 10% of subregional employment in 2021, these industry groups are projected to add 11% of subregional jobs over the next five years.

### Exhibit 10. Industry groups with high-quality jobs, Low Desert Subregion, 2021-2026

Industry Groups (NAICS4)	2021 Jobs	2021-2026 Job Change	Growth Rate	Location Quotient	Average Earnings Per Job
<b>Construction</b>					
<i>Building Equipment Contractors (2382)</i>	4,766	579	12.2%	1.5	\$68,440
<i>Foundation, Structure, and Building Exterior Contractors (2381)</i>	3,989	384	9.6%	3.2	\$63,723
<b>Transportation and Warehousing</b>					
<i>Warehousing and Storage (4931)</i>	4,275	1,038	24.3%	2.3	\$59,219
<b>Health Care and Social Assistance</b>					
<i>Outpatient Care Centers (6214)</i>	2,553	588	23%	2.2	\$96,240
<b>Wholesale Trade</b>					
<i>Grocery and Related Product Merchant Wholesalers (4244)</i>	1,171	133	11.3%	1.4	\$101,010
<i>Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers (4237)</i>	491	125	25.4%	1.5	\$77,304
<b>Manufacturing</b>					
<i>Veneer, Plywood, and Engineered Wood Product Manufacturing (3212)</i>	786	108	13.8%	8.6	\$83,743
<i>Boiler, Tank, and Shipping Container Manufacturing (3324)</i>	378	33	8.7%	3.9	\$109,710
<i>Other Chemical Product and Preparation Manufacturing (3259)</i>	261	27	10.4%	2.9	\$72,966
<i>Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing (3253)</i>	73	22	29.6%	1.7	\$98,461
<b>Arts, Entertainment, and Recreation</b>					
<i>Gambling Industries (7132)</i>	179	103	57.6%	1.7	\$73,952

The detailed industry groups displayed above are notable due to their growth, strong earnings, and concentration in the subregion compared to the nation overall. While location quotient data may provide

insight into the unique presence of certain industries that may define a region, there are an additional 55 industry groups that are growing and have average earnings per job above the regional living wage standard. In 2021, industry groups that met these criteria accounted for approximately 14% of subregional employment, with more than 25,800 jobs. These industry groups are projected to contribute nearly 13% of subregional job growth through 2026. (Appendix C lists the 55 additional industry groups that are growing and have strong earnings.)

## 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 the majority of industries (e.g., information technology workers and maintenance workers).<sup>5</sup>

Inland Empire/Desert community colleges currently offer programs that train for occupations associated with the 10 CCCCCO and 15 California Department of Education (CDE) sectors. The following sections discuss current employment and future demand for high-quality occupations related to regional training programs that align with the CCCCCO sectors. (See Appendix D for the sector crosswalk used for the study's program inventory.) 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 and have high wages.

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. Typical entry-level educational requirements are reported by employers at the national level, and alternative paths to securing employment may exist depending on employer preferences and state licensing requirements. For example, registered nurses (RNs) typically must possess a bachelor's degree to enter employment in most states; however, California RN licensing may be attained after completing an Associate Degree in Nursing (ADN) through the California Community Colleges.<sup>6</sup>

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 rate of pay than jobs that require 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.

Bachelor's-degree-level jobs are those that require a four-year degree from a college or university. 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. This assessment does not include occupations that typically require an education beyond a bachelor's degree, such as physicians, lawyers, and most scientists, or occupations that do not typically require formal education to enter employment. Military occupations (about 40 regional military jobs in the region) were also excluded from the following sections of this assessment. (Definitions for education levels are available in Appendix B.)

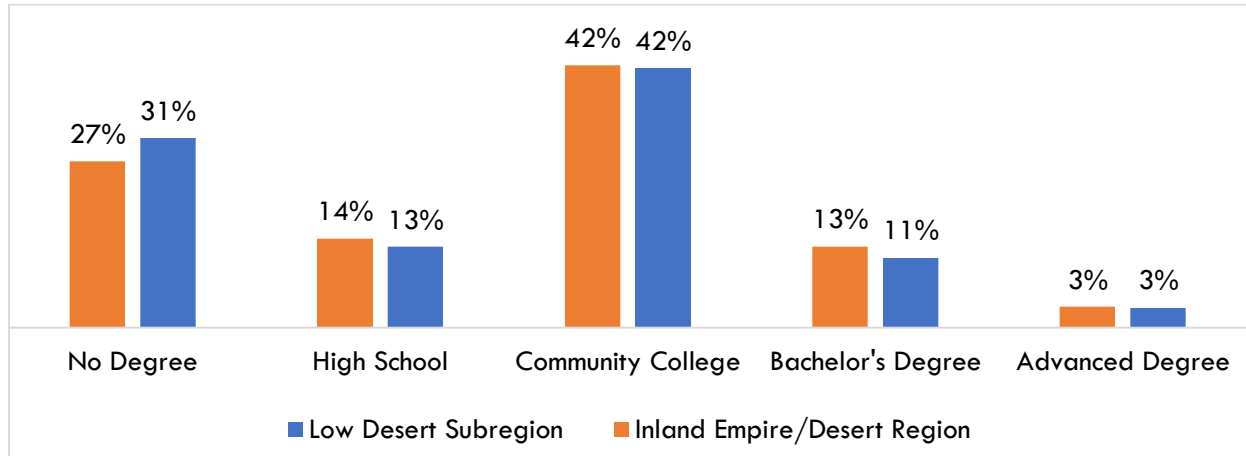
Of the approximately 181,100 jobs in the subregion in 2021, 66% of the jobs are included in this report. Exhibit 11 displays the count and share of jobs by educational level. For occupational wage information by educational level, please review the regional workforce demand assessment report.

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<sup>5</sup> "Concepts and Definitions," U.S. Bureau of Labor Statistics, 2022, accessed on August 8, 2022, <https://www.bls.gov/cps/definitions.htm>.

