

2023

WORKFORCE DEMAND ASSESSMENT **INLAND EMPIRE- SAN BERNARDINO COUNTY METRO SUBREGION**



INLAND EMPIRE/DESERT
REGIONAL CONSORTIUM
STRONG WORKFORCE



C.O.E

CENTERS OF EXCELLENCE
FOR LABOR MARKET RESEARCH

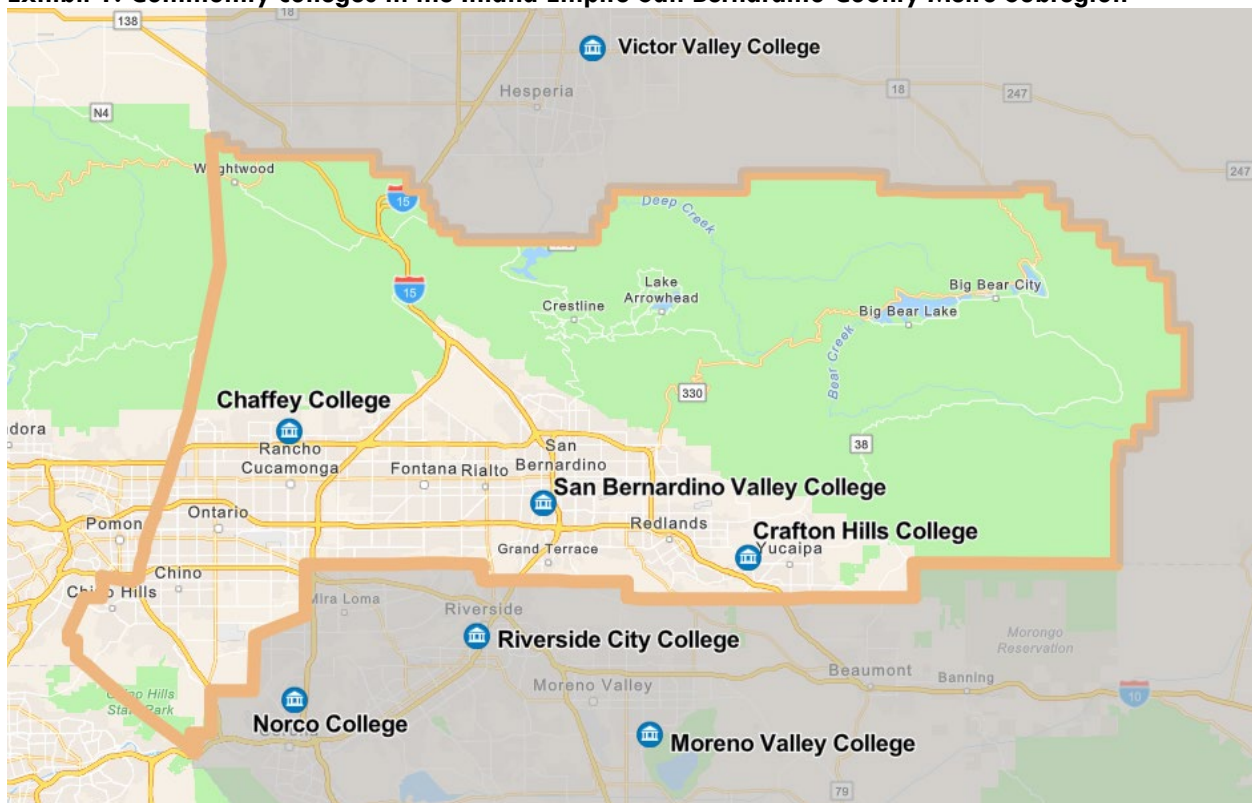
Inland Empire-San Bernardino County Metro Subregional Overview

Encompassing the southwestern portion of San Bernardino County, the Inland Empire-San Bernardino County Metro Subregion borders Los Angeles and Orange counties to the west and Riverside County to the south. San Gabriel and San Bernardino mountains communities also find their home in this area. The subregion contains three community colleges, 15 high school districts, and California State University, San Bernardino (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.

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

Exhibit 1. Community colleges in the Inland Empire-San Bernardino County Metro 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 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.¹

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 catalog. Each college verified the program 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.

¹ "Living Wage Calculator for California," MIT Living Wage, 2023, accessed January 18, 2023, <https://livingwage.mit.edu/states/06>.

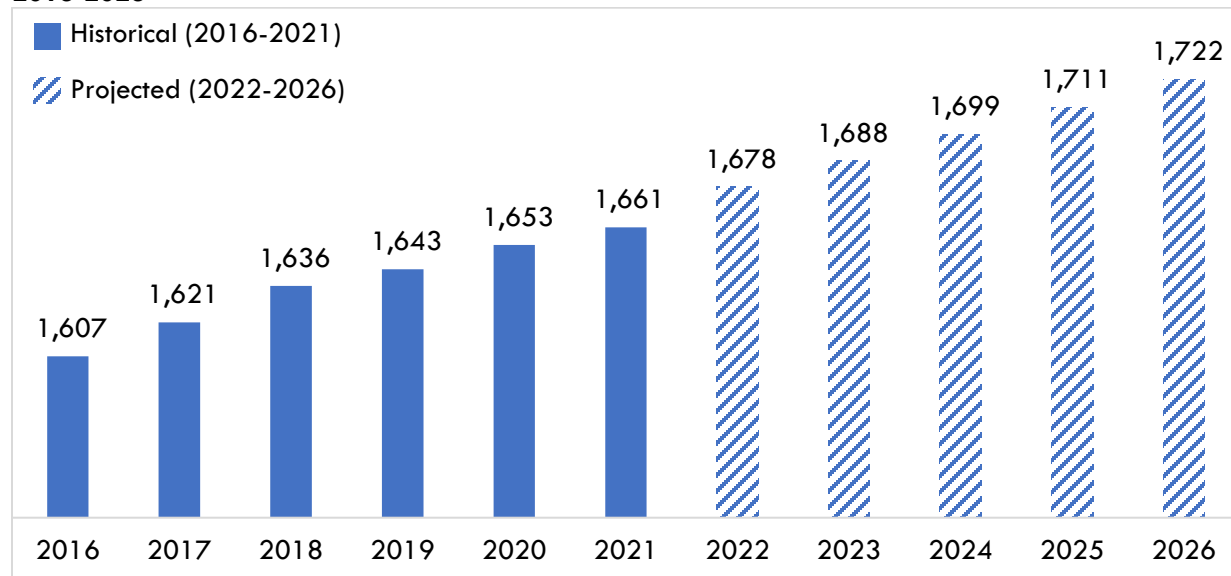
Subregional Demographics and Labor Force

This section analyzes the Inland Empire-San Bernardino County Metro 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 Inland Empire-San Bernardino County Metro Subregion contained about 1.66 million residents, or 35.7% 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 3.3%, 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 3.7%, adding nearly 61,600 residents. Population growth in this subregion 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, Inland Empire-San Bernardino County Metro Subregion, 2016-2026



Gender

The subregion's population has a nearly equal distribution of male and female residents, with female residents comprising a slightly larger share of the population (50.01%) (Exhibit 3). The subregion differs from the greater region's gender composition, in which there is a slightly greater share of male residents (50.3%) than female residents (49.7%).

Exhibit 3. Gender composition, Inland Empire-San Bernardino County Metro Subregion, 2021



Age

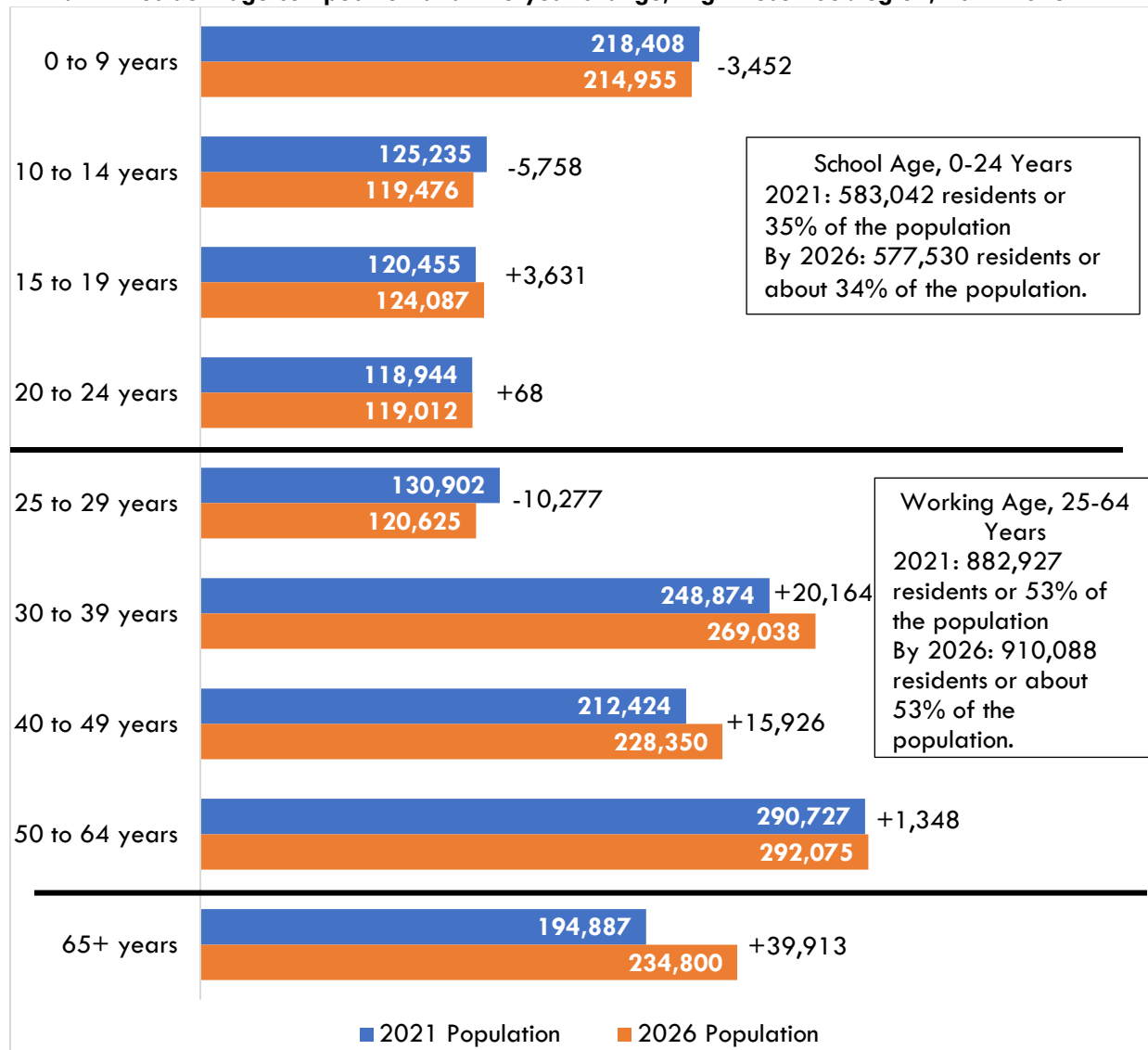
The size of resident age categories may provide insight into future demand for housing, services, and educational enrollment needs. In 2021, the school-age population, the 0-to-24 age group, represented 35% of the subregion's population (Exhibit 4). By 2026, this age group is projected to decrease by nearly 1% or 5,512 residents. The most notable decline in population is projected to occur in the 10-to-14 age group (down 4.6%).

The working-age population, those residents age 25-to-64, comprised more than 53% of the subregion's population in 2021. Over the next five years, the working-age population is expected to gain nearly 27,200 residents, expanding by 3.1%.

Within the working-age population, notable growth over the next five years is projected in the 30-to-39 age group, growing by 8.1%. The 50-to-64 age group was the largest age group in the subregion in 2021, comprising 17.5% of the subregion's residents.

The age group comprised of residents 65 years and older is projected to rise by 20.5% over the next five years, adding more than 39,900 residents. This is the fastest growing age group in the subregion.

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



Race and Ethnicity

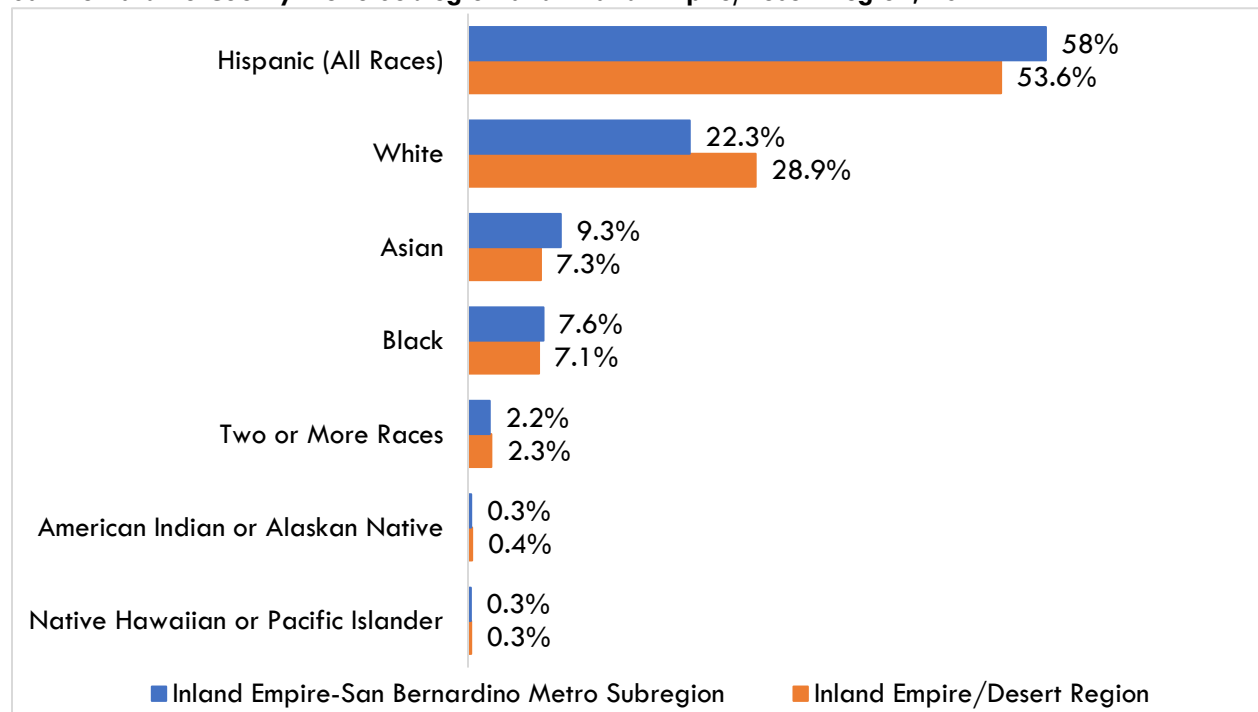
The U.S. Census Bureau collects race and ethnicity data from residents in accordance with the U.S. Office of Management and Budget's guidelines.² The Census questionnaire asks each resident to self-identify by selecting their race and whether they are of Hispanic origin. These are categories that generally 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

² 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>.

health and environmental assessments.³ (See Appendix B for terms and definitions related to population demographics.)

In 2021, residents identifying as Hispanic (all races) made up more than half, 58%, of the subregion's population, a larger share than the region overall, 53.6% (Exhibit 5). The subregion contained a larger share of Black (alone) residents than the region, 7.6% compared to 7.1%, respectively. Asian (alone) residents comprised a greater portion of the population in the subregion at 9.3%, compared to 7.3% in the greater region. White residents accounted for a smaller proportion of the subregion's population, 22.3%, compared to the region's, 28.9%.

Exhibit 5. Race (non-Hispanic) and ethnicity (Hispanic or Latino, all races) composition, Inland Empire-San Bernardino County Metro Subregion and Inland Empire/Desert Region, 2021



Educational Attainment

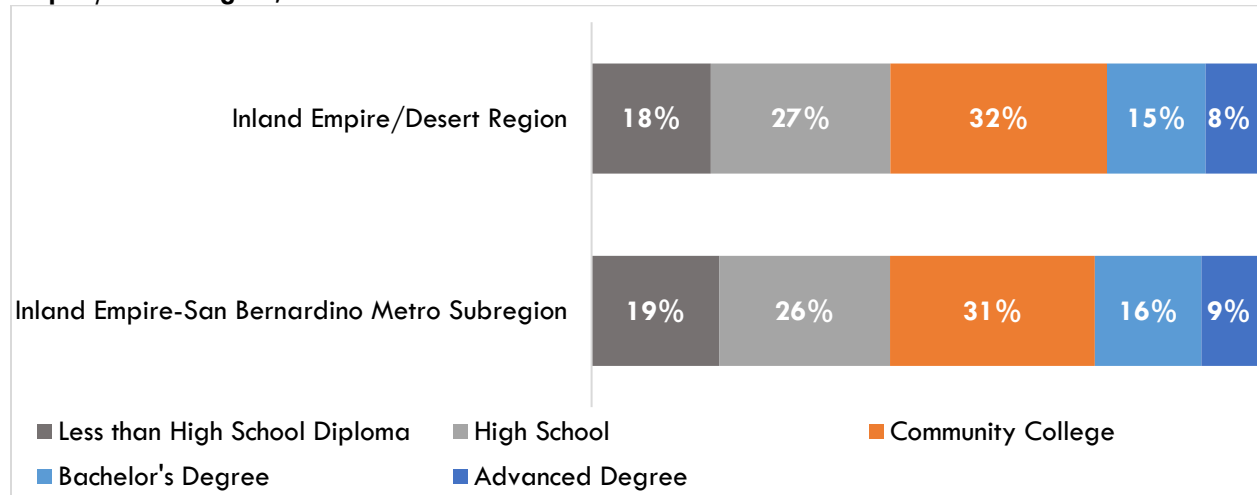
Educational attainment refers to the highest level of education that residents age 25 and older have completed. Educational attainment data may illuminate mismatches between resident skills and employment needs and the need for additional regional postsecondary program offerings.