<sup>6</sup> "Steps to Become a California Registered Nurse," California Board of Registered Nursing, accessed on August 8, 2022, <https://www.rn.ca.gov/careers/steps.shtml>.

**Exhibit 11. Share of jobs by education level, Low Desert Subregion and Inland Empire/Desert Region, 2021**



### Advanced Manufacturing

The CCCCCO advanced manufacturing sector aligns with the CDE manufacturing and product development sector. Two colleges in the Low Desert Subregion currently use one program code for their advanced manufacturing programs.

#### Program Offered (TOP code - program name)

- 0956.50 - Welding Technology

Advanced manufacturing programs in the subregion prepare students for employment in one high-quality community-college-level occupation: welders, cutters, solderers, and brazers. High-quality occupations have at least 100 annual job openings and offer a median hourly rate of \$21.82 at the regional level.

In 2021, this occupation had nearly 300 jobs in the subregion (Exhibit 12). Through 2026, approximately 35 job openings are projected annually for this occupation in the subregion; there are 10 times as many annual job openings for this occupation in the region, a total of 458 each year.

**Exhibit 12. Education level projected demand, and earnings for the high-quality occupation**

Occupation	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings Through 2026	Regional Annual Job Openings	Regional Median Hourly Earnings
Welders, Cutters, Solderers, and Brazers	CC	271	35	458	\$22.53



### Programs Not Offered

In the subregion, 22 programs in the advanced manufacturing sector are not offered (Exhibit 13).

#### Exhibit 13. Programs not offered by community colleges in the subregion

Subregional Programs Not Offered	
0924.00 - Engineering Technology, General (requires Trigonometry)	0953.30 - Electrical, Electronic and Electro-Mechanical Drafting
0934.00 - Electronics and Electric Technology	0953.40 - Mechanical Drafting
0934.20 - Industrial Electronics	0953.60 - Technical Illustration
0934.70 - Electron Microscopy	0954.00 - Chemical Technology
0934.80 - Laser and Optical Technology	0954.20 - Plastics and Composites
0935.00 - Electro-Mechanical 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
0943.30 - Vacuum Technology	0961.00 - Optics
0945.00 - Industrial Systems Technology and Maintenance	0999.00 - Other Engineering and Related Industrial Technologies

### Occupational Training Opportunities

There are two programs aligned with two high-quality advanced manufacturing occupations that community colleges may choose to address in the subregion.

- 0945.00 - Industrial Systems Technology and Maintenance
- 0956.00 - Manufacturing and Industrial Technology

In 2021, high-quality advanced manufacturing occupations accounted for nearly 500 jobs in the subregion (Exhibit 14). These occupations are projected to have more than 50 annual job openings in the subregion and nearly 800 annual job openings in the greater region through 2026.

#### Exhibit 14. High-quality occupations without training programs in the subregion

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings Through 2026	Regional Annual Job Openings	Regional Median Hourly Earnings
First-Line Supervisors of Production and Operating Workers	CC	326	37	513	\$28.84
Industrial Machinery Mechanics	CC	139	17	284	\$28.82

## Advanced Transportation and Logistics

The CCCCCO advanced transportation and logistics sector aligns with the CDE transportation sector. Two colleges in the Low Desert Subregion currently use two program codes for their advanced transportation and logistics programs.

### Programs Offered

- 0948.00 - Automotive Technology
- 0948.40 - Alternative Fuels and Advanced Transportation Technology

Advanced transportation and logistics programs in the subregion prepare students for employment in two high-quality community-college-level occupations. High-quality occupations have at least 100 annual job openings and offer a median hourly rate of \$21.82 at the regional level.

In 2021, these occupations accounted for more than 1,500 jobs in the subregion (Exhibit 15). Nearly 200 job openings are projected annually for the high-quality advanced transportation and logistics occupational group in the subregion through 2026, with more than 1,500 job openings projected annually in the greater region.

### Exhibit 15. Education level, projected demand, and earnings for high-quality occupations

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Automotive Service Technicians and Mechanics	CC	1,014	107	976	\$23.26
First-Line Supervisors of Mechanics, Installers, and Repairers	CC	489	51	550	\$37.01

### Programs Not Offered

In the subregion, 19 programs in the advanced transportation and logistics sector are not offered (Exhibit 16).

### Exhibit 16. Programs not offered by community colleges in the subregion

Subregional Programs Not Offered	
0510.00 - Logistics and Materials Transportation	0950.10 - Aviation Airframe Mechanics
0947.00 - Diesel Technology	0950.20 - Aviation Powerplant Mechanics
0947.20 - Heavy Equipment Maintenance	0950.40 - Aircraft Electronics (Avionics)
0947.40 - Railroad and Light Rail Operations	0950.50 - Aircraft Fabrication
0947.50 - Truck and Bus Driving	0959.00 - Marine Technology
0948.30 - Motorcycle, Outboard and Small Engine Repair	3020.00 - Aviation and Airport Management and Services
0948.50 - Recreational Vehicle Service	3020.10 - Aviation and Airport Management
0949.00 - Automotive Collision Repair	3020.20 - Piloting
0949.10 - Upholstery Repair - Automotive	3020.30 - Air Traffic Control
0950.00 - Aeronautical and Aviation Technology	

### Occupational Training Opportunities

There are nine programs aligned with 10 high-quality community-college-level occupations and one high-quality bachelor's degree-level occupation that community colleges may choose to address in the subregion.

- 0510.00 - Logistics and Materials Transportation
- 0947.00 - Diesel Technology
- 0947.20 - Heavy Equipment Maintenance
- 0947.50 - Truck and Bus Driving
- 0949.00 - Automotive Collision Repair
- 0950.00 - Aeronautical and Aviation Technology
- 0950.10 - Aviation Airframe Mechanics
- 0950.20 - Aviation Powerplant Mechanics
- 0950.50 - Aircraft Fabrication
- 3020.20 - Piloting

The following high-quality advanced transportation and logistics occupations are projected to have more than 500 annual job openings in the subregion and nearly 10,400 annual job openings in the greater region (Exhibit 17).

**Exhibit 17. High-quality occupations without training programs in the subregion**

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Airline Pilots, Copilots, and Flight Engineers	BS	75	7	120	\$133.20
Heavy and Tractor-Trailer Truck Drivers	CC	2,078	290	6,560	\$23.17
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	CC	596	81	1,307	\$28.53
Production, Planning, and Expediting Clerks	CC	300	38	546	\$22.70
Bus and Truck Mechanics and Diesel Engine Specialists	CC	213	24	408	\$28.28
Transportation, Storage, and Distribution Managers	CC	170	17	353	\$44.82
Mobile Heavy Equipment Mechanics, Except Engines	CC	169	19	248	\$29.51
Automotive Body and Related Repairers	CC	138	17	157	\$27.07
Bus Drivers, Transit and Intercity	CC	125	16	224	\$24.39
Logisticians	CC	93	13	245	\$36.41
Aircraft Mechanics and Service Technicians	CC	86	8	196	\$36.07

## Agriculture, Water, and Environmental Technologies

The CCCCOC agriculture, water, and environmental technologies sector aligns with the CDE agriculture and natural resources sector. Two community colleges in the Low Desert Subregion currently offer seven programs in the agriculture, water, and environmental technologies sector.

### Programs Offered

- 0101.00 - Agriculture Technology and Sciences, General
- 0103.00 - Plant Science
- 0109.00 - Horticulture
- 0109.40 - Turfgrass Technology
- 0112.00 - Agriculture Business, Sales and Service
- 0115.00 - Natural Resources
- 0303.00 - Environmental Technology

Agriculture, water, and environmental technologies programs in the subregion prepare students for employment in one high-quality community-college-level occupation. High-quality occupations have at least 100 annual job openings and offer a median hourly rate of \$21.82 at the regional level.

In 2021, this occupation accounted for more than 400 jobs in the subregion (Exhibit 18). This occupation is projected to have more than 50 annual job openings in the subregion through 2026, with nearly 200 job openings expected annually in the greater region.

### Exhibit 18. Education level, projected demand, and earnings for the high-quality occupation

Occupation	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	CC	428	52	196	\$28.25

### Programs Not Offered

In the subregion, 17 programs in the agriculture, water, and environmental technologies sector are not offered (Exhibit 19).

### Exhibit 19. Programs not offered by community colleges in the subregion

Subregional Programs Not Offered	
0102.00 - Animal Science	0109.30 - Nursery Technology
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
0102.40 - Equine Science	0115.20 - Wildlife and Fisheries
0103.10 - Agricultural Pest Control Adviser and Operator (Licensed)	0116.00 - Agricultural Power Equipment Technology
0104.00 - Viticulture, Enology, and Wine Business	0199.00 - Other Agriculture and Natural Resources
0109.10 - Landscape Design and Maintenance	1920.00 - Ocean Technology
0109.20 - Floriculture/Floristry	

### Occupational Training Opportunities

There is one program aligned with one high-quality high-school-level occupation that community colleges may choose to address in the subregion.

- 0109.10 - Landscape Design and Maintenance

This high-quality occupation is projected to have nearly 50 annual job openings in the subregion and nearly 200 annual job openings in the greater region (Exhibit 20).

### Exhibit 20. High-quality occupation without training programs in the subregion

Occupation	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Tree Trimmers and Pruners	HS	305	44	162	\$23.50

### Business and Entrepreneurship

The CCCC business and entrepreneurship sector aligns with the CDE business and finance sector; and marketing, sales, and services sector. Two colleges in the Low Desert Subregion currently utilize eight business and entrepreneurship program codes.

#### Programs Offered

- 0501.00 - Business and Commerce, General
- 0502.00 - Accounting
- 0505.00 - Business Administration
- 0506.30 - Management Development and Supervision
- 0506.40 - Small Business and Entrepreneurship
- 0509.00 - Marketing and Distribution
- 0511.00 - Real Estate
- 0514.00 - Office Technology/Office Computer Applications

Business and entrepreneurship programs in the subregion prepare students for employment in 25 high-quality occupations: 10 bachelor's degree-level occupations, 13 community-college-level occupations, and two high-school-level occupations. High-quality occupations have at least 100 annual job openings and offer a median hourly rate of \$21.82 at the regional level.

I



n 2021, there were nearly 14,300 business jobs related to subregional training programs (Exhibit 21). Through 2026, high-quality business and entrepreneurship occupations are projected to have nearly 1,500 annual job openings in the subregion, with nearly 13,300 annual job openings in the greater region.

**Exhibit 21. Education levels, projected demand, and earnings for high-quality occupations**

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Accountants and Auditors	BS	876	94	800	\$36.84
Sales Managers	BS	570	50	527	\$47.35
Human Resources Specialists	BS	498	62	792	\$30.24
Market Research Analysts and Marketing Specialists	BS	484	59	597	\$29.96
Project Management Specialists	BS	443	41	454	\$39.40
Management Analysts	BS	331	34	446	\$38.04
Cost Estimators	BS	317	34	283	\$35.23
Chief Executives	BS	253	19	182	\$75.12
Marketing Managers	BS	142	14	144	\$58.96
Human Resources Managers	BS	115	11	138	\$50.54
General and Operations Managers	CC	2,501	252	2,397	\$46.18
Bookkeeping, Accounting, and Auditing Clerks	CC	1,680	191	1,751	\$22.31
First-Line Supervisors of Office and Administrative Support Workers	CC	1,647	168	1,759	\$28.96
Real Estate Sales Agents	CC	1,418	154	534	\$26.07
Property, Real Estate, and Community Association Managers	CC	666	59	342	\$23.70
Billing and Posting Clerks	CC	507	57	512	\$21.82
Real Estate Brokers	CC	466	51	191	\$33.98
Executive Secretaries and Executive Administrative Assistants	CC	309	33	340	\$30.39
Administrative Services Managers	CC	208	19	211	\$46.62
Payroll and Timekeeping Clerks	CC	167	17	172	\$23.27
Tax Preparers	CC	158	21	102	\$22.24
Facilities Managers	CC	128	11	112	\$46.21
Human Resources Assistants, Except Payroll and Timekeeping	CC	104	11	145	\$22.56
Insurance Claims and Policy Processing Clerks	HS	232	23	217	\$22.14
Word Processors and Typists	HS	78	8	105	\$22.61