Approximately 45% of residents in the subregion have a high school diploma or less, the same share as the Inland Empire/Desert Region (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 slightly smaller share of residents with a community college education (some college but no degree, or an

³ "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>.

associate degree), 31%, than the region, 32%. The subregion has a slightly greater share of residents who have completed a bachelor's degree or higher, 25%, compared to the region, 23%.

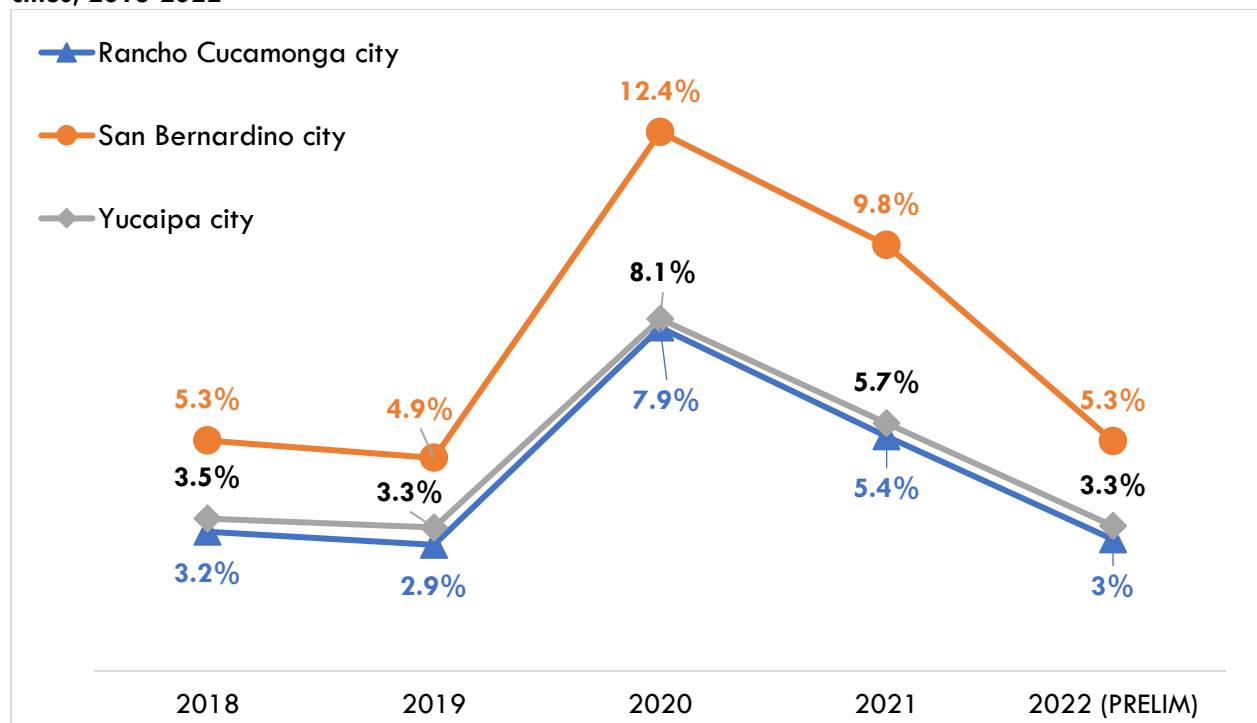
Exhibit 6. Educational attainment, Inland Empire-San Bernardino County Metro Subregion and Inland Empire/Desert Region, 2021



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 trend for Inland Empire-San Bernardino County Metro cities, 2018-2022



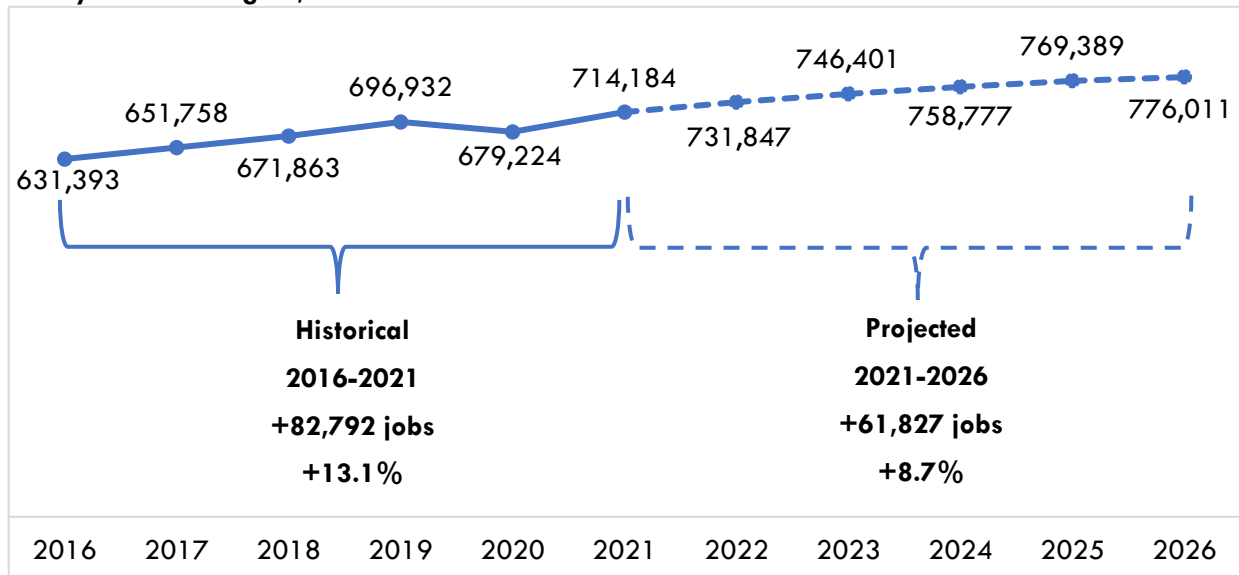
Subregional Industries

Industries are groups of employer establishments categorized by their primary business activity, e.g., what they produce, sell, or the services they provide.⁴ 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 714,200 total jobs in 2021, or about 41% 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 8.7% (adding more than 61,800 jobs), at a slightly faster pace than the greater region's projected job growth of 8.6%. The subregion is projected to contribute 41.5% 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 13.1%, a net increase of nearly 82,800 jobs. Average employment in the subregion experienced a slight drop in 2020 due to the effects of the COVID-19 pandemic, shedding an average of more than 17,700 jobs or about 3% of total employment.

Exhibit 8. Historical and projected change in industry employment, Inland Empire-San Bernardino County Metro Subregion, 2016-2026