### Programs Not Offered

In the subregion, 19 programs in the business and entrepreneurship sector are not offered (Exhibit 22).

#### Exhibit 22. Programs not offered by community colleges in the subregion

Subregional Programs Not Offered	
0502.10 - Tax Studies	0514.10 - Legal Office Technology
0504.00 - Banking and Finance	0514.40 - Office Management
0506.00 - Business Management	0516.00 - Labor and Industrial Relations
0508.00 - International Business and Trade	0518.00 - Customer Service
0509.10 - Advertising	0599.00 - Other Business and Management
0509.20 - Purchasing	0606.00 - Public Relations
0509.40 - Sales and Salesmanship	1255.00 - Mortuary Science
0509.70 - E-commerce (business emphasis)	3005.00 - Custodial Services
0511.10 - Escrow	3007.00 - Cosmetology and Barbering
0512.00 - Insurance	

### Occupational Training Opportunities

There are four programs aligned with seven high-quality community-college-level occupations and three high-quality bachelor's degree-level occupations that community colleges may choose to address in the subregion.

- 0504.00 - Banking and Finance
- 0509.20 - Purchasing
- 0509.40 - Sales and Salesmanship
- 0512.00 - Insurance

High-quality business and entrepreneurship occupations accounted for nearly 3,900 jobs in 2021 (Exhibit 23). These occupations are expected to have more than 400 annual job openings in the subregion through 2026 and more than 4,700 annual job openings in the greater region.

**Exhibit 23. High-quality occupations without training programs in the subregion**

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Financial Managers	BS	482	45	433	\$60.47
Loan Officers	BS	219	17	158	\$29.63
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	BS	96	11	182	\$43.18
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	CC	931	118	1,070	\$23.16
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	CC	922	106	1,521	\$29.06
Insurance Sales Agents	CC	539	69	582	\$23.90
Buyers and Purchasing Agents	CC	255	27	339	\$29.68
First-Line Supervisors of Non-Retail Sales Workers	CC	206	21	216	\$34.85
Claims Adjusters, Examiners, and Investigators	CC	125	10	120	\$36.42
Loan Interviewers and Clerks	CC	122	11	106	\$22.40

## Education and Human Development

The CCCCCO education and human development sector aligns with the CDE education, child development, and family services sector. Two colleges in the Low Desert Subregion currently utilize 11 education and human development program codes.

### Programs Offered

- 0802.00 - Educational Aide (Teacher Assistant)
- 0802.10 - Educational Aide (Teacher Assistant), Bilingual
- 0835.20 - Fitness Trainer
- 1305.00 - Child Development/Early Care and Education
- 1305.10 - Child and Adolescent Development
- 1305.20 - Children with Special Needs
- 1305.60 - Parenting and Family Education
- 1305.80 - Child Development Administration and Management
- 1305.90 - Infants and Toddlers
- 2104.40 - Alcohol and Controlled Substances
- 2140.00 - Legal and Community Interpretation

Education and human development programs in the subregion prepare students for employment in seven high-quality bachelor's degree-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 rate of \$21.82 at the regional level.

In 2021, there were nearly 4,200 high-quality occupations related to subregional training programs (Exhibit 24). Through 2026, nearly 400 annual job openings are projected for these occupations in the subregion, and more than 4,100 annual job openings are projected in the region.

**Exhibit 24. Education levels, projected demand, and earnings for high-quality occupations**

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Elementary School Teachers, Except Special Education	BS	1,465	103	1,282	\$46.47
Secondary School Teachers, Except Special and Career/Technical Education	BS	938	63	779	\$47.68
Middle School Teachers, Except Special and Career/Technical Education	BS	365	26	325	\$47.72
Child, Family, and School Social Workers	BS	364	43	456	\$29.20
Substance Abuse, Behavioral Disorder, and Mental Health Counselors	BS	325	45	468	\$23.87
Special Education Teachers, Kindergarten and Elementary School	BS	192	14	171	\$39.51
Special Education Teachers, Secondary School	BS	121	9	109	\$48.36
Exercise Trainers and Group Fitness Instructors	CC	302	63	405	\$22.19
Interpreters and Translators	CC	105	15	112	\$30.76

**Programs Not Offered**

In the subregion, 11 programs in the education and human development sector are not offered (Exhibit 25).

**Exhibit 25. Programs not offered by community colleges in the subregion**

Subregional Programs Not Offered	
0809.00 - Special Education	1305.40 - Preschool Age Children
0835.60 - Coaching	1305.50 - The School Age Child
0850.10 - Sign Language Interpreting	1305.70 - Foster and Kinship Care
0860.00 - Educational Technology	1308.00 - Family Studies
0899.00 - Other Education	2104.00 - Human Services
1301.00 - Family and Consumer Sciences, General	

### Occupational Training Opportunities

There are two programs aligned with two high-quality bachelor's degree-level occupations that community colleges may choose to address in the subregion.