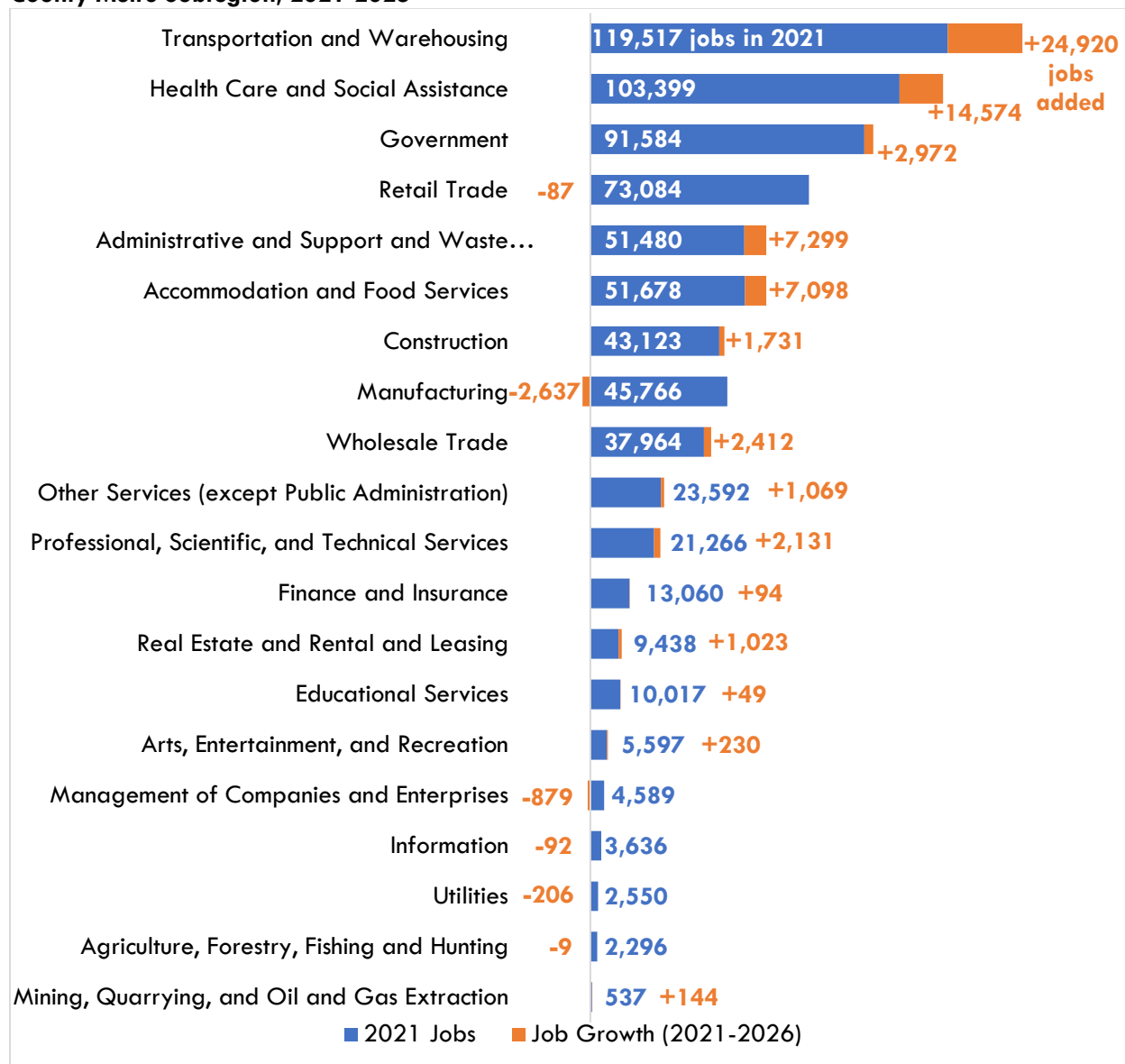
⁴ "North American Industry Classification System (NAICS)," United States Census Bureau, 2017, accessed January 18, 2023, <https://www.census.gov/naics/?58967?yearbck=2017>.

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.

In 2021, the largest industries by employment were transportation and warehousing, health care and social assistance, government, retail trade, and accommodation and food services, which accounted for nearly 439,300 jobs, or approximately 62% of subregional employment (Exhibit 9). The top five industries adding jobs to the subregion are: transportation and warehousing; health care and social assistance; administrative and support and waste management and remediation services; accommodation and food services; and government. These industries are projected to contribute 92% of the subregion's job growth through 2026.

Exhibit 9. Current and projected change in industry employment, Inland Empire-San Bernardino County Metro 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 high location quotient at or above 1.2. A location quotient describes 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, nearly 145,200 jobs were employed by industry groups that met the high-quality industry group definition. While high-quality industry groups accounted for nearly 20% of subregional employment in 2021, these industry groups are projected to add 49% of subregional jobs over the next five years.

Exhibit 10. Industry groups with high-quality jobs, Inland Empire-San Bernardino County Metro Subregion, 2021-2026

Industry Groups (NAICS4)	2021 Jobs	2021-2026 Job Change	Growth Rate	Location Quotient	Average Earnings Per Job
Transportation and Warehousing					
Warehousing and Storage (4931)	65,928	16,055	24.4%	8.9	\$55,231
General Freight Trucking (4841)	20,335	2,476	12.2%	3.5	\$76,878
Couriers and Express Delivery Services (4921)	15,763	3,167	20.1%	3.7	\$53,639
Specialized Freight Trucking (4842)	4,216	841	20%	2.1	\$85,300
Freight Transportation Arrangement (4885)	2,220	502	22.6%	1.7	\$71,292
Support Activities for Air Transportation (4881)	2,208	470	21.3%	2.4	\$59,695
Other Support Activities for Transportation (4889)	798	89	11.2%	5.2	\$60,098
Health Care and Social Assistance					
Outpatient Care Centers (6214)	11,664	3,095	26.5%	2.5	\$113,833
Wholesale Trade					
Grocery and Related Product Merchant Wholesalers (4244)	6,636	823	12.4%	2	\$79,283
Machinery, Equipment, and Supplies Merchant Wholesalers (4238)	3,938	804	20.4%	1.3	\$94,632
Administrative and Support and Waste Management and Remediation Services					
Office Administrative Services (5611)	5,243	937	17.9%	2.1	\$78,017
Manufacturing					
Other Food Manufacturing (3119)	1,947	187	9.6%	1.9	\$74,857
Grain and Oilseed Milling (3112)	742	118	15.9%	2.7	\$78,299
Pulp, Paper, and Paperboard Mills (3221)	513	133	25.9%	1.3	\$84,960
Retail Trade					
Furniture Stores (4421)	1,793	324	18.1%	1.7	\$67,829
Real Estate and Rental and Leasing					
Automotive Equipment Rental and Leasing (5321)	1,239	439	35.4%	1.5	\$66,571

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 49 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 nearly 10% of subregional

employment, with nearly 70,400 jobs. These industry groups are projected to contribute nearly 18% of subregional job growth through 2026.

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).⁵

Community colleges in the Inland Empire/Desert Region 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., jobs requiring an 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.⁶

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.

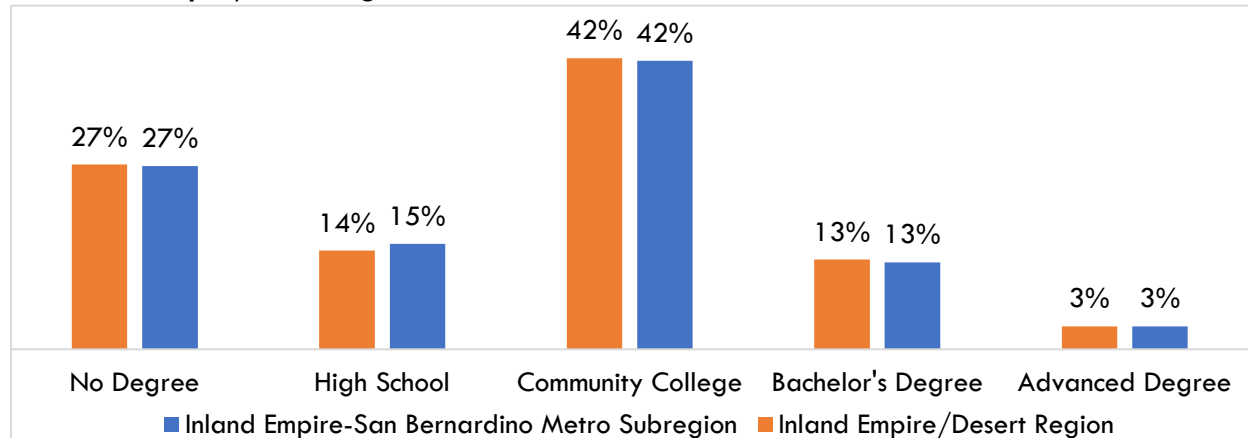
Bachelor's-degree-level jobs are those that typically require a four-year degree from a college or university. High-school-level jobs illuminate possibilities open to those choosing to enter the workforce after securing a high school diploma or G.E.D., or jobs typically open to those who choose to work 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 900 regional military jobs in the region) were also excluded from the occupational section of this assessment. (Definitions for education levels are available in Appendix B.)

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

⁶ "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>.

Of the approximately 714,200 jobs in the region in 2021, approximately 70% 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.

Exhibit 11. Share of jobs by education level, Inland Empire-San Bernardino County Metro 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 Inland Empire-San Bernardino County Metro Subregion currently use nine program codes for their advanced manufacturing programs.