- 0860.00 - Educational Technology
- 2104.00 - Human Services

High-quality education and human development occupations accounted for nearly 400 jobs in 2021 (Exhibit 26). These occupations are expected to have nearly 50 annual job openings in the subregion through 2026 and more than 500 annual job openings in the greater region.

**Exhibit 26. High-quality occupations without training programs in the subregion**

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Social and Community Service Managers	BS	167	21	208	\$35.54
Training and Development Specialists	BS	212	25	312	\$29.19

### Energy, Construction, and Utilities

The CCCC energy, environment, and utilities sector aligns with the CDE building and construction trades sector; energy, environment, and utilities sector; and engineering and architecture sectors. Two Low Desert Subregion colleges currently utilize eight energy, construction, and utilities program codes.

#### Programs Offered

- 0201.00 - Architecture and Architectural Technology
- 0946.00 - Environmental Control Technology
- 0946.10 - Energy Systems Technology
- 0952.00 - Construction Crafts Technology
- 0953.00 - Drafting Technology
- 0957.00 - Civil and Construction Management Technology
- 0957.20 - Construction Inspection
- 2206.10 - Geographic Information Systems

Energy, construction, and utilities programs in the subregion prepare students for employment in two bachelor's degree-level occupations and six high-quality community-college-level occupations. High-quality occupations have at least 100 annual job openings and offer a median hourly rate of \$21.82 at the regional level.



In 2021, there were more than 4,800 high-quality jobs related to subregional energy, construction, and utilities training programs (Exhibit 27). Through 2026, more than 500 annual job openings are projected for the high-quality energy, construction, and utilities occupational group in the subregion, with more than 4,600 job openings projected for the greater region.

**Exhibit 27. Education levels, projected demand, and earnings for high-quality occupations**

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Construction Managers	BS	761	76	624	\$36.87
Architectural and Engineering Managers	BS	91	8	115	\$72.93
Maintenance and Repair Workers, General	CC	1,776	187	1,715	\$22.38
First-Line Supervisors of Construction Trades and Extraction Workers	CC	1,062	122	1,027	\$35.65
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	CC	813	97	697	\$22.23
Architectural and Civil Drafters	CC	116	13	109	\$29.05
Construction and Building Inspectors	CC	113	14	156	\$36.66
Solar Photovoltaic Installers	CC	108	20	180	\$22.54

**Programs Not Offered**

In the subregion, 21 programs in the energy, construction, and utilities sector are not offered (Exhibit 28).

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

Subregional Programs Not Offered	
0299.00 - Other Architecture and Environmental Design	0952.80 - Drywall and Insulation
0934.30 - Telecommunications Technology	0952.90 - Roofing
0934.40 - Electrical Systems and Power Transmission	0953.10 - Architectural Drafting
0947.30 - Heavy Equipment Operation	0953.20 - Civil Drafting
0952.10 - Carpentry	0954.30 - Petroleum Technology
0952.20 - Electrical	0956.40 - Sheet Metal and Structural Metal
0952.30 - Plumbing, Pipefitting and Steamfitting	0957.30 - Surveying
0952.40 - Glazing	0958.00 - Water and Wastewater Technology
0952.50 - Mill and Cabinet Work	0959.10 - Diving and Underwater Safety
0952.60 - Masonry, Tile, Cement, Lath and Plaster	2102.10 - Public Works
0952.70 - Painting, Decorating and Flooring	

### Occupational Training Opportunities

There are nine programs aligned with one high-school-level occupation and 12 high-quality community-college-level occupations that community colleges may choose to address in the subregion.

- 0934.30 - Telecommunications Technology
- 0934.40 - Electrical Systems and Power Transmission
- 0947.30 - Heavy Equipment Operation
- 0952.10 - Carpentry
- 0952.20 - Electrical
- 0952.40 - Glazing
- 0952.60 - Masonry, Tile, Cement, Lath and Plaster
- 0956.40 - Sheet Metal and Structural Metal
- 0958.00 - Water and Wastewater Technology

High-quality energy, construction, and utilities occupations accounted for more than 5,600 jobs in 2021 (Exhibit 29). These high-quality occupations are expected to have nearly 700 annual job openings in the subregion through 2026.

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

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Carpenters	CC	2,609	278	2,117	\$26.30
Electricians	CC	879	127	1,169	\$28.63
Plumbers, Pipefitters, and Steamfitters	CC	652	85	617	\$27.87
Operating Engineers and Other Construction Equipment Operators	CC	401	50	477	\$35.78
Plasterers and Stucco Masons	CC	278	27	166	\$23.22
Sheet Metal Workers	CC	141	17	139	\$26.99
Structural Iron and Steel Workers	CC	114	15	180	\$29.83
Telecommunications Equipment Installers and Repairers, Except Line Installers	CC	104	12	158	\$28.65
Water and Wastewater Treatment Plant and System Operators	CC	104	10	127	\$35.83
Telecommunications Line Installers and Repairers	CC	91	10	149	\$30.31
Glaziers	CC	77	11	119	\$23.01
Electrical Power-Line Installers and Repairers	CC	53	6	131	\$47.71
Security and Fire Alarm Systems Installers	HS	119	17	137	\$28.32

## Health

The CCCC health sector aligns with the CDE health science and medical technology sector. Two colleges in the Low Desert Subregion currently utilize 10 health program codes.

### Programs Offered

- 1201.00 - Health Occupations, General
- 1205.10 - Phlebotomy
- 1221.00 - Pharmacy Technology
- 1222.00 - Physical Therapist Assistant
- 1228.00 - Athletic Training and Sports Medicine
- 1230.10 - Registered Nursing
- 1230.20 - Licensed Vocational Nursing
- 1230.30 - Certified Nurse Assistant
- 1250.00 - Emergency Medical Services
- 1261.00 - Community Health Care Worker

Health programs in the subregion prepare students for employment in one high-quality bachelor's degree-level and five high-quality community-college-level occupations. High-quality occupations have at least 100 annual job openings and offer a median hourly rate of \$21.82 at the regional level.

In 2021, there were more than 5,200 high-quality health jobs related to subregional training programs (Exhibit 30). Through 2026, nearly 500 annual job openings are projected for the high-quality health occupational group in the subregion, with nearly 4,400 annual job openings in the region.

### Exhibit 30. Education levels, projected demand, and earnings for high-quality occupations

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Medical and Health Services Managers	BS	496	63	581	\$48.73
Registered Nurses	CC	3,133	247	2,324	\$48.48
Licensed Vocational Nurses	CC	850	83	774	\$28.50
Pharmacy Technicians	CC	499	43	342	\$22.17
Phlebotomists	CC	178	29	231	\$22.04
Physical Therapist Assistants	CC	69	13	132	\$35.77

## Programs Not Offered

In the subregion, 39 programs in the health sector are not offered (Exhibit 31).

### Exhibit 31. Programs not offered by community colleges in the subregion

Subregional Programs Not Offered	
0430.00 - Biotechnology and Biomedical Technology	1219.00 - Optical Technology
0514.20 - Medical Office Technology	1220.00 - Speech/Language Pathology and Audiology
0934.60 - Biomedical Instrumentation	1223.00 - Health Information Technology
0955.00 - Laboratory Science Technology	1223.10 - Health Information Coding
1202.00 - Hospital and Health Care Administration	1224.00 - School Health Clerk
1205.00 - Medical Laboratory Technology	1225.00 - Radiologic Technology
1206.00 - Physicians Assistant	1226.00 - Radiation Therapy Technician
1208.00 - Medical Assisting	1227.00 - Diagnostic Medical Sonography
1208.10 - Clinical Medical Assisting	1230.00 - Nursing
1208.20 - Administrative Medical Assisting	1230.80 - Home Health Aide
1208.30 - Health Facility Unit Coordinator	1239.00 - Psychiatric Technician
1209.00 - Hospital Central Service Technician	1240.00 - Dental Occupations
1210.00 - Respiratory Care/Therapy	1240.10 - Dental Assistant
1211.00 - Polysomnography	1240.20 - Dental Hygienist
1212.00 - Electro-Neurodiagnostic Technology	1240.30 - Dental Laboratory Technician
1213.00 - Cardiovascular Technician	1251.00 - Paramedic
1214.00 - Orthopedic Assistant	1262.00 - Massage Therapy
1215.00 - Electrocardiography	1299.00 - Other Health Occupations
1217.00 - Surgical Technician	1309.00 - Gerontology
1218.00 - Occupational Therapy Technology	

### Occupational Training Opportunities

There are eight programs aligned with seven high-quality health occupations that community colleges may choose to address in the subregion.

- 1205.00 - Medical Laboratory Technology
- 1219.00 - Optical Technology
- 1223.00 - Health Information Technology
- 1223.10 - Health Information Coding
- 1225.00 - Radiologic Technology
- 1226.00 - Radiation Therapy Technician
- 1240.20 - Dental Hygienist
- 1262.00 - Massage Therapy

High-quality health occupations accounted for nearly 1,100 jobs in 2021 (Exhibit 32). These occupations are expected to have more than 100 annual job openings in the subregion through 2026 and more than 900 annual job openings in the region.

**Exhibit 32. High-quality occupations without training programs in the subregion**

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Radiologic Technologists and Technicians	CC	200	20	165	\$43.91
Medical Records Specialists	CC	172	15	133	\$22.60
Massage Therapists	CC	160	25	158	\$22.00
Respiratory Therapists	CC	149	13	123	\$37.31
Opticians, Dispensing	CC	139	13	100	\$22.20
Clinical Laboratory Technologists and Technicians	CC	137	15	127	\$29.17
Dental Hygienists	CC	115	11	104	\$48.52

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

The CCCCCO 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. Two colleges in the Low Desert Subregion currently utilize 18 ICT/DM program codes.

#### Programs Offered

- 0602.00 - Journalism
- 0604.00 - Radio and Television
- 0604.20 - Television (including combined TV/Film/Video)
- 0610.00 - Mass Communications
- 0612.20 - Film Production
- 0614.00 - Digital Media
- 0614.40 - Animation
- 0614.50 - Desktop Publishing
- 0614.60 - Computer Graphics and Digital Imagery
- 0699.00 - Other Media and Communications
- 0701.00 - Information Technology, General
- 0702.00 - Computer Information Systems
- 0702.10 - Software Applications
- 0708.10 - Computer Networking
- 0708.20 - Computer Support
- 1005.00 - Commercial Music
- 1012.00 - Applied Photography
- 1030.00 - Graphic Art and Design

ICT/DM programs in the subregion prepare students for employment in five high-quality bachelor's degree-level occupations and four high-quality community-college-level occupations. High-quality



occupations have at least 100 annual job openings and offer a median hourly rate of \$21.82 at the regional level.

In 2021, high-quality ICT/DM occupations with subregional training programs accounted for nearly 1,900 jobs (Exhibit 33). Through 2026, more than 200 annual job openings are projected in the subregion, with more than 1,800 annual job openings in the region.

**Exhibit 33. Education levels, projected demand, and earnings for high-quality occupations**

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Software Developers	BS	254	28	383	\$50.08
Writers and Authors	BS	242	46	140	\$26.53
Graphic Designers	BS	180	18	167	\$23.50
Computer Systems Analysts	BS	180	15	194	\$45.73
Computer and Information Systems Managers	BS	171	15	191	\$65.70
Photographers	CC	276	41	222	\$23.31
Musicians and Singers	CC	228	45	183	\$23.07
Computer User Support Specialists	CC	222	20	261	\$28.01
Network and Computer Systems Administrators	CC	101	8	107	\$40.12

**Programs Not Offered**

In the subregion, 18 programs in the ICT/DM sector are not offered (Exhibit 34).