Programs Offered (TOP Code – TOP Title)

- 0924.00 - Engineering Technology, General (requires Trigonometry)
- 0934.00 - Electronics and Electric Technology
- 0935.00 - Electro-Mechanical Technology
- 0945.00 - Industrial Systems Technology and Maintenance
- 0953.30 - Electrical, Electronic and Electro-Mechanical Drafting
- 0953.40 - Mechanical Drafting
- 0956.00 - Manufacturing and Industrial Technology
- 0956.30 - Machining and Machine Tools
- 0956.50 - Welding Technology

Advanced manufacturing programs in the subregion prepare students for employment in three 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 5,100 high-quality advanced manufacturing jobs in the subregion related to subregional training programs (Exhibit 12). By 2026, more than 500 annual job openings are projected in the subregion, and nearly 1,300 annual job openings are projected in the greater region.

Exhibit 12. Education level, projected demand, and earnings for high-quality occupations

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	2,285	230	513	\$28.84
Welders, Cutters, Solderers, and Brazers	CC	1,658	181	458	\$22.53
Industrial Machinery Mechanics	CC	1,182	136	284	\$28.82

Community College Programs Not Offered

In the subregion, 14 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	
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
0935.10 - Appliance Repair	0956.70 - Industrial and Occupational Safety and Health
0936.00 - Printing and Lithography	0956.80 - Industrial Quality Control
0943.00 - Instrumentation Technology	0961.00 - Optics
0943.30 - Vacuum Technology	0999.00 - Other Engineering and Related Industrial Technologies

Occupational Training Opportunities

Community colleges in the subregion are addressing all high-quality occupations related to the advanced manufacturing sector.

Advanced Transportation and Logistics

The CCCCCO advanced transportation and logistics sector aligns with the CDE transportation sector. Two colleges in the Inland Empire-San Bernardino County Metro Subregion currently use 13 program codes for their advanced transportation and logistics programs.

Programs Offered

- 0510.00 - Logistics and Materials Transportation
- 0947.00 - Diesel Technology
- 0947.50 - Truck and Bus Driving
- 0948.00 - Automotive Technology
- 0948.40 - Alternative Fuels and Advanced Transportation Technology
- 0949.00 - Automotive Collision Repair
- 0949.10 - Upholstery Repair - Automotive
- 0950.00 - Aeronautical and Aviation Technology
- 0950.10 - Aviation Airframe Mechanics
- 0950.20 - Aviation Powerplant Mechanics
- 0950.40 - Aircraft Electronics (Avionics)

- 3020.00 - Aviation and Airport Management and Services
- 3020.10 - Aviation and Airport Management

Advanced transportation and logistics programs in the subregion prepare students for employment in 12 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 nearly 45,700 jobs in the subregion (Exhibit 14). Nearly 6,300 job openings are projected annually for these occupations through 2026, with more than 11,800 job openings projected annually in the greater region. Approximately 60% of subregional advanced transportation and logistics employment opportunities are for heavy and tractor-trailer truck drivers.

Exhibit 14. 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
Heavy and Tractor-Trailer Truck Drivers	CC	26,273	3,764	6,560	\$23.17
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	CC	4,578	685	1,307	\$28.53
Automotive Service Technicians and Mechanics	CC	3,728	439	976	\$23.26
First-Line Supervisors of Mechanics, Installers, and Repairers	CC	2,097	227	550	\$37.01
Production, Planning, and Expediting Clerks	CC	2,020	260	546	\$22.70
Transportation, Storage, and Distribution Managers	CC	1,643	186	353	\$44.82
Bus and Truck Mechanics and Diesel Engine Specialists	CC	1,635	207	408	\$28.28
Mobile Heavy Equipment Mechanics, Except Engines	CC	862	114	248	\$29.51
Aircraft Mechanics and Service Technicians	CC	859	101	196	\$36.07
Logisticians	CC	808	115	245	\$36.41
Bus Drivers, Transit and Intercity	CC	647	88	224	\$24.39
Automotive Body and Related Repairers	CC	525	68	157	\$27.07

Community College Programs Not Offered

In the subregion, eight programs in the advanced transportation and logistics sector are not offered (Exhibit 15).

Exhibit 15. Programs not offered by community colleges in the subregion

Subregional Programs Not Offered	
0947.20 - Heavy Equipment Maintenance	0950.50 - Aircraft Fabrication
0947.40 - Railroad and Light Rail Operations	0959.00 - Marine Technology
0948.30 - Motorcycle, Outboard and Small Engine Repair	3020.20 - Piloting
0948.50 - Recreational Vehicle Service	3020.30 - Air Traffic Control

Occupational Training Opportunities

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

- 3020.20 - Piloting

The occupation, airline pilots, copilots, and flight engineers, accounted for nearly 400 jobs in 202. This occupation is projected to have 55 annual job openings in the subregion through 2026 and more than 100 annual job openings in the region (Exhibit 16).

Exhibit 16. High-quality occupation without a training program in the subregion

Occupation	Education Level	Subregional 2021 Jobs	Subregional Annual Job Openings	Regional Annual Job Openings	Regional Median Hourly Earnings
Airline Pilots, Copilots, and Flight Engineers	BS	383	55	120	\$133.20

Agriculture, Water, and Environmental Technologies

The CCCCOC agriculture, water, and environmental technologies sector aligns with the CDE agriculture and natural resources sector. Community colleges in the Inland Empire-San Bernardino County Metro Subregion currently do not offer programs in the agriculture, water, and environmental technologies sector.

Community College Programs Not Offered

In the subregion, community colleges do not offer any programs in the agriculture, water, and environmental technologies sector (Exhibit 17).

Exhibit 17. Programs not offered by community colleges in the subregion

Subregional Programs Not Offered	
0101.00 - Agriculture Technology and Sciences, General	0109.30 - Nursery Technology
0102.00 - Animal Science	0109.40 - Turfgrass Technology
0102.10 - Veterinary Technician (Licensed)	0112.00 - Agriculture Business, Sales and Service
0102.20 - Artificial Inseminator (Licensed)	0113.00 - Food Processing and Related Technologies
0102.30 - Dairy Science	0114.00 - Forestry
0102.40 - Equine Science	0115.00 - Natural Resources
0103.00 - Plant 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
0109.00 - Horticulture	0199.00 - Other Agriculture and Natural Resources
0109.10 - Landscape Design and Maintenance	0303.00 - Environmental Technology
0109.20 - Floriculture/Floristry	1920.00 - Ocean Technology

Occupational Training Opportunities

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

- 0109.00 - Horticulture
- 0109.10 - Landscape Design and Maintenance
- 0109.30 - Nursery Technology
- 0109.40 - Turfgrass Technology

These two occupations are projected to have more than 100 annual job openings in the subregion and nearly 400 annual job openings in the greater region through 2026 (Exhibit 18).

Exhibit 18. 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
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	CC	480	62	196	\$28.25
Tree Trimmers and Pruners	HS	328	51	162	\$23.50

Business and Entrepreneurship

The CCCC CO business and entrepreneurship sector aligns with the CDE business and finance sector; and marketing, sales, and services sector. Three colleges in the Inland Empire-San Bernardino County Metro Subregion currently utilize 14 business and entrepreneurship program codes.

Programs Offered

- 0501.00 - Business and Commerce, General
- 0502.00 - Accounting
- 0502.10 - Tax Studies
- 0505.00 - Business Administration
- 0506.00 - Business Management
- 0506.30 - Management Development and Supervision
- 0506.40 - Small Business and Entrepreneurship
- 0508.00 - International Business and Trade
- 0509.00 - Marketing and Distribution
- 0509.10 - Advertising
- 0511.00 - Real Estate
- 0514.00 - Office Technology/Office Computer Applications
- 0514.40 - Office Management
- 0599.00 - Other Business and Management

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.

In 2021, these occupations accounted for more than 50,900 jobs (Exhibit 19). Through 2026, nearly 5,500 annual job openings are projected for the 25 high-quality occupations in the subregion, with nearly 13,300 annual job openings in the greater region.

Exhibit 19. 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	3,196	331	800	\$36.84
Sales Managers	BS	2,699	247	527	\$47.35
Human Resources Specialists	BS	2,683	339	792	\$30.24
Market Research Analysts and Marketing Specialists	BS	2,091	265	597	\$29.96
Project Management Specialists	BS	2,011	187	454	\$39.40
Management Analysts	BS	1,844	211	446	\$38.04
Cost Estimators	BS	1,013	98	283	\$35.23
Chief Executives	BS	1,004	76	182	\$75.12
Marketing Managers	BS	669	65	144	\$58.96
Human Resources Managers	BS	593	57	138	\$50.54
General and Operations Managers	CC	9,802	1,021	2,397	\$46.18
First-Line Supervisors of Office and Administrative Support Workers	CC	7,044	784	1,759	\$28.96
Bookkeeping, Accounting, and Auditing Clerks	CC	6,363	735	1,751	\$22.31
Billing and Posting Clerks	CC	2,086	236	512	\$21.82
Executive Secretaries and Executive Administrative Assistants	CC	1,320	140	340	\$30.39
Property, Real Estate, and Community Association Managers	CC	1,213	114	342	\$23.70
Administrative Services Managers	CC	950	90	211	\$46.62
Payroll and Timekeeping Clerks	CC	704	72	172	\$23.27
Human Resources Assistants, Except Payroll and Timekeeping	CC	567	63	145	\$22.56
Real Estate Sales Agents	CC	530	61	534	\$26.07
Facilities Managers	CC	503	47	112	\$46.21
Tax Preparers	CC	308	34	102	\$22.24
Real Estate Brokers	CC	284	32	191	\$33.98
Insurance Claims and Policy Processing Clerks	HS	1,098	107	217	\$22.14
Word Processors and Typists	HS	364	39	105	\$22.61

Community College Programs Not Offered

In the subregion, 13 programs in the business and entrepreneurship sector are not offered (Exhibit 20).

Exhibit 20. Programs not offered by community colleges in the subregion

Subregional Programs Not Offered	
0504.00 - Banking and Finance	0516.00 - Labor and Industrial Relations
0509.20 - Purchasing	0518.00 - Customer Service
0509.40 - Sales and Salesmanship	0606.00 - Public Relations
0509.70 - E-commerce (business emphasis)	1255.00 - Mortuary Science
0511.10 - Escrow	3005.00 - Custodial Services
0512.00 - Insurance	3007.00 - Cosmetology and Barbering
0514.10 - Legal Office Technology	

Occupational Training Opportunities

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

- 0504.00 - Banking and Finance
- 0509.00 - Marketing and Distribution
- 0509.40 - Sales and Salesmanship
- 0512.00 - Insurance

These high-quality business occupations accounted for nearly 20,200 jobs in 2021. High-quality business training opportunities are projected to have more than 2,200 annual job openings in the subregion through 2026 and more than 4,700 annual job openings in the region (Exhibit 21).

Exhibit 21. 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	2,072	186	433	\$60.47
Loan Officers	BS	928	68	158	\$29.63
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	BS	830	92	182	\$43.18
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	CC	7,058	806	1,521	\$29.06
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	CC	3,408	458	1,070	\$23.16
Insurance Sales Agents	CC	2,056	238	582	\$23.90
Buyers and Purchasing Agents	CC	1,518	155	339	\$29.68
First-Line Supervisors of Non-Retail Sales Workers	CC	1,022	107	216	\$34.85
Claims Adjusters, Examiners, and Investigators	CC	729	59	120	\$36.42
Loan Interviewers and Clerks	CC	550	46	106	\$22.40

Education and Human Development

The CCCC education and human development sector aligns with the CDE education, child development, and family services sector. Three colleges in the Inland Empire-San Bernardino County Metro Subregion currently utilize eight education and human development program codes.

Programs Offered

- 1305.00 - Child Development/Early Care and Education
- 1305.10 - Child and Adolescent Development
- 1305.20 - Children with Special Needs
- 1305.40 - Preschool Age Children
- 1305.50 - The School Age Child
- 1305.80 - Child Development Administration and Management
- 1305.90 - Infants and Toddlers
- 2104.00 - Human Services

Education and human development programs in the subregion prepare students for employment in six high-quality bachelor's degree-level. 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 education and human development occupations accounted for more than 11,400 jobs (Exhibit 22). Through 2026, more than 1,000 annual job openings are projected for these high-quality occupations in the subregion, with nearly 2,700 annual job openings in the greater region.

Exhibit 22. 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
Elementary School Teachers, Except Special Education	BS	6,267	453	1,282	\$46.47
Substance Abuse, Behavioral Disorder, and Mental Health Counselors	BS	1,553	215	468	\$23.87
Child, Family, and School Social Workers	BS	1,543	175	456	\$29.20
Special Education Teachers, Kindergarten and Elementary School	BS	827	61	171	\$39.51
Social and Community Service Managers	BS	707	81	208	\$35.54
Special Education Teachers, Secondary School	BS	520	39	109	\$48.36

Community College Programs Not Offered

In the subregion, 13 programs in the education and human development sector are not offered (Exhibit 23).

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

Subregional Programs Not Offered	
0802.00 - Educational Aide (Teacher Assistant)	0899.00 - Other Education
0802.10 - Educational Aide (Teacher Assistant), Bilingual	1301.00 - Family and Consumer Sciences, General
0809.00 - Special Education	1305.60 - Parenting and Family Education
0835.20 - Fitness Trainer	1305.70 - Foster and Kinship Care
0835.60 - Coaching	1308.00 - Family Studies
0850.10 - Sign Language Interpreting	2140.00 - Legal and Community Interpretation
0860.00 - Educational Technology	

Occupational Training Opportunities

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

- 0802.10 - Educational Aide (Teacher Assistant), Bilingual
- 0835.20 - Fitness Trainer
- 0835.60 - Coaching
- 0850.10 - Sign Language Interpreting
- 0860.00 - Educational Technology
- 1301.00 - Family and Consumer Sciences, General
- 1308.00 - Family Studies
- 2140.00 - Legal and Community Interpretation

These high-quality occupations had nearly 7,800 jobs in the subregion in 2021 (Exhibit 24). While these occupations are projected to have nearly 700 annual job openings in the subregion, the greater region is projected to have more than 1,900 annual job openings through 2026.

Exhibit 24. 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
Secondary School Teachers, Except Special and Career/Technical Education	BS	3,987	274	779	\$47.68
Middle School Teachers, Except Special and Career/Technical Education	BS	1,543	114	325	\$47.72
Training and Development Specialists	BS	1,180	141	312	\$29.19
Exercise Trainers and Group Fitness Instructors	CC	756	122	405	\$22.19
Interpreters and Translators	CC	293	38	112	\$30.76

Energy, Construction, and Utilities

The CCCCCO 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 Inland Empire-San Bernardino County Metro Subregion, two colleges currently utilize 10 energy, construction, and utilities program codes.

Programs Offered

- 0201.00 - Architecture and Architectural Technology
- 0934.30 - Telecommunications Technology
- 0934.40 - Electrical Systems and Power Transmission
- 0946.00 - Environmental Control Technology
- 0946.10 - Energy Systems Technology
- 0953.00 - Drafting Technology
- 0953.10 - Architectural Drafting
- 0957.20 - Construction Inspection
- 0958.00 - Water and Wastewater Technology
- 2206.10 - Geographic Information Systems

Energy, construction, and utilities programs in the subregion prepare students for employment in nine 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 nearly 8,700 energy, construction, and utilities jobs related to subregional training programs (Exhibit 25). Through 2026, more than 900 annual job openings are projected for these high-quality occupations in the subregion, with more than 2,800 job openings projected for the greater region.

Exhibit 25. 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
Architectural and Engineering Managers	BS	660	55	115	\$72.93
First-Line Supervisors of Construction Trades and Extraction Workers	CC	2,998	319	1,027	\$35.65
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	CC	1,735	181	697	\$22.23
Telecommunications Equipment Installers and Repairers, Except Line Installers	CC	538	63	158	\$28.65
Electrical Power-Line Installers and Repairers	CC	534	47	131	\$47.71
Telecommunications Line Installers and Repairers	CC	493	53	149	\$30.31
Water and Wastewater Treatment Plant and System Operators	CC	471	47	127	\$35.83
Construction and Building Inspectors	CC	459	61	156	\$36.66
Architectural and Civil Drafters	CC	416	49	109	\$29.05
Solar Photovoltaic Installers	CC	358	63	180	\$22.54

Community College Programs Not Offered

In the subregion, 19 programs in the energy, construction, and utilities sector are not offered (Exhibit 26).

Exhibit 26. 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
0947.30 - Heavy Equipment Operation	0952.90 - Roofing
0952.00 - Construction Crafts Technology	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	0957.00 - Civil and Construction Management Technology
0952.40 - Glazing	0957.30 - Surveying
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 10 programs aligned with one high-quality bachelor's degree-level occupation, one high-quality high-school-level occupation, and nine high-quality community-college-level occupations that community colleges may choose to address in the subregion.

- 0947.30 - Heavy Equipment Operation
- 0952.00 - Construction Crafts Technology
- 0952.10 - Carpentry
- 0952.20 - Electrical
- 0952.30 - Plumbing, Pipefitting and Steamfitting
- 0952.40 - Glazing
- 0952.60 - Masonry, Tile, Cement, Lath and Plaster
- 0956.40 - Sheet Metal and Structural Metal
- 0957.00 - Civil and Construction Management Technology
- 0958.00 - Water and Wastewater Technology

These high-quality occupations accounted for nearly 22,600 jobs in 2021. High-quality energy, construction, and utilities training opportunities are projected to have more than 2,500 annual job openings in the subregion through 2026, with nearly 7,500 annual job openings projected for the greater region (Exhibit 27).