**Exhibit 34. Programs not offered by community colleges in the subregion**

Subregional Programs Not Offered	
0604.10 - Radio	0707.30 - Computer Systems Analysis
0604.30 - Broadcast Journalism	0708.00 - Computer Infrastructure and Support
0607.00 - Technical Communication	0709.00 - World Wide Web Administration
0614.10 - Multimedia	0709.10 - E-Commerce (technology emphasis)
0614.20 - Electronic Game Design	0799.00 - Other Information Technology
0614.30 - Website Design and Development	0934.10 - Computer Electronics
0707.00 - Computer Software Development	1006.00 - Technical Theater
0707.10 - Computer Programming	1009.00 - Applied Design
0707.20 - Database Design and Administration	1013.00 - Commercial Art

**Occupational Training Opportunities**

All high-quality occupations related to the ICT/DM sector are being addressed by community colleges in the subregion.

## Public Safety

The CCCC public safety sector aligns with the CDE public services sector. Two colleges in the Low Desert Subregion currently utilize six public safety program codes.

### Programs Offered

- 2105.00 - Administration of Justice
- 2105.10 - Corrections
- 2105.50 - Police Academy
- 2133.00 - Fire Technology
- 2133.50 - Fire Academy
- 4931.00 - Vocational ESL

Public safety programs in the subregion prepare students for employment in one high-quality high-school-level occupation and four high-quality community-college-level occupations. High-quality occupations have at least 100 annual job openings and offer a median hourly rate of \$21.82 at the regional level.

In 2021, there were more than 1,200 public safety jobs related to subregional training programs (Exhibit 35). More than 100 high-quality job openings are projected annually in the subregion through 2026, with nearly 1,600 annual job openings projected in the greater region.

### Exhibit 35. Education levels, projected demand, and earnings for high-quality occupations

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Police and Sheriff's Patrol Officers	CC	498	46	626	\$47.40
Correctional Officers and Jailers	CC	319	31	420	\$39.33
Firefighters	CC	250	23	297	\$30.74
Detectives and Criminal Investigators	CC	89	8	111	\$51.18
Public Safety Telecommunicators	HS	78	8	104	\$29.22

### Programs Not Offered

In the subregion, eight programs in the public safety sector are not offered (Exhibit 36).

### Exhibit 36. Programs not offered by community colleges in the subregion

Subregional Programs Not Offered	
0514.30 - Court Reporting	2105.30 - Industrial and Transportation Security
1402.00 - Paralegal	2105.40 - Forensics, Evidence and Investigation
1602.00 - Library Technician (Aide)	2133.10 - Wildland Fire Technology
2105.20 - Probation and Parole	2199.00 - Other Public and Protective Services

### Occupational Training Opportunities

There are four programs aligned with six high-quality public safety occupations that community colleges may choose to address in the subregion.

- 1402.00 - Paralegal
- 1602.00 - Library Technician (Aide)
- 2105.20 - Probation and Parole
- 2105.30 - Industrial and Transportation Security

These high-quality public safety occupations accounted for more than 600 jobs in 2021 (Exhibit 37). These occupations are expected to have nearly 100 annual job openings in the subregion through 2026, with more than 800 annual job openings in the region.

**Exhibit 37. High-quality occupations without training programs in the subregion**

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Probation Officers and Correctional Treatment Specialists	BS	130	13	159	\$37.72
Paralegals and Legal Assistants	CC	147	21	171	\$29.37
First-Line Supervisors of Security Workers	CC	120	17	102	\$23.85
Library Technicians	CC	84	12	151	\$23.01
Court, Municipal, and License Clerks	CC	77	9	120	\$24.04
Transportation Security Screeners	CC	59	7	108	\$23.92

### Retail, Hospitality, and Tourism

The CCCCCO 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 Low Desert Subregion currently utilize eight retail, hospitality, and tourism program codes.

#### Programs Offered

- 0506.50 - Retail Store Operations and Management
- 0835.70 - Aquatics and Lifesaving
- 0836.10 - Recreation Assistant
- 1301.10 - Consumer Services
- 1306.00 - Nutrition, Foods, and Culinary Arts
- 1306.30 - Culinary Arts
- 1307.00 - Hospitality
- 1307.30 - Resort and Club Management

Retail, hospitality, and tourism programs in the subregion prepare students for employment in 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 rate of \$21.82 at the regional level.

In 2021, there were more than 1,000 high-quality retail, hospitality, and tourism jobs in the subregion (Exhibit 38). More than 100 high-quality job openings are projected annually in the subregion through 2026, and nearly 1,000 annual job openings are projected in the greater region.

**Exhibit 38. Education levels, projected demand, and earnings for high-quality occupations**

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Meeting, Convention, and Event Planners	BS	154	19	132	\$24.89
Food Service Managers	CC	478	67	504	\$27.52
Chefs and Head Cooks	CC	416	60	358	\$22.24

**Programs Not Offered**

In the subregion, 13 programs in the retail, hospitality, and tourism sector are not offered (Exhibit 39).

**Exhibit 39. Programs not offered by community colleges in the subregion**

Subregional Programs Not Offered	
0509.60 - Display	1306.60 - Dietetic Technology
1302.00 - Interior Design and Merchandising	1307.10 - Restaurant and Food Services and Management
1303.00 - Fashion	1307.20 - Lodging Management
1303.10 - Fashion Design	3008.00 - Dry Cleaning
1303.20 - Fashion Merchandising	3009.00 - Travel Services and Tourism
1303.30 - Fashion Production	3020.40 - Flight Attendant
1306.20 - Dietetic Services and Management	

**Occupational Training Opportunities**

All high-quality occupations related to the retail, hospitality, and tourism sector are being addressed by community colleges in the subregion.