Exhibit 27. 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
Construction Managers	BS	2,051	194	624	\$36.87
Carpenters	CC	6,914	697	2,117	\$26.30
Maintenance and Repair Workers, General	CC	5,994	704	1,715	\$22.38
Electricians	CC	3,038	430	1,169	\$28.63
Plumbers, Pipefitters, and Steamfitters	CC	1,369	158	617	\$27.87
Operating Engineers and Other Construction Equipment Operators	CC	1,222	139	477	\$35.78
Structural Iron and Steel Workers	CC	510	66	180	\$29.83
Plasterers and Stucco Masons	CC	427	33	166	\$23.22
Sheet Metal Workers	CC	395	42	139	\$26.99
Glaziers	CC	315	44	119	\$23.01
Security and Fire Alarm Systems Installers	HS	338	43	137	\$28.32

Health

The CCCCCO health sector aligns with the CDE health science and medical technology sector. Three colleges in the Inland Empire-San Bernardino County Metro Subregion currently utilize 17 health program codes.

Programs Offered

- 1201.00 - Health Occupations, General
- 1210.00 - Respiratory Care/Therapy
- 1221.00 - Pharmacy Technology
- 1223.10 - Health Information Coding
- 1225.00 - Radiologic Technology
- 1228.00 - Athletic Training and Sports Medicine
- 1230.10 - Registered Nursing
- 1230.20 - Licensed Vocational Nursing
- 1230.30 - Certified Nurse Assistant
- 1230.80 - Home Health Aide
- 1239.00 - Psychiatric Technician
- 1240.10 - Dental Assistant
- 1250.00 - Emergency Medical Services
- 1251.00 - Paramedic
- 1299.00 - Other Health Occupations
- 1309.00 - Gerontology
- 2104.40 - Alcohol and Controlled Substances

Health programs in the subregion prepare students for employment in 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 nearly 22,900 high-quality health jobs related to subregional training programs (Exhibit 28). Through 2026, nearly 1,800 annual job openings are projected for these high-quality health occupations in the subregion, and nearly 3,900 annual job openings are projected in the greater region.

Exhibit 28. 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
Registered Nurses	CC	15,190	1,086	2,324	\$48.48
Licensed Vocational Nurses	CC	3,674	354	774	\$28.50
Pharmacy Technicians	CC	1,678	145	342	\$22.17
Radiologic Technologists and Technicians	CC	823	76	165	\$43.91
Respiratory Therapists	CC	763	56	123	\$37.31
Medical Records Specialists	CC	741	63	133	\$22.60

Community College Programs Not Offered

In the subregion, 33 programs in the health sector are not offered (Exhibit 29).

Exhibit 29. Programs not offered by community colleges in the subregion

Subregional Programs Not Offered	
0430.00 - Biotechnology and Biomedical Technology	1215.00 - Electrocardiography
0514.20 - Medical Office Technology	1217.00 - Surgical Technician
0934.60 - Biomedical Instrumentation	1218.00 - Occupational Therapy Technology
0955.00 - Laboratory Science Technology	1219.00 - Optical Technology
1202.00 - Hospital and Health Care Administration	1220.00 - Speech/Language Pathology and Audiology
1205.00 - Medical Laboratory Technology	1222.00 - Physical Therapist Assistant
1205.10 - Phlebotomy	1223.00 - Health Information Technology
1206.00 - Physicians Assistant	1224.00 - School Health Clerk
1208.00 - Medical Assisting	1226.00 - Radiation Therapy Technician
1208.10 - Clinical Medical Assisting	1227.00 - Diagnostic Medical Sonography
1208.20 - Administrative Medical Assisting	1230.00 - Nursing
1208.30 - Health Facility Unit Coordinator	1240.00 - Dental Occupations
1209.00 - Hospital Central Service Technician	1240.20 - Dental Hygienist
1211.00 - Polysomnography	1240.30 - Dental Laboratory Technician
1212.00 - Electro-Neurodiagnostic Technology	1261.00 - Community Health Care Worker
1213.00 - Cardiovascular Technician	1262.00 - Massage Therapy
1214.00 - Orthopedic Assistant	

Occupational Training Opportunities

There are 10 programs aligned with seven high-quality health occupations that community colleges may choose to address in the subregion.

- 1202.00 - Hospital and Health Care Administration
- 1205.00 - Medical Laboratory Technology
- 1205.10 - Phlebotomy
- 1208.30 - Health Facility Unit Coordinator
- 1219.00 - Optical Technology
- 1222.00 - Physical Therapist Assistant
- 1224.00 - School Health Clerk
- 1240.20 - Dental Hygienist
- 1261.00 - Community Health Care Worker
- 1262.00 - Massage Therapy

These high-quality health occupations accounted for nearly 4,900 jobs in 2021. These high-quality occupations are projected to have nearly 600 annual job openings in the subregion through 2026 and more than 1,400 annual job openings in the region over this period (Exhibit 30).

Exhibit 30. 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
Medical and Health Services Managers	BS	2,178	269	581	\$48.73
Phlebotomists	CC	619	80	231	\$22.04
Clinical Laboratory Technologists and Technicians	CC	554	51	127	\$29.17
Opticians, Dispensing	CC	453	39	100	\$22.20
Dental Hygienists	CC	441	42	104	\$48.52
Massage Therapists	CC	328	56	158	\$22.00
Physical Therapist Assistants	CC	299	57	132	\$35.77

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. Three colleges in the Inland Empire-San Bernardino County Metro Subregion currently utilize 23 ICT/DM program codes.

Programs Offered

- 0602.00 - Journalism
- 0604.00 - Radio and Television
- 0604.10 - Radio
- 0604.20 - Television (including combined TV/Film/Video)
- 0604.30 - Broadcast Journalism
- 0612.20 - Film Production
- 0614.00 - Digital Media
- 0614.10 - Multimedia
- 0614.30 - Website Design and Development
- 0614.60 - Computer Graphics and Digital Imagery
- 0701.00 - Information Technology, General
- 0702.00 - Computer Information Systems
- 0702.10 - Software Applications
- 0707.10 - Computer Programming
- 0708.00 - Computer Infrastructure and Support
- 0708.10 - Computer Networking
- 0708.20 - Computer Support
- 0709.00 - World Wide Web Administration
- 0934.10 - Computer Electronics
- 1005.00 - Commercial Music
- 1006.00 - Technical Theater
- 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, there were nearly 7,400 ICT/DM jobs related to subregional training programs (Exhibit 31). Through 2026, more than 700 high-quality annual job openings are projected in the subregion, with more than 1,800 annual job openings in the region.

Exhibit 31. 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	1,713	200	383	\$50.08
Computer Systems Analysts	BS	1,145	94	194	\$45.73
Computer and Information Systems Managers	BS	1,019	90	191	\$65.70
Graphic Designers	BS	704	70	167	\$23.50
Writers and Authors	BS	119	18	140	\$26.53
Computer User Support Specialists	CC	1,310	124	261	\$28.01
Network and Computer Systems Administrators	CC	589	49	107	\$40.12
Photographers	CC	495	66	222	\$23.31
Musicians and Singers	CC	276	37	183	\$23.07

Community College Programs Not Offered

In the subregion, 13 programs in the ICT/DM sector are not offered (Exhibit 32).

Exhibit 32. Programs not offered by community colleges in the subregion

Subregional Programs Not Offered	
0607.00 - Technical Communication	0707.20 - Database Design and Administration
0610.00 - Mass Communications	0707.30 - Computer Systems Analysis
0614.20 - Electronic Game Design	0709.10 - E-Commerce (technology emphasis)
0614.40 - Animation	0799.00 - Other Information Technology
0614.50 - Desktop Publishing	1009.00 - Applied Design
0699.00 - Other Media and Communications	1013.00 - Commercial Art
0707.00 - Computer Software Development	

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. Three colleges in the Inland Empire-San Bernardino County Metro Subregion currently utilize nine public safety program codes.