**Unassigned/No Sector Assignments**

**No Unassigned Program Codes Currently Offered in Subregion**

Most CE programs offered by community colleges have assigned sector designations, but a handful may be unassigned. The Low Desert Subregion colleges do not have any unassigned programs.

**Programs Not Offered**

Eight programs in the unassigned sector are not offered in the Low Desert Subregion (Exhibit 40).

**Exhibit 40. Programs not offered by community colleges in the subregion**

Subregional Programs Not Offered	
0962.00 - Musical Instrument Repair	2102.00 - Public Administration
1008.10 - Commercial Dance	2104.50 - Disability Services
1099.00 - Other Fine and Applied Arts	3099.00 - Other Commercial Services
1399.00 - Other Family and Consumer Sciences	4932.00 - General Work Experience

The following CE program may lead to high-quality occupations, depending on the coursework focus.

- 2102.00 - Public Administration

The two high-school-level occupations without sector assignments accounted for nearly 700 jobs in 2021 and are projected to offer 59 annual job openings in the subregion (Exhibit 41).

**Exhibit 41. High-quality occupations without training programs in the subregion**

Occupations	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Postal Service Mail Carriers	HS	412	31	238	\$25.16
Eligibility Interviewers, Government Programs	HS	272	28	365	\$22.90

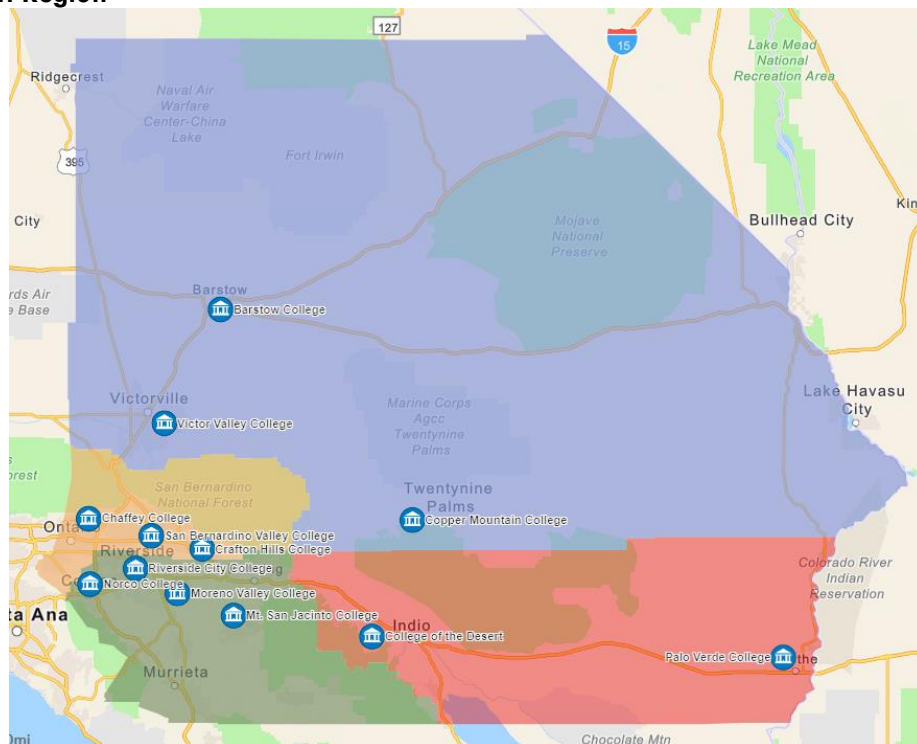
## Appendix A: Subregional Boundaries and ZIP Codes

This appendix details the boundaries of the four subregions comprising the Inland Empire/Desert Region and includes a list of the ZIP codes defining the Low Desert Subregion. The Low Desert Subregion contains 28 ZIP codes.

The map shows the following subregions:

- High Desert (Blue)
- Low Desert (Red)
- Inland Empire-Riverside County Metro (Green)
- Inland Empire-San Bernardino County Metro (Yellow)

**Exhibit A1. Map of the four subregions along with their community colleges comprising the Inland Empire/Desert Region**



**Exhibit A2. ZIP codes comprising the Low Desert Subregion**

ZIP Code (City/Community)		
92201 (Indio)	92239 (Desert Center)	92260 (Palm Desert)
92202 (Indio)	92240 (Desert Hot Springs)	92261 (Palm Desert)
92203 (Indio)	92241 (Desert Hot Springs)	92262 (Palm Springs)
92210 (Indian Wells)	92247 (La Quinta)	92263 (Palm Springs)
92211 (Palm Desert)	92248 (La Quinta)	92264 (Palm Springs)
92225 (Blythe)	92253 (La Quinta)	92270 (Rancho Mirage)
92226 (Blythe)	92254 (Mecca)	92274 (Thermal)
92234 (Cathedral City)	92255 (Palm Desert)	92276 (Thousand Palms)
92235 (Cathedral City)	92258 (North Palm Springs)	92282 (Whitewater)
92236 (Coachella)		



**ZIP Code Limitations:**

ZIP codes were developed by the U.S. Post Office for the purpose of efficient mail delivery. Unlike official state, county, and sometimes metropolitan statistical area (MSA) designations, ZIP code boundaries may morph over time based on changes in carrier routes. Some ZIP codes cover an area of land, and others are location points (e.g., designated by some post office locations). ZIP codes may not cover highly rural areas, such as mountain tops, large patches of desert, or open water. Lightcast makes every effort to ensure multiple data sources align in their ZIP code reporting standards. All four subregional workforce assessments sum to the Riverside-San Bernardino-Ontario MSA regional total.

## Appendix B: 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 (\$21.82 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

#### Education Level Categories

- 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.

**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.

























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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>.

## Appendix C: Sector Crosswalk Used for Program Inventory

A program inventory was conducted for each CCCCCO 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 CCCCCO 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 CCCCCO sectors is illustrated below.

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

CCCCCO 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	