Programs Offered

- 1402.00 - Paralegal
- 1602.00 - Library Technician (Aide)
- 2105.00 - Administration of Justice
- 2105.10 - Corrections
- 2105.30 - Industrial and Transportation Security
- 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 nine 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 7,300 public safety jobs related to subregional training programs (Exhibit 33). Nearly 800 high-quality job openings are projected annually in the subregion through 2026, with more than 2,200 annual job openings projected in the greater 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
Police and Sheriff's Patrol Officers	CC	2,185	218	626	\$47.40
Correctional Officers and Jailers	CC	1,490	153	420	\$39.33
Firefighters	CC	1,068	107	297	\$30.74
Detectives and Criminal Investigators	CC	450	40	111	\$51.18
Transportation Security Screeners	CC	424	39	108	\$23.92
Paralegals and Legal Assistants	CC	403	58	171	\$29.37
Library Technicians	CC	358	53	151	\$23.01
Court, Municipal, and License Clerks	CC	332	43	120	\$24.04
First-Line Supervisors of Security Workers	CC	261	32	102	\$23.85
Public Safety Telecommunicators	HS	331	37	104	\$29.22

Community College Programs Not Offered

In the subregion, five programs in the public safety sector are not offered (Exhibit 34).

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

Subregional Programs Not Offered	
0514.30 - Court Reporting	2133.10 - Wildland Fire Technology
2105.20 - Probation and Parole	2199.00 - Other Public and Protective Services
2105.40 - Forensics, Evidence and Investigation	

Occupational Training Opportunities

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

- 2105.20 - Probation and Parole

The high-quality training opportunity, probation officers and correctional treatment specialists, accounted for nearly 600 jobs in 2021. This occupation is projected to have more than 50 annual job openings in the subregion through 2026 and nearly 200 annual job openings in the region over this period (Exhibit 35).

Exhibit 35. 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	591	59	159	\$37.72

Retail, Hospitality, and Tourism

The CCCC retail, hospitality, and tourism sector aligns with the CDE fashion and interior design sector; and the hospitality, tourism, and recreation sector. Three colleges in the Inland Empire-San Bernardino County Metro Subregion currently utilize 12 retail, hospitality, and tourism program codes.

Programs Offered

- 0506.50 - Retail Store Operations and Management
- 1301.10 - Consumer Services
- 1302.00 - Interior Design and Merchandising
- 1303.10 - Fashion Design
- 1303.20 - Fashion Merchandising
- 1303.30 - Fashion Production
- 1306.00 - Nutrition, Foods, and Culinary Arts
- 1306.20 - Dietetic Services and Management
- 1306.30 - Culinary Arts
- 1307.00 - Hospitality
- 1307.10 - Restaurant and Food Services and Management
- 1307.20 - Lodging Management

Retail, hospitality, and tourism programs in the subregion prepare students for employment in one high-quality bachelor's degree-level occupation 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 2,600 high-quality retail, hospitality, and tourism jobs in the subregion (Exhibit 36). Nearly 400 high-quality job openings are projected annually in the subregion through 2026, with nearly 1,000 annual job openings projected in the greater region.

Exhibit 36. 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	387	51	132	\$24.89
Food Service Managers	CC	1,335	188	504	\$27.52
Chefs and Head Cooks	CC	832	127	358	\$22.24

Community College Programs Not Offered

In the subregion, nine programs in the retail, hospitality, and tourism sector are not offered (Exhibit 37).

Exhibit 37. Programs not offered by community colleges in the subregion

Subregional Programs Not Offered	
0509.60 - Display	1307.30 - Resort and Club Management
0835.70 - Aquatics and Lifesaving	3008.00 - Dry Cleaning
0836.10 - Recreation Assistant	3009.00 - Travel Services and Tourism
1303.00 - Fashion	3020.40 - Flight Attendant
1306.60 - Dietetic Technology	

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

Most CE programs offered by community colleges have assigned sector designations, but a handful may be unassigned. There are no unassigned programs in the subregion.

Community College Programs Not Offered

Eight programs in the unassigned sector are not offered by community colleges in the Inland Empire-San Bernardino County Metro Subregion (Exhibit 38).

Exhibit 38. 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

Occupational Training Opportunities

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

- 2102.00 - Public Administration

Two high-quality occupations related to public administration totaled more than 2,500 jobs in 2021 and are projected to offer more than 200 annual job openings in the subregion (Exhibit 39).

Exhibit 39. 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
Eligibility Interviewers, Government Programs	HS	1,313	138	365	\$22.90
Postal Service Mail Carriers	HS	1,097	75	238	\$25.16

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 Inland Empire-San Bernardino County Metro Subregion. The Inland Empire-San Bernardino County Metro Subregion contains 71 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

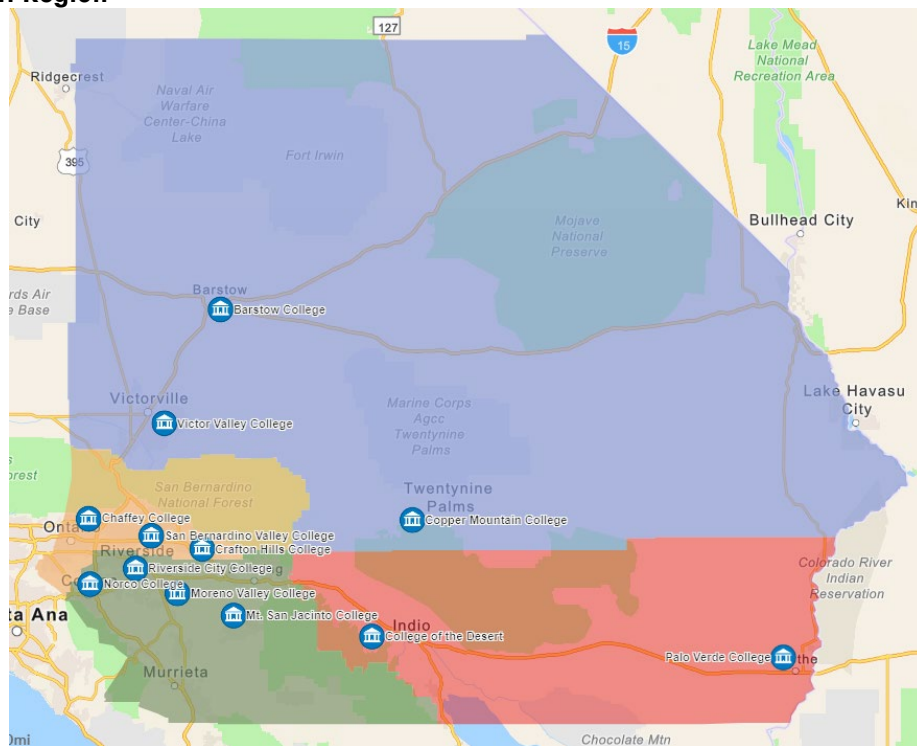


Exhibit A2. ZIP codes comprising the Inland Empire-San Bernardino County Metro Subregion

ZIP Code (City/Community)		
91701 (Rancho Cucamonga)	92321 (Cedar Glen)	92377 (Rialto)
91708 (Chino)	92322 (Cedarpines Park)	92378 (Rimforest)
91709 (Chino Hills)	92324 (Colton)	92382 (Running Springs)
91710 (Chino)	92325 (Crestline)	92385 (Skyforest)
91729 (Rancho Cucamonga)	92331 (Fontana)	92386 (Sugarloaf)
91730 (Rancho Cucamonga)	92333 (Fawnskin)	92391 (Twin Peaks)
91737 (Rancho Cucamonga)	92334 (Fontana)	92397 (Wrightwood)
91739 (Rancho Cucamonga)	92335 (Fontana)	92399 (Yucaipa)
91743 (Guasti)	92336 (Fontana)	92401 (San Bernardino)
91759 (Mt Baldy)	92337 (Fontana)	92402 (San Bernardino)
91761 (Ontario)	92339 (Forest Falls)	92403 (San Bernardino)
91762 (Ontario)	92341 (Green Valley Lake)	92404 (San Bernardino)
91763 (Montclair)	92346 (Highland)	92405 (San Bernardino)
91764 (Ontario)	92350 (Loma Linda)	92406 (San Bernardino)
91784 (Upland)	92352 (Lake Arrowhead)	92407 (San Bernardino)
91785 (Upland)	92354 (Loma Linda)	92408 (San Bernardino)
91786 (Upland)	92357 (Loma Linda)	92410 (San Bernardino)
92305 (Angelus Oaks)	92358 (Lytle Creek)	92411 (San Bernardino)
92313 (Grand Terrace)	92359 (Mentone)	92413 (San Bernardino)
92314 (Big Bear City)	92369 (Patton)	92415 (San Bernardino)
92315 (Big Bear Lake)	92373 (Redlands)	92418 (San Bernardino)
92316 (Bloomington)	92374 (Redlands)	92423 (San Bernardino)
92317 (Blue Jay)	92375 (Redlands)	92427 (San Bernardino)
92318 (Bryn Mawr)	92376 (Rialto)	

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 (Growth + Replacements = 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 Definitions⁷

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.

⁷ 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	